# State of Illinois Highway-Rail Grade Crossing Safety Action Plan









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### INTRODUCTION

It is the goal of the State of Illinois to carryout a highway-rail safety program that promotes a safe, economical and efficient railroad transportation system in the public interest. This goal is accomplished through efforts of both the Illinois Department of Transportation (IDOT) and the Illinois Commerce Commission (ICC). These efforts include assuring compliance with all applicable state and federal laws and regulations that the ICC is empowered to enforce. The size of the rail safety challenge in Illinois is underscored by noting:

- Illinois has approximately 7,300 miles of railroad track, the 2<sup>nd</sup> largest railroad system of any state in the nation; <sup>(AAR)</sup>
- About 500 million tons (1 trillion pounds) of freight move on Illinois' railroad system each year which is the most of any state in the nation. Approximately 30 million tons of hazardous materials are transported on Illinois' railroad system each year; <sup>(AAR)</sup>
- Chicago's railroad hub is the largest in the U.S. and third largest intermodal container/trailer port in the world, following only Singapore and Hong Kong; (CMAP)
- There are over 60 railroad companies, including all seven Class 1 railroads, that operate trains in and through Illinois, the 2<sup>nd</sup> highest in the nation; (AAR & ICC)
- As of June 1, 2011, there were 10,690 public highway-rail grade crossings and structures located within Illinois, second only to Texas; (FRA)
- Illinois has significantly more public highway-rail grade crossings (65.3%) equipped with train activated warning devices than the nation as a whole (50.9%); <sup>(FRA)</sup>
- Illinois has more interconnected<sup>1</sup> highway-rail grade crossing warning systems (302) than any other state in the nation (<sup>1</sup>railroad and highway traffic signal systems engineered to work together); <sup>(FRA)</sup>
- Between 1980 and 2010, collisions at public highway-rail grade crossings in Illinois have declined by 81.2%, injuries by 85.9%, and fatalities by 54.2%, while vehicle miles of highway travel have increased by over 60% <sup>(IDOT)</sup> and rail traffic by over 30%. <sup>(FRA)</sup>



The majority of collisions (73.8%) and fatalities (77.9%) in Illinois occur at highway-rail grade crossings equipped with train activated warning devices, such as automatic flashing light signals, or automatic flashing light signals and gates.



Within the State of Illinois, the ICC has the statutory responsibility to improve safety at public highway-rail crossings. As of June 1, 2011, there are 7,945 public highway-rail *grade* crossings in Illinois, of which 789 are on state roads, and 7,156 are on local roads. The Table below summarizes the quantity of highway-rail crossings by type and position.

Illinois Highway-Rail Crossings and Structures by Type and Position as of June 1, 2011.

ICC-Type of Crossing	Crossings	Percent
Pedestrian Grade	364	2.3%
Pedestrian RR-Over	59	0.4%
Pedestrian RR-Under	33	0.2%
Private Grade	4,596	28.9%
Private RR-Over	132	0.8%
Private RR-Under	25	0.2%
Public Grade	7,945	50.0%
Public RR-Over	1,794	11.3%
Public RR-Under	951	6.0%
Total	15,899	100.0%

The ICC orders safety improvements at public highway-rail crossings with the cost of such improvements paid by the state, the railroads, and local governments. For safety improvements at crossings located on state roads, IDOT pays the majority of the costs utilizing federal funds. For safety improvements at crossings located on local roads, the ICC utilizes the Grade Crossing Protection Fund (GCPF).

This Action Plan is required by 49 CFR 234.11 and is intended to analyze and systematically identify issues affecting safety at highway-rail crossings in Illinois. Particular attention is paid to:

- a. Identifying specific solutions for improving safety at crossings, including highway-rail grade crossing closures or grade separations;
- b. Focus on crossings that have experienced multiple collisions or are at high risk for such collisions; and focus on a five year horizon.

The Action Plan will be continuously monitored and implemented by IDOT and the ICC, which are part of the Rail Safety Implementation Team (Team). Other Team representatives who will assist in implementing the engineering, education and enforcement elements of the Action Plan include: Illinois Operation Lifesaver, the Federal Railroad Administration (FRA), the Federal Highway Administration (FHWA) and local and state law enforcement agencies. The Team will meet on a regular basis to review current practices and explore new ideas in order to continue making progress with ways to improve safety, and reduce collisions and fatalities at highway-rail crossings throughout Illinois.

### **RAILROAD CROSSING SAFETY - THE THREE E's**

Illinois is one of the key transportation hubs in the nation, with the country's second largest rail system, including the largest rail freight hub in Chicago, and the nation's third largest highway system, with 140,834 miles of highways, streets and roads and over 26,327 bridges over 20 feet in length.

Both the rail and highway systems are among the most heavily used in the nation in terms of volume of traffic, with much of the traffic concentrated in the Chicago metropolitan region. There, the urban mass transit system serves an average of nearly 600 million passengers a year over an extensive network of bus and rail routes. Keeping the grade crossing portion of this transportation network operating safely and efficiently involves local, state and federal governments as well as the private sector. These safety efforts can be summarized as the Three E's - **Education, Engineering and Enforcement**.

**Education:** Illinois is actively involved in developing programs to educate the public about the danger at grade crossings. One example of this public education program is the ICC's participation in Operation Lifesaver. The Operation Lifesaver program is a public-private partnership designed to increase public awareness of highway-rail grade crossing hazards. It also strives to improve driver and pedestrian behavior at railroad crossings by encouraging compliance with traffic laws relating to crossing signs and signals.

**Enforcement:** Enforcement of existing traffic and trespass laws is key, especially the issuance of fines (up to \$500) or community service to persons crossing railroad tracks after the warning signals have activated.

**Engineering:** Highway-rail grade crossing safety improvements are also critical to reducing collisions. Illinois identifies and implements physical and system improvements, including the installation and upgrading of grade crossing warning signs and automatic warning devices and, where warranted, grade separations. While education and enforcement are absolutely essential, the focus of this report is the engineering of capital improvements to further railroad crossing safety on local roads.

## **CROSSING SAFETY IMPROVEMENTS**

Illinois utilizes state and federal funds to assist highway agencies and railroads with the cost of making safety improvements at public highway-rail crossings on state highways and local roads and streets. IDOT, working with highway agencies and railroads, utilizes the Federal Highway-Rail Safety Program to pay for safety improvements at grade crossings of state highways and local roads and streets that it has programmed.

The ICC works with local highway agencies and railroads to identify and prioritize safety improvement projects at grade crossings and bridges of local roads and streets. The ICC utilizes the Grade Crossing Protection Fund (GCPF) to pay for those improvements.

The GCPF, appropriated to IDOT but administered by the ICC, was created by the General Assembly in 1955 to assist local jurisdictions (counties, townships and municipalities) in paying for safety improvements at highway-railroad crossings on local roads and streets. Assistance from the GCPF cannot be used for safety improvements at highway-rail crossings located on the state road or highway system. Those improvements are paid for by IDOT.

The ICC is directly responsible for the administration and authorization of projects that receive assistance from the GCPF. Each year the ICC authorizes approximately \$42 million from the GCPF for crossing safety improvement projects statewide, including the construction of new pedestrian structures (overpasses or underpasses), where the proposed pedestrian bridge will not be adjacent to an existing public highway-rail grade crossing.

Crossing safety improvements typically paid for, in part or in total, by the state (ICC and/or IDOT) include:

- Warning Device Upgrades: Installation of automatic flashing light signals and gates at public grade crossings currently not equipped with automatic warning devices; installation of automatic flashing light signals and gates at public grade crossings currently equipped only with automatic flashing light signals; signal circuitry improvements at public grade crossings currently equipped with automatic warning devices;
- Grade Separations New and Reconstructed: Construction, reconstruction, or repair of bridges carrying a roadway over railroad tracks (overpass); construction, reconstruction, or repair of bridges carrying railroad tracks over a roadway (subway);
- Grade Separations Vertical Clearance Improvements: Lowering the existing highway pavement surface under a railroad bridge to improve vertical clearance for motor vehicles;
- **Pedestrian Grade Separations:** Construction of a bridge to carry pedestrian/bicycle traffic over or under railroad tracks;

- Interconnects: Upgrading the circuitry at grade crossings where warning signals are connected to the adjacent traffic signals so that the two systems operate in a synchronized manner;
- **Highway Approaches:** Improvements to those portions of a public roadway directly adjacent to a crossing surface;
- **Connecting Roads:** Construction of a roadway between a closed crossing and an adjacent open, improved crossing;
- **Remote Monitoring Devices:** Sensor devices in the circuitry of grade crossing warning devices which immediately alert the railroad to any failures in warning device operations;
- Low Cost Improvements at Unsignalized Crossings: Installation of new, more reflective crossbuck warning signs and YIELD signs at crossings that do not require automatic warning devices; and
- **Crossing Closure and Consolidation:** Incentive payments to local agencies for the voluntarily closure of public highway-rail grade crossings. Since January 1, 2005, over 40 crossings have been closed by way of local road agencies voluntarily agreeing to vacate the roadway adjacent to the crossings. In return, the road agencies have received incentive payments from railroads, the ICC, and IDOT.

## **PROJECT IDENTIFICATION**

The state places a strong emphasis on the importance of considering local agency input through various methods, including: solicitation for applications for potential projects for the Federal Highway Rail Safety Program; review of application submittals for the GCPF projects; involvement with the ICC Stipulated Agreement process; and, local agency involvement with diagnostic reviews when appropriate.

## **PROJECT SELECTION**

Project selection for Federal Highway-Rail Safety and GCPF projects is based upon improving safety, with the goal of reducing collisions and injuries, as well as the number of highway-rail crossings via closure and consolidation. Selection to be made based on an emphasis on considerations, such as: the number, speed and type of trains; amount and type of vehicular traffic; restrictions to stopping and clearing visibility for the motorist; roadway geometrics; roadway approach grades; use of crossing by school buses or vehicles carrying hazardous materials; and collision history. Project selection is based on targeting problem crossings with marked collision histories, as well as a proactive approach with project selection based on efforts to improve crossings in order to prevent potential collisions.

 <u>High Collision History/Multiple Collisions</u> - Each year the ICC places a high priority on upgrading public highway-rail grade crossings which have a pronounced history of train/vehicle collisions, or which have a high predictive value for future collisions. The ICC's FY 2012-2016 Crossing Safety Improvement Plan addresses safety improvements at many of these crossing locations.

 Interconnected Crossings - The ICC and IDOT are continuing a program to identify and improve highway-rail grade crossings that require the interconnection of crossing warning signals with traffic control signals at adjacent highway intersections.

## **COLLISION INVESTIGATIONS**

In order to reduce the number and severity of train-vehicle and train-pedestrian collisions, it is first necessary to understand the causes of those incidents. Collision investigations are used as fact-finding evaluations of train-vehicle and train-pedestrian incidents to identify causal trends. It is also necessary to determine if the cause of a train-vehicle or train-pedestrian incident is the direct result of the highway vehicle users' or the railroad's apparent failure to comply with any state or federal law or regulation. It is necessary to conduct an investigation immediately following certain incidents. Results of collision investigations are used by the state when making determinations where crossing safety improvements are necessary.

## **ACTION PLAN STRATEGIES**

### **GRADE CROSSING CLOSURES / CONSOLIDATIONS**

Illinois works with railroad companies and local agencies to offer state and federal incentive funds for the voluntary closure of hazardous highway-rail grade crossings. Staff from the ICC and IDOT meet with public project engineers from the railroad companies on a regular basis and will place added emphasis on crossing closures and consolidations in the future. The Table below shows that since 2000, the ICC has authorized closure of over 1,000 public highway-rail grade crossings and significantly increased the percentage of those crossings remaining that are equipped with automatic flashing light signals and gates.

Type of Warning Device	1/1/2000	6/1/2011	Change	Percent Change
4 Quadrant Gates	0	79	79	-
Gates	2,382	3,261	879	36.9%
Flashing Lights	2,515	1,818	-697	-27.7%
Other Active Devices	57	28	-29	-50.9%
Crossbucks/Yield	0	1,422	1,422	-
Crossbucks	3,563	1,042	-2,521	-70.8%
Other Passive Signs	454	295	-159	-35.0%
Total	8,971	7,945	-1,026	-11.4%

### Goal: Close fifty (50) highway-rail grade crossings within five years.

### HIGHWAY AND PEDESTRIAN GRADE SEPARATIONS

The ICC is continually seeking locations where grade crossing blockages cause substantial motorist or emergency vehicle delay, or where heavy vehicular traffic represents a heightened threat of train/vehicle collisions. This Program includes funding assistance for numerous highway-rail bridge projects on local roads and streets throughout the state. Recently, the General Assembly gave the ICC authority to utilize the GCPF to assist local communities with the cost of constructing pedestrian grade separations in areas where it is necessary to improve safety. This Program includes funding assistance for several pedway/rail bridge projects throughout the state. Typically, the ICC authorizes contributions from GCPF that pay up to 60% of the cost for grade separation projects, although ICC policy is to allocate no more than \$12 million from the GCPF to any individual project unless unusual circumstances warrant otherwise.

### <u>Goal – Continue to identify and program GCPF funds at the locations that</u> benefit the most from grade separation.

