HIGHWAY-RAIL CROSSING ACCIDENT/INCIDENT AND INVENTORY BULLETIN

NO. 17 CALENDAR YEAR 1994

U.S. Department of Transportation Federal Railroad Administration

Office of Safety

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INTRODUCTION

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

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 highway-rail 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 highway-rail crossings.

* * * * * *

Tables and figures retain the number identification used in prior years. Information on accidents/incidents and crossings is presented in the following sequence:

Historical data on highway-rail crossing accidents/incidents at public crossings.

Summary of 1994 accidents/incidents that occurred at public crossing sites.

Physical and operational statistics for all public at-grade highway-rail crossings as described in the inventory on June 9, 1995.

Summary of 1994 accidents/incidents occurring at <u>private</u> highway-rail crossings and tabulations of private crossings in the inventory.

The tables in each Section furnish data on public highway-rail crossings; although tables 33 and 34 include counts of the number of private crossings. The majority of the accident tables shown in this bulletin provide information on motor vehicle accidents. Those tables that do not refer to motor vehicle in their title contain data for all accidents/incidents.

1992/3 ACCIDENT PREDICTION AND RESOURCE ALLOCATION PROCEDURE CONSTANTS

The U.S. DOT Highway-Rail Crossing Resource Allocation Procedure, described in the Rail-Highway Crossing Resource Allocation Procedure User's Guide, Third Edition, DOT/FRA/OS-87/10, August 1987, uses three "normalizing constants" in the accident prediction formulas, Formula A, Section 3.2.4, Page 17. These constants have been adjusted periodically in order to keep the formulas matched with current accident trends. The last readjustment was made for Calendar Year 1992 and was published in Bulletin No. 14.

The process of determining the three (3) current normalizing constants for 1992 was performed so that the sum of the December 1991, predictions using only accident history data for Calendar Years 1986 to 1990 for the top 20 percent of each of the three classes of crossings (gates, flashing lights, passive) for the respective three formulas is made equal to the actual number of accidents that occurred for those same crossings in 1991. This process was performed for each of the three warning device groups, (1) passive, (2) flashing lights, and (3) gates.

These constants were redetermined for the "national" model using the crossings in the inventory as of December 31, 1991. Organizations using the "DOT Model" should update their models by replacing the old constants with the recalculated constants. The constants referenced here are located in the computer program ACPD.NEW as shown in the coding at the top of page A-4, Appendix Al of the <u>User's Guide Third Edition</u> and in RESAL.NEW on page B-3, Appendix Bl.

These constants will be used in fulfilling requests for accident prediction and resource allocation procedure listings. The table below lists the current and prior constants.

ACCIDENT PREDICTION AND RESOURCE ALLOCATION PROCEDURE NORMALIZING CONSTANTS

WARN GROU	ING DEVICE PS	CURRENT 1992	PRIOR YEARS 1990 1988 1986
(1)	Passive	.8239	.9417 .8778 .8644
(2)	Flashing Lights	.6935	.8345 .8013 .8887
(3)	Gates	.6714	.8901 .8911 .8131

The Resource Allocation Procedure is currently being reviewed and, if merited, may be revised. (This project is one of 55 actions identified within the Department of Transportation's recently released Highway-Rail Crossing Safety Action Plan.) As such, recalculation of the "normalizing constants" for the existing accident prediction formulas has been deferred until this review is complete. Users of the "DOT Model" should continue to use the 1992 constants detailed above.

TABLE-S. SUMMARY OF HIGHWAY-RAIL CROSSING ACCIDENT STATISTICS FOR THE NATION

	TO	TAL		MOTOR	VEHICLI	ES	NON-MOT	OR VEHIC	CLES
YEAR	ACCI	FATAL	INJ	ACCI F	ATAL	INJ	ACCI	FATAL	INJ
1989									
PUBLIC	5,979	757	2,683	5,772	682	2,615	207	75	68
PRIVATE	546	44	185	524	43	176	22	1	9
TOTAL	6,525	801	2,868	6,296	725	2,791	229	76	77
1990									
PUBLIC	5,233	648	2,254	5,022	568	2,186	211	80	68
PRIVATE	480	50	153	458	46	146	22	4	7
TOTAL	5,713	698	2,407	5,480	614	2,332	233	84	75
1991									
PUBLIC	4,861	565	1,923	4,677	497	1,866	184	68	57
PRIVATE	525	43	171	495	38	163	30	5	8
TOTAL	5,386	608	2,094	5,172	535	2,029	214	73	65
1992									
PUBLIC	4,465	536	1,830	4,269	466	1,752	196	70	78
PRIVATE	445	43	145	415	40	139	30	3	6
TOTAL	4,910	579	1,975	4,684	506	1,891	226	73	84
1993									
PUBLIC	4,437	584	1,744	4,240	517	1,677	197	67	67
PRIVATE	455	42	93	421	37	83	34	5	10
TOTAL	4,892	626	1,837	4,661	554	1,760	231	72	77
1994									
PUBLIC	4,503	572	1,829	4,296	501	1,764	207	71	6:
PRIVATE	476	43	132	450	41	121	26	2	1
TOTAL	4,979	615	1,961	4,746	542	1,885	233	73	7

TABLE 1. SUMMARY OF ACCIDENTS/INCIDENTS AND CASUALTIES AT HIGHWAY-RAIL PUBLIC CROSSINGS

	CASUALTIES							
	NUMBER OF	•••••	TOTAL	••••••	PER			
YEAR	ACCIDENTS	KILLED	INJURED	CASUALTIES	ACCIDENT			
1989	5,979	757	2,683	3,440	0.58			
1990	5,233	648	2,254	2,902	0.55			
1991	4,861	565	1,923	2,488	0.51			
1992	4,465	536	1,830	2,366	0.52			
1993	4,437	584	1,744	2,328	0.52			
1994	4,503	572	1,829	2,401	0.53			

TABLE 2. SUMMARY OF ACCIDENTS/INCIDENTS AND ACCIDENT RATES AT HIGHWAY-RAIL PUBLIC CROSSINGS INVOLVING MOTOR VEHICLES

	MOTOR VEHICLES	ACCIDENTS	
YEAR	REGISTERED ACCIDENTS	PER MILLION (000) ¹	VEHICLES
1989	5,772	190,940	30.23
1990	5,022	192,123	26.14
1991	4,677	191,743	24.39
1992	4,269	193,430	22.07
1993	4,240	197,254	21.49
1994	4,296	198,620	21.63

TABLE 3. ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY STATE, 1994

	No. Of		illed		ijured		otal
State	Acc/Inc	No.	.111 ea %	No.	rjurea %	No.	arcies %
			-				
Alabama	172	12	2.10	74	4.05	86	3.58
Alaska	3	3	.52	3	.16	6	.25
Arizona	24	2	.35	9	.49	11	.46
Arkansas	139	19	3.32	65	3.55	84	3.50
California	183	34	5.94	52	2.84	86	3.58
Colorado	43	11	1.92	11	.60	22	.92
Connecticut	4			1	.05	1	.04
Delaware	5	1	.17	4	.22	5	.21
Dist. of Columbia							
Florida	114	16	2.80	46	2.52	62	2.58
Georgia	148	12	2.10	53	2.90	65	2.71
Idaho	39	9	1.57	12	.66	21	.87
Illinois	308	49	8.57	181	9.90	230	9.58
Indiana	273	27	4.72	123	6.72	150	6.25
Iowa	157	19	3.32	56	3.06	75	3.12
Kansas	94	16	2.80	31	1.69	47	1.96
Kentucky	80	10	1.75	36	1.09	46	1.90
Louisiana	202	16	2.80	97	5.30	113	4.71
Maine	202 5		2.60	3	.16	3	.12
Maine	5			3	.10	3	.12
Maryland	12			5	.27	5	.21
Massachusetts	16			3	.16	3	.12
Michigan	158	24	4.20	79	4.32	103	4.29
Minnesota	138	18	3.15	64	3.50	82	3.42
Mississippi	163	25	4.37	66	3.61	91	3.79
Missouri	115	12	2.10	43	2.35	55	2.29
Montana	18			9	.49	9	.37
Nebraska	86	20	3.50	23	1.26	43	1.79
Nevada	7	2	.35	3	.16	5	.21
New Hampshire	2						
New Jersey	34	6	1.05	10	.55	16	.67
New Mexico	17	5	.87	6	.33	11	.46
New York	37	6	1.05	12	.66	18	.75
North Carolina	145	11	1.92	46	2.52	57	2.37
North Dakota	20	2	.35	12	.66	14	.58
Ohio	229	37	6.47	82	4.48	119	4.96
Oklahoma	116	16	2.80	66	3.61	82	3.42
Oregon	38	1	.17	11	.60	12	.50
Pennsylvania	73	8	1.40	19	1.04	27	1.12
Rhode Island							
South Carolina	87	8	1.40	37	2.02	45	1.87
South Dakota	29	1	.17	15	.82	16	.67
Tennessee	99	12	2.10	25	1.37	37	1.54
Texas	502	55	9.62	227	12.41	282	11.75
Utah	26	17	2.97	5	.27	22	.92
Vermont	3			2	.11	2	.08
Virginia	56	5	.87	9	. 49	14	.58
Washington	60	3	.52	15	.82	18	.75
West Virginia	41	3	.52	6	.33	9	.37
Wisconsin	176	14	2.45	72	3.94	86	3.58
Wyoming	7	5	.87			5	.21
Unknown							
Total	4 502	570	100 00	1 920	100 00	2 401	100 00
Total	4,503	572	100.00	1,829	100.00	2,401	100.00

TABLE 4. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY STATE, 1994

	No. OfCasualties			Vehicles	Per 10,000 Registration			
State	Acc/Inc	Kld Inj Total		Venicles Registered	Acc/Inc Kld Inj			
Alabama	167	12	71	83	3,422,000	. 49	.04	.21
Alaska	3	3	3	6	508,000	.06	.06	.06
Arizona	23	1	9	10	2,980,000	.08		.03
Arkansas	134	18	63	81	1,560,000	.86	.12	.40
California	163	22	48	70	23,518,000	.07	.01	.02
Colorado	41	11	10	21	3,144,000	.13	.03	.03
Connecticut	4		1	1	2,638,000	.02		
Delaware	5	1	4	5	568,000	.09	.02	.07
Dist. of Columbia					270,000			
	104		4.0	- 4	10 100 000	1.0	0.1	0.4
Florida	104	11	43	54	10,132,000	.10	.01	.04
Georgia	144	11	52	63	5,638,000	.26	.02	.09
[daho	38	7	12	19	1,062,000	.36	.07	.11
Illinois	276	35	170	205	8,331,000	.33	.04	.20
Indiana	265	26	119	145	4,850,000	.55	.05	. 25
[owa	152	19	54	73	2,929,000	.52	.06	.18
Kansas	89	14	31	45	1,965,000	.45	.07	.16
Kentucky	80	10	36	46	2,615,000	.31	.04	.14
Louisiana	196	15	95	110	3,242,000	.60	.05	.29
Maine	5		3	3	1,071,000	.05		.03
Maryland	12		5	5	3,543,000	.03		.01
Massachusetts	15		3	3	3,956,000	.04		.01
Michigan	143	15	74	89	7,599,000	.19	.02	.10
linnesota	132	17	62	79	3,869,000	.34	.04	.16
Mississippi	158	24	65	89	2,056,000	.77	.12	.32
Missouri	111	12	41	53	4,179,000	.27	.03	.10
Montana	18		9	9	967,000	.19		.09
Nebraska	73	16	20	36	1,490,000	.49	.11	.13
Nevada	4		2	2	983,000	.04		.02
New Hampshire	2				1,013,000	.02		
New Jersey	30	3	9	12	5,752,000	.05	.01	.02
New Mexico	17	5	6	11	1,472,000	.12	.03	.04
New York	33	5	10	15	10,428,000	.03		.01
New Tork	139	11	45	56	5,462,000	.25	.02	.08
North Carolina	18	2	10	12	687,000	.26	.02	.15
Ohio	225	35	81	116	9,647,000	.23	.03	.08
Oklahoma	111	35 15	64	79	2,863,000	.39	.04	.08
	38	1	11	12	2,748,000	.14	.05	. 2 2
Oregon Pennsylvania	38 72	7	19	26	8,557,000	.14	.01	.04
Rhode Island	72			∠6 	728,000	.08	.01	.02
MOUE ISTAILU					720,000			
South Carolina	85	7	37	44	2,764,000	.31	.03	.13
South Dakota	28	1	15	16	845,000	.33	.01	.18
Tennessee	96	11	25	36	5,150,000	.19	.02	.05
exas	494	55	221	276	13,287,000	.37	.04	.17
Jtah	25	16	5	21	1,381,000	.18	.12	.04
Termont	3		2	2	502,000	.06		.04
irginia	53	4	9	13	5,593,000	.09	.01	.02
Washington	58	3	14	17	4,654,000	.12	.01	.03
West Virginia	40	2	6	8	1,375,000	.29	.01	.04
Visconsin	168	13	70	83	4,044,000	.42	.03	.17
Wyoming	6	5		5	583,000	.10	.09	
Unknown								

Note: Vehicle registration figures are for 1994 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 AT HIGHWAY-RAIL CROSSINGS, BY TYPE OF MOTOR VEHICLE, 1994

	A	utomok	oile		Truck-		-Tru	ıck Tra	iler-		Bus-		Sc	hool B	us	-M	otorcy	cle-
State	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	108	10	50	33	1	15	26	1	6									
Alaska				2	2		1	1	3									
Arizona	17	1	9	4			2											
Arkansas	72	13	37	40	5	18	22		8									
California	97	18	28	36	2	15	26	1	4							4	1	1
Colorado	26	9	4	10	2	4	5		2									
Connecticut	3		1				1											
Delaware				2	1	1	3		3									
Dist. of Columbia																		
Florida	77	8	32	20	1	9	5		2							2	2	
Georgia	94	7	39	27	3	11	23	1	2									
Idaho	23	2	7	12	5	4	3		1									
Illinois	183	25	56	67	10	32	24		82							2		
Indiana	179	18	89	68	8	23	18		7									
Iowa	99	17	36	35	1	14	17		4							1	1	
Kansas	58	9	19	23	5	11	7		1							1		
Kentucky	52	10	25	15		4	11		5				2		2			
Louisiana	113	11	65	56	4	22	27		8									
Maine	2		1	3		2												
Maryland	9		3	3		2												
Massachusetts	12		3	3														
Michigan	105	10	54	32	4	18	5		2							1	1	
Minnesota	84	14	40	37	3	18	11		4									
Mississippi	111	18	41	31	6	16	16		8									
Missouri	66	9	21	33	2	19	12	1	1									
Montana	8			8		6	2		3									
Nebraska	51	8	11	17	6	8	4	2	1							1		
Nevada	2			2		2												
New Hampshire	2																	
New Jersey	20	2	5	8	1	4	2											
New Mexico	9	3		7	2	5	1		1									
New York	29	5	10	3									1					
North Carolina	96	9	34	27	2	7	16		4									
North Dakota	13	2	8	4		2	1											
Ohio	149	26	52	55	7	23	18	2	5							3		1
Oklahoma	68	10	36	32	4	15	10	1	12							1		1
Oregon	17	1	6	11		5	10											
Pennsylvania	39	6	6	24	1	13	9											
Rhode Island																		
South Carolina	52	6	26	21	1	6	12		5									
South Dakota	18		9	6	1	5	3									1		1
Tennessee	67	8	21	21	1	4	7									1	2	
Texas	282	27	131	159	27	65	51		24	1		1				1	1	
Utah	17	14	4	3	1		3			1		1				1	1	
Vermont	1		1	2		1												
Virginia	37	2	6	9	1	3	7	1										
Washington	40	3	12	11		2	6			1								
West Virginia	30	2	3	8		3	2											
Wisconsin	109	10	48	46	2	20	12	1	2							1		
Wyoming	3	5		3														
Unknown																		
Total	2,749	358 1	,089 1	,079	122	457	441	12	210	3		2	3		2	21	9	4

TABLE 6. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY TYPE OF CONSIST, 1994

	1	Freigh	t	Pa	assenge	er	-Yard	d Swit	ching		-Other	
State	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
Alabama	134	12	58	4		1	18		6	11		6
Alaska	1	2					1			1	1	3
Arizona	10		 5				10	1	4	3		
Arkansas	115	17	55				9		4	10	1	4
California	103	13	29	27	9	6	19		6	14		7
Colorado	33	9	29 5	3	2	2	3		1	2		2
						1						
Connecticut Delaware		 1	2	4					2			
Dist. of Columbia	4 						1					
Florida	60	7	31	26	3	7	10		4	8	1	1
Georgia	115	9	45	∠0 5	1		9		2	15	1	5
Idaho	34	9 7	11				3		1	1		
			76						7	30		
Illinois	186	23		36 12	11 3	83 6	24 14	1 1	, 5			1 5
Indiana	214	22 10	93 44	13 2			14 19		5 4	24 15		15 6
Iowa	116	19	44									
Kansas	75 71	13	26 29	2	1		6		3 1	6 3		2 6
Kentucky	71	10					6					
Louisiana	150	14	83	3		1	26		3	17	1	8
Maine	4		3							1		
Maryland	7		1				1			4		4
Massachusetts	9		3	5						1		
Michigan	118	14	68	3		1	11		2	11	1	3
Minnesota	91	17	47				20		2	21		13
Mississippi	115	20	56	18	3	6	11		1	14	1	2
Missouri	90	11	39	1			10	1	1	10		1
Montana	14		9				2			2		
Nebraska	65	14	17	1		1	2		1	5	2	1
Nevada	3		2	1								
New Hampshire	2											
New Jersey	15	2	3	9	1	4	2			4		2
New Mexico	15	5	6							2		
New York	23	2	10	7	3		1			2		
North Carolina	103	10	38	5			17	1	5	14		2
North Dakota	16	2	10				2					
Ohio	193	31	76	3	1	1	15		3	14	3	1
Oklahoma	98	15	60				5		1	8		3
Oregon	29		10	1			5	1		3		1
Pennsylvania	52	6	15	6		2	6			8	1	2
Rhode Island												
South Carolina	69	7	30				9		4	7		3
South Dakota	17		9	1		2	3			7	1	4
Tennessee	70	8	22	1		1	12			13	3	2
Texas	375	52	180	7		1	61	2	18	51	1	22
Utah	18	12	3	1	1		1	2		5	1	2
Vermont	3		2									
Virginia	45	4	8	2		1	2			4		
Washington	31	2	10	3			16			8	1	4
West Virginia	36	2	6				1			3		
Wisconsin	129	10	54	1			20	1	9	18	2	7
Wyoming	5	5								1		
Unknown												
Total	3 281	429	1,389	201	39	127	413	11	100	401	22	148

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

TABLE 7. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY WARNING DEVICE, 1994

			Hwy Sig.					No Signs	
		Flashing	Wigwags		Cross-	Stop	Other	Or	
Railroad	Gates	Lights	Bells	Special	Bucks	Signs	Signs	Signals	Total
Alaska Railroad Corp.		3							3
Alton & Southern Railroad	1	2							3
Amtrak (Nat'l Railroad Passenger Corp.)	71	11	3		34	7			126
Atchison, Topeka And Santa Fe Railway Co.	54	38		1	65	1			159
Bangor And Aroostook Railroad		2							2
Belt Railway Co. of Chicago		2							2
Bessemer & Lake Erie Railroad Co.					1				1
Birmingham Southern Railroad Co.		1							1
Burlington Northern Railroad Co.	63	102	3	1	193	63			425
Chicago And North Western Transp.	34	54	4	2	73	14		3	184
Chicago, Central & Pacific Railroad Co.	4	11		1	16	1		1	34
Consolidated Rail Corp.	79	72	6	6	82	9	3	13	270
Cuyahoga Valley Railway Co.									
CSX Transp.	82	141	22	7	185	36		3	476
Dakota, Minnesota & Eastern Railroad	1	4			9	1			15
Delaware And Hudson Railroad Co.	4	1							5
Denver And Rio Grande Western Railroad Co.	2	4			6				12
Duluth, Missabe & Iron Range Railway Co.		1			1	1			3
	1	1			1				3
Elgin, Joliet And Eastern Railway Co.	23								25
Florida East Coast Railway Co.	23					2			
Fox Valley & Western Ltd.		6			10				16
Gateway Western Railway		3			5	1			9
Grand Trunk Western Railroad Co.	20	14			6	10			50
Houston Belt & Terminal Railway Co.	4				1				5
Illinois Central Railroad Co.	6	34			47	3		1	91
Indiana Harbor Belt Railroad Co.	8	4		1	2	1			16
Kansas City Southern Railway Co.	10	44	2	2	104	1			163
Long Island Rail Road	4			1					5
Metro North Commuter Railroad Co.	1	1			1				3
Montana Rail Link	1				6	3			10
New Jersey Transit Rail Operations	8								8
Norfolk Southern Corp.	150	184	8	4	230	66		2	644
Northeast Illinois Regional Commuter Rail	17	4							21
Northern Indiana Commuter Trans.	3	3				1			7
Paducah & Louisville Railway Co.		3			1				4
Port Authority Trans Hudson									
Port Terminal Railroad Assoc.		1			2				3
Soo Line Railroad Co.	11	24			36	5		1	77
Southeastern Pennsylvania Transp.	4								4
Southern Pacific Transp. Co.	100	41	12	9	71	3			236
Southern Pacific, Chicago-St. Louis Corp.	1	2	1		4				8
Springfield Terminal Railway Co.	1	3		1	1				6
St. Louis Southwestern Railway Co.	10	19	1		42	4			76
Terminal Railroad Assoc. of St. Louis		2			1				3
Texas Mexican Railway Co.		4			2				6
Union Pacific Railroad Co.	133	101	2	4	266	42		16	564
Union Railroad Company (Pittsburgh)									
Wheeling & Lake Erie Railway Co.		6			24				30
Wisconsin Central Ltd.	9	34	1		28	12			84
All Other Railroads	39	111	6	8	190	38	1	5	398
Total	959	1,098	71	48	1,746	325	4	45	4,296