### **CORRIDORS**

Illinois will work with the railroads to identify corridors in Illinois where train volumes and/or train speeds have significantly increased, and consider those locations for safety improvements. When looking at a corridor approach, efforts will be made to achieve consolidation or closure of existing grade crossings.

# <u>Goal – Analyze and program improvements at grade crossings in three rail</u> corridors per year.

### PUBLIC EDUCATION AND AWARENESS PROGRAMS: OPERATION LIFESAVER

Illinois will increase involvement with educational efforts through the Local Technology Assistance Program (Illinois Technology Transfer Center). The team will assist in preparation of articles concerning highway-rail safety programs for publication in the "Illinois Interchange" newsletter. In cooperation with Operation Lifesaver and the Illinois Broadcasters Association, the state will conduct regional public service campaigns, along with identification of specific "hot spots" to target 20 to 39 year old motorists and pedestrians.

### <u>Goal – Operation Lifesaver presenters will make at least 2,000 presentations</u> reaching an audience of at least 200,000 each year.

### ENFORCEMENT

Illinois will maintain and promote a policy for the use of automated enforcement at highway-rail grade crossings in Illinois. The state will seek involvement from the Illinois State Police and local law enforcement agencies to explore ways to increase motorist and pedestrian compliance with applicable traffic safety laws.

### Goal – Maintain and promote policy.

### RESEARCH AND ANALYSIS

Compile and analyze collision data to identify trends and to evaluate the effectiveness of proposed countermeasures. Reconcile differences in grade crossing inventory data between FRA, Illinois and the railroads. Incorporate new inventory data being collected that includes aerial photographs, ground photographs, sketches and many attributes that are not part of the "standard" FRA grade crossing inventory database. Provide industry and public access to the enriched grade crossing inventory as appropriate. Identify promising technologies and develop field tests to evaluate potential for application in Illinois.

Goal – Publish an annual analysis of train-vehicle collisions that occurred at highway-rail grade crossings in Illinois for the previous five-year period. Incrementally over next three years, reconcile discrepancies between the federal, state and railroad inventory databases. As appropriate over the next two years, make selected elements of the reconciled inventory data available to industry partners and the public. Annually implement and evaluate one new proposed grade crossing safety device or program of education and/or enforcement.

### EMERGENCY RESPONSE

The Rail Safety Improvement Act of 2008 (Public Law 110-432 – October 16, 2008) required railroads to post Emergency Notification Signs at all public crossings by April 16, 2010.

### <u>Goal – verify that 100 percent (100%) of crossings are posted with the correct</u> <u>AAR/DOT crossing number and emergency notification phone number.</u>

As was indicated in the introduction, Illinois has the second largest number of highwayrail crossings and structures in the nation. The next section of the Action Plan provides a set of tables detailing the number of highway-rail crossings and structures by county and by railroad in order to give the reader a sense of the distribution and density within Illinois. In addition two tables are provided that detail the type of warning device at public highway-rail crossings by county and railroad. The ten counties with the most highway-rail crossings and structures account for over 37.2% of all the highway-rail crossings and structures in Illinois.

	Top 10 Counties Account for 37.2% Of All Crossings & Structures												
		Pedestria	า		Private			Public					
County	At-Grade	RR-Over	RR-Under	At-Grade	RR-Over	RR-Under	At-Grade	RR-Over	RR-Under	Total	Percent		
Cook	128	37	14	449	15	2	865	1,114	211	2,835	17.8%		
St Clair	13	1	0	106	1	0	197	56	80	454	2.9%		
Madison	0	1	0	125	0	1	157	24	45	353	2.2%		
Iroquois	5	0	0	104	0	1	232	3	3	348	2.2%		
Sangamon	7	0	3	81	2	1	194	31	21	340	2.1%		
Will	10	4	1	83	4	1	166	42	28	339	2.1%		
La Salle	6	0	1	105	6	0	193	10	16	337	2.1%		
Peoria	7	0	0	128	1	0	149	17	23	325	2.0%		
Jefferson	1	0	0	89	1	0	161	12	26	290	1.8%		
Champaign	4	2	0	79	0	0	177	15	10	287	1.8%		
Top 10 Sub-Total	181	45	19	1,349	30	6	2,491	1,324	463	5,908	37.2%		
Illinois Total	364	59	33	4,596	132	25	7,945	1,794	951	15,899			
% Of Illinois	49.7%	76.3%	57.6%	29.4%	22.7%	24.0%	31.4%	73.8%	48.7%	37.2%			

## **HIGHWAY-RAIL GRADE CROSSINGS IN ILLINOIS – JUNE 1, 2011**

		Pedestriar			Private Public						
County	At-Grade	RR-Over	RR-Under	At-Grade	RR-Over	RR-Under	At-Grade	RR-Over	RR-Under	Total	Percent
Adams	3	0	0	49	0	0	52	6	4	114	0.7%
Alexander	0	0	0	8	0	0	10	6	2	26	0.2%
Bond	0	0	0	23	0	0	44	4	9	80	0.5%
Boone	1	0	0	30	0	1	23	4	3	62	0.4%
Brown	0	0	0	0	0	0	1	0	0	1	0.0%
Bureau	2	0	0	88	6	1	96	9	13	215	1.4%
Carroll	2	0	2	29	2	0	52	10	10	107	0.7%
Cass	0	0	0	11	0	0	10	1	1	23	0.1%
Champaign	4	2	0	79	0	0	177	15	10	287	1.8%
Christian	4	0	0	31	1	0	83	4	0	123	0.8%
Clark	0	0	0	8	0	0	33	3	1	45	0.3%
Clay	0	0	0	23	0	0	23	7	9	62	0.4%
Clinton	1	0	0	60	0	0	69	1	1	132	0.8%
Coles	0	0	0	33	0	0	81	4	11	129	0.8%
Cook	128	37	14	449	15	2	865	1,114	211	2,835	17.8%
Crawford	0	0	0	23	1	0	37	0	0	61	0.4%
Cumberland	0	0	0	26	0	0	41	2	2	71	0.4%
De Kalb	2	1	0	60	4	1	104	5	6	183	1.2%
De Witt	0	0	0	29	1	1	59	6	4	100	0.6%
Douglas	0	0	0	42	0	0	77	2	4	125	0.8%
Du Page	27	7	3	29	2	0	143	21	21	253	1.6%
Edgar	1	0	0	27	0	0	82	2	2	114	0.7%
Edwards	0	0	0	22	1	0	8	0	1	32	0.2%
Effingham	4	0	0	47	0	0	87	5	6	149	0.9%
Fayette	2	0	0	17	0	0	47	3	9	78	0.5%
Ford	0	0	2	35	0	0	82	1	4	124	0.8%
Franklin	0	0	0	50	2	1	92	13	16	174	1.1%
Fulton	2	0	0	92	2	1	107	3	7	214	1.3%
Greene	1	0	0	18	2	0	34	5	2	62	0.4%
Grundy	4	1	0	34	0	0	69	5	5	118	0.7%
Hamilton	0	0	0	13	0	0	43	0	0	56	0.4%
Hancock	1	0	0	42	0	0	60	1	0	104	0.7%
Henderson	0	0	0	22	1	0	21	7	4	55	0.3%
Henry	3	0	0	27	2	1	77	3	9	122	0.8%
Iroquois	5	0	0	104	0	1	232	3	3	348	2.2%
Jackson	0	0	2	35	0	0	49	7	5	98	0.6%
Jasper	0	0	0	28	0	0	53	0	0	81	0.5%
Jefferson	1	0	0	89	1	0	161	12	26	290	1.8%
Jersey	0	0	0	13	0	0	21	0	0	34	0.2%
Jo Daviess	4	0	1	30	3	0	29	8	5	80	0.5%
Johnson	0	0	0	31	2	0	12	3	2	50	0.3%
Kane	13	1	2	80	8	2	129	25	25	285	1.8%
Kankakee	1	0	0	64	1	0	138	10	6	220	1.4%
Kendall	5	1	0	37	1	0	38	4	3	89	0.6%

### Number of Highway-Rail Crossings (by County and by Type)

		Pedestriar	ı		Private			Public			
County	At-Grade	RR-Over	RR-Under	At-Grade	RR-Over	RR-Under	At-Grade	RR-Over	RR-Under	Total	Percent
Knox	5	0	0	44	2	0	118	20	11	200	1.3%
La Salle	6	0	1	105	6	0	193	10	16	337	2.1%
Lake	27	1	1	32	2	1	141	38	17	260	1.6%
Lawrence	0	0	0	1	2	0	18	1	3	25	0.2%
Lee	3	0	0	19	1	0	46	2	4	75	0.5%
Livingston	4	0	0	47	0	0	149	3	7	210	1.3%
Logan	2	0	0	34	2	2	93	6	8	147	0.9%
Macon	5	0	0	66	0	0	141	28	9	249	1.6%
Macoupin	2	0	0	55	1	0	103	11	1	173	1.1%
Madison	0	1	0	125	0	1	157	24	45	353	2.2%
Marion	1	0	0	40	0	0	102	7	15	165	1.0%
Marshall	0	0	0	38	3	0	32	0	5	78	0.5%
Mason	0	0	0	37	1	0	43	1	2	84	0.5%
Massac	0	0	0	29	0	0	18	13	7	67	0.4%
McDonough	3	0	0	52	0	0	97	2	8	162	1.0%
McHenry	5	0	0	31	1	0	89	8	2	136	0.9%
McLean	3	0	1	82	1	0	154	9	20	270	1.7%
Menard	0	0	0	26	5	0	29	1	1	62	0.4%
Monroe	0	0	0	34	0	0	23	0	3	60	0.4%
Montgomery	1	0	0	50	0	0	109	4	5	169	1.1%
Morgan	2	0	0	78	1	0	94	18	13	206	1.3%
Moultrie	0	0	0	26	0	0	58	0	0	84	0.5%
Ogle	5	0	0	59	2	2	108	2	16	194	1.2%
Peoria	7	0	0	128	1	0	149	17	23	325	2.0%
Perry	3	0	0	68	2	0	77	6	1	157	1.0%
Piatt	1	0	0	43	1	0	86	2	4	137	0.9%
Pike	1	1	0	42	5	0	41	10	5	105	0.7%
Pope	0	0	0	2	1	0	0	0	2	5	0.0%
Pulaski	2	0	0	38	0	0	17	0	1	58	0.4%
Putnam	0	0	0	18	0	0	24	0	1	43	0.3%
Randolph	4	1	0	124	0	0	94	10	4	237	1.5%
Richland	0	0	0	7	0	0	30	1	4	42	0.3%
Rock Island	4	0	0	101	4	0	97	1	12	219	1.4%
Saline	0	0	0	26	0	1	25	2	0	54	0.3%
Sangamon	7	0	3	81	2	1	194	31	21	340	2.1%
Schuvler	0	0	0	4	2	0	2	5	3	16	0.1%
Scott	0	0	0	13	0	0	13	1	1	28	0.2%
Shelby	0	0	0	42	0	0	67	2	1	112	0.7%
St Clair	13	1	0	106	1	0	197	56	80	454	2.9%
Stark	0	0	0	0	0	0	6	0	0	6	0.0%
Stephenson	3	0	0	22	7	1	23	8	5	69	0.4%
Tazewell	1	0	0	106	1	0	114	4	10	236	1.5%
Union	1	0	0	17	0	0	29	0	2	49	0.3%
Vermilion	3	0	0	70	1	1	145	18	13	251	1.6%
Wabash	1	0	0	12	0	0	24	0	2	39	0.2%
Warren	2	0	0	18	0	0	38	7	1	66	0.4%
Washington	1	0	0	37	0	0	40	0	3	81	0.5%
Wayne	1	0	0	9	0	0	33	0	0	43	0.3%
, White	1	0	0	31	1	1	30	0	1	65	0.4%
Whiteside	0	0	0	48	0	0	50	4	9	111	0.7%
Will	10	4	1	83	4	1	166	42	28	339	2.1%
Williamson	0	0	0	19	1	0	107	7	6	140	0.9%
Winnebago	2	0	0	66	9	1	132	7	27	244	1.5%
Woodford	1	0	0	18	1	0	29	1	1	51	0.3%
Total	364	59	33	4,596	132	25	7,945	1,794	951	15,899	100.0%