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

TABLE 7A. ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY RAILROAD, 1994

	Mo	tor Vehicl	e	Other	Highway	Users		Total	
Railroad	Acc/Inc	Killed	Injured	Acc/Inc	Killed	Injured	Acc/Inc	Killed	Injured
Alaska Railroad Corp.	3	3	3				3	3	3
Alton & Southern Railroad	3		3				3		3
Amtrak (Nat'l Railroad Passenger Corp.)	126	26	34	21	14	2	147	40	36
Atchison, Topeka And Santa Fe Railway Co.	159	15	57	13	6	5	172	21	62
Bangor And Aroostook Railroad	2		1				2		1
Belt Railway Co. of Chicago	2		1				2		1
Bessemer & Lake Erie Railroad Co.	1						1		
Birmingham Southern Railroad Co.	1						1		
Burlington Northern Railroad Co.	425	79	198	28	5	9	453	84	207
Chicago And North Western Transp.	184	24	54	8	5	2	192	29	56
Chicago, Central & Pacific Railroad Co.	34	1	12	1		1	35	1	13
Consolidated Rail Corp.	270	41	83	13	5	4	283	46	87
Cuyahoga Valley Railway Co.									
CSX Transp.	476	44	241	18	7	6	494	51	247
Dakota, Minnesota & Eastern Railroad	15		8				15		8
Delaware And Hudson Railroad Co.	5	1	6				5	1	6
Denver And Rio Grande Western Railroad Co.	12	4	6				12	4	6
Duluth, Missabe & Iron Range Railway Co.	3	2	2				3	2	2
Elgin, Joliet And Eastern Railway Co.	3		2				3		2
Florida East Coast Railway Co.	25	2	14	3	1	2	28	3	16
Fox Valley & Western Ltd.	16		7				16		7
Gateway Western Railway	9	1	1	1		1	10	1	2
Grand Trunk Western Railroad Co.	50	8	26	7	5	3	57	13	29
Houston Belt & Terminal Railway Co.	5						5		
Illinois Central Railroad Co.	91	7	41	2		1	93	7	42
Indiana Harbor Belt Railroad Co.	16		6	1		1	17		7
Kansas City Southern Railway Co.	163	8	83	3			166	8	83
Long Island Rail Road	5	2					5	2	
Metro North Commuter Railroad Co.	3						3		
Montana Rail Link	10	3	1				10	3	1
New Jersey Transit Rail Operations	8	1	4	1	1		9	2	4
Norfolk Southern Corp.	644	70	191	23	5	7	667	75	198
Northeast Illinois Regional Commuter Rail	21	3	82	2		2	23	3	84
Northern Indiana Commuter Trans.	7		1				7		1
Paducah & Louisville Railway Co.	4						4		
Port Authority Trans Hudson									
Port Terminal Railroad Assoc.	3						3		
Soo Line Railroad Co.	77	10	34	7		2	84	10	36
Southeastern Pennsylvania Transp.	4		1				4		1
Southern Pacific Transp. Co.	236	23	92	10	2	6	246	25	98
Southern Pacific, Chicago-St. Louis Corp.	8						8		
Springfield Terminal Railway Co.	6		3	1			7		3
St. Louis Southwestern Railway Co.	76	19	37	1			77	19	37
Terminal Railroad Assoc. of St. Louis	3						3		
Texas Mexican Railway Co.	6	1	2				6	1	2
Union Pacific Railroad Co.	564	78	229	27	12	7	591	90	236
Union Railroad Company (Pittsburgh)									
Wheeling & Lake Erie Railway Co.	30	2	21				30	2	21
Wisconsin Central Ltd.	84	8	35	4		1	88	8	36
All Other Railroads	398	15	142	12	3	3	410	18	145
Total	4,296	501	1,764	207	71	65	4,503	572	1,829

TABLE 8. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY WARNING DEVICE, 1994

			Hwy Sig.					No Signs	
4 1		Flashing	Wigwags		Cross-	Stop	Other	Or	
State	Gates	Lights	Bells	Special	Bucks	Signs	Signs	Signals	Total
Alabama	9	35	6	1	85	31			167
Alaska		3							3
Arizona	11	9		1	2				23
Arkansas	24	36			70	3		1	134
California	95	26	5	7	23	6		1	163
Colorado	6	9	2		17	7			41
Connecticut	2	1				1			4
Delaware	1	3			1				5
Dist. of Columbia									
Florida	67	18	1	1	13	4			104
Georgia	52	13	2	1	56	20			144
Idaho	1	3	2	1	17	14			38
Illinois	104	72	1	3	84	4		8	276
Indiana	66	87	8	1	78	22		3	265
Iowa	18	36	2	1	82	9		4	152
Kansas	21	9		1	53	4		1	89
Kentucky	17	32	3	2	23	1		2	80
Louisiana	26	68	7	1	88	4		2	196
Maine		4			1				5
Maryland	2	2	1	2	3	2			12
Massachusetts	6	7		1	1				15
Michigan	25	56		1	38	23			143
Minnesota	10	35			46	40		1	132
Mississippi	8	51 25	1 1	2	80 59	16 6		2	158 111
Missouri	18 2	1			59 7	8			18
Nebraska	14	7			42	9		1	73
Nevada	3				1				4
New Hampshire	1				1				2
New Jersey	10	13		3	1	1	1	1	30
New Mexico	5	4			8				17
New York	20	5		2	6				33
North Carolina	29	31	2	1	73	1		2	139
North Dakota	2	4			8	4			18
Ohio	39	43	5	1	123	9	1	4	225
Oklahoma	13	23	1		67	7			111
Oregon	10	3	1	2	12	9		1	38
Pennsylvania	18	23	2	1	20	2	1	5	72
Rhode Island									
South Carolina	12	28	5	4	28	8			85
South Dakota		8	1		11	8			28
Tennessee	16	27	3		47	2		1	96
Texas	120	113	3	3	233	18		4	494
Utah	6	2			17				25
Vermont		1		1			1		3
Virginia	16	24	1	2	9	1			53
Washington	13	14		1	23	6		1	58
West Virginia	10	14	1		13	2			40
Wisconsin	9	69	4		73	13			168
Wyoming Unknown	2	1 			3				6
	252	1 222		40	1 546	205		4-	4 00 -
Total	959	1,098	71	48	1,746	325	4	45	4,296

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

TABLE 9. ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY HIGHWAY USER, 1994

	A	.cc/Inc	1	Killed	I	njured	Fatal	Injury
Type Of Vehicle	No.	%	No.	%	No.	%	Acc/Inc	Acc/Inc
	0.740		250		1 000			
Automobile	2,749		358		1,089		284	774
Truck	1,079	23.96	122	21.33	457	24.99	104	348
Truck-trailer	441	9.79	12	2.10	210	11.48	12	95
Bus	3	.07			2	.11		2
School bus	3	.07			2	.11		1
Motorcycle	21	.47	9	1.57	4	.22	8	4
Pedestrian	76	1.69	49	8.57	30	1.64	49	27
Other	131	2.91	22	3.85	35	1.91	20	31
Total	4,503	100.00	572	100.00	1,829	100.00	477	1,282

TABLE 10. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY CIRCUMSTANCE, 1994

	A	cc/Inc		Killed	I	njured	Fatal	Injury
Circumstance	No.	%	No.	%	No.	%	Acc/Inc	Acc/Inc
Struck by consist	3,161	73.58	424	84.63	1,265	71.71	341	845
Ran into consist.	1,135	26.42	77	15.37	499	28.29	67	379
Total	4,296	100.00	501	100.00	1,764	100.00	408	1,224

TABLE 11. ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS BY
TYPE OF VEHICLE AND NUMBER OF OCCUPANTS, 1994

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	2,749	3,425	1.25	358	.13	1,075	.39	6,560,147	2,386
Truck	1,079	1,261	1.17	122	.11	442	.41	4,983,806	4,619
Truck-trailer	441	410	.93	11	.02	67	.15	4,972,413	11,275
Bus	3	2	.67	0	.00	0	.00	203,500	67,833
School bus	3	3	1.00	0	.00	2	.67		
Motorcycle	21	19	.90	9	.43	4	.19	19,500	929
Total	4,296	5,120	1.19	500	.12	1,590	.37	16,739,366	3,897

TABLE 12. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY CIRCUMSTANCE, 1994

		-Dawn			Day-			Dusk			Dark	
Type Of Vehicle	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
RAIL CONSI	s T	STRU	јск	нIG	H W A	y U	SER					
Automobile	45	7	22	1,093	172	459	80	18	40	755	111	242
Truck	20	3	6	524	79	205	22	2	12	208	22	80
Truck-trailer	10		3	307	7	173	12			73	1	18
Bus				3		2						
School bus				3		2						
Motorcycle				5	2	1				1		
Total	75	10	31	1,935	260	842	114	20	52	1,037	134	340
HIGHWAY US	E R	STRU	ск	R A I	L C	o n s	ІЅТ					
Automobile	25		12	345	15	126	23		9	383	35	179
Truck	19	1	11	150	8	62	9		3	127	7	78
Truck-trailer	1		3	26	2	10				12	2	3
Bus												
School bus												
Motorcycle				7	2	1	1	1		7	4	2
Total	45	1	26	528	27	199	33	1	12	529	48	262
GRAND TOTA	L											
Automobile	70	7	34	1,438	187	585	103	18	49	1,138	146	421
Truck	39	4	17	674	87	267	31	2	15	335	29	158
Truck-trailer	11		6	333	9	183	12			85	3	21
Bus				3		2						
School bus				3		2						
Motorcycle				12	4	2	1	1		8	4	2
Total	120	11	57	2,463	287	1,041	147	21	64	1,566	182	602

TABLE 13. ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY TYPE OF PERSON, 1994

	E	OD	E	NOD	P	SGR	N	ONT	T	RES	C	ONT		-Tota	L
Type Of Vehicle	Kld	Inj	Kld	Inj	Kld	Inj	Kld	Inj	Kld	Inj	Kld	Inj	Kld	Inj	A/I
RAIL CONSI	s T	STR	иск	нIG	H W A	Y U	SER								
Automobile		10				2	227	605	81	146			308	763	1,973
Truck		13					92	245	14	45			106	303	774
Truck-trailer		64				76	8	42		12			8	194	402
Bus		2												2	3
School bus								2						2	3
Motorcycle							1		1	1			2	1	6
Pedestrian		3					19	11	27	13			46	27	70
Other		5					11	22	8	3			19	30	116
Total		97				78	358	927	131	220			489	1,322	3,347
ні дн w а у и ѕ	E R	STR	и с к	R A I	L C	o n s	іѕт								
Automobile		3					38	275	12	48			50	326	776
Truck		2					15	125	1	27			16	154	305
Truck-trailer	1	3						8	3	5			4	16	39
Bus															
School bus															
Motorcycle							7	2		1			7	3	15
Pedestrian							2		1	3			3	3	6
Other		1					1	3	2	1			3	5	15
Total	1	9					63	413	19	85			83	507	1,156
GRAND TOTA	L														
Automobile		13				2	265	880	93	194			358	1,089	2,749
Truck		15					107	370	15	72			122	457	1,079
Truck-trailer	1	67				76	8	50	3	17			12	210	441
Bus		2												2	3
School bus								2						2	3
Motorcycle							8	2	1	2			9	4	21
Pedestrian		3					21	11	28	16			49	30	76
Other		6					12	25	10	4			22	35	131
Total	1	106				78	421	1,340	150	305			572	1,829	4,503

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

TABLE 14. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY VEHICLE SPEED, CIRCUMSTANCE, AND VISIBILITY, 1994

		-Dawn-			Day			Dusk			Dark			-Total	
Speed Of Vehicle	A/I	Kld	Inj 	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
RAIL CONSI	S T	STR	иск	нIG	H W Z	Y U	SER								
Standing	26		3	595	28	150	28	1	5	408	17	61	1,057	46	219
1-9	19	7	10	471	71	166	24	4	9	157	23	47	671	105	232
10-19	9	1	7	393	64	198	28	5	20	181	26	88	611	96	313
20-29	8	1	5	206	45	103	16		11	119	14	56	349	60	175
30-39	5		2	112	19	56	6	4	2	64	17	37	187	40	97
40-49	1		1	47	5	29	2	4	1	25	7	12	75	16	43
50-59	1		1	17	6	20				16	7	13	34	13	34
60 and over				4	3					1	1	1	5	4	1
Unknown	6	1	2	90	19	120	10	2	4	66	22	25	172	44	151
JIIRIIOWII	0	1	2	90	19	120	10	2	4	00	22	23	1/2	44	131
Total	75	10	31	1,935	260	842	114	20	52	1,037	134	340	3,161	424	1,265
HIGHWAY US	E R	S T R	и с к	R A I	r c	o n s	ІЅТ								
Standing															
1-9	12		5	102	1	28	6			95	1	27	215	2	60
10-19	7		2	136	1	41	7		2	114	2	32	264	3	77
20-29	7		4	111	6	44	8			100	6	59	226	12	107
30-39	6	1	4	66	4	34	5	1	6	68	7	48	145	13	92
10-49	6		7	43	5	26	4		2	48	16	30	101	21	65
50-59	2		1	26	4	14	1		1	41	10	36	70	14	52
60 and over				9	4	6				7	4	4	16	8	10
Unknown	5		3	35	2	6	2		1	56	2	26	98	4	36
Total	45	1	26	528	27	199	33	1	12	529	48	262	1,135	77	499
GRAND TOTA	L														
Standing	26		3	595	28	150	28	1	5	408	17	61	1,057	46	219
1-9	31	7	15	573	72	194	30	4	9	252	24	74	886	107	292
10-19	16	1	9	529	65	239	35	5	22	295	28	120	875	99	390
20-29	15	1	9	317	51	147	24		11	219	20	115	575	72	282
30-39	11	1	6	178	23	90	11	5	8	132	24	85	332	53	189
40-49	7		8	90	10	55	6	4	3	73	23	42	176	37	108
50-59	3		2	43	10	34	1		1	57	17	49	104	27	86
60 and over				13	7	6				8	5	5	21	12	11
Jnknown	11	1		125	21	126	12	2	5	122	24	51	270	48	187
JIILIIOWII	11	1	5	143	21	140	12	۷	5	144	2 1	51	2/0	40	10/
Total	120	11	57	2,463	287	1,041	147	21	64	1,566	182	602	4,296	501	1,764

TABLE 15. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY POSITION AND TYPE OF VEHICLE, 1994

				Position On Crossing OnStopped OnMoving Over						
	Sta	alled	On	st	opped	On	Mo	ving O	ver	
Vehicle	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	
Automobile	230	9	30	480	29	132	2,039	320	927	
Truck	66	1	4	145	5	28	868	116	425	
Truck-trailer	36		3	92	1	19	313	11	188	
Bus	1		1	1		1	1			
School bus	1						2		2	
Motorcycle	1	1		4		1	16	8	3	
Total	335	11	38	722	35	181	3,239	455	1,545	

TABLE 16. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY CONSIST SPEED CIRCUMSTANCE, AND VISIBILITY, 1994

		-Dawn-			Day-			Dusk			Dark			-Total	
Speed Of Consist	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
RAIL CONSI	ST	STR	иск	H I G	H W A	Y U :	SER								
Standing															
1-9	14		3	312	1	40	19		4	180	1	33	525	2	8 (
10-19	10		4	278	1	96	13	1		162	3	71	463	5	171
20-29	7		5	328	9	211	14		7	198	9	76	547	18	299
30-39	15	3	9	340	39	166	31	1	25	170	28	65	556	71	265
40-49	17	2	7	392	98	205	17	2	12	199	42	70	625	144	294
50-59	7	1	2	181	65	86	13	8	2	85	35	12	286	109	102
60-69	2		1	76	38	28	6	8	2	33	12	10	117	58	41
70-79	3	4		27	9	10	1			10	4	3	41	17	13
80-89				1									1		
90 and over															
Unknown															
Total	75	10	31	1,935	260	842	114	20	52	1,037	134	340	3,161	424	1,265
ні дн w а у и ѕ	E R	STR	UCK	R A I	L C	0 N S	ІЅТ								
Standing	4	1	3	16		3	2		3	80	3	42	102	4	51
1-9	8		2	135	2	39	12		1	155	11	69	310	13	111
10-19	9		6	91		31	6		5	99	2	53	205	2	95
20-29	10		6	92	4	36	5		2	83	11	39	190	15	83
30-39	9		4	66	5	34	3	1	1	44	10	19	122	16	58
40-49	2		1	81	10	46	5			48	6	26	136	16	73
50-59	2		4	26	3	6				15	2	8	43	5	18
60-69	1			15	2	1				4	2	4	20	4	
70-79				6	1	3				1	1	2	7	2	
80-89															
90 and over															
Unknown															
Total	45	1	26	528	27	199	33	1	12	529	48	262	1,135	77	499
GRAND TOTA	L														
Standing	4	1	3	16		3	2		3	80	3	42	102	4	51
1-9	22		5	447	3	79	31		5	335	12	102	835	15	191
10-19	19		10	369	1	127	19	1	5	261	5	124	668	7	266
20-29	17		11	420	13	247	19		9	281	20	115	737	33	382
30-39	24	3	13	406	44	200	34	2	26	214	38	84	678	87	323
40-49	19	2	8	473	108	251	22	2	12	247	48	96	761	160	367
50-59	9	1	6	207	68	92	13	8	2	100	37	20	329	114	120
60-69	3		1	91	40	29	6	8	2	37	14	14	137	62	46
70-79	3	4		33	10	13	1			11	5	5	48	19	18
80-89				1									1		
90 and over															
Unknown															
Total	120	11	57	2,463	287	1,041	147	21	64	1,566	182	602	4,296	501	1,764

TABLE 17. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS,
BY RAILROAD EQUIPMENT INVOLVED, 1994

	Consist	Vehicle			t Of Co							
	Struck	Struck	Lead		Quar					Visi	-	
Type Consist	Vehicle	Consist	Unit	1	2	3	4	Unknown	Dawn	Day	Dusk	Dark
				1.00							100	1 065
Train (Units Pulling).	2,738	823	516	139	63	45	51	9	94	2,078	122	1,267
Train (Units Pushing).	178	101	51	8	11	7	23	1	13	136	10	120
Train (Standing)		87	18	22	16	15	12	4	4	9	3	71
Cars (Moving)	51	37	37						2	80	2	4
Cars (Standing)		10	9		1					6		4
Light Locos (Moving)	194	70	64				6		7	152	10	95
Light Locos (Standing)		6	5				1			1		5
Other		1	1							1		
Total	3,161	1,135	701	169	91	67	93	14	120	2,463	147	1,566

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

TABLE 18. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY TRAIN SPEED AND TYPE OF TRAIN, 1994

	1	Freight	t	Pa	asseng	er	-Yard	d Swite	ching		-Other			-Total	
Speed Of Consist	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
Standing	67	4	36				20		10	15		5	102	4	51
1-9	364	7	75	13		2	279	3	65	179	5	49	835	15	191
10-19	489	5	207	14			73		18	92	2	41	668	7	266
20-29	632	27	278	24		78	31	3	6	50	3	20	737	33	382
30-39	612	79	299	25	2	10	5	2	1	36	4	13	678	87	323
40-49	714	152	351	23	2	3	3	1		21	5	13	761	160	367
50-59	293	100	111	27	9	4	2	2		7	3	5	329	114	120
60-69	103	54	30	33	8	14				1		2	137	62	46
70-79	7	1	2	41	18	16							48	19	18
80-89				1									1		
90 and over															
Unknown															
Total	3,281	429	1,389	201	39	127	413	11	100	401	22	148	4,296	501	1,764

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

TABLE 19. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY LENGTH OF CONSIST, 1994

		Freigh	t	Pa	asseng	er	-Yard	d Swite	ching		-Other			-Total	L
Number Of Cars	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
1-9	463	20	199	147	27	118	216	4	52	109	3	44	935	54	413
10-19	333	37	139	37	9	3	99	1	24	5		2	474	47	168
20-29	333	32	130				33	2	8	4	2	4	370	36	142
30-39	275	57	124				31	3	7	4	3	2	310	63	133
40-49	261	41	124				8		2	2			271	41	126
50-59	266	55	98				8		4	2			276	55	102
60-69	237	30	105	1			5		2				243	30	107
70-79	231	42	93				6	1	1	1			238	43	94
80-89	192	23	73	1	1		1			1		2	195	24	75
90-99	213	23	100										213	23	100
100-109	168	31	74	1		2	1			2		2	172	31	78
110-119	190	26	85							1			191	26	85
120-129	45	5	13										45	5	13
130-139	15	3	4										15	3	4
140-149	12	1	7										12	1	7
150 And over	27	2	8										27	2	8
Locomotives only.	20	1	13	14	2	4	5			270	14	92	309	17	109
Total	3,281	429	1,389	201	39	127	413	11	100	401	22	148	4,296	501	1,764

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

TABLE 20. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY LENGTH OF CONSIST AND VISIBILITY, 1994

		-Dawn-			Day-			Dusk			Dark			-Total	
Number Of Cars	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
RAIL CONSI		STR			H W A		SER								
1-9	10	4	3	455	30	232	23	6	7	162	7	53	650	47	295
10-19	10	1	5	217	24	74	16		8	103	13	27	346	38	114
20-29	6	1	3	177	15	77	6	2	1	81	12	20	270	30	101
30-39	11		1	123	43	42	8	3	5	85	12	40	227	58	88
40-49	4			115	21	56	5		7	83	14	30	207	35	93
50-59	3	2	2	119	30	42	12	6	3	75	10	25	209	48	72
60-69	4		4	97	21	45	6		3	72	5	26	179	26	78
70-79	2			109	15	43	4	1	5	79	18	28	194	34	76
80-89	8	1	8	94	14	36	4		1	52	6	14	158	21	59
90-99	2			98	13	53	9		7	53	4	17	162	17	77
100-109	4	1	1	80	11	40	4		3	39	14	17	127	26	61
110-119	3		1	79	14	45	4			55	10	18	141	24	64
120-129	1		1	14		7	5	1		14	1	3	34	2	11
130-139	1		1	6	1	2				5	2		12	3	3
140-149				5	1	1	1						6	1	1
150 And over	1			11	1	3				6		2	18	1	5
Locomotives only.	5		1	136	6	44	7	1	2	73	6	20	221	13	67
Total	75	10	31	1,935	260	842	114	20	52	1,037	134	340	3,161	424	1,265
HIGHWAY US	E R	STR	υск	RAI	L C	ons:	IST								
1-9	7		1	170	5	68	10		3	98	2	46	285	7	118
10-19	1		1	67	4	18	6	1	2	54	4	33	128	9	54
20-29	4		4	51	4	15	3		1	42	2	21	100	6	41
30-39	3		2	30	2	14	1		1	49	3	28	83	5	45
40-49	4		4	25	2	10	1		3	34	4	16	64	6	33
50-59	4		2	28	2	10	3			32	5	18	67	7	30
60-69	3		1	21		9				40	4	19	64	4	29
70-79	3	1	2	7		2	1			33	8	14	44	9	18
80-89	3		1	12		5				22	3	10	37	3	16
90-99	3		1	22	1	9	1			25	5	13	51	6	23
100-109	4		4	19	2	7				22	3	6	45	5	17
110-119	1		1	25	2	12	1			23		8	50	2	21
120-129				5	1					6	2	2	11	3	2
130-139	1			2		1							3		1
140-149	1			2		1				3		5	6		6
150 And over				3	1	1				6		2	9	1	3
Locomotives only.	3		2	39	1	17	6		2	40	3	21	88	4	42
Total	45	1	26	528	27	199	33	1	12	529	48	262	1,135	77	499
GRAND TOTA	L														
1-9	17	4	4	625	35	300	33	6	10	260	9	99	935	54	413
10-19	11	1	6	284	28	92	22	1	10	157	17	60	474	47	168
20-29	10	1	7	228	19	92	9	2	2	123	14	41	370	36	142
30-39	14		3	153	45	56	9	3	6	134	15	68	310	63	133
40-49	8		4	140	23	66	6		10	117	18	46	271	41	126
50-59	7	2	4	147	32	52	15	6	3	107	15	43	276	55	102
60-69	, 7		5	118	21	54	6		3	112	9	45	243	30	107
70-79	5	1	2	116	15	45	5	1	5	112	26	42	238	43	94
80-89	11	1	9	106	14	41	4		1	74	9	24	195	24	75
90-99	5		1	120	14	62	10		7	78	9	30	213	23	100
100-109	8	1	5	99	13	47	4		3	61	17	23	172	31	78
110-119	4		2	104	16	57	5			78	10	26	191	26	85
120-129	1		1	19	1	7	5	1		20	3	5	45	5	13
130-139	2		1	8	1	3				5	2		15	3	4
140-149	1			7	1	2	1			3		5	12	1	7
150 And over	1			14	2	4				12		4	27	2	8
Locomotives only.	8		3	175	7	4 61	13	1	4	113	9	41	309	2 17	109
LOCOMOCIVES ONLY.	Ö		3	т/5	/	ΟΤ	13	Т	4	113	9	41	309	Τ/	109
Total	120	11	57	2,463	287	1,041	147	21	64	1,566	182	602	4,296	501	1,764

TABLE 21. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY TYPE AND CLASS OF TRACK, 1994

		Main			Yard			-Sidin	g	I	ndustr	y	1	Unknow	n		-Total	
Track Class	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
1	. 317	5	97	173	2	34	23	1	8	175	2	51				688	10	190
2		31				14			1			3				787	31	
3	. 1,119	118	572	6	1	1	3		4	5						1,133	119	577
4	. 1,434	298	600	3		6				2						1,439	298	606
5	. 176	41	60													176	41	60
6	. 4	1	3													4	1	3
Unknown	. 39		8	12			3		2	15	1	6				69	1	16
Total	. 3,816	494	1,634	229	3	55	37	1	15	214	3	60				4,296	501	1,764

TABLE 22. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY WARNING DEVICE AND MOTORIST ACTION, 1994

	Dr	ove Ar	ound-	St	opped i	And												
	-or	Thru G	ate	-The	n Proc	eeded	-Did	Not S	top		-Other			Unknow	n		-Total	
Warning Device	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	580	95	228	3		2	20		7	342	15	45	14		1	959	110	283
Cantilever flshrs				26		9	251	32	119	62	4	20				339	36	148
Standard flashers				57	2	20	538	61	302	156	2	28	8		2	759	65	352
Hwy Sig,W W,Bells				5		1	44	3	21	21		4	1			71	3	26
Special Devices				4			34		7	10		1				48		8
Crossbucks				79	17	33	1,266	203	625	376	17	102	25	2	6	1,746	239	766
Stopsigns				28	4	11	226	38	136	68	3	28	3			325	45	175
Other Signs							3		1	1						4		1
No Signs Or Signl				3		2	27	3	3	14			1			45	3	5
Total	580	95	228	205	23	78	2,409	340	1,221	1,050	41	228	52	2	9	4,296	501	1,764

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

"Hwy Sig" = Highway signals, W W = Wigwags.

TABLE 23. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY OPERATIONAL STATUS OF WARNING DEVICE, CIRCUMSTANCE, AND VISIBILITY, 1994

							Highwa	ay User-			
	-Devi	ce Wor	king	s	truck By	y Consi	st	Ra	n Into	Consis	t
Warning Device	Yes	No	N/A	Dawn	Day	Dusk	Dark	Dawn	Day	Dusk	Dark
Gates	929	7	23	29	362	23	354	11	81	4	95
Cantilever flshrs	337	2		5	137	9	76	1	50	5	56
Standard flashers	747	1	11	9	329	11	172	8	120	5	105
Hwy Sig,W W,Bells	71				39	1	12	1	5	3	10
Special Devices			48		9	1	11	2	5	2	18
Crossbucks			1,746	24	860	55	348	19	223	11	206
Stopsigns			325	8	171	12	50	3	43	3	35
Other Signs			4		1		1		1		1
No Signs Or Signl			45		27	2	13				3
Total	2,084	10	2,202	75	1,935	114	1,037	45	528	33	529

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

TABLE 24. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, DURING DUSK AND DARK HOURS BY ILLUMINATION OF CROSSING AND CIRCUMSTANCE, 1994

	Struck	Ву Сс	nsist	Ran	Into Co	onsist		-Total	
	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
Lighted	719	 56	323	270	16	111	989	72	434
Not Lighted	1,777	272	736	625	47	296 2	2,402	319	1,032
Not Reported	654	95	205	234	14	90	888	109	295
Total	3,161	424	1,265	1,135	77	499 4	1,296	501	1,764

TABLE 25. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY CROSSING PROTECTION, 1994

		-Dawn-			Day-			Dusk			Dark			-Total	
Warning Device	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
RAIL CONSIST STR	иск	ні	GHW	AY U	SER										
Automatic, Both Sides	42	5	13	848	91	344	42	7	15	604	70	189	1,536	173	561
Automatic, Side Of Approach.	1			17	2	5	1			9		8	28	2	13
Automatic, Opposite Side				1			1			1			3		
Automatic, Side Not Reported				1									1		
Manual, Both Sides				7			1			10			18		
Manual, Side Of Approach				1									1		
Manual, Opposite Side										1			1		
Manual, Side Not Reported				1									1		
Other, Both Sides	30	5	16	1,001	162	477	63	10	37	389	64	140	1,483	241	670
Other, Side Of Approach	2		2	22		10	1			6		1	31		13
Other, Opposite Side				4		1	3	2		2		2	9	2	3
Other, Side Not Reported				5	3					2			7	3	
No Signs Or Signals				27	2	5	2	1		13			42	3	5
Total	75	10	31	1,935	260	842	114	20	52	1,037	134	340	3,161	424	1,265
HIGHWAY USER STR	иск	RA:	IL C	o n s	IST										
Automatic, Both Sides	20		11	250	19	94	16		9	260	19	116	546	38	230
							10								
Automatic, Side Of Approach.	1			6						5	1	4	12	1	4
Automatic, Opposite Side							1					1	1		
Automatic, Side Not Reported										1		_	1		1
Manual, Both Sides	2		1	5			1			14		5	22		6
Manual, Side Of Approach										1 2		1	1		1
Manual, Opposite Side Manual, Side Not Reported							1			1		1	2		1
Other, Both Sides	21	1	13	257	7	101	13	1	3	226	28	126	517	37	243
Other, Side Of Approach	1		1	8	1	4		1		13		8	22	1	13
==				1			1			3			5		
Other, Opposite Side				1									1		
Other, Side Not Reported No Signs Or Signals										3			3		
Total	45	1	26	528	27	199	33	1	12	529	48	262	1,135	77	499
		_						_					_,		
GRAND TOTAL															
Automatic, Both Sides	62	5	24	1,098	110	438	58	7	24	864	89		2,082	211	791
Automatic, Side Of Approach.	2			23	2	5	1			14	1	12	40	3	17
Automatic, Opposite Side				1			2			1			4		
Automatic, Side Not Reported				1						1		1	2		1
Manual, Both Sides	2		1	12			2			24		5	40		6
Manual, Side Of Approach				1						1		1	2		1
Manual, Opposite Side										3			3		
Manual, Side Not Reported				1			1			1		1	3		1
Other, Both Sides	51	6	29	1,258	169	578	76	11	40	615	92	266	2,000	278	913
Other, Side Of Approach	3		3	30	1	14	1			19		9	53	1	26
Other, Opposite Side				5		1	4	2		5		2	14	2	3
Other, Side Not Reported				6	3					2			8	3	
No Signs Or Signals				27	2	5	2	1		16			45	3	5
Total	120	11		2,463	005	1,041	147	21		1,566	182		4,296	501	

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. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY VISIBILITY AND CIRCUMSTANCE, 1994

	Struck	Ву С	onsist	Ran	Into C	Consist		-Tota	l
Visibilty	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
Dawn	75	10	31	45	1	26	120	11	57
Day	1,935	260	842	528	27	199	2,463	287	1,041
Dusk	114	20	52	33	1	12	147	21	64
Dark	1,037	134	340	529	48	262	1,566	182	602
Total	3,161	424	1,265	1,135	77	499	4,296	501	1,764

TABLE 27. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS,
BY TEMPERATURE AND VISIBILITY, 1994

	S	truck By	/ Consi	st	Ra	n Into	Consis	t		To	tal	
Temperature	Dawn	Day	Dusk	Dark	Dawn	Day	Dusk	Dark	Dawn	Day	Dusk	Dark
Over 100				1		2				2		1
80 To 100		552	18	69	2	124	2	32	2	676	20	101
60 To 79	24	705	35	323	15	177	12	162	39	882	47	485
40 To 59	29	384	29	376	8	101	9	180	37	485	38	556
20 To 39	16	217	23	192	13	79	7	111	29	296	30	303
0 To 19	5	62	6	65	6	35	2	36	11	97	8	101
-20 To -1	1	15	3	11	1	9	1	7	2	24	4	18
Under -20						1		1		1		1
Not Reported												
Total	75	1,935	114	1,037	45	528	33	529	120	2,463	147	1,566

TABLE 28. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY TIME OF DAY, 1994

	Struck	Ву С	nsist	Ran	Into C	Consist		-Total	
TIME	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
MID TO 12:59 AM	95	15	27	47	1	20	142	16	47
1 TO 1:59 AM	79	5	25	50	7	29	129	12	54
2 TO 2:59 AM	78	12	25	57	4	31	135	16	56
3 TO 3:59 AM	61	5	17	38	2	30	99	7	47
4 TO 4:59 AM	39	2	12	25	2	11	64	4	23
5 TO 5:59 AM	51	3	18	32	1	18	83	4	36
6 TO 6:59 AM	102	18	28	36	1	15	138	19	43
7 TO 7:59 AM	141	22	125	39	2	15	180	24	140
8 TO 8:59 AM	152	21	73	47	3	12	199	24	85
9 TO 9:59 AM	167	22	67	53	2	20	220	24	87
10 TO 10:59 AM.	166	23	60	33	1	9	199	24	69
11 TO 11:59 AM.	161	16	73	55	4	20	216	20	93
NOON TO 12:59 PM.	192	21	64	45	1	15	237	22	79
1 TO 1:59 PM	188	17	78	36	2	11	224	19	89
2 TO 2:59 PM	173	19	72	64	6	23	237	25	95
3 TO 3:59 PM	196	33	61	60	2	27	256	35	88
4 TO 4:59 PM	178	23	78	45	3	19	223	26	97
5 TO 5:59 PM	166	22	59	59	3	22	225	25	81
6 TO 6:59 PM	182	28	70	52		19	234	28	89
7 TO 7:59 PM	129	30	63	47	2	31	176	32	94
8 TO 8:59 PM	131	18	52	45	8	26	176	26	78
9 TO 9:59 PM	122	17	44	56	3	29	178	20	73
10 TO 10:59 PM.	105	22	43	55	8	24	160	30	67
11 TO 11:59 PM.	107	10	31	59	9	23	166	19	54
Unknown									
Total	3,161	424	1,265	1,135	77	499	4,296	501	1,764

TABLE 29. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY MONTH AND CIRCUMSTANCE, 1994

	Struck	By Co	onsist	Ran	Into C	onsist		-Total	
Month	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
January	366	36	153	140	6	51	506	42	204
February	293	44	115	118	5	53	411	49	168
March	252	24	100	100	10	38	352	34	138
April	229	24	83	90	2	44	319	26	127
May	259	25	89	72	7	30	331	32	119
June	238	32	170	80	2	35	318	34	205
July	265	43	114	71	9	28	336	52	142
August	257	43	113	87	7	34	344	50	147
September	235	38	66	81	3	46	316	41	112
October	240	31	85	85	1	46	325	32	131
November	250	42	82	109	12	50	359	54	132
December	277	42	95	102	13	44	379	55	139
Total	3,161	424	1,265	1,135	77	499	4,296	501	1,764

TABLE 30. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY WEATHER CIRCUMSTANCE AND VISIBILITY, 1994

		truck By	y Consi	st	Ran Into Consist			Total				
Weather	Dawn	Day	Dusk	Dark	Dawn	Day	Dusk	Dark	Dawn	Day	Dusk	Dark
Clear	45	1,363	64	655	25	362	16	308	70	1,725	80	963
Cloudy	14	423	35	219	7	83	9	113	21	506	44	332
Rain	4	107	8	110	3	46	4	52	7	153	12	162
Fog	9	11	1	18	6	14		28	15	25	1	46
Sleet	1	1				2		3	1	3		3
Snow	2	30	6	35	4	21	4	25	6	51	10	60
Not Reported												
Total	75	1,935	114	1,037	45	528	33	529	120	2,463	147	1,566

TABLE 31. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY OBSTRUCTION OF MOTORIST VIEW, CIRCUMSTANCE AND VISIBILITY, 1994

		Struck By	y Consi	.st	Ra	n Into	Consis	t		To	tal	
Type Obstruction	Dawn	Day	Dusk	Dark	Dawn	Day	Dusk	Dark	Dawn	Day	Dusk	Dark
					_		_					
Permanent structure	1	39	3	15	1	15	2	4	2	54	5	19
Standing RR Equipment.		16	1	7		3		4		19	1	11
Passing Train		10		2		1		2		11		4
Topography		16		5		7		2		23		7
Vegetation		36	3	7	2	17		2	2	53	3	9
Highway Vehicle		9		1		5		2		14		3
Other		10	3	8		5		8		15	3	16
Not Obstructed	74	1,799	104	992	42	475	31	505	116	2,274	135	1,497
Unknown												
Total	75	1,935	114	1,037	45	528	33	529	120	2,463	147	1,566

TABLE 32. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY MOTORIST ACTION AND TYPE OF VEHICLE, 1994

	Struck :	By Secon	d Train	Passed	Standing	Vehicle
Type Of Vehicle	Yes	No	Unknown	Yes	No	Unknown
Automobile	53	2,649	47	91	2,439	219
Truck	16	1,053	10	18	995	66
Truck-trailer	10	425	6	11	405	25
Bus		3			2	1
School bus		3			3	
Motorcycle		21		1	19	1
Total	79	4,154	63	121	3,863	312

TABLE 33. TOTAL PUBLIC AND PRIVATE CROSSINGS BY STATE AND TYPE, 1994

	Public			Private		Pedestrian		
	At	Public	Public	at	Grade	at	Grade	
State	Grade	RR Under	RR Over	Grade	Separated	Grade	Separated	Total
Alabama	4,008	488	174	2,111	20	23	2	6,826
Alaska	227	11	6	108	1	8	4	365
Arizona	941	88	83	688	106	6	2	1,914
Arkansas	3,325	182	120	1,523	71	10	8	5,239
California	7,988	933	563	4,895	195	155	87	14,816
Colorado	2,076	205	115	1,448	21	21	8	3,894
Connecticut	370	323	252	261	37	0	31	1,274
Delaware	269	48	57	153	2	2	1	532
Dist Of Columbia	37	30	37	12	0	11	2	129
Florida	4,077	231	58	1,463	1	68	3	5,901
Georgia	6,197	546	253	2,790	7	41	5	9,839
Hawaii	6	0	0	0	0	0	0	6
Idaho	1,556	92	68	1,422	12	10	3	3,163
Illinois	10,265	924	1,909	5,749	175	308	85	19,415
Indiana	6,678	449	578	2,902	89	68	13	10,777
Iowa	5,290	472	328	4,298	50	47	11	10,496
Kansas	7,912	349	208	4,256	32	36	0	12,793
Kentucky	2,639	438	441	2,830	102	54	24	6,528
Louisiana	3,770	226	117	3,299	20	36	7	7,475
Maine	882	128	78	934	15	11	3	2,051
Maryland	693	314	203	732	24	9	17	1,992
Massachusetts	1,192	795	436	538	52	19	84	3,116
Michigan	5,791	327	403	2,726	22	109	20	9,398
Minnesota	5,218	461	342	3,140	17	53	24	9,255
Mississippi	3,028	223	112	2,090	14	14	2	5,483
Missouri	4,872	637	411	3,300	72	61	34	9,387
Montana	1,533	137	82	2,057	112	15	5	3,941
Nebraska	4,058	211	124	2,824	39	14	4	7,274
Nevada	288	60	40	258	11	3	0	660
New Hampshire	503	118	52	344	21	7	6	1,051
New Jersey	1,862	534	728	594	57	42	83	3,900
New Mexico	815	70	79	595	44	2	2	1,607
New York	3,279	1,352	1,096	3,179	192	65	232	9,395
North Carolina	4,875	505	287	3,632	17	51	19	9,386
North Dakota	4,631	79	83	2,184	16	19	4	7,016
Ohio	6,713	1,070	1,082	3,955	198	34	56	13,108
Oklahoma	4,627	257	192	1,779	57	18	2	6,932
Oregon	2,343	290	174	2,878	113	90	12	5,900
Pennsylvania	5,599	1,547	1,872	3,450	239	126	199	13,032
Rhode Island	128	107	38	71	7	0	5	356
South Carolina	3,111	368	123	1,359	1	12	3	4,977
South Dakota	2,137	89	46	1,361	53	5	1	3,692
Tennessee	3,371	503	456	1,948	52	28	11	6,369
Texas	12,706	861	791	6,559	140	33	16	21,106
Utah	1,009	117	48	789	2	4	3	1,972
	· ·							-
Vermont	496	85	83	650	44	46	4	1,408
Virginia	2,201	608	456	3,145	116	49	20	6,595
Washington	3,018	373	312	3,212	106	96	20	7,137
West Virginia	1,972	262	347	2,308	102	76	18	5,085
Wisconsin	4,899	428	314	2,984	86	108	42	8,861
Wyoming	530	113	46	930	78	1	7	1,705
Puerto Rico	24	0	0	2	0	0	0	26
INAL TOTALS	166,035	19,064	16,303	106,715	3,060	2,124	1,254	314,555

TABLE 34. TOTAL PUBLIC AND PRIVATE CROSSINGS BY RAILROAD AND TYPE, 1994

Railroad	Public At Grade	Public RR Under	Public RR Over	Private at Grade	Private Grade Separated	at	Pedestrian Grade Separated	Total
23. 1. 2. 3. 4.				100				261
Alaska Railroad Corporation Allegheny and Eastern Railroad	223 106		6 2	108 82	1 2	8	4	361 206
Amtrak (National Railroad Passenger Corpora	185		489	68	23	2	73	1,379
Arkansas & Missouri Railroad Company	251	7	14	92	5	0	0	369
Arkansas Midland Railroad Company, Incorpor	179	6	4	92	1	2	0	284
Atchison, Topeka & Santa Fe Railway Company	6,648	631	580	3,666	191	51	22	11,789
Atlanta & Saint Andrews Bay Railway Company	137		1	70	0	1	0	215
Austin & Northwestern Railroad Bangor & Aroostook Railroad	169		7	108	3	1 7	0	296
Bessemer & Lake Erie Railroad Company	165 140		23 49	385 96	3	2	0	592 325
Boston & Maine Corporation	866		204	412	51	14	36	2,013
Buffalo & Pittsburgh Railroad, Incorporated	322	47	55	263	16	7	0	710
Burlington Northern Railroad Company	19,149	1,540	1,173	12,820	367	266	65	35,380
Camas Prairie Railroad Company	106		18	116	4	1	1	251
Canadian Pacific Railway Company	51		15	180	6	39	1	304
Cedar Rapids & Iowa City Railway Company Cedar River Railroad Company	96 160		6 2	92 104	0	3	1 0	214 267
Central Kansas Railway, Incorporated	1,129		5	579	4	3	0	1,736
Central Michigan Railway Company	332		6	187	1	7	0	552
Central Railroad Company Of Indianapolis	270	0	0	3	0	0	0	273
Central Vermont Railway, Incorporated	193	63	56	223	14	3	8	560
Chehalis Western	86	27	11	96	6	2	0	228
Chicago & North Western Transportation Comp	5,672		707	4,184		109	51	11,429
Chicago Missouri & Western Railway	141		20	115	5	7	1	319
Chicago, Central & Pacific Railroad Company Columbus & Greenville Railway Company	888 337	88	79 1	701 310	49 4	15 3	12 0	1,832 659
Consolidated Rail Corporation	13,068	3,243	3,469	7,323	396	172	272	27,943
CSX Transportation	18,465	-	1,787	11,087	288	343	109	34,560
Dakota, Minnesota & Eastern Railroad	805	21	33	554	38	2	0	1,453
Dakota, Missouri Valley & Western Railroad,	287	2	0	159	0	1	0	449
Delaware & Hudson Railway Company	311		93	446	30	16	9	986
Delta Southern Railroad Company	92		1	119	0	0	0	213
Denver & Rio Grande Western Railroad Compan	836 270		67 5	673 234	4	3 5	4 0	1,724 518
Department of Defense - Other Detroit & Mackinac Railway Company	359		1	207	1	10	0	586
Duluth, Missabe & Iron Range Railway Compan	150		28	131	4	2	0	340
Eastern Idaho Railroad	353	7	4	269	2	0	0	635
Elgin, Joliet & Eastern Railway Company	192	30	28	89	2	0	0	341
Escanaba & Lake Superior Railroad Company	267		2	162	0	4	0	439
Florida Central Railroad Company	154		5	55	0	12	0	229
Florida East Coast Railway Company Fox Valley & Western Ltd.	714 727		6 21	114 449	0 15	13 16	0	880 1,270
Gateway Western Railway	224		23	156	1	2	0	430
Georgia Central Railroad	220	9	4	87	0	2	0	322
Georgia Southwestern Railroad Division	282	19	3	166	1	1	0	472
Grainbelt Corporation	255	2	8	93	0	0	0	358
Grand Trunk Western Railroad Incorporated	1,164		178	498	6	15	11	1,974
Great Western Railway Company	85		1	127	0	0	1	217
Gulf And Mississippi Railroad Corporation Hillsdale County Railway Company, Incorpora	645 127		29 2	460 68	1 3	2	0	1,190 203
Houston Belt & Terminal Railway Company	164		16	43	0	4	1	251
Huron & Eastern Railway	207		0	154	0	1	0	362
Idaho Northern & Pacific Railroad Company	112	4	3	182	0	1	0	302
Illinois Central Railroad Company	2,824	332	332	1,707	43	65	23	5,326
Indiana & Ohio Central Railroad, Incorporat	116		19	87	7	0	0	248
Indiana Hi-Rail Corporation	236		2	106	7	4	0	360
Indiana Rail Road Company Iowa Interstate Railroad	459 479		38 43	152 326	10 5	3	1	684 917
Iowa Northern Railway Company	187		5	119	0	0	0	319
Kankakee, Beaverville & Southern Railroad C	164		7	60	2	0	0	234
Kansas City Southern Railway Company	1,028		87	492	26	6	4	1,748
Kansas City Terminal Railway Company	79	48	25	95	0	1	0	248
Kansas Southwestern Railway	408		2	163	0	0	0	579
Kiamichi Railroad Company, Incorporated	234		11	97	9	0	0	356
Kyle Railroad Company	496		4	367	5	1	0	885
Lamoille Valley Railroad Company Long Island Rail Road	84 304		7 105	105 82	13 0	0	0 80	218 873
Louisiana & Arkansas Railway Company	666		34	579	4	4	2	1,354
Louisiana & Delta Railroad	208		0	173	0	0	0	382
Maine Department Of Transportation	161		15	87	5	3	0	296
Maryland & Delaware Railroad Company	92	1	0	137	0	0	1	231
Maryland Dept. Of Transportation	84		3	101	2	4	0	200
Mass. Bay Transporatation Authority	75		60	48	6	3	18	290
Mid-Atlantic Railroad Company, Incorporated	135	4	0	123	0	2	0	264