County	4-Quad Gates	Gates	Flashing Lights	Other Active	Stop Sign	Crossbuck/Yi eld	Crossbuck	Other Passive	Total	Per Ac	cent tive	Percent Passive
Adams	0	19	11	0	0	15	6	1	52		57.7%	42.3%
Alexander	0	3	1	0	0	5	1	0	10		40.0%	60.0%
Bond	0	22	10	0	0	11	1	0	44		72.7%	27.3%
Boone	0	4	13	0	1	4	1	0	23		73.9%	26.1%
Brown	0	0	0	0	0	0	0	1	1		0.0%	100.0%
Bureau	0	46	10	0	21	7	11	1	96		58.3%	41.7%
Carroll	0	28	8	0	0	11	5	0	52		69.2%	30.8%
Cass	0	5	3	0	0	0	2	0	10		30.0%	20.0%
Champaign	0	72	49	0	1	34	15	6	177		68.4%	31.6%
Christian	0	30	8	0	0	19	26	0	83		45.8%	54.2%
Clark	0	17	9	1	1	0	4	1	33		31.8%	18.2%
Clay	0	14	3	0	0	2	4	0	23		73.9%	26.1%
Clinton	0	32	21	0	1	13	2	0	69		76.8%	23.2%
Coles	0	16	20	3	0	6	34	2	81		48.1%	51.9%
Cook	10	553	100	1	6	11	106	78	865		76.8%	23.2%
Crawford	0	5	21	0	0	11	0	0	37		70.3%	29.7%
Cumberland	0	20	9	0	0	0	12	0	41		70.7%	29.3%
De Kalb	0	53	21	1	2	27	0	0	104		72.1%	27.9%
De Witt	0	4	24	0	1	29	1	0	59		47.5%	52.5%
Douglas	0	30	14	0	0	5	26	2	77		57.1%	42.9%
Du Page	0	99	12	0	0	9	19	4	143		77.6%	22.4%
Edgar	0	8	27	0	0	0	46	1	82		42.7%	57.3%
Edwards	0	6	1	0	0	1	0	0	8		37.5%	12.5%
Effingham	0	52	7	0	0	18	6	4	87		67.8%	32.2%
Fayette	0	26	12	0	0	7	2	0	47	;	30.9%	19.1%
Ford	0	8	29	0	0	33	10	2	82		45.1%	54.9%
Franklin	0	49	27	0	0	16	0	0	92		32.6%	17.4%
Fulton	0	9	30	1	0	64	2	1	107		37.4%	62.6%
Greene	0	8	9	0	1	15	1	0	34		50.0%	50.0%
Grundy	10	41	5	0	0	10	3	0	69		31.2%	18.8%
Hamilton	0	11	5	0	0	1	25	1	43		37.2%	62.8%
Hancock	0	14	5	0	0	41	0	0	60		31.7%	68.3%
Henderson	0	15	1	0	0	5	0	0	21	-	76.2%	23.8%
Henry	0	40	17	0	2	5	13	0	77	-	74.0%	26.0%
Iroquois	0	62	46	1	0	36	80	7	232		47.0%	53.0%
Jackson	0	40	5	0	0	3	0	1	49		91.8%	8.2%
Jasper	0	1	13	0	0	31	8	0	53		26.4%	73.6%
Jefferson	0	49	36	0	0	57	18	1	161	Į.	52.8%	47.2%
Jersey	0	7	13	0	0	1	0	0	21		95.2%	4.8%
Jo Daviess	0	7	13	2	4	2	1	0	29		75.9%	24.1%
Johnson	0	10	0	0	0	2	0	0	12	;	33.3%	16.7%
Kane	0	62	34	1	0	27	2	3	129		75.2%	24.8%
Kankakee	0	55	33	0	0	34	10	6	138	,	53.8%	36.2%
Kendall	0	15	10	0	1	1	9	2	38		35.8%	34.2%
Knox	0	60	29	0	0	19	9	1	118		75.4%	24.6%
La Salle	0	70	53	1	4	41	21	3	193	,	64.2%	35.8%
Lake	0	129	7	0	2	0	2	1	141		96.5%	3.5%
Lawrence	0	7	3	0	0	0	8	0	18		55.6%	44.4%
Lee	0	24	5	0	1	16	0	0	46	,	63.0%	37.0%

### Type of Warning Devices at Public Highway-Rail Grade Crossings (by County)

County	4-Quad Gates	Gates	Flashing Lights	Other Active	Stop Sign	Crossbuck/Yi eld	Crossbuck	Other Passive	Total	Percent Active	Percent Passive
Livingston	17	29	25	0	7	17	52	2	149	47.7%	52.3%
Logan	14	21	27	0	1	27	1	2	93	66.7%	33.3%
Macon	0	32	61	2	1	16	27	2	141	67.4%	32.6%
Macoupin	0	36	35	0	0	28	4	0	103	68.9%	31.1%
Madison	0	70	42	1	1	24	16	3	157	72.0%	28.0%
Marion	0	50	22	0	1	19	8	2	102	70.6%	29.4%
Marshall	0	13	7	0	0	9	3	0	32	62.5%	37.5%
Mason	0	6	13	0	0	7	17	0	43	44.2%	55.8%
Massac	0	3	7	0	0	2	6	0	18	55.6%	44.4%
McDonough	0	43	19	0	0	30	4	1	97	63.9%	36.1%
McHenry	0	54	20	0	2	1	12	0	89	83.1%	16.9%
McLean	24	23	45	1	2	27	31	1	154	60.4%	39.6%
Menard	0	1	11	0	1	6	10	0	29	41.4%	58.6%
Monroe	0	19	0	0	0	4	0	0	23	82.6%	17.4%
Montgomery	0	39	38	0	1	30	1	0	109	70.6%	29.4%
Morgan	0	39	25	5	0	24	1	0	94	73.4%	26.6%
Moultrie	0	25	17	0	0	14	0	2	58	72.4%	27.6%
Ogle	0	49	22	0	1	12	21	3	108	65.7%	34.3%
Peoria	0	23	42	1	2	35	40	6	149	44.3%	55.7%
Perry	0	34	12	0	0	24	5	2	77	59.7%	40.3%
Piatt	0	20	15	0	1	20	29	1	86	40.7%	59.3%
Pike	0	11	4	0	0	25	0	1	41	36.6%	63.4%
Pulaski	0	9	2	0	0	4	0	2	17	64.7%	35.3%
Putnam	0	1	8	0	0	11	4	0	24	37.5%	62.5%
Randolph	0	18	22	1	1	46	3	3	94	43.6%	56.4%
Richland	0	10	10	0	0	0	10	0	30	66.7%	33.3%
Rock Island	0	24	26	1	0	16	25	5	97	52.6%	47.4%
Saline	0	2	2	0	0	20	0	1	25	16.0%	84.0%
Sangamon	4	91	53	0	5	28	12	1	194	76.3%	23.7%
Schuyler	0	0	0	0	0	2	0	0	2	0.0%	100.0%
Scott	0	4	1	0	0	8	0	0	13	38.5%	61.5%
Shelby	0	15	12	1	1	34	4	0	67	41.8%	58.2%
St Clair	0	105	49	0	0	14	17	12	197	78.2%	21.8%
Stark	0	0	2	0	1	3	0	0	6	33.3%	66.7%
Stephenson	0	10	7	0	0	6	0	0	23	73.9%	26.1%
Tazewell	0	15	59	0	1	27	10	2	114	64.9%	35.1%
Union	0	18	0	0	0	10	0	1	29	62.1%	37.9%
Vermilion	0	44	48	1	1	15	34	2	145	64.1%	35.9%
Wabash	0	13	2	0	0	8	1	0	24	62.5%	37.5%
Warren	0	32	0	0	0	6	0	0	38	84.2%	15.8%
Washington	0	13	9	0	0	2	16	0	40	55.0%	45.0%
Wayne	0	19	4	0	0	8	0	2	33	69.7%	30.3%
White	0	4	9	0	0	0	14	3	30	43.3%	56.7%
Whiteside	0	32	2	0	0	12	3	1	50	68.0%	32.0%
Will	0	129	18	0	0	5	12	2	166	88.6%	11.4%
Williamson	0	33	27	1	0	9	28	9	107	57.0%	43.0%
Winnebago	0	22	79	1	3	19	4	4	132	77.3%	22.7%
Woodford	0	1	16	0	3	3	5	1	29	58.6%	41.4%
Total	79	3,261	1,818	28	86	1,422	1,042	209	7,945	65.3%	34.7%
Percent Total	1.0%	41.0%	22.9%	0.4%	1.1%	17.9%	13.1%	2.6%	100.0%		

		Milos	r	Pedestrian			Private			Public			
Railroad	Railroad Name (63)	Owned	At-Grade	RR-Over	RR-Under	At-Grade	RR-Over	RR-Under	At-Grade	RR-Over	RR-Under	Total	Percent
ATK	Amtrak	4.0	0	0	0	1	0	0	2	0	13	16	0.1%
BJRY	Burlington Shortline Railroad, Inc.	8.5	0	0	0	19	0	0	8	1	1	29	0.2%
BLOL	Bloomer Line	45.0	0	0	0	27	0	0	83	0	0	110	0.7%
BNSF	BNSF Railway Company (JERX, I&P)	1,179.5	60	4	6	732	15	3	1,126	183	158	2,287	14.4%
BRC	Belt Railway Company of Chicago	27.2	0	0	0	82	3	0	39	59	8	191	1.2%
BSDA	Bi-State Development Agency / MetroLink	22.0	9	1	0	0	0	0	16	18	9	53	0.3%
CCUO	Chicago Chemung	3.0	0	0	0	1	0	0	4	0	0	5	0.0%
CGGZ	Cargill Grain	5.6	0	0	0	5	0	0	9	0	1	15	0.1%
CIRY	Central Illinois Railroad Company, Inc.	4.8	2	0	0	34	0	0	51	8	1	96	0.6%
CN	CN Railway (CC, EJE, GTW, IC, WC)	1,374.5	72	12	8	769	43	13	1,384	292	200	2,793	17.6%
COER	Crab Orchard and Egyptian Railroad	9.5	0	0	0	2	0	0	56	0	1	59	0.4%
СР	Canadian Pacific Railway (SOO, DME)	182.0	3	0	1	196	3	2	171	53	16	445	2.8%
CRL	Chicago Rail Link, LLC (Rail America)	9.0	0	0	0	7	0	0	17	8	0	32	0.2%
CSS	Chicago Southshore & South Bend Railroad	6.0	0	0	0	0	0	0	1	0	0	1	0.0%
CSX	CSX Transportation, Inc.	633.0	6	2	0	255	3	0	630	122	86	1,104	6.9%
CTM	Chicago Terminal Railroad Company	4.3	0	0	0	13	0	0	78	0	0	91	0.6%
DT	Decatur Junction Railway Co. (Pioneer)	32.0	1	0	0	24	0	0	48	0	2	75	0.5%
EIRC	Eastern Illinois Railroad Company	53.0	0	0	0	39	0	0	70	3	3	115	0.7%
EFRR	Effingham Railroad Company	4.7	0	0	0	0	0	0	0	0	0	0	0.0%
EVWR	Evansville Western Railway, Inc.	109.6	2	0	0	56	1	0	131	0	3	193	1.2%
FFGZ	Fisher Farm & Grain	8.5	0	0	0	3	0	0	8	0	0	11	0.1%
IAIS	Iowa Interstate Railroad, Ltd.	91.3	1	0	0	120	4	0	153	3	19	300	1.9%
IHB	Indiana Harbor Belt Railroad Company	21.9	1	1	2	36	0	0	51	21	26	138	0.9%
IMRR	Illinois & Midland Railroad, Inc. (G&W)	98.0	0	0	0	78	5	0	110	4	4	201	1.3%
INRD	Indiana Rail Road Company	34.0	0	0	0	51	2	0	73	0	0	126	0.8%
IR	Illinois Railway, Inc.	127.0	8	1	0	108	4	0	129	6	6	262	1.6%
KBSR	Kankakee, Beaverville & Southern Railroad	93.0	0	0	0	62	0	2	109	7	1	181	1.1%
KCS	Kansas City Southern Railway Co (GWWE)	143.0	2	1	0	97	3	0	115	18	8	244	1.5%
KJRY	Keokuk Junction Railway (Pioneer)	127.0	2	0	0	88	0	0	129	0	3	222	1.4%
KKRK	Kaskaskia Regional Port District	5.7	0	0	0	11	0	0	8	0	0	19	0.1%
MJ	Manufacturers' Junction Railway, LLC	2.0	0	0	0	0	1	0	1	2	0	4	0.0%
MRMZ	Monticello Railroad Museum	6.5	0	0	0	9	0	0	17	0	0	26	0.2%
NICD	Northern Indiana Commuter Rail District	6.5	0	0	0	2	2	0	2	2	1	9	0.1%
NIRC	Northeast Illinois Railroad Corporation / Metra	223.2	113	13	9	31	0	1	257	257	45	726	4.6%
NS	Norfolk Southern Railway Company	847.0	25	0	2	680	11	2	953	181	94	1,948	12.3%
RRCO	City of Rochelle / Total Logistic Control, LLC	4.0	0	0	0	0	0	0	5	0	1	6	0.0%
RVPR	Riverport Railroad, LLC	3.5	0	0	0	0	0	0	2	0	0	2	0.0%
SCIH	South Chicago & Indiana Harbor Railway Co.	2.0	0	0	0	4	0	0	2	7	1	14	0.1%
STR	Shawnee Terminal Railway (Pioneer)	5.2	0	0	0	4	0	0	4	1	1	10	0.1%
SVIZ	Shelbyville Industrial Railroad	1.0	0	0	0	0	0	0	1	0	0	1	0.0%
TPW	Toledo, Peoria and Western Railway Corp.	109.9	4	0	0	101	0	0	157	1	8	271	1.7%
TRRA	Terminal Railroad Association of St. Louis	14.5	0	0	0	11	0	0	40	8	11	70	0.4%
TZPR	Tazewell & Peoria Railroad, Inc. (G&W)	18.0	4	0	0	37	0	0	47	2	8	98	0.6%
UP	Union Pacific Railroad Company (ALS, CHTT)	1,622.0	49	23	5	786	32	2	1,604	461	206	3,168	19.9%
VRRC	Vandalia Railroad Company (Pioneer)	3.0	0	0	0	0	0	0	5	0	2	7	0.0%
WCRY	Wheeler Creek LLC	5.4	0	0	0	0	0	0	1	0	0	1	0.0%
WSOR	Wisconsin & Southern Railroad Company	14.2	0	0	0	15	0	0	13	2	0	30	0.2%
XCTA	Chicago Transit Authority	6.0	0	1	0	0	0	0	25	64	4	94	0.6%
Total		7,364.1	364	59	33	4,596	132	25	7,945	1,794	951	15,899	100.0%