TABLE 34. TOTAL PUBLIC AND PRIVATE CROSSINGS BY RAILROAD AND TYPE, CONT. 1994

	Public				Private Pe			
- '1 1	At	Public	Public	at	Grade	at	Grade	m . 1
Railroad		RR Under			Separated		Separated	Total
Mid-Michigan Railroad Company	115	4	0	95	0	3	0	21
Midd States Port Authority	404	17	20	170	2	1	0	61
${\tt Midsouth~Railroad~Corporation~(USE~CODE~KC)}$	513	72	25	269	4	2	0	88
Missouri & Northern Arkansas Railroad Compa	410	35	24	353	5	1	0	82
Monongahela Railway Company	64	14	41	93	0	1	0	21
Montana Rail Link	449	52	21	684	10	3	1	1,22
MNVA Railroad, Incorporated	103	2	0	101	0	1	0	20
Nashville & Eastern Railroad	199	11	11	151	6	2	0	38
Nebraska Central Railroad	342	0	0	236	0	2	0	58
New Jersey Transit Rail Operations	347	199	297	96	13	19	45	1,01
New Orleans Lower Coast Railroad, Incorpora	45	0	0	180	0	4	0	22
New Orleans Public Belt Railroad	100	6	8	156	6	2	0	27
New York City Trans. Authority (MTA)	30	143	42	15	9	0	39	27
New York, Susquehanna & Western Railroad Co	271	21	9	223	10	3	1	53
Norfolk Southern Corporation	17,117	1,999	1,644	11,503	243	106	45	32,65
North Carolina Department Of Transportation	92	11	3	122	2	3	1	23
Northeast Kansas & Missouri	124	2	4	106	0	0	0	23
Ohio Central Railroad Company	130	15	5	150	9	0	1	31
Oklahoma Department Of Transportation	383	18	9	105	2	1	0	51
Oklahoma Kansas & Texas Railroad Company	122	12	8	110	0	1	0	25
Paducah & Louisville Railway Company	259	53	49	185	7	3	0	55
Pittsburgh & Lake Erie Railroad Company	97	53	35	99	15	6	12	31
Prairie Trunk Railway	169	1	0	61	0	1	0	23
Providence & Worcester Railroad Company	196	73	49	123	6	0	6	45
Red River Valley & Western Railroad	761	5	1	316	0	0	0	1,08
Seminole Gulf Railroad	166	7	0	31	0	0	0	20
Soo Line Railroad Company	4,271		368	2,732		67	26	7,87
South Carolina Central Railroad Company, In	132	2	1	65	0	1	0	20
South Dakota Railroad Authority	321		2	282		1	0	61
South Kansas & Oklahoma Railroad Company	359		15	245		2	0	63
South Orient Railroad Company, Ltd.	178		8	173		1		36
Southeastern Pennsylvania Transportation Au	262		174	53		10	40	67
Southern Pacific Transportation Company	8,090		557	4,893		126	66	14,83
Southern Pacific, Chicago-St. Louis Corpora	269		27	87		32	1	43
Springfield Terminal Railway Company (Vermo	429		33	283		0	3	83
St. Louis Southwestern Railway Company	2,025			780		2	0	3,02
State Subsidy	2,023		31	139		0	2	46
Tennessee Southern Railroad Company, Incorp	134		11	65		0	1	23
Terminal Railroad Association Of St. Louis	141		26	12		0	0	23
Texas & Oklahoma Railroad Company	340		1	190		0	0	53
Texas Mexican Railway Company	239		2	190		0	0	44
	239		12	115		0	0	35
Texas Northeastern DivisionMid-Michigan R							0	35 72
Toledo, Peoria & Western Railway Corporatio	438		3	270		6	0	
Tulare Valley Railroad Company	324		5 7	232		4		57
Tuscola & Saginaw Bay Railroad Company, Inc	568			243		10	1	85
Twin City & Western Railroad	138		10	106		0	0	25
Union Pacific Railroad Company	16,292		902	10,609		115	65	29,61
Vermont Railway, Incorporated	95		11	148		4	0	28
Washington Central Railroad Company	356		13	344		0	0	73
Wheeling & Lake Erie Railway Company	596		161	442		9	6	1,32
Wisconsin & Southern Railroad Company	604		14	315		10	3	98
Wisconsin Central Ltd. (also Railway)	1,985		87	1,207		34	6	3,42
All Other Railroads	16,923		1,291	12,294		235	68	32,27
AL TOTALS	166,035	19,064	16,303	106,715	3,060	2,124	1,254	314,559

TABLE 35. TOTAL OF CROSSINGS BY STATE AND LOCATION: URBAN OR RURAL, 1994

State	Urban	Rural	Total
Alabama	1,858	2,150	4,008
Alaska	88	139	227
Arizona	470	471	941
Arkansas	1,289	2,036	3,325
California	5,820	2,168	7,988
Colorado	721	1,355	2,076
Connecticut	239	131	370
Delaware	73	196	269
Dist of Columbia.	37		37
Florida	2,365	1,712	4,077
Georgia	2,198	3,999	6,197
Hawaii		6	6
Idaho	259	1,297	1,556
Illinois	3,913	6,352	10,265
Indiana	2,888	3,790	6,678
Iowa	1,636	3,654	5,290
Kansas	1,398	6,514	7,912
Kentucky	702	1,937	2,639
Louisiana	1,657	2,113	3,770
Maine	236	646	882
Maryland	521	172	693
Massachusetts	843	349	1,192
Michigan	2,362	3,429	5,791
Minnesota	1,421	3,797	5,218
Mississippi	1,137	1,891	3,028
Missouri	1,578	3,294	4,872
Montana	281	1,252	1,533
Nebraska	516	3,542	4,058
Nevada	74	214	288
New Hampshire	221	282	503
New Jersey	1,330	532	1,862
New Mexico	239	576	815
New York	1,515	1,764	3,279
North Carolina	2,012	2,863	4,875
North Dakota	252	4,379	4,631
Ohio	3,168	3,545	6,713
Oklahoma	309	4,318	4,627
Oregon	1,010	1,333	2,343
Pennsylvania	2,918	2,681	5,599
Rhode Island	123	5	128
South Carolina	1,071	2,040	3,111
South Dakota	261	1,876	2,137
Tennessee	1,527	1,844	3,371
Texas	6,700	6,006	12,706
Utah	544	465	1,009
Vermont	165	331	496
Virginia	929	1,272	2,201
Washington	1,387	1,631	3,018
West Virginia	431	1,541	1,972
Wisconsin	1,989	2,910	4,899
Wyoming	80	450	530
Puerto Rico		24	24
Unknown			
Total	64,761	101,274	166,035

TABLE 36. TOTAL CROSSINGS BY NUMBER OF MAIN AND OTHER TRACKS, 1994

Other			Number of Main Tracks						
Tracks	0	1	2	3	4	5	>5	Total	
0	9	98,852	9,960	286	78	5	4	109,194	
1	15,909	21,692	2,722	76	18		1	40,418	
2	3,544	6,591	1,054	51	16	1	1	11,258	
3	968	1,923	329	28	14			3,262	
4	269	601	143	13	7	3	1	1,037	
5	116	246	69	4	1	1	1	438	
>5	107	246	70	2	3			428	
Total	20,922	130,151	14,347	460	137	10	8	166,035	

TABLE 37. CROSSINGS BY NUMBER OF TRACKS AND WARNING DEVICE, 1994

			Number of Tracks						
Warning device	1	2	3	4	5	>5	Total		
Gates	13,382	9,999	3,531	1,262	458	418	29,050		
Flashing lights	21,038	5,539	1,805	581	185	177	29,325		
Hwy. signals, wigwags, bells	1,021	411	148	47	20	14	1,661		
Special warning devices	3,316	959	310	125	41	47	4,798		
Stop signs	8,006	2,162	571	179	56	43	11,017		
Crossbucks	62,561	14,938	3,869	1,110	320	252	83,050		
Other signs	365	93	30	14	1	3	506		
No signs or signals	5,072	1,095	303	82	39	37	6,628		
Total	114,761	35,196	10,567	3,400	1,120	991	166,035		

TABLE 38. CROSSINGS BY TRACKS AND TRAFFIC LANES, 1994

Traffic			Num	ber of Tracks			
Lanes	1	2	3	4	5	>5	Total
1	19,933	4,229	726	169	33	42	25,132
2	87,581	28,244	8,941	2,918	980	840	129,504
3	752	330	100	33	9	13	1,237
4	5,621	2,135	732	263	94	88	8,933
5	408	119	35	8	2	4	576
>5	466	139	33	9	2	4	653
Total	114.761	35,196	10.567	3,400	1,120	991	166,035

TABLE 39. TOTAL CROSSINGS BY NUMBER OF TRACKS AND STATE, 1994

Number of Tracks

State	1	2	3	4	5	>5	Total
Alabama	2,873	719	284	73	27	32	4,008
Alaska	186	34	20 4 6	1		32	227
Arizona	696	166	60	15	3	1	941
Arkansas	2,270	725	223	63	26	18	3,325
California	5,472	1,579	569	191	90	87	7,988
Colorado	1,445	424	141	40	13	13	2,076
Connecticut	299	59	10		2		370
Delaware	228	30	7	2	2		269
Dist of Columbia.	28	7	2				37
Florida	2,576	1,051	288	81	40	41	4,077
Georgia	4,599	1,128	307	107	21	35	6,197
Hawaii	6						6
Idaho	1,093	298	110	36	10	9	1,556
Illinois	6,318	2,759	785	254	90	59	10,265
Indiana	4,701	1,509	314	103	31	20	6,678
Iowa	3,515	1,146	422	133	36	38	5,290
Kansas	5,430	1,638	541	191	60	52	7,912
Kentucky	1,771	646	152	48	9	13	2,639
Louisiana	2,821	675	186	52	15	21	3,770
Maine	724	123	24	9	1	1	882
Maryland	522	130	22	12	2	5	693
Massachusetts	941	187	41	15	4	4	1,192
Michigan	4,137	1,194	279	104	38	39	5,791
Minnesota	3,699	993	343	117	32	34	5,218
Mississippi	2,089	609	204	78	22	26	3,028
Missouri	2,879	1,314	469	131	41	38	4,872
Montana	1,003	351	127	26	12	14	1,533
Nebraska	2,656	900	321	109	40	32	4,058
Nevada	198	64	16	4	1	5	288
New Hampshire	427	66	7	2	1		503
New Jersey	1,358	386	83	19	8	8	1,862
New Mexico	570	173	44	17	4	7	815
New York	2,296	748	161	48	13	13	3,279
North Carolina	3,627	832	267	87	31	31	4,875
North Dakota	3,704	679	194	40	13	1	4,631
Ohio	3,645	2,094	622	231	73	48	6,713
Oklahoma	2,998	1,067	342	136	48	36	4,627
Oregon	1,688	447	163	32	12	1	2,343
Pennsylvania	3,653	1,368	358	140	43	37	5,599
Rhode Island	86	36	6				128
South Carolina	2,401	561	106	21	13	9	3,111
South Dakota	1,685	288	116	35	6	7	2,137
Tennessee	2,265	766	220	74	21	25	3,371
Texas	9,162	2,413	709	262	83	77	12,706
Utah	683	213	71	17	18	7	1,009
Vermont	403	71	16	4		2	496
Virginia	1,456	518	166	44	11	6	2,201
Washington	1,989	627	273	86	22	21	3,018
West Virginia	1,413	410	114	21	5	9	1,972
Wisconsin	3,707	856	235	70	23	8	4,899
Wyoming	351	114	41	19	4	1	530
Puerto Rico	19	5					24
Unknown					1 100		
Total	114,761	35,196	10,567	3,400	1,120	991	166,035

TABLE 40. TOTAL CROSSINGS BY TYPE OF HIGHWAY SYSTEM AND STATE, 1994

Highway Ststem

State	01	02	03	04	08	Total
Alabama		184	388	308	3,128	4,008
Alaska	7	10	15	21	174	227
Arizona	10	30	175	74	652	941
Arkansas	2	136	1,008	157	2,022	3,325
California		933	1,020	598	5,437	7,988
Colorado		84	361	98	1,533	2,076
Connecticut		25	102	31	212	370
Delaware		31	5	113	120	269
Dist of Columbia.		4		2	31	37
Florida	1	278	739	133	2,926	4,077
Georgia		379	167	776	4,875	6,197
Hawaii					6	6
Idaho		47	110	145	1,254	1,556
Illinois	1	621	1,386	782	7,475	10,265
Indiana		240	428	1,140	4,870	6,678
Iowa	3	290	710	484	3,803	5,290
Kansas		306	398	1,069	6,139	7,912
Kentucky	2	78	231	243	2,085	2,639
Louisiana	5	144	390	286	2,945	3,770
Maine		72	22	98	690	882
Maryland		15	21	12	645	693
Massachusetts		116	316	121	639	1,192
Michigan	9	234	665	895	3,988	5,791
Minnesota	1	184	114	829	4,090	5,218
Mississippi		137	426	307	2,158	3,028
Missouri	3	93	229	584	3,963	4,872
Montana		59	70	107	1,297	1,533
Nebraska		200	231	479	3,148	4,058
Nevada		19	14	22	233	288
New Hampshire		7	148	43	305	503
New Jersey		77	178	172	1,435	1,862
New Mexico		20	61	55	679	815
New York		197	27	562	2,493	3,279
North Carolina		111	207	364	4,193	4,875
North Dakota	3	178	88	474	3,888	4,631
Ohio		272	983	615	4,843	6,713
Oklahoma		143	299	389	3,796	4,627
Oregon		133	274	269	1,667	2,343
Pennsylvania	129	552	1,029	795	3,094	5,599
Rhode Island		6	44	14	64	128
South Carolina	1	188	176	572	2,174	3,111
South Dakota		98	90	252	1,697	2,137
Tennessee		104	467	120	2,680	3,371
Texas	82	100	153	34	12,337	12,706
Utah	1	15	5	134	854	1,009
Vermont		36	28	63	369	496
Virginia		93	311	365	1,432	2,201
Washington		107	172	414	2,325	3,018
West Virginia		122	44	345	1,461	1,972
Wisconsin		314	767	410	3,408	4,899
Wyoming		27	32	38	433	530
Puerto Rico		6		2	16	24
Unknown						
Total	260	7,855	15,324	16,415	126,181	166,035

HIGHWAY SYSTEM CODES

CODE	SYSTEM	CODE	SYSTEM

01 Interstate 03 Federal-aid urban 08 Non-federal-aid

02 Federal-aid primary 04 Federal-air secondary

TABLE 41. TOTAL CROSSINGS BY HIGHWAY SYSTEM GROUP AND STATE, 1994

State	On-State	Off-State	Total
Alabama	274	3,734	4,008
Alaska	81	146	227
Arizona	52	889	941
Arkansas	551	2,774	3,325
California	325	7,663	7,988
Colorado	234	1,842	2,076
Connecticut	83	287	370
Delaware	238	31	269
Dist of Columbia.	36	1	37
Florida	458	3,619	4,077
Georgia	722	5,475	6,197
Hawaii		6	6
Idaho	119	1,437	1,556
Illinois	1,286	8,979	10,265
Indiana	606	6,072	6,678
Iowa	295	4,995	5,290
Kansas	418	7,494	7,912
Kentucky	766	1,873	2,639
Louisiana	847	2,923	3,770
Maine	171	711	882
Maryland	114	579	693
Massachusetts	45	1,147	1,192
Michigan	336	5,455	5,791
Minnesota	283	4,935	5,218
Mississippi	373	2,655	3,028
Missouri	705	4,167	4,872
Montana	234	1,299	1,533
Nebraska	308	3,750	4,058
Nevada	63	225	288
New Hampshire	112	391	503
New Jersey	176	1,686	1,862
New Mexico	179	636	815
New York	344	2,935	3,279
North Carolina	3,119	1,756	4,875
North Dakota	219	4,412	4,631
Ohio	903	5,810	6,713
Oklahoma	360	4,267	4,627
Oregon	142	2,201	2,343
Pennsylvania	1,790	3,809	5,599
Rhode Island	46	82	128
South Carolina	2,217	894	3,111
South Dakota	146	1,991	2,137
Tennessee	298	3,073	3,371
Texas	2,071	10,635	12,706
Utah	109	900	1,009
Vermont	111	385	496
Virginia	1,449	752	2,201
Washington	167	2,851	3,018
West Virginia	1,204	768	1,972
Wisconsin	383	4,516	4,899
Wyoming	73	457	530
Puerto Rico	19	5	24
Unknown			
Total	25,660	140,375	166,035

TABLE 42. CROSSINGS BY FUNCTIONAL CLASSIFICATION OF ROAD, 1994

Rural	Crossings	Urban	Crossings
Interstate	36	Interstate	144
Other principal arterial	1,193	Other freeway/expressway	372
Minor arterial	3,801	Other principal arterial	5,846
Major collector	11,290	Minor arterial	10,476
Minor collector	9,491	Collector	10,864
Local	75,463	Local	37,059
Total	101,274	Total	64,761

TABLE 43. TOTAL CROSSINGS BY NUMBER OF TRAFFIC LANES AND STATE, 1994

Number of Lanes

State	1	2	3	4	5	>5	Total
Alabama	785	2,991	23	190	 8	11	4,008
Alaska	12	197	2	14	2		227
Arizona	12	762	14	107	23	23	941
Arkansas	726	2,512	16	66	4		3,325
California	411	5,503	176	1,551	145	02	7,988
Colorado	172	1,718	22	148	10	6	2,076
Connecticut	5	330	16	17	2		370
Delaware	4	247	4	13		1	269
Dist of Columbia.	1	30	1	2	1	2	37
Florida	161	3,361	82	367	32	74	4,077
Georgia	1,190	4,747	29	211	12	8	6,197
Hawaii		6					6
Idaho	374	1,121	7	51	1	2	1,556
Illinois	2,058	7,471	58	641	15	22	10,265
Indiana	892	5,419	53	283	18	13	6,678
Iowa	621	4,449	36	178	5	1	5,290
Kansas	1,893	5,710	15	290	2	2	7,912
Kentucky	829	1,762	6	42			2,639
Louisiana	585	2,952	19	188	13	13	3,770
Maine	44	820	2	1	1		882
Maryland	73	561	8	4	3	4	693
Massachusetts	43	1,084	8	56	1		1,192
Michigan	349	4,828	74	456	51	33	5,791
Minnesota	869	4,026	17	252	3	1	5,791
Mississippi	381	2,535	9	98	2	3	3,028
Missouri	1,213	3,521	11	119	5	3	4,872
Montana	148	1,357	2	23	2	1	1,533
Nebraska	874	3,125	6	52	1		4,058
Nevada	78	183	1	25		1	288
New Hampshire	32	449	2	17	2	1	503
New Jersey	87	1,624	15	129	1	6	1,862
New Mexico	265	506	1	36	3	4	815
New York	307	2,838	19	110	2	3	3,279
North Carolina	270	4,362	36 1	185	12 1	10	4,875
North Dakota	1,041	3,565	49	23			4,631
Ohio	813	5,58		262	5 4	6	6,713
Oklahoma	890	3470	5	255	=	3	4,627
Oregon	271	1,918	47	81	24	2	2,343
Pennsylvania	859 2	4,416	119	177	2	26	5,599
Rhode Island	_	102		24		1.0	128
South Carolina	366	2,523	23	169	20	10	3,111
South Dakota	641	1,450		39	4	3	2,137
Tennessee	444	2,706	31	152	31	7	3,371
Texas	2,222	9,167	67	1,085	58	17	12,706
Utah	188	745	1	71	1	3	1,009
Vermont	108	376	5	7			496
Virginia	29	2,033	24	94	11	10	2,201
Washington	266	2,419	55	239	31	8	3,018
West Virginia	945	1,009	7	9	1	1	1,972
Wisconsin	174	4,455	11	242	1	16	4,899
Wyoming	10	392	2	28			530
Puerto Rico	1	23					24
Unknown			1 025				
Total	25,132	129,504	1,237	8,933	576	653	166,035

	Number of Traffic Lanes								
Warning device	1	2	3	4	5	>5	Total		
Gates	764	23,725	470	3,491	289	311	29,050		
Flashing lights	758	24,743	352	3,061	202	209	29,325		
Hwy. signals, wigwags, bells	132	1,248	45	193	15	28	1,661		
Special warning devices	319	3,944	107	375	27	26	4,798		
Stop signs	1,819	9,034	29	127	2	6	11,017		
Crossbucks	19,604	61,787	183	1,385	32	59	83,050		
Other signs	125	362	2	15		2	506		
No signs or signals	1,611	4,661	49	286	9	12	6,628		
Total	25,132	129,504	1,237	8,933	576	653	166,035		