## Number of Highway-Rail Crossings (by Railroad and by Type)

Railroad	4-Quad Gates	Gates	Flashing Lights	Other Active	Stop Sign	Crossbucks / Yield Sign	Crossbucks	Other Passive	Total		Percent Active	Percent Passive
ALS	0	6	7	0	0	0	3	0	16		81.3%	18.8%
ATK	0	2	0	0	0	0	0	0	2		100.0%	0.0%
BJRY	0	3	2	0	0	0	2	1	8		62.5%	37.5%
BLOL	0	1	15	0	4	1	59	3	83		19.3%	80.7%
BNSF	0	588	241	2	7	210	59	16	1,123		74.0%	26.0%
BRC	0	19	7	0	0	0	11	2	39		66.7%	33.3%
BSDA	0	15	0	0	0	0	0	1	16		93.8%	6.3%
CC	0	70	50	3	4	24	2	4	157		78.3%	21.7%
CCUO	0	0	1	0	0	0	3	0	4		25.0%	75.0%
CGGZ	0	0	1	2	0	1	4	1	9		33.3%	66.7%
CHTT	0	5	6	0	0	3	2	2	18		61.1%	38.9%
CIRY	0	2	23	1	0	0	13	12	51		51.0%	49.0%
COER	0	6	22	0	0	0	28	0	56		50.0%	50.0%
CRL	0	6	1	0	0	0	8	2	17		41.2%	58.8%
CSS	0	0	0	0	0	0	1	0	1		0.0%	100.0%
CSX	10	242	180	3	6	2	162	25	630		69.0%	31.0%
СТМ	0	2	10	0	0	0	38	28	78		15.4%	84.6%
DME	0	42	41	1	1	22	27	1	135		62.2%	37.8%
DRI	0	0	0	0	0	0	0	1	1		0.0%	100.0%
DT	0	0	4	1	0	3	38	2	48		10.4%	89.6%
EIRC	0	0	22	0	0	0	47	1	70		31.4%	68.6%
EJE	0	112	10	0	0	7	3	1	133		91.7%	8.3%
EVWR	0	24	35	0	0	1	68	3	131		45.0%	55.0%
FFGZ	0	0	0	0	1	0	7	0	8		0.0%	100.0%
GTW	0	44	0	0	0	0	0	0	44		100.0%	0.0%
GWWE	0	0	2	0	0	1	1	0	4		50.0%	50.0%
IAIS	0	51	44	1	6	26	24	1	153	-	62.7%	37.3%
IC	0	357	255	2	7	303	24	32	980	-	62.7%	37.3%
IHB	0	20	6	0	2	0	17	6	51	-	51.0%	49.0%
IMRR	0	10	42	0	5	0	53	0	110	-	47.3%	52.7%
INRD	0	5	30	0	0	30	8	0	73	-	47.9%	52.1%
IR	0	12	60	0	4	1	45	7	129	-	55.8%	44.2%
JERX	0	0	0	0	0	0	3	0	3	-	0.0%	100.0%
KBSR	0	1	34	1	0	0	69	4	109	-	33.0%	67.0%
KCS	0	17	36	5	1	51	1	0	111		52.3%	47.7%
KIRY	0	5	36	0	0	84	4	0	129	-	31.8%	68.2%
KKRX	0	1	2	0	0	0	5	0	.20		37.5%	62.5%
MI	0	. 0		0	0	0	0	1	1	-	0.0%	100.0%
MRMZ	0	0	3	0	1	0	13	0	17	-	17.6%	82.4%
	0	1	1	0	0	0		0	2	-	100.0%	0.0%
	0	251	1	1	1	0	2	1	257	-	98.4%	1.6%
NS	0	432	221	1	۱ ۱	260	25	14	Q53		68.6%	31 4%
RRCO	0	-+32			0	200	23	14			0.0%	100.0%
RVPR	0	0	0	0	0	0	4		2	-	0.0%	100.0%
SCIH	0	0	0	0	0	0	2	0	2	-	100.0%	0.0%
SOO	0	2		0	0	0	14	0	25	-	100.0%	0.0%
SUU STD	0	8	/	0	0	0	14	6	35		42.9%	100.0%
SIK SV/IZ	0	0	0	0	0	3	1	0	4	-	100.0%	0.0%
	0			1		0	0	0	1	-	FO 29/	40.70/
	0	10	12	0	1	1	69	1	15/		50.3%	49.7%
	0	18	12	0	0	0	7	3	40		15.0%	∠5.0%
	0	4	18	0	2	0	22	1	47	-	46.8%	53.2%
VPPC	69	776	247	3	26	387	39	23	1,570	-	69.7%	30.3%
VRRC	0	0	4	0	0	1	0	0	5		80.0%	20.0%
WC	0	67	0	0	0	0	2	1	70		95.7%	4.3%
WCRY	0	0	0	0	0	0	0	1	1		0.0%	100.0%
WSOR	0	2	7	0	1	0	3	0	13	-	69.2%	30.8%
XCTA	0	25	0	0	0	0	0	0	25		100.0%	0.0%
Total	79	3,261	1,818	28	86	1,422	1,042	209	7,945		65.3%	34.7%

### Type of Warning Devices at Public Highway-Rail Grade Crossings (by Railroad)

## **EXPOSURE TO RISK OF A COLLISION OCCURRING**

Exposure to the risk of a collision is calculated by multiplying the number of daily trains by the average annual daily highway traffic. Exposure can then be allocated and compared by type of warning device, geographical sub-region, type of highway, or railroad. Alternatively, the number of predicted collisions to occur annually may be used in a similar manner.

Type of Railroad	Public Crossings	Percent	Exposure	Percent	Predicted Collisions (5 Years)	Percent	Actual Collisions (5 Years)	Percent
Class1	5,983	75.3%	288,743,688	58.1%	415	76.4%	403	65.5%
Metra/Amtrak	261	3.3%	138,026,803	27.8%	59	10.8%	150	24.4%
Local	884	11.1%	4,432,349	0.9%	24	4.5%	16	2.6%
Museum	17	0.2%	21,977	0.0%	0	0.1%	0	0.0%
Regional	239	3.0%	881,304	0.2%	7	1.4%	22	3.6%
Terminal	520	6.5%	21,398,383	4.3%	28	5.2%	23	3.7%
MetroLink/CTA	41	0.5%	43,591,788	8.8%	9	1.7%	1	0.2%
Total	7,945	100.0%	497,096,292	100.0%	544	100.0%	615	100.0%

Class 1 railroads account for 75.3% of all crossings in Illinois, and 58.1% of risk and experience 65.5% of all collisions. Conversely, passenger and transit railroads have only 3.8% of all the crossings, yet represent 36.6% of the risk of a collision occurring.

Type of Roadway	Public Crossings	Percent	Exposure	Percent	Predicted Collisions (5 Years)	Percent	Actual Collisions (5 Years)	Percent
Collector, urban	873	11.0%	110,523,692	22.2%	92	16.9%	100	16.3%
Local, rural	3,456	43.5%	12,202,697	2.5%	136	25.0%	154	25.0%
Local, urban	1,404	17.7%	56,158,593	11.3%	93	17.2%	100	16.3%
Major Collector, rural	645	8.1%	12,888,380	2.6%	40	7.4%	37	6.0%
Minor Arterial, rural	153	1.9%	5,518,200	1.1%	11	2.0%	10	1.6%
Minor Arterial, urban	751	9.5%	178,708,163	36.0%	104	19.2%	119	19.3%
Minor Collector, rural	145	1.8%	1,096,886	0.2%	8	1.5%	9	1.5%
Othr Freeway/Expressway, urban	2	0.0%	801,800	0.2%	1	0.1%	1	0.2%
Othr Principal Arterial, rural	57	0.7%	2,677,404	0.5%	5	0.8%	6	1.0%
Othr Principal Arterial, urban	315	4.0%	116,446,667	23.4%	54	9.8%	63	10.2%
Other/Unknown	144	1.8%	73,810	0.0%	0	0.0%	16	2.6%
Total	7,945	100.0%	497,096,292	100.0%	544	100.0%	615	100.0%

Urban minor arterial roads account for 9.5% of public highway-rail crossings in Illinois, but represent 36.0% of risk and actually account for 19.3% of all collisions.

On State Highway System?	Public Crossings	Percent	Exposure	Percent	Predicted Collisions (5 Years)	Percent	Actual Collisions (5 Years)	Percent
No	7,156	90.1%	303,648,855	61.1%	434	79.8%	477	77.6%
Yes	789	9.9%	193,447,437	38.9%	110	20.2%	138	22.4%
Total	7,945	100.0%	497,096,292	100.0%	544	100.0%	615	100.0%

Only 9.9% of all crossings in Illinois are located on state highways, but they represent 38.9% of the risk of collisions occurring and account for 22.4% of all public highway-rail crossing collisions.

Type of Warning Device	Public Crossings	Percent	Exposure	Percent	Predicted Collisions (5 Years)	Percent	Actual Collisions (5 Years)	Percent
Four Quad Gates	79	1.0%	2,720,072	0.5%	4	0.8%	1	0.2%
Gates	3,261	41.0%	459,629,620	92.5%	362	66.5%	328	53.3%
Flash Lights	1,818	22.9%	28,985,462	5.8%	90	16.6%	125	20.3%
Other Active	28	0.4%	200,366	0.0%	1	0.2%	0	0.0%
Stop Sign	86	1.1%	194,975	0.0%	3	0.6%	9	1.5%
Crossbucks/Yield	1,422	17.9%	1,857,320	0.4%	53	9.7%	80	13.0%
Crossbucks	1,042	13.1%	2,657,845	0.5%	27	5.0%	66	10.7%
Other Passive	209	2.6%	850,632	0.2%	4	0.7%	6	1.0%
Total	7,945	100.0%	497,096,292	100.0%	544	100.0%	615	100.0%

65.3% of all grade crossings in Illinois are equipped with train activated warning devices and account for 98.9% of all risk. Yet, 26.2% of all collisions still occur at crossings equipped with passive warning signs, such as the traditional Crossbuck warning sign.

Region of Illinois	Public Crossings	Percent	Exposure	Percent	Predicted Collisions (5 Years)	Percent	Actual Collisions (5 Years)	Percent
Rest of Illinois	6,412	80.7%	107,426,007	21.6%	328	60.4%	378	61.5%
6 County Region of NE Illinois	1,533	19.3%	389,670,285	78.4%	215	39.6%	237	38.5%
Total	7,945	100.0%	497,096,292	100.0%	544	100.0%	615	100.0%

Only 19.3% of all grade crossings in Illinois are located in northeastern Illinois, but 78.4% of the risk of a collision occurs in the 6-county region of Cook, DuPage, Kane, Lake, McHenry and Will Counties.

Interconnected Hwy/Rail Warning Devices	Public Crossings	Percent	Exposure	Percent	Predicted Collisions (5 Years)	Percent	Actual Collisions (5 Years)	Percent
No	7,643	96.2%	343,385,752	69.1%	480	88.3%	533	86.7%
Yes	302	3.8%	153,710,540	30.9%	64	11.7%	82	13.3%
Total	7,945	100.0%	497,096,292	100.0%	544	100.0%	615	100.0%

Highly complex highway-rail intersections that have highway and railroad warning devices interconnected comprise only 3.8% of the public highway-rail crossings in Illinois, yet account for 30.9% of the risk of a collision occurring. Similarly, crossings that have another highway intersection within 75 feet of the rail crossing, experience a higher risk of a collision occurring.

Nearby Intersecting Highway (Data N/A at 3,478 Crossings)	Public Crossings	Percent	Exposure	Percent	Predicted Collisions (5 Years)	Percent	Actual Collisions (5 Years)	Percent
LT 75ft	2,616	58.6%	244,266,278	65.2%	215	60.9%	251	65.4%
75-200	1,634	36.6%	105,261,437	28.1%	119	33.5%	115	29.9%
200-500	217	4.9%	25,169,518	6.7%	20	5.7%	18	4.7%
Total	4,467	100.0%	374,697,233	100.0%	354	100.0%	384	100.0%

When attempting to compare the relative safety of states it is important to normalize the exposure to risk and not use simple gross numbers of collisions. The use of a variable, such as, the number of collisions per 100,000 units of annual average daily traffic (AADT), or the number of collisions per 100 crossings, demonstrates that crossings in Illinois are much "safer" compared to other states. The Table on the following page illustrates this point.