TABLE 45. TOTAL CROSSINGS BY WARNING DEVICE CATEGORY AND STATE, 1994

Warning Device Category

			Hwy.Sig.		-	_		No Signs	
State	Gates	Flashing Lights	Wigwags Bells	Special	Stop Signs	Cross- Bucks	Other Signs	or Signals	Total
Alabama	292	640	20	47	1,007	1,696	7	299	4,008
Alaska	16	61		7	29	105		9	227
Arizona	349	71	4	57	98	336		26	941
Arkansas	305	460	25	78	168	2,153		136	3,325
California	3,116	1,038	307	114	341	2,882	15	175	7,988
Colorado	333	276	42	27	233	1,080	3	82	2,076
Connecticut	98	141	5	24	50	33		19	370
Delaware	44	148		28	3	33		13	269
Dist of Columbia.		4		4	10	15	1	3	37
Florida	2,065	682	14	97	162	983	7	67	4,077
Georgia	1,561	348	19	163	1,089	2,762	6	249	6,197
Hawaii					1	5			6
Idaho	99	200	9	8	519	676	1	44	1,556
Illinois	2,104	2,630	126	228	81	4,710	3	383	10,265
Indiana	1,152	1,674	101	176	732	2,707	8	128	6,678
Iowa	599	998	31	46	431	3,108	1	76	5,290
Kansas	857	696	60	199	238	5,715	2	145	7,912
Kentucky	365	814	14	57	50	1,177		162	2,639
Louisiana	432	707	27	44	271	1,995	14	280	3,770
Maine	71	388		80	18	325			882
Maryland	98	204	21	30	34	264	6	36	693
Massachusetts	197	462	30	212	5	232	3	51	1,192
Michigan	809	1,464	39	140	866	2,390	4	79	5,791
Minnesota	581	619	9	25	678	3,196	2	108	5,218
Mississippi	134	461	13	53	847	1,245	11	264	3,028
Missouri	477	1,003	69	94	137	2,855	1	236	4,872
Montana	160	188	1	13	83	1,058	1	29	1,533
Nebraska	568	305	12	15	281	2,759		118	4,058
Nevada	108	25	1	4	6	139		5	288
New Hampshire	31	146	11	108	50	133	7	17	503
New Jersey	402	659	17	236	18	407	2	121	1,862
New Mexico	193	95	5	9	13	474	5	21	815
New York	1,375	646	74	249	17	822	21	75	3,279
North Carolina	1,133	728	18	211	56	2,384	9	336	4,875
North Dakota	337	123	1	1	78	3,921		170	4,631
Ohio	1,498	1,452	44	78	183	3,354	5	99	6,713
Oklahoma	395	734	24	114	114	3,137	8	101	4,627
Oregon	548	141	46	91	453	894	44	126	2,343
Pennsylvania	744	1,265	109	653	141	1,946	279	462	5,599
Rhode Island	15	33	19	23	7	9		22	128
South Carolina	579	528		166	399	1,413	1	25	3,111
South Dakota	18	173	2		28	1,840		76	2,137
Tennessee	307	639	19	198	178	1,634	2	394	3,371
Texas	2,393	1,982	76	107	226	7,309	14	599	12,706
Utah	166	168	5	86	61	442	5	76	1,009
Vermont	27	196	3	44	25	199		2	496
Virginia	660	520	16	116	9	786	4	90	2,201
Washington	458	430	28	52	117	1,652	2	279	3,018
West Virginia	211	449	5	31	36	1,025	2	213	1,972
Wisconsin	464	1,384	135	136	308	2,391		81	4,899
Wyoming	102	126	4	1	32	244		21	530
Puerto Rico	4	1	1	18					24
Unknown									
Total	29,050	29,325	1,661	4,798	11,017	83,050	506	6,628	166,035

TABLE 46. TOTAL CROSSINGS BY WARNING DEVICE CATEGORY AND RAILROAD, 1994

		Hwy. Sig.						No Signs		
	Railroad	Gates	_	Wigwags Bells	Special	Stop Signs	Cross- Bucks	Other Signs	Or Signals	Total
ARR	Alaska Railroad Corporation	16	61	0	7	29	102	0	8	223
ALY	Allegheny and Eastern Railroad	7		1	0	9	51	4		106
ATK AM	Amtrak (National Railroad Passenger Corpora Arkansas & Missouri Railroad Company	144 5	10 33	0 4	5 3	6 42	11 154	4	5 10	185 251
AKMD	Arkansas Midland Railroad Company, Incorpor	2	29	5	3	2	125	0	13	179
ATSF	Atchison, Topeka & Santa Fe Railway Company	2,053	827	73	281	82	3,303	5	24	6,648
ASAB AUNW	Atlanta & Saint Andrews Bay Railway Company Austin & Northwestern Railroad	21 29	34 26	0	0	24 2	54 98	3	1 13	137 169
BAR	Bangor & Aroostook Railroad	4	89	0	8	11	53	0	0	165
BLE	Bessemer & Lake Erie Railroad Company	36	29	0	2	0	71	0	2	140
BM	Boston & Maine Corporation	173	198	17	174	27	225	4	48	866
BPRR BN	Buffalo & Pittsburgh Railroad, Incorporated Burlington Northern Railroad Company	37 2,667	78 2,482	4 83	11 216	1.107	181 12,127	1 14	6 453	322 19,149
CSP	Camas Prairie Railroad Company	5	7	0	0	11	77	0	6	106
CP	Canadian Pacific Railway Company	1		0	1	1	17	0	0	51
CIC CEDR	Cedar Rapids & Iowa City Railway Company Cedar River Railroad Company	1		0	7	1 7	46 128	0	6 0	96 160
CKRY	Central Kansas Railway, Incorporated	26	73	4	67	14	944	0	1	1,129
CMGN	Central Michigan Railway Company	13	120	5	4	53	133	0	4	332
CERA	Central Railroad Company Of Indianapolis	18	82	6	0	9	126	1	28	270
CV	Central Vermont Railway, Incorporated Chehalis Western	25	108	1	1	15 2	40	1	2	193
CHWE CNW	Chicago & North Western Transportation Comp	1 713	33 1,148	119	62	249	49 3,216	1	0 164	86 5,672
CMNW	Chicago Missouri & Western Railway	2	-	12	0	1	88	0	6	141
CC	Chicago, Central & Pacific Railroad Company	69	259	11	31	41	453	0	24	888
CAGY	Columbus & Greenville Railway Company	3	51	174	1 005	130	141	0	7	337
CR CSX	Consolidated Rail Corporation CSX Transportation	2,907 4,559	3,481 3,955	174 82	1,025 539	494 1,487	3,995 6,995	262 20	730 828	13,068 18,465
DME	Dakota, Minnesota & Eastern Railroad	14	107	3	0	48	603	0	30	805
DMVW	Dakota, Missouri Valley & Western Railroad,	1		1	1	5	266	0	7	287
DH	Delaware & Hudson Railway Company	143	83	3	1	3	71	5	2	311
DSRR DRGW	Delta Southern Railroad Company Denver & Rio Grande Western Railroad Compan	0 133	9 160	0 5	0	0 71	81 418	0	2 38	92 836
DOD	Department of Defense - Other	25	54	1	50	5	111	15	9	270
DM	Detroit & Mackinac Railway Company	0	57	3	0	91	208	0	0	359
DMIR	Duluth, Missabe & Iron Range Railway Compan	9	19	0	2	31	87	2	0	150
EIRR EJE	Eastern Idaho Railroad Elgin, Joliet & Eastern Railway Company	22 79	46 63	1 2	0 10	131 4	147 34	0	6 0	353 192
ELS	Escanaba & Lake Superior Railroad Company	4	64	1	45	4	146	1	2	267
FCEN	Florida Central Railroad Company	44	17	0	1	6	85	0	1	154
FEC	Florida East Coast Railway Company	599	30	0	27	3	46	0	9	714
FVW GWWR	Fox Valley & Western Ltd. Gateway Western Railway	36 7	255 44	23 20	14	60 7	333 142	0	6 4	727 224
GC	Georgia Central Railroad	36	11	3	0	37	133	0	0	220
GSWR	Georgia Southwestern Railroad Division	30	16	4	0	35	186	0	11	282
GNBC	Grainbelt Corporation	0	21	0	0	0	233	0	1	255
GTW GWR	Grand Trunk Western Railroad Incorporated Great Western Railway Company	386 2	263 5	4	46 0	219 6	243 67	0	3 1	1,164 85
GSMR	Gulf And Mississippi Railroad Corporation	1		0	1	90	465	2		645
HCRC	Hillsdale County Railway Company, Incorpora	0	25	1	0	6	95	0	0	127
HBT	Houston Belt & Terminal Railway Company	61	28	1	0	2	57	0	15	164
HESR INPR	Huron & Eastern Railway Idaho Northern & Pacific Railroad Company	2	18 7	0 1	0	14 50	170 52	0	3 2	207 112
IC	Illinois Central Railroad Company	361	613	16	66	433	1,144	3		2,824
IOCR	Indiana & Ohio Central Railroad, Incorporat	11	21	0	0	0	84	0	0	116
IHRC	Indiana Hi-Rail Corporation	11	47	9	1	10	153	1	4	236
INRD IAIS	Indiana Rail Road Company Iowa Interstate Railroad	11 97	111 103	28 8	0	75 75	223 196	0	11 0	459 479
IANR	Iowa Northern Railway Company	6	45	1	0	32	98	0	5	187
KBSR	Kankakee, Beaverville & Southern Railroad C	5	37	5	0	5	112	0	0	164
KCS	Kansas City Southern Railway Company	130	176	2	1	12	639	4		1,028
KCT	Kansas City Terminal Railway Company Kansas Southwestern Railway	2 15	17 36	2	0	0	50 353	1	7 4	79 409
KSW KRR	Kiamichi Railroad Company, Incorporated	15		0	3	16	353 190	0	2	408 234
KYLE	Kyle Railroad Company	2	25	0	2	28	429	0	10	496
LVRC	Lamoille Valley Railroad Company	1	22	0	0	0	61	0	0	84
LI	Long Island Rail Road	298	0 136	0	0	0	6 412	0	0	304 666
LA LDRR	Louisiana & Arkansas Railway Company Louisiana & Delta Railroad	59 22	136 9	1	0	36 26	123	0	23 27	666 208
MDTT	Maine Department Of Transportation	6	72	0	18	2	63	0	0	161
MDDE	Maryland & Delaware Railroad Company	0	17	0	0	1	66	1	7	92
MDT	Maryland Dept. Of Transportation	3	19	7	7	11	30	0	7	84

TABLE 46. TOTAL CROSSINGS BY WARNING DEVICE CATEGORY AND RAILROAD, CONT., 1994

				Hwy. Sig.					No Signs	
			Flashing			Stop	Cross-	Other	Or	
	Railroad	Gates	Lights	Bells	Special	Signs	Bucks	Signs	Signals	Total
XMBT	Mass. Bay Transporatation Authority	7	51	1	14	0	2	0	0	75
MRR	Mid-Atlantic Railroad Company, Incorporated	6	9	0	3	13	104	0	0	135
MMRR	Mid-Michigan Railroad Company	4	24	4	0	17	65	0	1	115
MSPA	Midd States Port Authority	14	31	1	0	12	340	0	6	404
MSRC	Midsouth Railroad Corporation (USE CODE KC	8	90	2	1	128	222	0	62	513
MNA	Missouri & Northern Arkansas Railroad Compa	26	87	5	13	12	256	0	11	410
MGA	Monongahela Railway Company	0	13	0	0	0	50	0	1	64
MRL	Montana Rail Link	52	68	1	0	41	280	0	7	449
MNVA	MNVA Railroad, Incorporated	0	2	0	0	22	76	0	3	103
NERR	Nashville & Eastern Railroad	0	31	0	3	5	133	0	27	199
NCRC	Nebraska Central Railroad	6	23	0	0	37	265	0	11	342
NJTR	New Jersey Transit Rail Operations	211	88	1	10	1	29	0	7	347
NOLR	New Orleans Lower Coast Railroad, Incorpora	0	6	0	1	15	16	0	7	45
NOPB	New Orleans Public Belt Railroad	5	19	0	1	4	27	8	36	100
XMTA	New York City Trans. Authority (MTA)	22	7	0	1	0	0	0	0	30
NYSW	New York, Susquehanna & Western Railroad Co	93	85	14	13	10	42	0	14	271
NS	Norfolk Southern Corporation	3,455	2,974	79	511	1,515	7,672	14	897	17,117
DTNC	North Carolina Department Of Transportation	4	12	0	8	5	55	0	8	92
NEKM	Northeast Kansas & Missouri	12	13	0	0	6	93	0	0	124
OHCR	Ohio Central Railroad Company	21	21	1	0	2	85	0	0	130
ODOT	Oklahoma Department Of Transportation	8	50	0	0	6	280	0	39	383
OKKT	Oklahoma Kansas & Texas Railroad Company	9	22	0	0	2	87	0	2	122
PAL	Paducah & Louisville Railway Company	19	103	4	0	10	120	0	3	259
PLE	Pittsburgh & Lake Erie Railroad Company	14	8	1	3	4	53	0	14	97
PARY	Prairie Trunk Railway	1	19	0	0	0	143	0	6	169
PW	Providence & Worcester Railroad Company	31	90	7	20	9	21	0	18	196
RRVW	Red River Valley & Western Railroad	24	21	0	0	5	662	0	49	761
SGLR	Seminole Gulf Railroad	58	34	0	1	19	51	0	3	166
S00	Soo Line Railroad Company	496	592	36	58	354	2,548	0	187	4,271
SCRF	South Carolina Central Railroad Company, In	4	23	0	17	29	55	0	4	132
SDRR	South Dakota Railroad Authority	2	10	0	0	3	271	0	35	321
SKOL	South Kansas & Oklahoma Railroad Company	20	61	13	0	8	257	0	0	359
SO	South Orient Railroad Company, Ltd.	5	34	1	0	1	137	0	0	178
SEPA	Southeastern Pennsylvania Transportation Au	50	77	21	18	17	32	2	45	262
SP	Southern Pacific Transportation Company	2,764	960	250	34	403	3,287	13	379	8,090
SSWN	Southern Pacific, Chicago-St. Louis Corpora	108	84	2	11	0	61	0	3	269
ST	Springfield Terminal Railway Company (Vermo	65	188	1	41	18	116	0	0	429
SSW	St. Louis Southwestern Railway Company	269	264	8	10	126	1,237	0	111	2,025
SUB	State Subsidy	5	88	22	16	11	88	10	7	247
TSRR	Tennessee Southern Railroad Company, Incorp	2	20	1	0	25	66	0	20	134
TRRA	Terminal Railroad Association Of St. Louis	45	14	0	56	3	20	0	3	141
TXOR	Texas & Oklahoma Railroad Company	3	27	0	0	0	310	0	0	340
TM	Texas Mexican Railway Company	1	62	0	11	6	151	0	8	239
TNER	Texas Northeastern DivisionMid-Michigan R	5	37	1	0	0	173	0	0	216
TPW	Toledo, Peoria & Western Railway Corporatio	7	125	4	0	2	295	0	5	438
TVRR	Tulare Valley Railroad Company	70	39	19	0	5	188	1	2	324
TSBY	Tuscola & Saginaw Bay Railroad Company, Inc	3	80	3	1	52	419	2	8	568
TCWR	Twin City & Western Railroad	17	20	0	0	21	78	0	2	138
UP	Union Pacific Railroad Company	2,865	2,419	108	200	867	8,972	25		16,292
VTR	Vermont Railway, Incorporated	2	40	0	6	10	37	0	0	95 356
WCRC	Washington Central Railroad Company	26	43	4	0	9	252	0	22	356
WE	Wheeling & Lake Erie Railway Company	48	167	3	2	25	345	0	6	596
WSOR	Wisconsin & Southern Railroad Company Wisconsin Central Ltd. (also Railway)	152	167	21	8	20	376	0	7	1 005
WC	* * * * * * * * * * * * * * * * * * * *	153	537	16	24	140	1,098	0	17	1,985
יי דאואד ייי	All Other Railroads	1,687	2,807	242	926	1,412	9,038	73 506	738	16,923
FINAL T	OTHIO	29,050	29,325	1,661	4,798	11,017	83,050	506	6,628	166,035

TABLE 47. TOTAL CROSSINGS BY PAVEMENT MARKINGS AND STATE, 1994

	Stop	RR X-ing		N	one	
State	Lines	Symbol	Both	Paved	Unpaved	Total
Alabama	36	132	201	2,713	926	4,008
Alaska	9	11	55	65	87	227
Arizona	23	24	410	249	235	941
Arkansas	56	114	322	1,667	1,166	3,325
California	999	201	4,718	1,770	300	7,988
Colorado	21	38	261	999	757	2,076
Connecticut	12	13	254	90	1	370
Delaware	6	36	120	100	7	269
Dist of Columbia.			23	14		37
Florida	274	370	1,849	1,147	437	4,077
Georgia	64	102	2,807	1,655	1,569	6,197
Hawaii	2			4		6
Idaho	15	5	262	694	580	1,556
Illinois	80	164	1,267	4,322	4,432	10,265
Indiana	69	271	1,236	4,218	884	6,678
Iowa	53	150	530	2,034	2,523	5,290
Kansas	7	21	888	2,072	4,924	7,912
Kentucky	44	328	734	903	630	2,639
Louisiana	44	209	560	2,027	930	3,770
Maine	3	3	569	228	79	882
Maryland	10	25	254	360	44	693
Massachusetts	55	45	125	933	34	1,192
Michigan	70	277	1,363	2,652	1,429	5,791
Minnesota	126	180	463	1,853	2,596	5,218
Mississippi	27	45	483	1,616	857	3,028
Missouri	65	110	558	2,070	2,069	4,872
Montana	5	17	158	396	957	1,533
Nebraska	35	274	189	974	2,586	4,058
Nevada	6	4	115	64	99	288
New Hampshire	10	28	59	354	52	503
New Jersey	39	232	250	1,252	89	1,862
New Mexico	5	29	44	339	398	815
New York	125	216	435	2,225	278	3,279
North Carolina	46	33	3,615	570	611	4,875
North Dakota	17	29	137	595	3,853	4,631
Ohio	442	600	3,292	1,923	456	6,713
Oklahoma	31	96	194	2,222	2,084	4,627
Oregon	353	905	142	503	440	2,343
Pennsylvania	66	351	156	4,416	610	5,599
Rhode Island			80	48		128
South Carolina	91	112	1,110	1,353	445	3,111
South Dakota	30	12	132	540	1,423	2,137
Tennessee	20	115	919	1,787	530	3,371
Texas	5	10	6,346	3,107	3,238	12,706
Utah	21	31	182	546	229	1,009
Vermont	36	10	88	214	148	496
Virginia	91	128	982	764	236	2,201
Washington	127	72	567	1,646	606	3,018
West Virginia	18	12	87	1,212	643	1,972
Wisconsin	77	34	714	3,551	523	4,899
Wyoming	7	21	53	156	293	530
Puerto Rico	3	7		12	2	24
Unknown						
Total	3,876	6,252	40,358	67,224	48,325	166,035

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

TABLE 48. CROSSINGS BY RAILROAD ADVANCE WARNING AND STATE, 1994

State	Yes	No	Total
Alabama	853	3,155	4,008
Alaska	164	63	227
Arizona	573	368	941
Arkansas	913	2,412	3,325
California	6,425	1,563	7,988
Colorado	1,108	968	2,076
Connecticut	326	44	370
Delaware	229	40	269
Dist of Columbia.	22	15	37
Florida	2,553	1,524	4,077
Georgia	3,190	3,007	6,197
Hawaii	1	5	6
Idaho	1,021	535	1,556
Illinois	5,317	4,948	10,265
Indiana	5,653	1,025	6,678
Iowa	3,614	1,676	5,290
Kansas	4,265	3,647	7,912
Kentucky	1,527	1,112	2,639
Louisiana	2,444	1,326	3,770
Maine	870	12	882
Maryland	447	246	693
Massachusetts	882	310	1,192
Michigan	4,727	1,064	5,791
Minnesota	3,396	1,822	5,218
Mississippi	747	2,281	3,028
Missouri	1,444	3,428	4,872
Montana	971	562	1,533
Nebraska	2,893	1,165	4,058
Nevada	224	64	288
New Hampshire	297	206	503
New Jersey	963	899	1,862
New Mexico	177	638	815
New York	2,593	686	3,279
North Carolina	3,775	1,100	4,875
North Dakota	1,703	2,928	4,631
Ohio	4,525	2,188	6,713
Oklahoma	1,518	3,109	4,627
Oregon	1,016	1,327	2,343
Pennsylvania	2,069	3,530	5,599
Rhode Island	81	47	128
South Carolina	2,177	934	3,111
South Dakota	1,407	730	2,137
Tennessee	2,088	1,283	3,371
Texas	10,011	2,695	12,706 1,009
Utah Vermont	590	419	496
	409	87	
Virginia	1,673	528	2,201
Washington	2,188	830	3,018
West Virginia	463	1,509	1,972 4,899
Wisconsin	3,244 290	1,655 240	530
Wyoming Puerto Rico	290 17	240 7	24
Unknown	<u> </u>		24
Total	100,073	65,962	166,035
10tal	100,073	05,504	100,035

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

TABLE 49. CROSSINGS MEETING THE MANUAL ON UNIFORM TRAFFIC

CONTROL DEVICES' STANDARD FOR CROSSBUCKS BY STATE, 1994

	Active	X-buck meet	standards	
State	Warning	Yes	No	Total
Alabama	952	1,866	1,190	4,008
Alaska	77	113	37	227
Arizona	424	405	112	941
Arkansas	790	1,796	739	3,325
California	4,461	1,614	1,913	7,988
Colorado	651	1,057	368	2,076
Connecticut	244	88	38	370
Delaware	192	53	24	269
Dist of Columbia.	4	20	13	37
Florida	2,761	950	366	4,077
Georgia	1,928	3,590	679	6,197
Hawaii		4	2	6
Idaho	308	908	340	1,556
Illinois	4,860	4,214	1,191	10,265
Indiana	2,927	3,160	591	6,678
Iowa	1,628	2,810	852	5,290
Kansas	1,613	2,854	3,445	7,912
Kentucky	1,193	1,125	321	2,639
Louisiana	1,166	2,043	561	3,770
Maine	459	410	13	882
Maryland	323	195	175	693
Massachusetts	689	296	207	1,192
Michigan	2,312	3,130	349	5,791
Minnesota	1,209	3,690	319	5,218
Mississippi	608	1,524	896	3,028
Missouri	1,549	1,779	1,544	4,872
Montana	349	951	233	1,533
Nebraska	885	2,783	390	4,058
Nevada	134	91	63	288
New Hampshire	188	210	105	503
New Jersey	1,078	324	460	1,862
New Mexico	293	295	227	815
New York	2,095	838	346	3,279
North Carolina	1,879	1,700	1,296	4,875
North Dakota	461	2,854	1,316	4,631
Ohio	2,994	2,569	1,150	6,713
Oklahoma	1,153	1,968	1,506	4,627
Oregon	735	1,101	507	2,343
Pennsylvania	2,118	1,259	2,222	5,599
Rhode Island	67	2	59	128
South Carolina	1,107	1,858	146	3,111
South Dakota	193	1,762	182	2,137
Tennessee	965	1,149	1,257	3,371
Texas	4,451	3,797	4,458	12,706
Utah	339	471	199	1,009
Vermont	226	254	16	496
Virginia	1,196	687	318	2,201
Washington	916	1,210	892	3,018
West Virginia	665	706	601	1,972
Wisconsin	1,983	2,471	445	4,899
Wyoming	232	186	112	530
Puerto Rico	6	6	12	24
Unknown				
Total	60,036	71,196	34,803	166,035

NOTE: The manual requires two reflectorized cross-bucks to be placed at all crossings.

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

TABLE 50. TOTAL CROSSINGS BY TOTAL NUMBER OF TRAINS PER DAY, 1994

Trains	Crossings
<1	25,356
1-5	71,273
6-10	28,329
11-15	12,173
16-20	10,568
21-25	6,041
26-30	3,984
31-35	2,079
36-40	1,378
41-45	959
46-50	937
51-55	927
56-60	708
61-65	294
66-70	146
71-75	219
76-80	177
81-85	51
86-90	23
91-95	121
96-100	56
>100	236
Total	166,035

TABLE 51. TOTAL CROSSINGS BY NUMBER OF THRU TRAINS AND SWITCHING TRAINS PER DAY, 1994

Switching				Tì	hrough Trains				
Trains	<1	1-2	3-5	6-10	11-15	16-20	21-25	>25	Total
<1	25,356	25,496	11,039	11,415	4,974	4,691	2,609	4,078	89,658
1-2	17,416	9,222	5,881	6,695	2,796	2,488	695	2,276	47,469
2-3	5,405	1,723	2,152	2,990	1,446	923	376	1,320	16,335
6-10	2,439	723	761	1,386	937	936	380	816	8,378
11-15	426	109	118	249	121	58	81	849	2,011
16-20	432	95	93	134	178	79	94	141	1,246
21-25	105	37	24	36	37	16	24	57	336
>25	187	62	42	79	70	42	34	86	602
Total	51,766	37,467	20,110	22,984	10,559	9,233	4,293	9,623	166,035

TABLE 52. TOTAL CROSSINGS BY NUMBER OF DAY AND NIGHT TRAINS PER DAY, 1994

Day	Night Trains								
Trains	<1	1-2	3-5	6-10	11-15	16-20	21-25	>25	Total
<1	25,356	6,811	933	159	7	7	4	7	33,284
1-2	26,423	25,884	2,967	399	20	10	2	3	55,708
2-3	4,445	9,293	15,646	1,824	155	33	37	2	31,435
6-10	1,378	2,167	6,152	13,875	1,705	94	42	14	25,427
11-15	184	238	743	3,720	4,909	581	22	19	10,416
16-20	80	39	294	607	1,237	1,776	289	45	4,367
21-25	40	26	28	94	358	218	982	172	1,918
>25	73	11	54	148	267	286	768	1,873	3,480
Total	57,979	44,469	26,817	20,826	8,658	3,005	2,146	2,135	166,035

TABLE 53. CROSSINGS BY NUMBER OF TRAINS PER DAY AND WARNING DEVICE, 1994

				Number	of Trains	Per Day			
Warning device	<1	1-2	3-5	6-10	11-15	16-20	21-25	>25	Total
Gates	1,043	2,662	3,080	5,407	3,518	4,132	2,841	6,367	29,050
Flashing lights	3,321	7,110	5,267	6,552	2,653	2,018	925	1,479	29,325
Hwy. signals, wigwags, bells	217	414	304	295	143	102	38	148	1,661
Special warning devices	1,881	1,566	561	405	134	106	35	110	4,798
Stop signs	939	2,911	2,130	2,246	760	818	377	836	11,017
Crossbucks	15,471	27,591	14,394	12,708	4,738	3,229	1,766	3,153	83,050
Other signs	153	167	80	58	12	16	3	17	506
No signs or signals	2,331	2,179	857	658	215	147	56	185	6,628
Total	25,356	44,600	26,673	28,329	12,173	10,568	6,041	12,295	166,035

TABLE 54. TOTAL CROSSINGS BY NUMBER OF TRAINS PER DAY AND ANNUAL AVERAGE DAILY TRAFFIC, 1994

		Average Annual Daily Traffic						
	1-	251-	501-	1,001-	5,001-	>		
Trains	250	500	1,000	5,000	10,000	10,000	Total	
<1	10,823	3,013	2,872	5,569	1,831	1,248	25,356	
1-2	21,774	5,238	4,805	8,555	2,484	1,744	44,600	
2-3	12,049	3,230	2,937	5,455	1,674	1,328	26,673	
6-10	12,621	3,419	3,227	5,957	1,747	1,358	28,329	
11-15	5,319	1,314	1,369	2,731	819	621	12,173	
16-20	4,244	1,259	1,233	2,459	804	569	10,568	
21-25	2,378	662	696	1,442	471	392	6,041	
>25	5,047	1,332	1,310	2,755	1,029	822	12,295	
Total	74,255	19,467	18,449	34,923	10,859	8,082	166,035	

TABLE 55. CROSSINGS BY MAXIMUM TIMETABLE SPEED, 1994

Timetable							
Speed	Crossings						
1-5	5,507						
6-10	30,282						
11-15	8,534						
16-20	13,050						
21-25	21,807						
26-30	16,524						
31-35	10,197						
36-40	17,080						
41-45	3,806						
46-50	13,844						
51-55	2,908						
56-60	10,191						
61-65	1,271						
66-70	4,699						
71-75	515						
76-80	5,253						
81-85	1						
86-90	464						
91-95	1						
96-100	8						
>100	93						
Total	166,035						

TABLE 56. TOTAL CROSSINGS BY TYPICAL TRAIN SPEED VARIATION, 1994

Speed							
Variation	Crossings						
<1	12 002						
1-5	13,882						
	43,065						
6-10	37,082						
11-15	17,116						
16-20	16,651						
21-25	10,197						
26-30	8,554						
31-35	4,457						
36-40	4,625						
41-45	2,339						
46-50	3,249						
51-55	786						
56-60	1,895						
61-65	643						
66-70	342						
71-75	374						
76-80	648						
81-85	13						
86-90	2						
91-95							
96-100							
>100	115						
Total	166,035						
10041	100,000						

TABLE 57. TOTAL CROSSINGS BY ANNUAL AVERAGE DAILY TRAFFIC, 1994

AADT	Crossings
1-100	52,014
101-200	15,340
201-300	11,854
301-400	7,388
401-500	7,126
501-600	4,652
601-700	3,549
701-800	4,027
801-900	2,625
901-1,000	3,596
1,001-2,000	15,992
2,001-3,000	8,724
3,001-4,000	5,489
4,001-5,000	4,718
5,001-6,000	3,029
6,001-7,000	2,307
7,001-8,000	2,232
8,001-9,000	1,602
9,001-10,000	1,689
10,001-20,000	6,142
>20,000	1,940
Total	166,035

TABLE 58. TOTAL CROSSINGS BY ANNUAL AVERAGE DAILY TRAFFIC AND WARNING DEVICE CATEGORY, 1994

				Annual Averag	e Daily Traffi	lc	
		251-	501-	1,001-	5,001-	>	
Warning device	1-250	500	1,000	5,000	10,000	10,000	Total
Gates	4,039	3,048	3,771	10,404	4,161	3,627	29,050
Flashing lights	3,969	3,396	4,454	10,930	3,735	2,841	29,325
Hwy. signals, wigwags, bells	433	191	202	450	207	178	1,661
Special warning devices	992	591	649	1,568	562	436	4,798
Stop signs	6,434	1,761	1,264	1,343	161	54	11,017
Crossbucks	54,737	9,579	7,307	8,947	1,688	792	83,050
Other signs	209	84	82	95	24	12	506
No signs or signals	3,442	817	720	1,186	321	142	6,628
Total	74,255	19,467	18,449	34,923	10,859	8,082	166,035

TABLE 59. TOTAL CROSSINGS BY TRUCK TRAFFIC AS A PERCENTAGE OF ANNUAL AVERAGE DAILY TRAFFIC, 1994

%	Crossings
<1	6 007
	6,087
1-5	76,171
6-10	50,153
11-15	15,592
16-20	8,300
21-25	2,135
26-30	4,646
31-35	497
36-40	962
41-45	101
46-50	900
51-55	19
56-60	157
61-65	9
66-70	47
71-75	108
76-80	70
81-85	10
86-90	52
91-95	2
96-99	17
Total	166,035

TABLE 60: TOTAL CROSSINGS BY CROSSING SURFACE, 1994

Alabama 193 384 Alaska 11 97 Arizona 180 176 Arkansas 793 250 California 822 1,284 Colorado 703 415 Connecticut 109 0 Delaware 7 5 Dist Of Columbia 6 1 Florida 1,216 50 Georgia 120 125 Hawaii 0 0 0 Idaho 232 742 Illinois 1,890 1,473 Indiana 823 98 Iowa 125 1,198 Kansas 2,253 2,369 Kentucky 306 313 Louisiana 690 586 Maine 53 215 Maryland 207 73	2,974 57 394 1,618 5,519 608 115 195 25 2,088 5,409 6 439 4,831 5,117 2,201 1,137 1,458	5 10 2 24 80 30 2 14 0 300 15 0 19 39 22	1 0 1 8 30 4 0 2 5 33 16 0 1 38 14	20 40 124 12 96 131 142 44 0 235 16 0	2 0 0 2 0 7 2 0 0 7 1	1 0 0 2 0 23 0 0 0 1 1	424 1 62 612 129 144 0 1 0 108 492	4 11 2 4 28 11 0 1 0 39
Arizona 180 176 Arkansas 793 250 California 822 1,284 Colorado 703 415 Connecticut 109 0 Delaware 7 5 Dist Of Columbia 6 1 Florida 1,216 50 Georgia 120 125 Hawaii 0 0 Idaho 232 742 Illinois 1,890 1,473 Indiana 823 98 Iowa 125 1,198 Kansas 2,253 2,369 Kentucky 306 313 Louisiana 690 586 Maine 53 215	394 1,618 5,519 608 115 195 25 2,088 5,409 6 439 4,831 5,117 2,201 1,137	2 24 80 30 2 14 0 300 15 0 19 39	1 8 30 4 0 2 5 33 16 0 1	124 12 96 131 142 44 0 235 16 0	0 2 0 7 2 0 0 0 7 1	0 2 0 23 0 0 0 0	62 612 129 144 0 1 0 108 492	2 4 28 11 0 1 0 39 2
Arkansas 793 250 California 822 1,284 Colorado 703 415 Connecticut 109 0 Delaware 7 5 Dist Of Columbia 6 1 Florida 1,216 50 Georgia 120 125 Hawaii 0 0 Idaho 232 742 Illinois 1,890 1,473 Indiana 823 98 Iowa 125 1,198 Kansas 2,253 2,369 Kentucky 306 313 Louisiana 690 586 Maine 53 215	1,618 5,519 608 115 195 25 2,088 5,409 6 439 4,831 5,117 2,201 1,137	24 80 30 2 14 0 300 15 0 19 39	8 30 4 0 2 5 33 16 0 1	12 96 131 142 44 0 235 16 0	2 0 7 2 0 0 7 1	2 0 23 0 0 0 0	612 129 144 0 1 0 108 492	4 28 11 0 1 0 39 2
California 822 1,284 Colorado 703 415 Connecticut 109 0 Delaware 7 5 Dist Of Columbia 6 1 Florida 1,216 50 Georgia 120 125 Hawaii 0 0 Idaho 232 742 Illinois 1,890 1,473 Indiana 823 98 Iowa 125 1,198 Kansas 2,253 2,369 Kentucky 306 313 Louisiana 690 586 Maine 53 215	5,519 608 115 195 25 2,088 5,409 6 439 4,831 5,117 2,201 1,137	80 30 2 14 0 300 15 0 19 39	30 4 0 2 5 33 16 0 1	96 131 142 44 0 235 16 0	0 7 2 0 0 7 1	0 23 0 0 0 1	129 144 0 1 0 108 492	28 11 0 1 0 39 2
Colorado 703 415 Connecticut 109 0 Delaware 7 5 Dist Of Columbia 6 1 Florida 1,216 50 Georgia 120 125 Hawaii 0 0 Idaho 232 742 Illinois 1,890 1,473 Indiana 823 98 Iowa 125 1,198 Kansas 2,253 2,369 Kentucky 306 313 Louisiana 690 586 Maine 53 215	608 115 195 25 2,088 5,409 6 439 4,831 5,117 2,201 1,137	30 2 14 0 300 15 0 19 39	4 0 2 5 33 16 0 1	131 142 44 0 235 16 0 30	7 2 0 0 7 1	23 0 0 0 1 1	144 0 1 0 108 492	11 0 1 0 39 2
Connecticut 109 0 Delaware 7 5 Dist Of Columbia 6 1 Florida 1,216 50 Georgia 120 125 Hawaii 0 0 Idaho 232 742 Illinois 1,890 1,473 Indiana 823 98 Iowa 125 1,198 Kansas 2,253 2,369 Kentucky 306 313 Louisiana 690 586 Maine 53 215	115 195 25 2,088 5,409 6 439 4,831 5,117 2,201 1,137	2 14 0 300 15 0 19 39	0 2 5 33 16 0 1	142 44 0 235 16 0	2 0 0 7 1	0 0 0 1 1	0 1 0 108 492	0 1 0 39 2
Delaware 7 5 Dist Of Columbia 6 1 Florida 1,216 50 Georgia 120 125 Hawaii 0 0 Idaho 232 742 Illinois 1,890 1,473 Indiana 823 98 Iowa 125 1,198 Kansas 2,253 2,369 Kentucky 306 313 Louisiana 690 586 Maine 53 215	195 25 2,088 5,409 6 439 4,831 5,117 2,201 1,137	14 0 300 15 0 19 39 22	2 5 33 16 0 1 38	44 0 235 16 0 30	0 0 7 1	0 0 1 1	1 0 108 492	1 0 39 2
Dist Of Columbia 6 1 Florida 1,216 50 Georgia 120 125 Hawaii 0 0 Idaho 232 742 Illinois 1,890 1,473 Indiana 823 98 Iowa 125 1,198 Kansas 2,253 2,369 Kentucky 306 313 Louisiana 690 586 Maine 53 215	25 2,088 5,409 6 439 4,831 5,117 2,201 1,137	0 300 15 0 19 39 22	5 33 16 0 1 38	0 235 16 0 30	0 7 1 0	0 1 1	0 108 492	0 39 2
Florida 1,216 50 Georgia 120 125 Hawaii 0 0 Idaho 232 742 Illinois 1,890 1,473 Indiana 823 98 Iowa 125 1,198 Kansas 2,253 2,369 Kentucky 306 313 Louisiana 690 586 Maine 53 215	2,088 5,409 6 439 4,831 5,117 2,201 1,137	300 15 0 19 39 22	33 16 0 1 38	235 16 0 30	7 1 0	1	108 492	39
Georgia 120 125 Hawaii 0 0 Idaho 232 742 Illinois 1,890 1,473 Indiana 823 98 Iowa 125 1,198 Kansas 2,253 2,369 Kentucky 306 313 Louisiana 690 586 Maine 53 215	5,409 6 439 4,831 5,117 2,201 1,137	15 0 19 39 22	16 0 1 38	16 0 30	1	1	492	2
Hawaii 0 0 Idaho 232 742 Illinois 1,890 1,473 Indiana 823 98 Iowa 125 1,198 Kansas 2,253 2,369 Kentucky 306 313 Louisiana 690 586 Maine 53 215	6 439 4,831 5,117 2,201 1,137	0 19 39 22	0 1 38	0 30	0			
Idaho 232 742 Illinois 1,890 1,473 Indiana 823 98 Iowa 125 1,198 Kansas 2,253 2,369 Kentucky 306 313 Louisiana 690 586 Maine 53 215	439 4,831 5,117 2,201 1,137	19 39 22	1 38	30		0	_	
Illinois 1,890 1,473 Indiana 823 98 Iowa 125 1,198 Kansas 2,253 2,369 Kentucky 306 313 Louisiana 690 586 Maine 53 215	4,831 5,117 2,201 1,137	39 22	38		0		0	0
Indiana 823 98 Iowa 125 1,198 Kansas 2,253 2,369 Kentucky 306 313 Louisiana 690 586 Maine 53 215	5,117 2,201 1,137	22			U	0	82	11
Iowa 125 1,198 Kansas 2,253 2,369 Kentucky 306 313 Louisiana 690 586 Maine 53 215	2,201 1,137		1.4	864	7	7	1,094	22
Kansas 2,253 2,369 Kentucky 306 313 Louisiana 690 586 Maine 53 215	1,137	10	14	383	9	0	209	3
Kansas 2,253 2,369 Kentucky 306 313 Louisiana 690 586 Maine 53 215	1,137		10	312	1	2	1,328	103
Kentucky 306 313 Louisiana 690 586 Maine 53 215		57	34	123	7	1	1,921	10
Louisiana 690 586 Maine 53 215	,	1	4	74	1	3	479	0
Maine 53 215	1,492	105	7	471	1	4	413	1
	598	0	0	9	0	0	7	0
riary rana 207 75	325	0	6	62	0	0	17	3
Massachusetts 64 29	992	8	0	84	0	0	15	0
Michigan 1,390 424	3,044	11	10	434	90	1	369	18
Minnesota 267 2,577	1,785	17	10	258	0	1	289	14
Mississippi 160 369	1,577	10	4	138	1	1	766	2
Missouri 1,511 751	1,604	18	3	80	2	1	884	18
Montana 25 1,149	285	17	2	10	0	8	20	17
Nebraska 861 733	642	119	40	56	2	2	1,588	15
Nevada 46 55	90	24	1	21	1	2	40	8
New Hampshire 12 57	419	1	0	7	0	0	6	1
New Jersey 154 8	1,428	12	16	83	0	58	68	35
New Mexico 449 186	49	12	2	31	0	0	97	0
New York 417 157	2,287	8	15	283	0	2	94	16
North Carolina 22 47	4,448	6	12	32	1	1	300	6
North Dakota 126 3,551	476	19	2	39	0	2	412	4
Ohio 1,910 174	4,272	11	14	133	0	2	179	18
Oklahoma 1,663 546	1,113	57	15	45	1	6	1,171	10
Oregon 487 119	1,336	14	21	60	0	0	44	262
Pennsylvania 967 77	3,781	59	244	95	1	16	355	4
Rhode Island 1 1	79	0	10	36	0	1	0	0
South Carolina 37 10	2,906	34	3	6	0	1	106	8
South Dakota 13 1,424	444	1	1	118	0	0	86	50
Tennessee 105 239	2,690	5	5	106	3	0	212	6
Texas 4,631 1,208	4,377	239	103	293	5	18	1,830	2
Utah 221 237	383	45	5	25	3	2	84	4
Vermont 34 43	331	0	1	11	0	0	75	1
Virginia 230 54	1,739	6	2	14	4	10	125	17
Washington 127 1,245	1,358	76	8	170	0	0	30	4
West Virginia 838 11	759	2	3	10	0	1	346	2
Wisconsin 71 368	3,922	7	25	263	1	1	240	1
Wyoming 44 199	138	2	1	22	0	0	118	6
Puerto Rico 0 0	22	0	0	0	0	0	2	0
FINAL TOTALS 27,622 25,902	85,382	1,564	792	6,151				

TABLE 61. TOTAL CROSSINGS BY MAXIMUM TIME TABLE SPEED, WARNING DEVICE CATEGORY AND NUMBER OF TRACKS, 1994

SINGLE TRACK					MAXIM	UM TIME	TABLE	SPEED						
WARNING DEVICES	00-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	101-110	>110	T	OTAL
GATES	1263	1695	2441	2266	1975	1586	114	 5 96	6	 40	4	1	0	13382
FLASHING LIGHTS	4495	3083	5367	3578	2480					12	0	0	0	21042
HWY. SIGNALS, WIGWAGS, BELLS	376	171	214	128	52	59) 1:	1	8	1	0	1	0	1021
SPECIAL WARNING DEVICES	2297	541	274	83	54	19) 13	3 2	1 :	12	2	0	0	3316
STOP SIGNS	1149	841	1987	1673	1068	711	. 26	7 30	8	2	0	0	0	8006
CROSSBUCKS	12878	7325	17309	11875	6389	4621	. 956	5 108	8 1:	22	0	1	0	62564
OTHER SIGNS	177	94	62	15	12	C) :	2	3	0	0	0	0	365
NO SIGNS OR SIGNALS	2669	987	792	314	141	110	3	7 2	0	4	0	0	0	5074
TOTAL	25304	14737	28446	19932	12171	8523	275	7 269	8 1	93	6	3	0	114770
MULTIPLE TRACKS					MAXIM	UM TIME	TABLE	SPEED						
WARNING DEVICES	00-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	101-110	>110	T	OTAL
GATES	970	1521	2470	2437	2319	2083	1892	2 182	9 1	13	2	2	0	15668
FLASHING LIGHTS	1793	1244	1905	1405	886				7	8	0	0	0	8283
HWY. SIGNALS, WIGWAGS, BELLS	177	97	150	79	39			7 1	5	4	0	0	0	640
SPECIAL WARNING DEVICES	974	235	150	46	27			7 1	_	3	1	0	0	1482
STOP SIGNS	520	386	558	484	378					2	0	0	0	3011
CROSSBUCKS	5237	3007	4462	2801	1765	1472	84	7 78	3 1	12	0	0	0	20486
OTHER SIGNS	53	32	24	16	14) :	2	0	0	0	0	0	141
NO SIGNS OR SIGNALS	849	325	166	77	51					0	0	0	0	1554
TOTAL	10573	6847	9885	7345	5479	4576	3213	3 307	0 2'	72	3	2	0	51265
ALL CROSSINGS					MAXIM	UM TIME	TABLE	SPEED						
WARNING DEVICES	00-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	101-110	>110	T	OTAL
GATES	2233	3216	4911	4703						 33	6 6	3	0	29050
FLASHING LIGHTS	6288	4327	7272	4703						20	0	0	0	29050
	553	268	364	200						5	0	1	0	1661
HWY. SIGNALS, WIGWAGS, BELLS	3271	776	424	129						5 15	3	0	0	4798
SPECIAL WARNING DEVICES									-			0	-	
STOP SIGNS	1669	1227	2545	2157						4	0	-	0	11017
CROSSBUCKS	18115	10332		14676						34	0	1	0	83050
OTHER SIGNS	230	126	86	31					3	0	0	0	0	506
NO SIGNS OR SIGNALS	3518	1312	958	391						4	0	0	0	6628
TOTAL	35877	21584	38331	2727	7 17650	13099	5970	576	8 4	55	9	5	U	166035