# National Comparison of the Rate of Collisions Involving Motor Vehicles at Public Highway-Rail Crossings (FRA/2010)

State (#1 Ranking is Worst)	Collisions	Rank	Per 100 Xings	Rank	Per 100K ADT	Rank
North Dakota	18	30	0.51	43	1.73	1
Louisiana	88	4	2.91	1	1.43	2
Arkansas	44	11	1.49	11	1.26	3
Kentucky	42	14	1.78	4	1.14	4
Alabama	62	6	2.19	3	1.11	5
Nebraska	19	29	0.63	40	1.02	6
Missouri	41	16	1.03	23	0.98	7
Mississippi	39	17	1.74	6	0.95	8
Oklahoma	38	19	0.98	24	0.89	9
lowa	46	9	1.04	22	0.87	10
Kansas	38	18	0.71	36	0.86	11
Montana	11	34	0.79	34	0.80	12
Indiana	104	2	1.75	5	0.76	13
Arizona	20	28	2.57	2	0.75	14
South Dakota	8	38	0.42	44	0.72	15
Pennsylvania	45	10	1.29	12	0.70	16
Idaho	12	33	0.93	26	0.70	17
West Virginia	11	35	0.76	35	0.70	18
South Carolina	42	15	1.55	9	0.69	19
Tennessee	34	22	1.21	14	0.60	20
Georgia	59	8	1.09	19	0.60	21
Minnesota	37	20	0.81	31	0.58	22
Washington	24	25	0.94	25	0.52	23
New Mexico	5	40	0.69	38	0.52	24
Texas	170	1	1.73	7	0.49	25
Illinois	94	3	1.20	15	0.48	26
Vermont	3	42	0.80	33	0.48	27
Maryland	10	36	1.56	8	0.45	28
Colorado	14	31	0.81	32	0.43	29
Ohio	62	7	1.06	21	0.42	30
Virginia	21	27	1.08	20	0.40	31
Utah	9	37	1.29	13	0.33	32
Michigan	43	13	0.89	27	0.31	33
Oregon	13	32	0.70	37	0.31	34
New York	22	26	0.82	30	0.29	35
Wisconsin	26	23	0.64	39	0.29	36
Delaware	3	41	1.12	17	0.27	37
North Carolina	35	21	0.89	28	0.27	38
New Jersey	24	24	1.54	10	0.26	39
	72	5	1.11	18	0.21	40
Alaska	1	45	0.58	41	0.21	41
Fiorida	44	12	1.17	16	0.19	42
	2	43	0.54	42	0.15	43
Maine	7	39	0.84	29	0.14	44
	2	44	0.24	45	0.10	45
iotal (Or Mean)	1,564		1.17		0.49	

## ANALYSIS OF HIGHWAY-RAIL COLLISION DATA: 2006 - 2010

Train-vehicle/pedestrian collisions that occurred between January 1, 2006, and December 31, 2010, encompass the latest 5-year period for which data is available. The FRA 6180.57 Highway-Rail Grade Crossing Database is the primary source of the data. The collision data has been augmented with the standard crossing inventory characteristics from the FRA 6180.71 Database. Data items for quiet zone status, interconnected crossings, warning devices, and the presence of Yield signs and 4-quad gates have been verified by reviewing ICC inventory data. Documented suicides that occurred at highway-rail grade crossings are included. However, no casualty counts are assigned to the incident.

There are three types of highway-rail grade crossings; private, pedestrian and public. Train-vehicle collisions occur at all three types of crossings. FRA collision data classifies collisions that occur at pedestrian and public crossings together as "public". This report provides data for the three standard types of crossings. Private crossings are defined as locations where a railroad crosses a non-public roadway (i.e., crossings at farms, industries, commercial facilities and residences) and are not under the jurisdiction of either the state or the FRA.

In Illinois, the Table below shows that a total of 718 train-vehicle/pedestrian collisions occurred at public, private and pedestrian crossings during the 5-year period of 2006 through 2010. These collisions resulted in 308 injuries and 126 fatalities. Public highway-rail crossing collisions account for 85.6% of all collisions, 89.6% of all injuries and 96.8% of all fatalities.

	Illinois: 2006 - 2010											
	All Ty	pes of Cros	sings	Public H	lighway Cro	ossings	Private H	lighway Cr	ossings			
Year	Collisions	Killed	Injured	Collisions	Killed	Injured	Collisions	Killed	Injured			
2006	175	25	74	153	23	67	22	2	7			
2007	159	29	69	132	29	57	27	0	12			
2008	153	27	73	133	26	70	20	1	3			
2009	105	18	50	83	17	46	22	1	4			
2010	126	27	42	114	27	36	12	0	6			
Total	718	126	308	615	122	276	103	4	32			

Since 2006, collisions at all types of crossings have declined by 31.8% nationally, and by 28.0% in Illinois.

10 Year USA Trend in Collisions, Injuries and Fatalities at Public Highway-Rail Crossings



10 Year Illinois Trend in Collisions, Injuries and Fatalities at Public Crossings Highway-Rail Crossings





10 Year Illinois Trend in Collisions, Injuries and Fatalities at Private Crossings

10 Year Illinois Trend in Collisions, Injuries and Fatalities at Private Crossings



The tables on the following pages list the number of collisions, injuries and fatalities that occurred between 2006 and 2010 at public highway-rail crossings for each county and city in Illinois that experienced a collision. Four of the 615 collisions resulted in three fatalities and eight collisions resulted in two fatalities at public highway-rail crossings in Illinois.

County (80)	Collisions	Percent	Killed	Percent	Injured	Percent
Cook	162	26.3%	29	23.8%	64	23.2%
Madison	23	3.7%	1	0.8%	9	3.3%
Du Page	22	3.6%	10	8.2%	5	1.8%
St Clair	20	3.3%	5	4.1%	2	0.7%
Macon	19	3.1%	0	0.0%	4	1.4%
Will	17	2.8%	3	2.5%	9	3.3%
Iroquois	15	2.4%	2	1.6%	8	2.9%
La Salle	15	2.4%	5	4.1%	7	2.5%
Lake	15	2.4%	5	4.1%	9	3.3%
Sangamon	13	2.1%	2	1.6%	15	5.4%
Vermilion	12	2.0%	4	3.3%	3	1.1%
Kane	11	1.8%	5	4.1%	7	2.5%
Champaign	10	1.6%	2	1.6%	3	1.1%
De Kalb	10	1.6%	3	2.5%	2	0.7%
Henry	10	1.6%	2	1.6%	5	1.8%
Kankakee	10	1.6%	0	0.0%	3	1.1%
McHenry	10	1.6%	3	2.5%	3	1.1%
Ogle	10	1.6%	1	0.8%	4	1.4%
Knox	9	1.5%	6	4.9%	5	1.8%
Bureau	8	1.3%	3	2.5%	4	1.4%
Jefferson	8	1.3%	4	3.3%	1	0.4%
Montgomery	8	1.3%	2	1.6%	1	0.4%
Winnebago	8	1.3%	0	0.0%	1	0.4%
Rock Island	7	1.1%	1	0.8%	3	1.1%
Williamson	7	1.1%	1	0.8%	3	1.1%
Grundy	6	1.0%	2	1.6%	4	1.4%
Randolph	6	1.0%	0	0.0%	3	1.1%
Whiteside	6	1.0%	1	0.8%	1	0.4%
Christian	5	0.8%	2	1.6%	0	0.0%
Effingham	5	0.8%	0	0.0%	2	0.7%
Fayette	5	0.8%	0	0.0%	2	0.7%
Ford	5	0.8%	0	0.0%	2	0.7%
Franklin	5	0.8%	1	0.8%	5	1.8%
McLean	5	0.8%	2	1.6%	3	1.1%
Peoria	5	0.8%	0	0.0%	7	2.5%
Jackson	4	0.7%	1	0.8%	0	0.0%
Lee	4	0.7%	0	0.0%	0	0.0%
Macoupin	4	0.7%	1	0.8%	25	9.1%
Tazewell	4	0.7%	0	0.0%	2	0.7%
Adams	3	0.5%	2	1.6%	0	0.0%
Clark	3	0.5%	0	0.0%	1	0.4%
Clinton	3	0.5%	0	0.0%	1	0.4%
Cumberland	3	0.5%	0	0.0%	2	0.7%
Henderson	3	0.5%	1	0.8%	0	0.0%
Jasper	3	0.5%	0	0.0%	1	0.4%

### 80 Counties with One or More Collisions at a Public Crossing: 2006 - 2010

County (80)	Collisions	Percent	Killed	Percent	Injured	Percent
Jo Daviess	3	0.5%	0	0.0%	2	0.7%
Livingston	3	0.5%	0	0.0%	1	0.4%
Mason	3	0.5%	0	0.0%	0	0.0%
Morgan	3	0.5%	1	0.8%	1	0.4%
Perry	3	0.5%	1	0.8%	0	0.0%
Piatt	3	0.5%	1	0.8%	0	0.0%
Wabash	3	0.5%	0	0.0%	1	0.4%
Wayne	3	0.5%	1	0.8%	3	1.1%
Bond	2	0.3%	0	0.0%	3	1.1%
Boone	2	0.3%	0	0.0%	1	0.4%
Crawford	2	0.3%	0	0.0%	1	0.4%
Edgar	2	0.3%	0	0.0%	0	0.0%
Hamilton	2	0.3%	0	0.0%	0	0.0%
Hancock	2	0.3%	0	0.0%	0	0.0%
Johnson	2	0.3%	2	1.6%	4	1.4%
Kendall	2	0.3%	0	0.0%	1	0.4%
Logan	2	0.3%	0	0.0%	3	1.1%
Marion	2	0.3%	1	0.8%	4	1.4%
Marshall	2	0.3%	1	0.8%	2	0.7%
McDonough	2	0.3%	0	0.0%	0	0.0%
Moultrie	2	0.3%	0	0.0%	1	0.4%
Pike	2	0.3%	0	0.0%	1	0.4%
Richland	2	0.3%	0	0.0%	0	0.0%
Shelby	2	0.3%	0	0.0%	1	0.4%
Warren	2	0.3%	1	0.8%	0	0.0%
Washington	2	0.3%	0	0.0%	2	0.7%
Carroll	1	0.2%	0	0.0%	0	0.0%
Coles	1	0.2%	0	0.0%	0	0.0%
De Witt	1	0.2%	0	0.0%	1	0.4%
Douglas	1	0.2%	1	0.8%	0	0.0%
Menard	1	0.2%	0	0.0%	1	0.4%
Monroe	1	0.2%	0	0.0%	0	0.0%
Pulaski	1	0.2%	0	0.0%	1	0.4%
Saline	1	0.2%	0	0.0%	0	0.0%
Stark	1	0.2%	0	0.0%	0	0.0%
Total	615	100.0%	122	100.0%	276	100.0%

Top 10 Counties	Collisions	Percent	Killed	Percent	Injured	Percent
Cook	162	26.3%	29	23.8%	64	23.2%
Madison	23	3.7%	1	0.8%	9	3.3%
Du Page	22	3.6%	10	8.2%	5	1.8%
St Clair	20	3.3%	5	4.1%	2	0.7%
Macon	19	3.1%	0	0.0%	4	1.4%
Will	17	2.8%	3	2.5%	9	3.3%
Iroquois	15	2.4%	2	1.6%	8	2.9%
La Salle	15	2.4%	5	4.1%	7	2.5%
Lake	15	2.4%	5	4.1%	9	3.3%
Sangamon	13	2.1%	2	1.6%	15	5.4%
Top 10 Counties	321	52.2%	62	50.8%	132	47.8%
Remaining 70 Counties	294	47.8%	60	49.2%	144	52.2%
Illinois Total	615	100.0%	122	100.0%	276	100.0%

117 Cities With 2 or More	Collisions	Percent	Fatalities	Percent	Iniuries	Percent
	66	10.7%	11	9.0%	36	13.0%
	18	2 9%		0.0%	3	1 1%
	10	1.9%	0	3.3%	5	2 20%
	7	1.0%	4	0.99/	1	2.2%
	7	1.1%	1	0.0%		0.4%
	6	1.0%	0	0.0%	3	1.1%
BLUE ISLAND	6	1.0%	0	0.0%	2	0.7%
	6	1.0%	0	0.0%	2	0.7%
	6	1.0%	2	1.6%	1	0.4%
STREATOR	6	1.0%	2	1.6%	2	0.7%
BELLEVILLE	5	0.8%	0	0.0%	0	0.0%
COLONA	5	0.8%	1	0.8%	3	1.1%
GALESBURG	5	0.8%	4	3.3%	3	1.1%
MADISON	5	0.8%	0	0.0%	2	0.7%
MARION	5	0.8%	1	0.8%	3	1.1%
MOUNT VERNON	5	0.8%	0	0.0%	1	0.4%
SPRINGFIELD	5	0.8%	1	0.8%	2	0.7%
AUBURN	4	0.7%	0	0.0%	12	4.3%
CHAMPAIGN	4	0.7%	1	0.8%	1	0.4%
DOWNERS GROVE	4	0.7%	2	1.6%	0	0.0%
EARLVILLE	4	0.7%	0	0.0%	2	0.7%
EAST ST. LOUIS	4	0.7%	0	0.0%	0	0.0%
ELGIN	4	0.7%	4	3.3%	6	2.2%
GLENVIEW	4	0.7%	0	0.0%	1	0.4%
HARTFORD	4	0.7%	0	0.0%	2	0.7%
HARVEY	4	0.7%	1	0.8%	0	0.0%
JOLIET	4	0.7%	0	0.0%	1	0.4%
LANSING	4	0.7%	2	1.6%	0	0.0%
MORRISON	4	0.7%	1	0.8%	1	0.4%
ROCHELLE	4	0.7%	0	0.0%	1	0.4%
ROCK ISLAND	4	0.7%	0	0.0%	0	0.0%
ROCKFORD	4	0.7%	0	0.0%	0	0.0%
STEGER	4	0.7%	1	0.8%	3	1.1%
AURORA	3	0.5%	1	0.8%	2	0.7%
BERWYN	3	0.5%	3	2.5%	0	0.0%
BRAIDWOOD	3	0.5%	0	0.0%	4	1.4%
CRYSTAL LAKE	3	0.5%	1	0.8%	0	0.0%
DEKALB	3	0.5%	2	1.6%	0	0.0%
EFFINGHAM	3	0.5%	0	0.0%	1	0.4%
GIBSON CITY	3	0.5%	0	0.0%	1	0.4%
GRAYSLAKE	3	0.5%	0	0.0%	3	1.1%
HAVANA	3	0.5%	0	0.0%	0	0.0%
KANKAKEE	3	0.5%	0	0.0%	1	0.4%
LITCHFIELD	3	0.5%	0	0.0%	0	0.0%
MILFORD	3	0.5%	1	0.8%	1	0.4%
MINOOKA	3	0.5%	0	0.0%	3	1.1%
MOMENCE	3	0.5%	0	0.0%	1	0.4%
MONTICELLO	3	0.5%	1	0.8%	0	0.0%
NEWTON	3	0.5%	0	0.0%	1	0.4%
NORTHBROOK	3	0.5%	1	0.8%	1	0.4%
RIVER GROVE	3	0.5%	1	0.8%	0	0.0%
RIVERSIDE	3	0.5%	1	0.8%	0	0.0%
SANDWICH	3	0.5%	0	0.0%	1	0.4%
SOUTH BELOIT	3	0.5%	0	0.0%	0	0.0%
VANDALIA	3	0.5%	0	0.0%	2	0.7%
WHEATON	3	0.5%	1	0.8%	0	0.0%
WOODLAND	3	0.5%	0	0.0%	2	0.7%
GOREVILLE	2	0.3%	2	1.6%	4	1.4%