TABLE 62. (MV) ACCIDENTS/INCIDENTS AT PRIVATE HIGHWAY-RAIL CROSSINGS, BY TYPE OF CONSIST, 1994

		Freight	t	Pa	assenge	er	-Yard	d Swite	ching		-Other	
State	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
Alabama	14		4				2					
Alaska												
Arizona	5	1	1									
Arkansas	4	1								1	1	
California	16	6	4	8	2		5		3	3	1	1
Colorado	7	2	1				1			1		
Connecticut	1		1	4		4				1		1
Delaware Dist. of Columbia												
-1 '1	-	1	0			-	0					
Florida	7	1	2	1		1	2					
Georgia	10	1	3	1			2		1			
Idaho	5		1							1		1
Illinois	12	4	2	2		1	7		1	7		4
Indiana	5	2	5	2			1		1	1		
Iowa							2					
Kansas	1		1				1			1		
Kentucky	14		6				2					
Louisiana	11		4	2	1		1			5		5
Maine	2		1				1					
Maryland	1											
Massachusetts	2			1						1		
Michigan	2			1	1	6	1			1		
Minnesota	4		1				6					
Mississippi	10		4	1			2					
Missouri	8	1	2	1								
Montana	6	1	1	1			1					
Nebraska	4						1			1		
Nevada	1											
New Hampshire	1											
New Jersey							1			2		
New Mexico	2			1								
New York	8		2	1						1		
North Carolina	9		2	2			1			1	1	
North Dakota	2											
Ohio	10	1	3				1					
Oklahoma	6	1	4				2			1		
Oregon	2	1					4		1			
Pennsylvania	11		3	1			2			1		
Rhode Island	2		1									
South Carolina	5	2										
South Dakota	1											
Tennessee	5	2	2				2			1		
Texas	34	3	9				15		2	4		
Utah	2		1									
Vermont	2			1								
Virginia	20	2	5				2			2		1
Washington	9	1	6				2			4		
West Virginia	13	1	3				1			2		
Wisconsin	4		2				1			1		
Wyoming	3											
Unknown												

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

TABLE 63. (MV) ACCIDENTS/INCIDENTS AT PRIVATE HIGHWAY-RAIL CROSSINGS, BY STATE AND WARNING DEVICE, 1994

Alabama		Lights 2	Bells	Special	Bucks	Signs	Signs	Signals	Total
AlaskaArizona									
Arizona					6	2		6	16
Arkansas			1		4				5
						1		4	5
California		1	1	1	9	15	2	3	32
Colorado					1	4	1	3	9
Connecticut		2	1		1	1	1		6
Delaware									
Dist. of Columbia									
Florida	1	1		1	6		1		10
Georgia	1				5	4		3	13
Idaho					2	1	1	2	6
Illinois		2	1	4	3	5		13	28
Indiana						5	1	3	9
Iowa						1		1	2
Kansas					1	1		1	3
Kentucky					9	3		4	16
Louisiana		1			11	2	1	4	19
Maine						2		1	3
Maryland					1				1
Massachusetts				1		1		2	4
Michigan		2				1		2	5
Minnesota		1		1	3	2	1	2	10
Mississippi				1	4	3		5	13
Missouri					3	1		5	9
Montana					1	5		2	8
Nebraska					1	1		4	6
Nevada			1						1
New Hampshire						1			1
New Jersey				1				2	3
New Mexico					3				3
New York					1		1	8	10
North Carolina					6	3		4	13
North Dakota					2				2
Ohio	1				6	1		3	11
Oklahoma		1			5			3	9
Oregon				1		4		1	6
_		2			4			9	15
Pennsylvania Rhode Island						1		1	2
Mode Island						1		_	2
South Carolina					3			2	5
South Dakota						1			1
Tennessee		2		1	2			3	8
Texas	2	2	1	2	28	13		5	53
Utah						1		1	2
Vermont	1				2				3
Virginia	1				5	3		15	24
Washington	1				1	9		4	15
West Virginia	1			1	7			7	16
Wisconsin					2	1	2	1	6
Wyoming					1	1		1	3
Unknown									
Total	9	19	6	15	149	100	12	140	450

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

TABLE 64. ACCIDENTS/INCIDENTS AT PRIVATE HIGHWAY-RAIL CROSSINGS, BY HIGHWAY USER, 1994

	Ac	c/Inc	К	Cilled	Ir	jured	Fatal	Injury
Type Of Vehicle	No.	%	No.	%	No.	%	Acc/Inc	Acc/Inc
Automobile	191	40.13	23	53.49	45	34.09	19	35
Truck	156	32.77	14	32.56	49	37.12	10	40
Truck-trailer	102	21.43	4	9.30	27	20.45	4	17
Bus								
School bus								
Motorcycle	1	.21						
Pedestrian	1	.21	1	2.33			1	
Other	25	5.25	1	2.33	11	8.33	1	9
Total	476	100.00	43	100.00	132	100.00	35	101

TABLE 65. (MV) ACCIDENTS/INCIDENTS AT PRIVATE HIGHWAY-RAIL CROSSINGS, BY WARNING DEVICE CATEGORY AND MOTORIST ACTION, 1994

		ove Ard			opped i		-Did	Not S	top		-Other		1	Unknow	n		-Total	
Warning Device	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	4			1						2			2			9		
Cantilever flshrs							1									1		
Standard flashers				4		2	8	1		6		2				18	1	4
Hwy Sig,W W,Bells				1			1			3			1		2	6		2
Special Devices				3			9		2	3						15		2
Crossbucks				9		4	86	14	27	49		7	5		2	149	14	40
Stopsigns				7		2	59	10	25	29	1	10	5		1	100	11	38
Other Signs				1			6		4	5		1				12		5
No Signs Or Signl				3	2	1	73	7	20	60	6	7	4		2	140	15	30
Total	4			29	2	9	243	32	78	157	7	27	17		7	450	41	121

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

TABLE 66. (MV) ACCIDENTS/INCIDENTS AT PRIVATE HIGHWAY-RAIL CROSSINGS, BY SPEED OF TRAIN, CIRCUMSTANCE AND VISIBILITY, 1994

		-Dawn-			Day-			Dusk			Dark			-Total	
Speed Of Vehicle	A/I	Kld	Inj 	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
RAIL CONSI	s T	STR	иск	нIG	H W A	Y U	SER								
Standing	5	1	2	76	3	11	7		2	63	2	2	151	6	17
1-9	5			106	13	40	8		4	20	4	6	139	17	50
10-19				71	7	25	3	1		8		4	82	8	29
20-29				9	4	4				3	2		12	6	4
30-39				5	3	3				3	1	1	8	4	4
40-49				2		1				1			3		1
50-59				1									1		
60 and over															
Unknown				8		1				5		2	13		3
Total	10	1	2	278	30	85	18	1	6	103	9	15	409	41	108
ні вни ач и в	E R	STR	иск	R A I	L C	ons:	ІЅТ								
Standing															
1-9				12		2				5		1	17		3
10-19	1		1	7		2				5		2	13		5
20-29				1						1		1	2		1
30-39				2		1				2			4		1
40-49	1		1	1		1							2		2
50-59										1		1	1		1
60 and over															
Unknown				1						1			2		
Total	2		2	24		6				15		5	41		13
GRAND TOTA	L														
Standing	5	1	2	76	3	11	7		2	63	2	2	151	6	17
1-9	5			118	13	42	8		4	25	4	7	156	17	53
10-19	1		1	78	7	27	3	1		13		6	95	8	34
20-29				10	4	4				4	2	1	14	6	5
30-39				7	3	4				5	1	1	12	4	5
40-49	1		1	3		2				1			5		3
50-59				1						1		1	2		1
60 and over															
Unknown				9		1				6		2	15		3
Total	12	1	4	302	30	91	18	1	6	118	9	20	450	41	121

TABLE 67. (MV) ACCIDENTS/INCIDENTS AT PRIVATE HIGHWAY-RAIL CROSSINGS, BY RAILROAD AND WARNING DEVICE CATEGORY, 1994

			Hwy Sig.					No Signs	
		Flashing	Wigwags		Cross-	Stop	Other	Or	
Railroad	Gates	Lights	Bells	Special	Bucks	Signs	Signs	Signals	Total
Alaska Railroad Corp.									
Alton & Southern Railroad									
Amtrak (Nat'l Railroad Passenger Corp.)	2	1	1		12	3	1	3	23
Atchison, Topeka And Santa Fe Railway Co.					13	2		3	18
Bangor And Aroostook Railroad						2		1	3
Belt Railway Co. of Chicago									
Bessemer & Lake Erie Railroad Co.									
Birmingham Southern Railroad Co.									
Burlington Northern Railroad Co.	1	2		3	12	24		28	70
Chicago And North Western Transp.								1	1
Chicago, Central & Pacific Railroad Co.									
Consolidated Rail Corp.	1	1		1	5	1	2	13	24
Cuyahoga Valley Railway Co.									
CSX Transp.	1			1	29	6	1	6	44
Dakota, Minnesota & Eastern Railroad					1				1
Delaware And Hudson Railroad Co.								3	3
Denver And Rio Grande Western Railroad Co.						4	1		5
Duluth, Missabe & Iron Range Railway Co.									
Elgin, Joliet And Eastern Railway Co.								2	2
Florida East Coast Railway Co.	1	1							2
Fox Valley & Western Ltd.					1				1
Gateway Western Railway									
Grand Trunk Western Railroad Co.		2			1				3
Houston Belt & Terminal Railway Co.									
Illinois Central Railroad Co.		2			1	2		5	10
Indiana Harbor Belt Railroad Co.									
Kansas City Southern Railway Co.				1	13				14
Long Island Rail Road									
Metro North Commuter Railroad Co.		2	1						3
Montana Rail Link								1	1
New Jersey Transit Rail Operations									
Norfolk Southern Corp.	1	3		4	19	13		39	79
Northeast Illinois Regional Commuter Rail									
Northern Indiana Commuter Trans.						1			1
Paducah & Louisville Railway Co.									
Port Authority Trans Hudson								1	1
Port Terminal Railroad Assoc.		1		1	3	3		1	9
Soo Line Railroad Co.		1				1	1	3	6
Southeastern Pennsylvania Transp.								1	1
Southern Pacific Transp. Co.	2	2	3	1	13	13	1	2	37
Southern Pacific, Chicago-St. Louis Corp.									
Springfield Terminal Railway Co.				1					1
St. Louis Southwestern Railway Co.					4	3			7
Terminal Railroad Assoc. of St. Louis									
Texas Mexican Railway Co.				1	1				2
Union Pacific Railroad Co.			1		9	5	1	15	31
Union Railroad Company (Pittsburgh)									
Wheeling & Lake Erie Railway Co.									
Wisconsin Central Ltd.					1	3	2	1	7
All Other Railroads		1		1	11	14	2	11	40
Total	9	19	6	15	149	100	12	140	450

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

TABLE 68. ACCIDENTS/INCIDENTS AND CASUALTIES AT PRIVATE HIGHWAY-RAIL CROSSINGS, BY RAILROAD, 1994

	M	otor Veh	icle	Othe	er Highwa	y Users		Total-	
Railroad			Injured		_	Injured		Killed	
Alaska Railroad Corp.									
Alton & Southern Railroad									
Amtrak (Nat'l Railroad Passenger Corp.)	23	4	8	2			25	4	8
Atchison, Topeka And Santa Fe Railway Co.	18	2	5	1			19	2	5
Bangor And Aroostook Railroad	3		1				3		1
Belt Railway Co. of Chicago									
Bessemer & Lake Erie Railroad Co.									
Birmingham Southern Railroad Co.									
Burlington Northern Railroad Co.	70	10	9	5	1	2	75	11	11
Chicago And North Western Transp.	1						1		
Chicago, Central & Pacific Railroad Co.									
Consolidated Rail Corp.	24		5	1		1	25		6
Cuyahoga Valley Railway Co.									
CSX Transp.	44	7	17	2		2	46	7	19
Dakota, Minnesota & Eastern Railroad	1			1			2		
Delaware And Hudson Railroad Co.	3						3		
Denver And Rio Grande Western Railroad Co.	5		2				5		2
Duluth, Missabe & Iron Range Railway Co.									
Elgin, Joliet And Eastern Railway Co.	2	1					2	1	
Florida East Coast Railway Co.	2						2		
Fox Valley & Western Ltd.	1						1		
Gateway Western Railway									
Grand Trunk Western Railroad Co.	3		1				3		1
Houston Belt & Terminal Railway Co.									
Illinois Central Railroad Co.	10		6				10		6
Indiana Harbor Belt Railroad Co.									
Kansas City Southern Railway Co.	14		5				14		5
Long Island Rail Road									
Metro North Commuter Railroad Co.	3		4				3		4
Montana Rail Link	1			2			3		
New Jersey Transit Rail Operations									
Norfolk Southern Corp.	79	6	21	3			82	6	21
Northeast Illinois Regional Commuter Rail									
Northern Indiana Commuter Trans.	1						1		
Paducah & Louisville Railway Co.									
Port Authority Trans Hudson	1						1		
Port Terminal Railroad Assoc.	9		1				9		1
Soo Line Railroad Co.	6		3				6		3
Southeastern Pennsylvania Transp.	1						1		
Southern Pacific Transp. Co.	37	4	12	2		1	39	4	13
Southern Pacific, Chicago-St. Louis Corp.									
Springfield Terminal Railway Co.	1						1		
St. Louis Southwestern Railway Co.	7		5				7		5
Terminal Railroad Assoc. of St. Louis									
Texas Mexican Railway Co.	2						2		
Union Pacific Railroad Co.	31	6	7	4		4	35	6	11
Union Railroad Company (Pittsburgh)									
Wheeling & Lake Erie Railway Co.									
Wisconsin Central Ltd.	7	1	3				7	1	3
All Other Railroads	40		6	3	1	1	43	1	7
Total	450	41	121	26	2	11	476	43	132

TABLE 69. (MV) ACCIDENTS/INCIDENTS AND CASUALTIES AT PRIVATE HIGHWAY-RAIL CROSSINGS, BY SPEED OF CONSIST, 1994

]	Freight	z	Pa	assenge	er	-Yard	d Swite	ching		-Other-			-Total	
Speed Of Consist	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
Standing															
1-9	37		5				62		9	22		6	121		20
10-19	30		4	5			9			8		4	52		8
20-29	56		26	2						1		1	59		27
30-39	63	5	21	4		3	1			6		2	74	5	26
40-49	74	17	20	2		1				3	1		79	18	21
50-59	34	8	8	6	1	7				2	1		42	10	15
60-69	8	4	2	5	2					2	1		15	7	2
70-79	1		1	6	1	1							7	1	2
80-89				1									1		
90 and over															
Unknown															
Total	303	34	87	31	4	12	72		9	44	3	13	450	41	121

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

TABLE 70. (MV) ACCIDENTS/INCIDENTS AND CASUALTIES AT PRIVATE HIGHWAY-RAIL CROSSINGS, BY LENGTH OF CONSIST, 1994

		Freigh	t	P	asseng	er	-Yard	Switc	hing		Other-		То	tal	
Number Of Cars	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I K	ld I	nj
1-9	39	4	12	24	4	11	43		4	7		5	113	8	_
10-19	34	4	6	6			14		3	1		1	55	4	1
20-29	26	2	7				7		1				33	2	_
30-39	28	7	11				3						31	7	1
40-49	23	1					1						24	1	
50-59	21		2				1						22		
60-69	20	5	11							1	1		21	6	1
70-79	19	2	4										19	2	
80-89	15		7										15		
90-99	19	5	4										19	5	
100-109	11	3	1				2		1				13	3	
110-119	32	1	8										32	1	
120-129	5		1										5		
130-139	5												5		
140-149	3		5										3		
150 And over	2												2		
Locomotives only.	1			1		1	1			35	2	7	38	2	
Total	303	34	87	31	4	12	72		9	44	3	13	450	41	12

Note: "Other" includes mixed trains, work trains, light locomotives, single car or cut of cars $% \left(1\right) =\left(1\right) \left(1\right)$

TABLE 71. (MV) ACCIDENTS/INCIDENTS AT PRIVATE HIGHWAY-RAIL CROSSINGS,
BY OPERATIONAL STATUS OF WARNING DEVICE,
CIRCUMSTANCE AND VISIBILITY, 1994

				Highway User								
	-Devic	e Work	ing	St:	ruck By	Consis	t	Rar	n Into	Consist		
Warning Device	Yes	No	N/A	Dawn	Day	Dusk	Dark	Dawn	Day	Dusk	Dark	
Gates	8		1	1	5		2				. 1	
Cantilever flshrs	1				1							
Standard flashers	18			2	8		6		1		. 1	
Hwy Sig,W W,Bells	6				4		2					
Special Devices			15	2	7	1	1		2		. 2	
Crossbucks			149	2	92	10	29	1	9		. 6	
Stopsigns			100	2	66	3	26		1		. 2	
Other Signs			12		7		4		1			
No Signs Or Signl			140	1	88	4	33	1	10		. 3	
Total	33		417	10	278	18	103	2	24		15	

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

TABLE 72. PRIVATE CROSSINGS AT-GRADE BY STATE AND TYPE DEVELOPMENT, 1994

State	Farm	Residential	Recreational	Industrial	Unknown	Total
Alabama	1,353	265	13	480	0	2,111
Alaska	4	14	5	85	0	108
Arizona	396	24	13	255	0	688
Arkansas	1,001	220	20	282	0	1,523
California	2,154	346	123	2,263	9	4,895
Colorado	897	258	23	264	6	1,448
Connecticut	49	30	32	149	1	261
Delaware	87	38	6	22	0	153
Dist Of Columbia	0	0	0	12	0	12
Florida	367	205	33	440	418	1,463
Georgia	1,553	654	26	557	0	2,790
Idaho	888	58	9	467	0	1,422
Illinois	3,802	506	82	1,359	0	5,749
Indiana	1,914	343	29	612	4	2,902
Iowa	3,218	331	51	697	1	4,298
Kansas	3,608	208	8	431	1	4,256
Kentucky	1,604	786	18	422	0	2,830
Louisiana	1,787	520	22	969	1	3,299
Maine	410	118	77	329	0	934
Maryland	427	78	17	210	0	732
Massachusetts	170	68	39	261	0	538
Michigan	1,332	395	125	874	0	2,726
Minnesota	2,263	239	49	589	0	3,140
Mississippi	1,431	377	6	276	0	2,090
Missouri	2,336	337	27	599	1	3,300
Montana	1,624	108	23	302	0	2,057
Nebraska	2,488	86	13	237	0	2,824
Nevada	2,100	3	3	30	194	258
New Hampshire	152	87	23	82	0	344
New Jersey	198	62	12	321	1	594
New Mexico	447	32	4	112	0	595
New York	2,161	337	99	582	0	3,179
North Carolina	1,773	922	34	902	1	3,632
North Dakota	1,960	26	10	188	0	2,184
Ohio	2,617	342	45	950	1	3,955
Oklahoma	1,357	153	10	259	0	1,779
	1,395	337	42	1,104	0	2,878
Oregon Pennsylvania	1,483	522	156	1,289	0	3,450
Rhode Island	7	18	9	37	0	3,430 71
South Carolina	754	292	16	297	0	1,359
			3		_	
South Dakota	1,143	81		134	0	1,361
Tennessee	1,133 4,421	398	22	395	3	1,948
Texas		533	36	1,566	0	6,559
Utah	524	46	10	209		789
Vermont	450 522	62 206	29	109	2 075	650 2 145
Virginia	533	206	12	319	2,075	3,145
Washington	1,571	431	55	1,155	0	3,212
West Virginia	915	674	50	668	1	2,308
Wisconsin	1,926	255	60	743	0	2,984
Wyoming	778	16	0	136	0	930
Puerto Rico	2	0	0	0	0	2
FINAL TOTALS	64,891	12,447	1,629	25,030	2,718	106,715

TABLE 73. PRIVATE CROSSINGS AT-GRADE BY STATE AND TYPE WARNING DEVICE, 1994

State	Signs	Signals	No Signs or Signals	Unknown	Total
Alabama	649	18	1,443	1	2,111
Alaska	70	0	38	0	108
Arizona	418	5	265	0	688
Arkansas	230	6	1,287	0	1,523
California	3,609	102	1,184	0	4,895
Colorado	764	11	673	0	1,448
Connecticut	211	42	8	0	261
Delaware	19	0	134	0	153
Dist Of Columbia	0	0	12	0	12
Florida	957	48	458	0	1,463
Georgia	1,447	11	1,332	0	2,790
Idaho	289	10	1,123	0	1,422
Illinois	559	109	5,081	0	5,749
Indiana	274	39	2,589	0	2,902
Iowa	677	15	3,606	0	4,298
Kansas	274	5	3,977	0	4,256
Kentucky	558	28	2,244	0	2,830
Louisiana	403	31	2,865	0	3,299
Maine	291	16	627	0	934
Maryland	141	8	583	0	732
Massachusetts	174	13	351	0	538
Michigan	315	35	2,376	0	2,726
Minnesota	1,105	19	2,016	0	3,140
Mississippi	196	4	1,890	0	2,090
Missouri	253	26	3,021	0	3,300
Montana	512	9	1,536	0	2,057
Nebraska	150	6	2,668	0	2,824
Nevada	104	4	149	1	258
New Hampshire	49	4	291	0	344
New Jersey	155	13	426	0	594
New Mexico	234	3	358	0	595
New York	319	31	2,829	0	3,179
North Carolina	1,303	19	2,310	0	3,632
North Dakota	368	1	1,815	0	2,184
Ohio	332	44	3,579	0	3,955
Oklahoma	255	9	1,515	0	1,779
Oregon	944	24	1,909	1	2,878
Pennsylvania	765	28	2,657	0	3,450
Rhode Island	41	1	2,037	0	71
South Carolina	955	9	395	0	1,359
South Carolina South Dakota	235	2	1,123	1	1,361
Tennessee	345	12	1,591	0	1,948
Texas	1,430	80	5,049	0	6,559
Utah	173	5	611	0	789
Vermont	72	6	572	0	650
Virginia	379	28	2,738	0	3,145
Virginia Washington					
-	614	17	2,581	0	3,212
West Virginia	311	11	1,986	0	2,308
Wisconsin	414	20	2,550	0	2,984
Wyoming	306	5	619	0	930
Puerto Rico	1	1	0	0	2
NAL TOTALS	24,649	993	81,069	4	106,715

TABLE 74. PRIVATE CROSSINGS AT-GRADE BY TYPE DEVELOPMENT AND WARNING DEVICE, 1994

			No Signs		
State	Signs	Signals	or Signals	Unknown	Total
Farm	11,303	97	53,491	0	64,891
Residential.	3,958	77	8,412	0	12,447
Recreational	671	27	931	0	1,629
Industrial	8,184	769	16,073	4	25,030
Unknown	533	23	2,162	0	2,718
FINAL TOTALS	24,649	993	81,069	4	106,715