### 117 Cities with Two or More Collisions at a Public Crossing: 2006 – 2010

117 Cities With 2 or More Collisions	Collisions	Percent	Fatalities	Percent	Injuries	Percent
ARLINGTON HTS	2	0.3%	0	0.0%	1	0.4%
ARTHUR	2	0.3%	1	0.8%	1	0.4%
BARRINGTON	2	0.3%	0	0.0%	0	0.0%
BENSENVILLE	2	0.3%	1	0.8%	0	0.0%
BENTON	2	0.3%	0	0.0%	3	1.1%
BUDA	2	0.3%	1	0.8%	0	0.0%
CAMP POINT	2	0.3%	2	1.6%	0	0.0%
CARBONDALE	2	0.3%	1	0.8%	0	0.0%
CARY	2	0.3%	0	0.0%	0	0.0%
CHICAGO RIDGE	2	0.3%	0	0.0%	1	0.4%
CHILLICOTHE	2	0.3%	0	0.0%	5	1.8%
CICERO	2	0.3%	1	0.8%	0	0.0%
COAL CITY	2	0.3%	0	0.0%	1	0.4%
DOLTON	2	0.3%	0	0.0%	0	0.0%
DUQUOIN	2	0.3%	1	0.8%	0	0.0%
EAST DUBUQUE	2	0.3%	0	0.0%	2	0.7%
EDWARDSVILLE	2	0.3%	0	0.0%	1	0.4%
FAIRFIELD	2	0.3%	1	0.8%	2	0.7%
FRANKLIN PARK	2	0.3%	0	0.0%	0	0.0%
GILBERTS	2	0.3%	0	0.0%	1	0.4%
GLEN ELLYN	2	0.3%	0	0.0%	0	0.0%
GOREVILLE	2	0.3%	2	1.6%	4	1.4%
HIGHWOOD	2	0.3%	0	0.0%	1	0.4%
HINSDALE	2	0.3%	0	0.0%	3	1.1%
ILLIOPOLIS	2	0.3%	1	0.8%	0	0.0%
KINSMAN	2	0.3%	0	0.0%	0	0.0%
LAGRANGE	2	0.3%	0	0.0%	1	0.4%
LAKE FOREST	2	0.3%	2	1.6%	2	0.7%
MARTINSVILLE	2	0.3%	0	0.0%	0	0.0%
MAZON	2	0.3%	2	1.6%	0	0.0%
МС СООК	2	0.3%	0	0.0%	0	0.0%
MELROSE PARK	2	0.3%	0	0.0%	1	0.4%
MILAN	2	0.3%	0	0.0%	0	0.0%
MONMOUTH	2	0.3%	1	0.8%	0	0.0%
MOUNT CARMEL	2	0.3%	0	0.0%	1	0.4%
MOUNT OLIVE	2	0.3%	0	0.0%	0	0.0%
NEOGA	2	0.3%	0	0.0%	2	0.7%
NILES	2	0.3%	0	0.0%	1	0.4%
NORMANDY	2	0.3%	0	0.0%	1	0.4%
O FALLON	2	0.3%	0	0.0%	0	0.0%
ODIN	2	0.3%	1	0.8%	4	1.4%
OLNEY	2	0.3%	0	0.0%	0	0.0%
PALATINE	2	0.3%	0	0.0%	0	0.0%
PEKIN	2	0.3%	0	0.0%	2	0.7%
PHILO	2	0.3%	0	0.0%	1	0.4%
PLAINFIELD	2	0.3%	0	0.0%	0	0.0%
RANKIN	2	0.3%	0	0.0%	1	0.4%
RIVERDALE	2	0.3%	0	0.0%	1	0.4%
SHABBONA	2	0.3%	0	0.0%	1	0.4%
SHEFFIELD	2	0.3%	0	0.0%	2	0.7%
SHILOH	2	0.3%	0	0.0%	0	0.0%
THAWVILLE	2	0.3%	0	0.0%	1	0.4%
THOMASBORO	2	0.3%	1	0.8%	0	0.0%
TISKILWA	2	0.3%	0	0.0%	1	0.4%
TOLUCA	2	0.3%	1	0.8%	2	0.7%
UNION HILL	2	0.3%	0	0.0%	1	0.4%
WADSWORTH	2	0.3%	0	0.0%	0	0.0%
WATSEKA	2	0.3%	1	0.8%	0	0.0%
WEST CHICAGO	2	0.3%	0	0.0%	0	0.0%
WEST FRANKFORT	2	0.3%	1	0.8%	0	0.0%
WOODSTOCK	2	0.3%	1	0.8%	1	0.4%
Illinois Cities W/ 2 or >	427	69.4%	77	63.1%	181	65.6%
Illinois Total	615	100.0%	122	100.0%	276	100.0%

Number of Collisions	Public Crossings	Percent	Killed	Percent	Injured	Percent
Six	0	0.0%	0	0.0%	0	0.0%
Five	1	0.0%	0	0.0%	1	0.4%
Four	3	0.0%	0	0.0%	4	1.5%
Three	10	0.1%	11	9.6%	13	4.8%
Two	53	0.7%	12	10.4%	44	16.2%
One	454	5.7%	92	80.0%	210	77.2%
Zero	7,424	93.4%	0	0.0%	0	0.0%
Total	7,945	100.0%	115	100.0%	272	100.0%

### Most Crossings Were Collision Free During The Five-Year Period: 2006 - 2010

Number of Collisions	Private Crossings	Percent	Killed	Percent	Injured	Percent
Six	1	0.0%	0	0.0%	1	3.1%
Five	2	0.0%	0	0.0%	1	3.1%
Four	4	0.1%	0	0.0%	3	9.4%
Three	1	0.0%	0	0.0%	0	0.0%
Two	7	0.2%	0	0.0%	4	12.5%
One	54	1.2%	4	100.0%	23	71.9%
Zero	4,527	98.5%	0	0.0%	0	0.0%
Total	4,596	100.0%	4	100.0%	32	100.0%

Number of Collisions	Ped Crossings	Percent	Killed	Percent	Injured	Percent
Six	0	0.0%	0	0.0%	0	0.0%
Five	0	0.0%	0	0.0%	0	0.0%
Four	0	0.0%	0	0.0%	0	0.0%
Three	0	0.0%	0	0.0%	0	0.0%
Two	2	0.5%	4	57.1%	3	75.0%
One	4	1.1%	3	42.9%	1	25.0%
Zero	358	98.4%	0	0.0%	0	0.0%
Total	364	100.0%	7	100.0%	4	100.0%

Collisions occur at a relatively small number of locations. Each year the ICC places a high priority on upgrading public highway-rail grade crossings which have a pronounced history of train/vehicle collisions, or which have a high predictive value for future collisions. The ICC's FY 2012-2016 Crossing Safety Improvement Plan addresses safety improvements at many of these multiple collision crossing locations.

DOT	FREQ	RR-REP	COUNTY	CITY	STREET	KLD	INJ	WARNDEV	AADT	ANGLE	INTNEAR	BAN	TRAINS	STHWY	I-CONN
		-			1 Public Highway-Rail Crossin	g With	5 Col	lisions in Past 5 Ye	ars					-	-
173887G	5	UPME	Cook	CHICAGO	NAGLE AVE	0	1	Gates	15,400	$60^\circ$ to $90^\circ$	LT 75ft	ICC	68	Yes	Yes
	1		1	r	3 Public Highway-Rail Crossing	gs With	4 Co	llisions in Past 5 Ye	ears	1			1	1	1
291378J	4	IC	Macon	DECATUR	BRUSH COLLEGE RD	0	1	AFLS-CANT	12,200	60° to 90°	N/A	No	4	No	Yes
386411X	4	ATK	Cook	GLENVIEW		0	1	Gates/CANT	11,700	60° to 90°	LT 75ft	ICC	82	No	Yes
606311K	4	IAIS	COOK	CHICAGO	10 Public Highway-Pail Crossin	oe Wit	2 h 3 Cr	Gales/CANT	21,300	60, 10, 90,	LI 75IL	NO	00	res	INO
163/16P	3	CSY	Cook				1 3 60	Gates/CANT	4 950	60° to 90°	1 T 75ft	No	0	Vec	No
167495S	3	CSX	Cook	STEGER	STEGER RD	1	2	Gates/CANT	9,700	60° to 90°	LT 75ft	No	35	No	No
173908X	3	UPME	Cook	DES PLAINES	DES PLAINES RIVER	2	1	Gates/CANT	23,000	60° to 90°	LT 75ft	ICC	68	Yes	Yes
176909P	3	UPME	Cook	DES PLAINES	MT PROSPECT RD	0	2	Gates	16,800	60° to 90°	LT 75ft	ICC	69	No	Yes
178743U	3	ICE	Winnebago	SOUTH BELOIT	BLACKHAWK BLVD / ILL2	0	0	Crossbucks	12,700	$60^\circ$ to $90^\circ$	N/A	No	2	Yes	No
243205P	3	NS	Cook	CHICAGO	RACINE AVE	0	0	Gates/CANT	1,750	$60^\circ$ to $90^\circ$	N/A	No	54	No	No
283190L	3	GTW	Cook	LANSING	TORRENCE AVE / ILL83	1	0	Gates/CANT	15,500	60° to 90°	75-200	No	16	Yes	No
289554E	3	NIRC	Cook	CHICAGO	75TH ST	3	1	Gates	3,200	60° to 90°	LT 75ft	ICC	62	No	No
372242W	3	NIRC	Kane			4	5	Gates/CANT	22,400	60° to 90°	LI 75ft	NO	76	N0 Voc	Yes
4749001	3	143	FUIU	GIBSON CITT	53 Public Highway-Pail Crossin	as Wit	h 2 C	AFLO	4,000	00 10 90	200-300	NU	5	Tes	NO
004414P	2	BNSE	Grundy	MAZON	TYNAN RD	2	0	Vield/Crossbucks	75	60° to 90°	N/A	No	61	No	No
0044141 004454M	2	BNSF	La Salle	KINSMAN	N 17TH	0	0	Gates	450	30° to 59°	N/A	No	61	No	No
004662N	2	UP	Knox	GALESBURG	N WEST ST	1	1	Gates/CANT	700	60° to 90°	75-200	No	62	No	No
063069U	2	BNSF	Warren	MONMOUTH	MAIN ST	1	0	Gates	5,800	60° to 90°	75-200	No	34	No	No
065663M	2	BNSF	Henry	COLONA	COLONA DR / ILL84	0	1	Gates	4,800	$60^\circ$ to $90^\circ$	N/A	No	18	Yes	No
079488P	2	ATK	Cook	BERWYN	EAST AVE	2	0	Gates	4,050	$60^\circ$ to $90^\circ$	LT 75ft	ICC	160	No	No
079493L	2	BNSO	Cook	RIVERSIDE	HARLEM AVE / ILL43	0	0	Gates/CANT	29,900	$60^\circ$ to $90^\circ$	75-200	ICC	160	Yes	Yes
079508Y	2	BNSO	Cook	LAGRANGE	LA GRANGE RD / US12	0	1	Gates/CANT	20,600	30° to 59°	LT 75ft	ICC	160	Yes	Yes
079536C	2	BNSO	Du Page	DOWNERS GROVE	FOREST	1	0	Gates	4,300	60° to 90°	75-200	ICC	160	No	No
163596P	2	ІНВ	Cook Williamson		PULASKI RD/CRAWFORD	0	1	AFLS-CANT	21,200	60° to 90°	LT 75ft	NO	8	No	No
1676691	2		Williamson	MARION	I AKE OF FGYPT RD	0	1	AFI S	3,300	60° to 90°	75-200	No	4	No	No
173893K	2	UPME	Cook	CHICAGO	HARLEM AVE / ILL43	0	0	Gates/CANT	29,900	30° to 59°	75-200	ICC	68	Yes	No
173957U	2	UPME	Cook	CHICAGO	N KILBOURN AV	0	11	Gates	59	60° to 90°	LT 75ft	No	58	No	No
174001M	2	UPME	Cook	MELROSE PARK	9TH AVE	0	1	Gates/CANT	10,800	$60^\circ$ to $90^\circ$	LT 75ft	ICC	94	No	No
174552V	2	UP	Kane	GILBERTS	ELGIN ST / ILL72	0	1	AFLS	13,800	$60^\circ$ to $90^\circ$	75-200	No	2	Yes	No
174950A	2	UPME	Du Page	GLEN ELLYN	MAIN ST	0	0	Gates	7,200	$60^\circ$ to $90^\circ$	75-200	ICC	108	No	No
174954C	2	UP	Du Page	WHEATON	CHASE ST	1	0	Gates	1,300	60° to 90°	75-200	ICC	108	No	No
175058S	2	UP	Ogle	ROCHELLE	MULFORD RD	0	0	Gates	225	60° to 90°	N/A	No	60	No	No
175778K	2		De Kalb	SHABBONA		0	1	Yield/Crossbucks	250	60° to 90°	N/A	NO	2	No	No
176965W	2		COOK McHenry	CARY	THREE OAKS RD	0	0	Gates/CANT Gates	14 600	30° to 59°	Z5-200		60	No	Yes
176970T	2		McHenry	CRYSTAL LAKE	CRYSTAL LAKE AVE	1	0	Gates	10,100	30° to 59°	LT 75ft	No	60	No	No
261014C	2	EJE	Will	MINOOKA	MOUND RD	0	2	Stop Sign	500	60° to 90°	200-500	No	4	No	No
289536G	2	NIRC	Cook	CHICAGO	STONY ISLAND AVE	0	0	Gates/CANT	38,100	$60^\circ$ to $90^\circ$	LT 75ft	ICC	62	Yes	Yes
289568M	2	NIRC	Cook	CHICAGO	E 90TH ST	0	1	Gates	109	$60^\circ$ to $90^\circ$	N/A	ICC	62	No	No
289759X	2	ATK	Will	JOLIET	OHIO ST	0	1	Gates/CANT	7,500	60° to 90°	200-500	No	6	No	No
290026A	2	CC	Winnebago	ROCKFORD	8TH	0	0	Gates/CANT	259	60° to 90°	75-200	No	10	No	No
290508A	2	ATK	Will	BRAIDWOOD	DIVISION ST	0	2	AFLS	700	30° to 59°	75-200	No	9	No	No
291241P	2		Sangamon			0	0	AFLO Vield/Crossbucks	7,300	50° to 90°	LT 75IL	No	20	No	No
295322D	2	IC	Marion		NORTON RD.	1	4	Crossbucks	125	60° to 90°	N/A	No	30	No	No
328052C	2	TRRA	Madison	MADISON	GRAND AVE	0	0	Yield/Crossbucks	175	60° to 90°	75-200	No	8	No	No
328053J	2	TRRA	Madison	MADISON	MADISON AVE	0	1	AFLS-CANT		N/A	N/A	No		No	No
328512C	2	NS	Macon	DECATUR	FAIRIES PARKWAY	0	0	AFLS	6,800	30° to 59°	N/A	No	6	No	No
372133T	2	NIRC	Cook	RIVER GROVE	THATCHER AVE / ILL171	0	0	Gates/CANT	25,100	60° to 90°	LT 75ft	No	106	Yes	No
372170V	2	NIRC	Du Page	BENSENVILLE	YORK RD	1	0	Gates/CANT	17,400	60° to 90°	LT 75ft	Partial	86	No	No
386378A	2	NIRC	Cook	CHICAGO	CALDWELL AVE / US14	1	0	Gates/CANT	25,200	30° to 59°	LT 75ft	ICC	82	Yes	Yes
386385K	2	AIK	Cook	NILES		0	1	Gates/CANT	10,000	60° to 90°	LI 75ft	ICC	82	Yes	Yes
479320B	2		Sangamon		ENTERPRISE ST	0	1	AFLS	32,900	60° to 90°	IT 75ft	No	30	No	No
522440H	2	NIRC	Cook	CHICAGO	RACINE AVE	0	1	Gates	9,100	60° to 90°	N/A	ICC	176	No	No
605903K	2	IAIS	Rock Island	ROCK ISLAND	6TH AVENUE	0	0	Yield/Crossbucks	1,900	60° to 90°	LT 75ft	No	2	No	No
608846J	2	NIRC	Cook	BLUE ISLAND	VERMONT ST	0	0	Gates/CANT	10,800	30° to 59°	N/A	No	109	Yes	No
609011A	2	NIRC	Cook	CHICAGO	95TH ST / US12	0	1	Gates/CANT	23,000	$60^\circ$ to $90^\circ$	LT 75ft	ICC	66	Yes	Yes
724592N	2	NS	St Clair	BELLEVILLE	NORTH ILLINOIS ST / ILL159	0	0	Gates/CANT	20,400	$60^\circ$ to $90^\circ$	LT 75ft	No	12	Yes	Yes
724843F	2	NS	Wabash	MOUNT CARMEL	SIXTH	0	1	Gates	600	60° to 90°	LT 75ft	No	22	No	No
840144X	2	ATK	Cook	CHICAGO	130TH ST	0	1	Gates/CANT	19,600	60° to 90°	N/A	No	35	Yes	No
843823W	2	CSX	Cook		COLUMBUS AVE	0	1	Gates/CANT	4,600	0° to 29°	LT 75ft	No	90	Yes	No No
862630K	2	UP	Cook		EAST END AVE	0	2	AFLS	4 650	00° to 20°	N/A	NO	∠ 12	NO No	NO No
863547B	2	IAIS	Bureau	TISKILWA	PRESBYTERIAN / TR256D	0	1	Crossbucks	450	60° to 90°	LT 75ft	No	2	No	No
867231E	2	CSX	Cook	CHICAGO	95TH ST / US12	0	1	Gates/CANT	20,000	60° to 90°	75-200	No	35	Yes	No

### Public Highway-Rail Crossings with Two or More Collisions: 2006 - 2010

DOT	FREQ	RR-REP	COUNTY	CITY	STREET	KLD	INJ	WARNDEV
			1 Private H	lighway-Rail Crossing	Had 6 Collisions In Past 5 Year	rs		
916990A	6	NS	Cook	CHICAGO	RY TRAILVAN YD XING	0	1	None
			2 Private H	ighway-Rail Crossing	s Had 5 Collisions In Past 5 Yea	rs		
174014N	5	UP	Cook	MELROSE PARK	PRIVATE INDUST RD	0	1	Crossbucks
915903R	5	NS	Lake	CHICAGO	LANDERS YD XING	0	0	Stop Sign
			4 Private H	ighway-Rail Crossing	s Had 4 Collisions In Past 5 Yea	rs		
174259E	4	UP	Cook	CHICAGO	PRIVATE INDUST RD	0	1	Stop Sign
393245A	4	SOO	Cook	FRANKLIN PARK	E. END BENS. YARD	0	2	Stop Sign
915957W	4	NS	Cook	CHICAGO	RY YARD XING	0	0	None
925768C	4	BNSF	Cook	CICERO	RY YARD XING	0	0	None
			1 Private H	lighway-Rail Crossing	Had 3 Collisions In Past 5 Year	rs		
923749R	3	BRC	Cook	BEDFORD PARK	VARIOUS YARD RDS	0	0	Stop Sign
			7 Private H	ighway-Rail Crossing	s Had 2 Collisions In Past 5 Yea	rs		
174247K	2	UP	Cook	CHICAGO	PRIVATE INDUST RD	0	0	Stop Sign
440521E	2	UP	Cook	DOLTON	UP YARD ROAD	0	0	Stop Sign
840416H	2	IC	Cook	HARVEY	MIT ENTRANCE	0	2	Crossbucks
840417P	2	IC	Cook	HARVEY	MIT ENTRANCE	0	0	Crossbucks
914218V	2	NIRC	Cook	CHICAGO	LANDERS YARD ACC	0	1	Crossbucks
925764A	2	BNSF	Cook	WILLOW SPRINGS	RY YARD XING	0	1	None
927539P	2	BNSF	Knox	GALESBURG	RY YARD XING	0	0	Crossbucks

### Private Highway-Rail Grade Crossings with Two or More Collisions: 2006 – 2010

## Pedestrian Pathway-Rail Grade Crossings with Two or More Collisions: 2006 – 2010

DOT	FREQ	RR-REP	COUNTY	CITY	STREET	KLD	INJ	WARNDEV
			2 Pedest	rian-Rail Crossings H	ad 2 Collisions In Past 5 Years			
388005H	2	ATK	Cook	CHICAGO	EDGEBROOK PEDWAY	2	1	None
388053X	2	ATK	Lake	LAKE FOREST	LAKE FOREST PED	2	2	AFLS

The next section of the Action Plan presents a number of tables and graphs describing the highway-rail grade crossing collision data for collisions that occurred at *public highway-rail crossings* between 2006 and 2010. The focus is on *public highway-rail crossings* as that is where the majority of incidents occur and where federal and state agencies have jurisdiction to order improvements.

The information is provided to assist the reader in understanding the nature of highwayrail grade crossing collisions and to assess the usefulness of various counter measures. The information is organized in five general categories:

- General description of collisions
- Highway user characteristics
- Time and seasonal characteristics
- Highway characteristics
- Railroad characteristics

### Type of Collision:

Type of Collision	2006	2007	2008	2009	2010	Total	Percent
Hwy User Ran Into Train	40	33	36	23	21	153	24.9%
Pedestrian	12	17	14	10	20	73	11.9%
Suicide	4	0	3	1	1	9	1.5%
Train Struck Hwy User	97	82	80	49	72	380	61.8%
Total	153	132	133	83	114	615	100.0%



### **Type of Warning Device**

Detailed Type of Warning Device	2006	2007	2008	2009	2010	Total	Percent
Four Quad Gates	0	0	1	0	0	1	0.2%
AFLS-Gates-Cant-over	34	27	25	18	29	133	21.6%
Gates	45	45	37	24	44	195	31.7%
AFLS-Cant (over trf)	7	7	11	4	5	34	5.5%
Flash Lites (mast)	16	23	21	12	17	89	14.5%
Highway Signal	0	1	1	0	0	2	0.3%
STOP Sign	4	2	2	1	0	9	1.5%
Crossbuck/Yield	21	11	19	14	12	80	13.0%
Crossbucks	21	16	13	9	7	66	10.7%
None/Flagged	2	0	3	1	0	6	1.0%
Total	153	132	133	83	114	615	100.0%

Condensed Type of Warning Device	2006	2007	2008	2009	2010	Total	Percent
Train Activated Warning Devices	102	103	96	58	95	454	73.8%
Passive Warning Signs	51	29	37	25	19	161	26.2%
Total	153	132	133	83	114	615	100.0%



98.8% of the risk of a collision occurring is accounted for by crossings equipped with train activated warning devices. However, 27.8% of collisions occur at crossings equipped with passive warning signs.