TABLE 75. PRIVATE CROSSINGS AT-GRADE BY RAILROAD AND TYPE DEVELOPMENT, 1994

Railroad	Farm	Residential	Recreational	Industrial	Unknown	Total
Alaska Railroad Corp.	4	14	5	85	0	108
Allegheny and Eastern Railroad	40	16	5	21	0	82
Amtrak (Nat'l Railroad Passenger Corp.)	35	13	3	16	1	68
Arkansas & Missouri Railroad Co.	65	16	0	11	0	92
Arkansas Midland Railroad Co., Inc.	54	9	1	28	0	92
Atchison, Topeka & Santa Fe Railway Co.	2,324	211	20	1,109	2	3,666
Atlanta & Saint Andrews Bay Railway Co.	21	16	2	26	5	70
Austin & Northwestern Railroad Bangor & Aroostook Railroad	83	11	2	12	0	108
Bessemer & Lake Erie Railroad Co.	184	35 12	48 2	118 44	0	385 96
Boston & Maine Corp.	38 142	57	18	195	0	412
Buffalo & Pittsburgh Railroad, Inc.	145	66	12	40	0	263
Burlington Northern Railroad Co.	9,339	1,044	132	2,303	2	12,820
Camas Prairie Railroad Co.	87	4	1	24	0	116
Canadian Pacific Railway Co.	101	12	22	45	0	180
Cedar Rapids & Iowa City Railway Co.	53	16	1	22	0	92
Cedar River Railroad Co.	86	9	2	7	0	104
Central Kansas Railway, Inc.	469	52	0	58	0	579
Central Michigan Railway Co.	74	23	2	88	0	187
Central Railroad Co. Of Indianapolis	1	1	0	1	0	3
Central Vermont Railway, Inc. Chehalis Western	142	29	6	46	0	223
	62	10	0	24	0	96
Chicago & North Western Transportation Co. Chicago Missouri & Western Railway	3,043 92	253 3	47 0	841 20	0	4,184 115
Chicago, Central & Pacific Railroad Co.	524	24	3	150	0	701
Columbus & Greenville Railway Co.	242	39	0	29	0	310
Consolidated Rail Corp.	4,105	916	220	2,080	2	7,323
CSX Transportation	5,385	1,937	157	2,760	848	11,087
Dakota, Minnesota & Eastern Railroad	480	7	1	66	0	554
Dakota, Missouri Valley & Western Railroad	159	0	0	0	0	159
Delaware & Hudson Railway Co.	305	49	37	55	0	446
Delta Southern Railroad Co.	99	12	0	8	0	119
Denver & Rio Grande Western Railroad Co.	310	175	16	168	4	673
Department of Defense - Other	22	14	1	194	3	234
Detroit & Mackinac Railway Co.	88	64	31	24	0	207
Duluth, Missabe & Iron Range Railway Co. Eastern Idaho Railroad	162	17 4	1 1	89	0	131 269
Elgin, Joliet & Eastern Railway Co.	162 51	1	0	102 37	0	89
Escanaba & Lake Superior Railroad Co.	73	28	30	31	0	162
Florida Central Railroad Co.	5	12	1	16	21	55
Florida East Coast Railway Co.	5	3	1	19	86	114
Fox Valley & Western Ltd.	261	57	13	118	0	449
Gateway Western Railway	135	1	1	19	0	156
Georgia Central Railroad	48	20	3	16	0	87
Georgia Southwestern Railroad Division	111	27	6	22	0	166
Grainbelt Corp.	86	1	1	5	0	93
Grand Trunk Western Railroad Inc.	398	25	4	71	0	498
Great Western Railway Co.	113	4	1	9	0	127
Gulf And Mississippi Railroad Corp.	306	95	3	56	0	460
Hillsdale County Railway Co., Inc. Houston Belt & Terminal Railway Co.	56 0	5 1	1	6 42	0	68 43
Huron & Eastern Railway	101	7	2	44	0	154
Idaho Northern & Pacific Railroad Co.	118	5	0	59	0	182
Illinois Central Railroad Co.	1,109	241	8	349	0	1,707
Indiana & Ohio Central Railroad, Inc.	67	3	1	16	0	87
Indiana Hi-Rail Corp.	69	10	1	26	0	106
Indiana Rail Road Co.	103	23	2	24	0	152
Iowa Interstate Railroad	250	28	1	47	0	326
Iowa Northern Railway Co.	97	16	2	4	0	119
Kankakee, Beaverville & Southern Railroad	57	0	1	2	0	60
Kansas City Southern Railway Co.	291	42	5	154	0	492
Kansas City Terminal Railway Co.	78	1	0	15	1	95
Kansas Southwestern Railway Kiamichi Railroad Co., Inc.	129 59	7 27	0	27 11	0	163 97
Kyle Railroad Co., Inc.	321	27	3	21	0	367
Lamoille Valley Railroad Co.	87	3	8	7	0	105
Long Island Rail Road	67	4	3	8	0	82
=						

TABLE 75. PRIVATE CROSSINGS AT-GRADE BY RAILROAD AND TYPE DEVELOPMENT, CONT., 1994

Railroad	Farm	Residential	Recreational	Industrial	Unknown	Total
Louisiana & Arkansas Railway Co.	446	62	1	70	 0	57:
Louisiana & Delta Railroad	133	12	1	27	0	17
Maine Department Of Transportation	46	23	3	15	0	8
Maryland & Delaware Railroad Co.	106	14	1	16	0	13
Maryland Dept. Of Transportation	76	11	2	12	0	10
Mass. Bay Transporatation Authority	15	8	6	19	0	4
Mid-Atlantic Railroad Co., Inc.	50	48	0	25	0	12
Mid-Michigan Railroad Co.	41	3	4	47	0	9
Midd States Port Authority	156	4	1	9	0	17
Midsouth Railroad Corp.	130	62	0	77	0	26
Missouri & Northern Arkansas Railroad Co.	265	12	0	76	0	35
Monongahela Railway Co.	40	18	2	33	0	9
Montana Rail Link	467	63	15	139	0	68
MNVA Railroad, Inc.	81	14	0	6	0	10
Nashville & Eastern Railroad	126	13	1	11	0	15
Nebraska Central Railroad	218	1	1	16	0	23
New Jersey Transit Rail Operations	43	15	5	33	0	9
New Orleans Lower Coast Railroad, Inc.	20	106	9	45	0	18
New Orleans Public Belt Railroad, Inc.	20	100	0	156	0	15
	-	0	1		_	
New York City Trans. Authority (MTA)	6	-	-	8	0	1
New York, Susquehanna & Western Railroad Co.	149	30	2	42	0	22
Norfolk Southern Corp.	5,936	2,163	75	1,901	1,428	11,50
North Carolina Department Of Transportation	39	68	0	15	0	12
Northeast Kansas & Missouri	103	3	0	0	0	10
Ohio Central Railroad Co.	121	4	0	25	0	15
Oklahoma Department Of Transportation	80	17	0	8	0	10
Oklahoma Kansas & Texas Railroad Co.	88	5	1	16	0	11
Paducah & Louisville Railway Co.	118	30	1	36	0	18
Pittsburgh & Lake Erie Railroad Co.	1	29	5	64	0	9
Prairie Trunk Railway	54	3	1	3	0	6
Providence & Worcester Railroad Co.	46	17	12	48	0	12
Red River Valley & Western Railroad	293	4	0	19	0	31
Seminole Gulf Railroad	7	1	1	13	9	3
Soo Line Railroad Co.	1,996	236	48	452	0	2,73
South Carolina Central Railroad Co., Inc.	31	14	0	20	0	6
South Dakota Railroad Authority	217	41	2	22	0	28
South Kansas & Oklahoma Railroad Co.	212	9	0	24	0	24
South Orient Railroad Co., Ltd.	156	4	1	12	0	17
Southeastern Pennsylvania Transportation	22	12	2	17	0	5
Southern Pacific Transportation Co.	2,252	371	108	2,075	87	4,89
Southern Pacific, Chicago-St. Louis Corp.	59	5	0	23	0	. 8
Springfield Terminal Railway Co. (Vermont)	108	31	6	138	0	28
St. Louis Southwestern Railway Co.	614	75	4	87	0	78
State Subsidy	64	32	12	31	0	13
Tennessee Southern Railroad Co., Inc.	52	5	0	8	0	6
Terminal Railroad Association Of St. Louis	3	0	0	9	0	1
Texas & Oklahoma Railroad Co.	179	3	0	9	0	19
		=	-	_	-	
Texas Mexican Railway Co.	117	18	2	57	1	19
Texas Northeastern DivisionMid-Michigan	94	7	1	13	0	11
Toledo, Peoria & Western Railway Corp.	192	21	0	57	0	27
Tulare Valley Railroad Co.	141	4	0	87	0	23
Tuscola & Saginaw Bay Railroad Co., Inc.	106	51	6	80	0	24
Twin City & Western Railroad	102	2	0	2	0	10
Union Pacific Railroad Co.	7,475	815	63	2,151	105	10,60
Vermont Railway, Inc.	100	16	4	28	0	14
Washington Central Railroad Co.	202	66	6	70	0	34
Wheeling & Lake Erie Railway Co.	231	42	6	163	0	44
Wisconsin & Southern Railroad Co.	275	4	5	31	0	31
Wisconsin Central Ltd. (also Railway)	719	117	23	348	0	1,20
All Unknown Railroads	6,432	1,675	278	3,796	113	12,29

TABLE 76. PRIVATE CROSSINGS AT-GRADE BY RAILROAD AND TYPE WARNING DEVICE, 1994

No Signs Railroad Signs Signals or Signals Unknown Total _____ Alaska Railroad Corp. 70 0 38 0 Arlaska Kallifold Corp.

Allegheny and Eastern Railroad

10 1 71 0 82

Amtrak (Nat'l Railroad Passenger Corp.) 31 8 29 0 68

Arkansas & Missouri Railroad Co. 3 0 89 0 92

Arkansas Midland Railroad Co. Inc. 4 0 88 0 92

Atchison, Topeka & Santa Fe Railway Co. 1,167 47 2,452 0 3,666

Atlanta & Saint Andrews Bay Railway Co. 40 0 30 0 70

Austin & Northwestern Railroad 14 0 94 0 108 Allegheny and Eastern Railroad 14 0 54 86 5 294 11 0 85 85 13 314 22 0 241 85 Bangor & Aroostook Railroad 0 0 Bessemer & Lake Erie Railroad Co. Boston & Maine Corp. 22 0 2... 2,898 117 9,804 16 1 99 54 2 124 Buffalo & Pittsburgh Railroad, Inc. 12,820 0 Burlington Northern Railroad Co. Camas Prairie Railroad Co. Canadian Pacific Railway Co. 2 -- 0 81 0 23 0 540 0 172 0 2 9 151 0 75 Cedar Rapids & Iowa City Railway Co. Cedar River Railroad Co. Central Kansas Railway, Inc. Central Michigan Railway Co. 63 Central Railroad Co. Of Indianapolis Central Vermont Railway, Inc. Chehalis Western 21 0 75
Chicago & North Western Transportation Co. 504 20 3,660
Chicago Missouri & Western Railway 5 0 110
Chicago, Central & Pacific Railroad Co. 267 2 432
Columbus & Greenville Railway Co. 5 0 305
Consolidated Rail Corp. 940 70 6,313
CSX Transportation 4,271 166 6,650
Dakota, Minnesota & Eastern Railroad 52 0 501
Dakota, Missouri Valley & Western Railroad 12 0 147
Delaware & Hudson Railway Co. 33 9 404 0 4,184 701 /,J. 11,087 7,323 0 9 0 3 Delaware & Hudson Railway Co. 108 Delta Southern Railroad Co. Denver & Rio Grande Western Railroad Co. 179 Department of Defense - Other Detroit & Mackinac Railway Co. 2 ∠8 117 Duluth, Missabe & Iron Range Railway Co. 5 2 1 Eastern Idaho Railroad 15 145 Elgin, Joliet & Eastern Railway Co. Escanaba & Lake Superior Railroad Co. 54 Florida Central Railroad Co. 5 54 3 389 Florida East Coast Railway Co. Fox Valley & Western Ltd. Gateway Western Railway 84 0 126 0 2 1 40 90 Georgia Central Railroad Georgia Southwestern Railroad Division Grainbelt Corp. 2 1 90
35 12 451
43 1 83
36 0 424
1 0 67
5 0 38
4 0 150
37 2 143
231 21 1,455
2 0 85
5 0 101
10 0 142 Grand Trunk Western Railroad Inc. Great Western Railway Co. Gulf And Mississippi Railroad Corp. Hillsdale County Railway Company, Inc. Houston Belt & Terminal Railway Co. Huron & Eastern Railway Idaho Northern & Pacific Railroad Co. Illinois Central Railroad Co. Indiana & Ohio Central Railroad, Inc. Indiana Hi-Rail Corp. Indiana Rail Road Co. 35 3 6 0 1 1 Iowa Interstate Railroad Iowa Northern Railway Co. 90 1 398 0 0 79 0 0 160 0 0 78 0 0 359 0 Kankakee, Beaverville & Southern Railroad Kansas City Southern Railway Co. Kansas City Terminal Railway Co. Kansas Southwestern Railway Kiamichi Railroad Company, Inc. Kyle Railroad Co.

Lamoille Valley Railroad Co.

TABLE 76. PRIVATE CROSSINGS AT-GRADE BY RAILROAD AND WARNING DEVICE, CONT., 1994

Railroad	Signs	Signals	No Signs or Signals	Unknown	Total
Long Island Rail Road	3 58	5 4	74	0	8: 57:
Louisiana & Arkansas Railway Co. Louisiana & Delta Railroad	58 11	0	517 162	0	17:
Maine Department Of Transportation	27	1	59	0	8'
Maryland & Delaware Railroad Co.	5	0	132	0	13'
Maryland Dept. Of Transportation	3	0	98	0	101
Mass. Bay Transporatation Authority	24	0	24	0	48
Mid-Atlantic Railroad Co. Inc.	110	0	13	0	123
Mid-Michigan Railroad Co.	6	0	89	0	9!
Midd States Port Authority	14	0	156	0	170
Midsouth Railroad Corp.	39	0	230	0	269
Missouri & Northern Arkansas Railroad Co.	26	0	327	0	353
Monongahela Railway Co.	33	0	60	0	93
Montana Rail Link	149	4	531	0	684
MNVA Railroad, Inc.	8	0	93	0	101
Nashville & Eastern Railroad	2	0	149	0	151
Nebraska Central Railroad	6	0	230	0	236
New Jersey Transit Rail Operations	36	3	57	0	96
New Orleans Lower Coast Railroad, Inc.	8	1	171	0	180
New Orleans Public Belt Railroad	24	0	132	0	156
New York City Trans. Authority (MTA)	8	0	7	0	15
New York, Susquehanna & Western Railroad Co.	27	2	194	0	223
Norfolk Southern Corp.	1,617	52	9,833	1	11,503
North Carolina Department Of Transportation	11	0	111	0	122
Northeast Kansas & Missouri	1	0	105	0	106
Ohio Central Railroad Co.	28	0	122	0	150
Oklahoma Department Of Transportation	11	0	94	0	105
Oklahoma Kansas & Texas Railroad Co.	14	1	95	0	110
Paducah & Louisville Railway Co.	44	3	138	0	185
Pittsburgh & Lake Erie Railroad Co.	60	6	33	0	99
Prairie Trunk Railway	3	0	58	0	61
Providence & Worcester Railroad Co.	76	7	40	0	123
Red River Valley & Western Railroad	45	0	271	0	316
Seminole Gulf Railroad	23	0	8	0	31
Soo Line Railroad Co.	237	19	2,476	0	2,732
South Carolina Central Railroad Co.	57	0	8	0	65
South Dakota Railroad Authority	21	1	260	0	282
South Kansas & Oklahoma Railroad Co.	21	0	224	0	245
South Orient Railroad Company, Ltd.	44	0	129	0	173
Southeastern Pennsylvania Transportation	1	1	51 2,648	0	4 003
Southern Pacific Transportation Co.	2,148 6	97	2,648	0	4,893
Southern Pacific, Chicago-St. Louis Corp. Springfield Terminal Railway Co.	108	1 9	166	0	283
St. Louis Southwestern Railway Co.	199	5	576	0	780
State Subsidy	41	0	98	0	139
Tennessee Southern Railroad Co., Inc.	1	2	62	0	65
•	4	0	8	0	12
Terminal Railroad Association Of St. Louis Texas & Oklahoma Railroad Co.	4	0	186	0	190
Texas Mexican Railway Co.	18	22	155	0	195
Texas Northeastern DivisionMid-Michigan	14	0	101	0	115
Toledo, Peoria & Western Railway Corp.	16	0	254	0	270
Tulare Valley Railroad Co.	176	0	56	0	232
Tuscola & Saginaw Bay Railroad Co., Inc.	18	0	225	0	243
Twin City & Western Railroad	1	0	105	0	10
Union Pacific Railroad Co.	1,638	79	8,892	0	10,60
Vermont Railway, Inc.	17	3	128	0	14
Washington Central Railroad Co.	65	0	279	0	34
Wheeling & Lake Erie Railway Co.	77	2	363	0	442
Wisconsin & Southern Railroad Co.	13	0	302	0	315
Wisconsin Central Ltd. (also Railway)	199	3	1,005	0	1,20
		5	1,000	•	1,20
All Unknown Railroads	4,208	122	7,963	1	12,294

Appendix A

Reporting

Requirements

And

Definitions

ACCIDENT/INCIDENT REPORTABILITY REQUIREMENTS

The rules governing monthly reporting of railroad accidents/incidents in effect in 1992 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, pedestrian or other highway user at a highway-rail 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 \$6,300 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.

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 \$250 million based on 1991 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.

- 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 plants 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. Performed 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.

- 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 or her 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.

Highway-rail Crossing. A location where one or more railroad tracks intersect a public or private thoroughfare, a sidewalk, or a pathway.

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-train Incident. An event arising from railroad operations but not from the movement of on-track equipment, which does not exceed the reporting threshold, and results in a death, a reportable injury, or a reportable occupational illness.

Nontrespassers. 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.

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.

Train Accident. A collision, derailment, or other event involving the operation of railroad on-track equipment resulting in damages that exceed the reporting threshold.

Train Incident. Any event involving the movement of railroad on-track equipment that results in a death, a reportable injury, or a reportable illness, but in which railroad property damage does not exceed the reporting threshold.

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.
- 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 ²
	7)	Flashing lights ¹
	6)	Highway signals, wigwags or bells
	5)	Special warning devices
	3)	Stop signs
	4)	Crossbucks
	2)	Other signs
Lowest	1)	No signs or signals

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 highway-rail 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 highway-rail 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 \$6,300 in damages to railroad on-track equipment, signals, track, track structures, or roadbed, Form FRA 6180-54 must also be submitted.

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

LOCO(S) - Locomotive

MUTCD - Manual on Uniform Traffic Control

Devices

MV - Motor Vehicle

NONT - Non-Trespasser

PSGR - Passenger

SIG - Signal

TRES - Trespasser

VEH REG - Vehicles Registered

Appendix C

Table Correction

From

1993

TABLE 4. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY STATE, 1993, CORRECTION

	No. Of		Casualtie	g	Vehicles	Per 10,000	Regist	ation
State	Acc/Inc	Kld	Inj	Total	Registered	Acc/Inc	Kld	Inj.
7.1 ab a	1.64	2.2	F 2	7.6	3 402 000	4.0	0.7	1.0
Alabama	164	23	53	76	3,402,000	.48	.07	.16
Alaska	9		4	4	512,000	.18		.08
Arizona	26	2	10	12	2,861,000	.09	.01	.03
Arkansas	136	21	54	75	1,538,000	.88	.14	.35
California	152	29	39	68	23,082,000	.07	.01	.02
Colorado	53	7	21	28	2,983,000	.18	.02	.07
Connecticut	10	1	4	5	2,605,000	.04		.02
Delaware	10		6	6	567,000	.18		.11
Dist. of Columbia					264,000			
Florida	101	16	68	84	10,686,000	.09	.01	.06
Georgia	144	18	61	79	6,179,000	.23	.03	.10
Idaho	43	6	13	19	1,065,000	.40	.06	.12
Illinois	257	41	102	143	8,192,000	.31	.05	.12
Indiana	270	33	88	121	4,717,000	.57	.07	.19
Iowa	125	10	44	54	2,898,000	.43	.03	.15
Kansas	97	5	32	37	2,012,000	.48	.02	.16
Kentucky	66	5	36	41	3,059,000	.22	.02	.12
Louisiana	199	19	93	112	3,178,000	.63	.06	.29
Maine	4		1	1	1,005,000	.04		.01
Maryland	12		4	4	3,814,000	.03		.01
Massachusetts	9				3,684,000	.02		
Michigan	151	14	78	92	7,538,000	.20	.02	.10
Minnesota	116	15	38	53	3,659,000	.32	.04	.10
Mississippi	120	13	62	75	2,025,000	.59	.06	.31
Missouri	100	12	36	48	4,125,000	.24	.03	.09
Montana	22	8	6	14	955,000	.23	.08	.06
Nebraska	74	10	20	30	1,392,000	.53	.07	.14
Nevada					970,000			
New Hampshire	3				914,000	.03		
New Jersey	44	2	29	31	5,764,000	.08		.05
New Mexico	22	4	22	26	1,405,000	.16	.03	.16
New York	37	6	15	21	9,966,000	.04	.01	.02
North Carolina	149	12	47	59	5,471,000	.27	.02	.09
North Dakota	36	7	16	23	684,000	.53	.10	.23
Ohio	252	40	92	132	9,413,000	.27	.04	.10
Oklahoma	116	12	61	73	2,844,000	.41	.04	.21
Oregon	39	6	8	14	2,713,000	.14	.02	.03
Pennsylvania	92	7	35	42	8,476,000	.11	.01	.03
Rhode Island					636,000			
South Carolina	74	17	33	50	2,613,000	. 28	.07	1 2
South Dakota	29	1 / 	33 15	15	753,000	.39	.07	.13
		9	22	31	4,827,000	.39	.02	
Tennessee	96 452				13,032,000	.35	.02	.05
	452	65 5	184	249				.14
Utah Vermont	25	5 	5 4	10	1,301,000	.19	.04	.04
	2		4	4	483,000	.04		.08
Virginia	69	4	17	21	5,455,000	.13	.01	.03
Washington	55	4	11	15	4,556,000	.12	.01	.02
West Virginia	28	1	8	9	1,297,000	. 22	.01	.06
Wisconsin	147	8	78	86	3,985,000	.37	.02	.20
Wyoming	3		2	2	512,000	.06		.04
Unknown								
Total	4,240	517	1,677	2,194	196,067,000	.22	.03	.09

Note: Vehicle registration figures are for 1993 and were supplied by the Federal Highway Administration.

Registration figures for Hawaii are omitted because it does not have any reporting railroads.