Age	Female	Percent	Male	Percent	Total
10 to 19	14	25.9%	40	74.1%	54
20 to 29	32	27.6%	84	72.4%	116
30 to 39	16	16.7%	80	83.3%	96
40 to 49	25	31.6%	54	68.4%	79
50 to 59	16	21.6%	58	78.4%	74
60 to 69	11	25.0%	33	75.0%	44
70 to 79	14	41.2%	20	58.8%	34
80 & Over	15	46.9%	17	53.1%	32
Sub-Total	143	27.0%	386	73.0%	529

### Age and Gender of Highway User

Gender	2006	2007	2008	2009	2010	Total	Percent
Female	36	38	27	24	27	152	26.5%
Male	105	85	97	54	80	421	73.5%
Sub-Total	141	123	124	78	107	573	100.0%
N/A	12	9	9	5	7	42	
Total	153	132	133	83	114	615	



### **Type of Highway User**

Highway User	2006	2007	2008	2009	2010	Total	Percent
ATV/Cart/Snow	0	0	1	2	1	4	0.7%
Auto	76	66	71	41	52	306	49.8%
Bicycle	4	4	2	2	1	13	2.1%
Bus	0	1	0	1	0	2	0.3%
Motorcycle	1	2	0	1	1	5	0.8%
OtherVehicle	6	2	4	5	1	18	2.9%
Pedestrian	8	13	12	8	19	60	9.8%
PickUp/SUV	26	18	24	7	14	89	14.5%
SchoolBus	1	0	0	0	0	1	0.2%
Suicide	4	0	3	1	1	9	1.5%
Tractor	1	1	0	0	4	6	1.0%
Truck	4	6	3	4	8	25	4.1%
Truck-Trailer	13	13	8	6	9	49	8.0%
Van	9	6	5	5	3	28	4.6%
Total	153	132	133	83	114	615	100.0%



### Action of Highway User in Causing Collision

Highway User Action	2006	2007	2008	2009	2010	Total	Percent
Did Not Stop	63	46	45	28	30	212	34.5%
Drove Around/Thru Gate	26	22	20	12	21	101	16.4%
Other	14	10	14	14	25	77	12.5%
Ped	12	17	14	10	20	73	11.9%
Stopped / Proceeded	7	8	9	3	2	29	4.7%
Stopped on Xing	27	29	28	15	15	114	18.5%
Suicide	4	0	3	1	1	9	1.5%
Total	153	132	133	83	114	615	100.0%



Position of Highway User	2006	2007	2008	2009	2010	Total	Percent
Moving Over Xing	108	94	91	52	77	422	68.6%
Stalled on Xing	3	5	5	5	5	23	3.7%
Stopped on Xing	42	33	36	25	29	165	26.8%
Trapped on Xing	0	0	1	1	3	5	0.8%
Total	153	132	133	83	114	615	100.0%

### Position of Highway User on Crossing When Collision Occurred



#### Month of Year



### Time of Day



Weather



**Functional Classification of Roadway** 



### **State Maintained Roadways**



Annual Average Daily Highway Traffic (AADT)



### Speed of Motor Vehicle When Collision Occurred



Reporting Railroad	Collisions	Percent	Killed	Percent	Injured	Percent
ALS (UP)	1	0.2%	0	0.0%	0	0.0%
АТК	50	8.1%	24	19.7%	58	21.0%
BNSF	78	12.7%	21	17.2%	33	12.0%
BNSO	9	1.5%	2	1.6%	4	1.4%
BSDA	1	0.2%	0	0.0%	0	0.0%
CC (CN)	5	0.8%	1	0.8%	0	0.0%
CRL	1	0.2%	0	0.0%	0	0.0%
CSX	45	7.3%	3	2.5%	13	4.7%
DME (CP)	10	1.6%	1	0.8%	2	0.7%
EJE (CN)	9	1.5%	0	0.0%	3	1.1%
EVWR	4	0.7%	0	0.0%	1	0.4%
GTW (CN)	7	1.1%	1	0.8%	0	0.0%
IAIS	16	2.6%	0	0.0%	9	3.3%
IC (CN)	44	7.2%	7	5.7%	21	7.6%
IHB	11	1.8%	0	0.0%	5	1.8%
IMRR	4	0.7%	0	0.0%	1	0.4%
INRD	5	0.8%	0	0.0%	2	0.7%
IR	1	0.2%	0	0.0%	2	0.7%
KBSR	3	0.5%	0	0.0%	1	0.4%
KCS	1	0.2%	0	0.0%	0	0.0%
KJRY	1	0.2%	0	0.0%	0	0.0%
NIRC	56	9.1%	18	14.8%	23	8.3%
NS	87	14.1%	13	10.7%	26	9.4%
SOO (CP)	5	0.8%	0	0.0%	0	0.0%
TPW	3	0.5%	0	0.0%	1	0.4%
TRRA	10	1.6%	0	0.0%	2	0.7%
UP	108	17.6%	22	18.0%	48	17.4%
UPME	35	5.7%	9	7.4%	18	6.5%
WC (CN)	4	0.7%	0	0.0%	3	1.1%
WSOR	1	0.2%	0	0.0%	0	0.0%
Total	615	100.0%	122	100.0%	276	100.0%

### Number of Collisions, Injuries and Fatalities by Reporting Railroad: 2006 - 2010



Railroad Operating Company	Route Miles	Percent	Public Crossings	Percent	Predicted Collisions (5 Years)	Percent	Actual Collisions (5 Years)	Percent	Diff % Actual to Predict
ALS	22.6	0.3%	16	0.2%	1.3	0.2%	1	0.2%	-0.1%
АТК	1.5	0.0%	2	0.0%	0.6	0.1%	50	8.1%	8.0%
BJRY	8.5	0.1%	8	0.1%	0.2	0.0%	0	0.0%	0.0%
BLOL	45.0	0.6%	83	1.0%	0.5	0.1%	0	0.0%	-0.1%
BNSF	1,179.5	16.0%	1,123	14.1%	84.2	15.5%	87	14.1%	-1.3%
BRC	27.2	0.4%	39	0.5%	4.9	0.9%	0	0.0%	-0.9%
BSDA	22.0	0.3%	16	0.2%	3.5	0.7%	1	0.2%	-0.5%
сс	174.0	2.4%	157	2.0%	10.2	1.9%	5	0.8%	-1.1%
CCUO	3.0	0.0%	4	0.1%	0.6	0.1%	0	0.0%	-0.1%
CGGZ	5.6	0.1%	9	0.1%	0.0	0.0%	0	0.0%	0.0%
СНТТ	6.4	0.1%	18	0.2%	1.3	0.2%	0	0.0%	-0.2%
CIRY	4.8	0.1%	51	0.6%	2.2	0.4%	0	0.0%	-0.4%
COER	9.5	0.1%	56	0.7%	2.4	0.4%	0	0.0%	-0.4%
CRL	9.0	0.1%	17	0.2%	1.0	0.2%	1	0.2%	0.0%
CSS	6.0	0.1%	1	0.0%	0.0	0.0%	0	0.0%	0.0%
CSX	633.0	8.6%	630	7.9%	31.0	5.7%	45	7.3%	1.6%
СТМ	4.3	0.1%	78	1.0%	4.8	0.9%	0	0.0%	-0.9%
DME	137.0	1.9%	135	1.7%	6.2	1.1%	10	1.6%	0.5%
DRI	2.0	0.0%	1	0.0%	0.1	0.0%	0	0.0%	0.0%
DT	32.0	0.4%	48	0.6%	1.1	0.2%	0	0.0%	-0.2%
EIRC	53.0	0.7%	70	0.9%	0.9	0.2%	0	0.0%	-0.2%
EJE	126.0	1.7%	133	1.7%	11.7	2.2%	9	1.5%	-0.7%
EVWR	109.6	1.5%	131	1.6%	2.4	0.4%	4	0.7%	0.2%
FFGZ	8.5	0.1%	8	0.1%	2.4	0.4%		0.0%	0.2%
GTW	24.0	0.1%	44	0.1%	6.4	1.2%	7	1.1%	0.0%
GWW/E	24.0	0.3%	44	0.070	0.4	0.0%	,	0.0%	0.0%
	91.3	1.2%	4	1.9%	0.2	0.0%	16	2.6%	1.8%
	1 003 0	13.6%	980	12.3%	54.2	10.0%	10	7.2%	-2.8%
	1,003.0	0.2%	51	12.3%	5.4	1 .0%	44	1.2/0	-2.0%
	21.9	1.3%	110	1.49/	3.4	0.6%	11	0.70/	0.8%
	98.0	0.5%	72	0.0%	3.1	0.6%	4	0.7%	0.1%
	34.0	0.5%	13	0.9%	2.0	1.0%	5	0.0%	0.3%
	127.0	1.7%	129	1.6%	5.5	1.0%	1	0.2%	-0.8%
JERA	4.5	0.1%	3	0.0%	0.0	0.0%	0	0.0%	0.0%
KBSR	93.0	1.3%	109	1.4%	3.0	0.6%	3	0.5%	-0.1%
KUS	128.0	1.7%	111	1.4%	3.1	0.6%	1	0.2%	-0.4%
KJRY	127.0	1.7%	129	1.6%	3.6	0.7%	1	0.2%	-0.5%
	5.7	0.1%	8	0.1%	0.0	0.0%	0	0.0%	0.0%
MJ	2.0	0.0%	1	0.0%	0.0	0.0%	0	0.0%	0.0%
MRMZ	6.5	0.1%	1/	0.2%	0.4	0.1%	0	0.0%	-0.1%
	6.5	0.1%	2	0.0%	0.3	0.1%	0	0.0%	-0.1%
	223.2	3.0%	257	3.2%	58.0	10.7%	56	9.1%	-1.6%
NS	847.0	11.5%	953	12.0%	61.3	11.3%	87	14.1%	2.9%
RRCO	4.0	0.1%	5	0.1%	0.3	0.1%	0	0.0%	-0.1%
RVPR	3.5	0.0%	2	0.0%	0.1	0.0%	0	0.0%	0.0%
SCIH	2.0	0.0%	2	0.0%	0.1	0.0%	0	0.0%	0.0%
SOO	43.0	0.6%	35	0.4%	3.0	0.6%	5	0.8%	0.3%
STR	5.2	0.1%	4	0.1%	0.0	0.0%	0	0.0%	0.0%
SVIZ	1.0	0.0%	1	0.0%	0.0	0.0%	0	0.0%	0.0%
TPW	109.9	1.5%	157	2.0%	5.4	1.0%	3	0.5%	-0.5%
TRRA	14.5	0.2%	40	0.5%	2.9	0.5%	10	1.6%	1.1%
TZPR	18.0	0.2%	47	0.6%	2.1	0.4%	0	0.0%	-0.4%
UP	1,586.8	21.5%	1,570	19.8%	129.4	23.8%	143	23.3%	-0.6%
VRRC	3.0	0.0%	5	0.1%	0.2	0.0%	0	0.0%	0.0%
WC	46.0	0.6%	70	0.9%	11.4	2.1%	4	0.7%	-1.4%
WCRY	5.4	0.1%	1	0.0%	0.0	0.0%	0	0.0%	0.0%
WSOR	14.2	0.2%	13	0.2%	0.2	0.0%	1	0.2%	0.1%
ХСТА	6.0	0.1%	25	0.3%	5.5	1.0%	0	0.0%	-1.0%
Total	7,364.1	100.0%	7,945	100.0%	543.6	100.0%	615	100.0%	0.0%

### Comparison of the Number of Predicted and Actual Collisions: 2006 – 2010

### Type of Train

Type of Train	Collisions	Percent	Killed	Percent	Injured	Percent
Amtrak-BNSF	8	1.3%	8	6.6%	4	1.4%
Amtrak-CP	9	1.5%	5	4.1%	4	1.4%
Amtrak-GTW	4	0.7%	3	2.5%	1	0.4%
Amtrak-IC	14	2.3%	5	4.1%	4	1.4%
Amtrak-UP	15	2.4%	3	2.5%	45	16.3%
Cut of Cars	3	0.5%	0	0.0%	4	1.4%
Freight	389	63.3%	67	54.9%	141	51.1%
Lite Locos	24	3.9%	1	0.8%	9	3.3%
Metra-BNSF	9	1.5%	2	1.6%	4	1.4%
Metra-Electric	13	2.1%	4	3.3%	7	2.5%
Metra-MILW-North	8	1.3%	1	0.8%	2	0.7%
Metra-MILW-West	15	2.4%	9	7.4%	6	2.2%
Metra-North Central Service	5	0.8%	2	1.6%	1	0.4%
Metra-Rock-Beverly	1	0.2%	1	0.8%	0	0.0%
Metra-ROCK-Main	12	2.0%	0	0.0%	7	2.5%
Metra-Southwest Service	2	0.3%	1	0.8%	0	0.0%
Metra-UP-North	3	0.5%	2	1.6%	1	0.4%
Metra-UP-Northwest	26	4.2%	7	5.7%	6	2.2%
Metra-UP-West	6	1.0%	0	0.0%	11	4.0%
MetroLink	1	0.2%	0	0.0%	0	0.0%
MOW Equip	19	3.1%	1	0.8%	13	4.7%
Yard / Switch	29	4.7%	0	0.0%	6	2.2%
Total	615	100.0%	122	100.0%	276	100.0%



### **Type of Railroad Operation**



**Type of Track** 





Number of Daily Trains that Operate Over the Crossing Where Collision Occurred

Speed of Train and Vehicle When Collision Occurred



### THE "AVERAGE" COLLISION AT A PUBLIC HIGHWAY-RAIL CROSSING

The preceding tables and graphs provide a large amount of information pertaining to collisions at public highway-rail grade crossings that occurred over the five-year period of 2006 - 2010. In order to reduce the information down to a meaningful summary, below is a description of the "average" collision that occurred in Illinois.

- The collision occurred when a freight train struck an automobile at a highway-rail crossing in a large metropolitan area. The highway vehicle, most likely an automobile, was driven by a male between the ages 20 and 29. The driver ignored the warning provided at the grade crossing and was moving over the crossing surface when struck by the train at a highway-rail crossing equipped with gates.
- The collision occurred in December between 6:00 p.m. and 6:59 p.m. on a clear day on a local road that is not part of the state maintained system of highways. The automobile was traveling at a slow rate of speed (less than 10 miles per hour) on a roadway with annual average daily traffic volume of less than one thousand vehicles per day.
- The automobile was struck by a freight train operating on a main track owned by a railroad where ten to nineteen trains operate daily. The train was traveling between 40 and 49 miles per hour at the time of collision. The highway user was injured in the collision.

### CONCLUSION

The Illinois Commercial Transportation Law assigns responsibility for the safety oversight of railroad operations within the state to the ICC. The ICC publishes an annual 5-Year Crossing Safety Improvement Program that itemizes projects programmed for the next 5-year period utilizing Grade Crossing Protection Funds. The combination of this Grade Crossing Safety Action Plan and the 5-Year Crossing Safety Improvement Program provides comprehensive documentation detailing the State of Illinois' program to improve highway-rail crossing safety.