



# Purdue University

## *Agricultural Safety and Health Program*

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## **2000 Indiana Farm Fatality Summary**

**Compiled by the Purdue University Agricultural Safety and Health Program**

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The 2000 farm fatality report was compiled by Purdue's Agricultural Safety and Health Program through a variety of sources, including two separate news clipping services and personal interviews. In 2000 no cases were identified with the assistance of the Indiana Fatality Assessment and Control Evaluation (FACE) Program at the Indiana State Department of Health, which documents occupational fatalities identified through coroners' reports, as well as news articles and on-site investigations. No cases were identified using official death certificates due to the lack of access to these records at the Department of Health.

The report includes a summary of 27 farm work-related fatalities<sup>1</sup> that occurred in 2000. This is an increase from the 22 fatalities reported in 1999, which was the second lowest number of reported fatalities in the 50 plus year history of Purdue's farm injury reporting efforts. The lowest number of fatalities reported was 16 in 1998. For over 30 years there has been a downward trend in the number of fatalities. A 22.7% increase in the number of fatalities in 2000 slightly reversed this downward trend.

The average age for farm fatality victims in 2000 was 55 (Table 1). All but one known case involved males. Five (18.5%) of the fatalities identified involved children and adolescents under the age of 17 which is approximately 8% higher than the average of 10.4% over the past five years. Fifty-nine percent of the recorded fatalities resulted from incidents involving tractors (Figure 1). This is up from the recorded 37% in 1999 but lower than some years in the past when over 75% involved tractors. (Roll-overs continue to be the leading cause of farm work-related fatalities nationally accounting for approximately 25% of all fatalities.) Runovers, overturns, and roadway collisions were the three leading types of fatal farm-related incidents in the state.

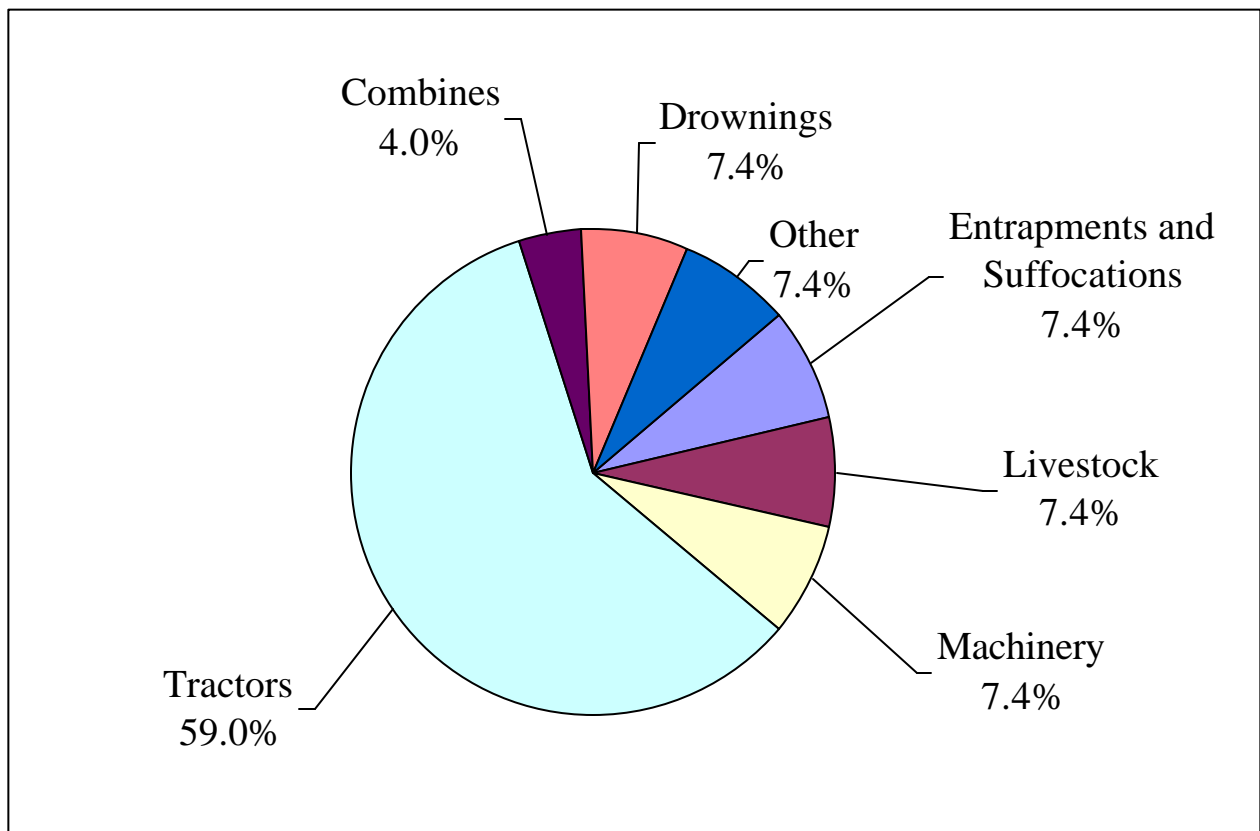
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<sup>1</sup> A **farm work-related fatality** is defined as any fatal injury to a farm or ranch worker (or bystander) occurring in the course of performing an agricultural work-related task, or as a result of exposure to hazards in the agricultural workplace. Motor vehicle incidents not clearly involving agricultural equipment are excluded.



	Age Distribution						
Gender	1-17	18-35	36-59	60+	Unkown	Total	%
Males	4	1	3	16	2	26	96
Females	1					1	4
<b>Total</b>	<b>5</b>	<b>1</b>	<b>3</b>	<b>16</b>	<b>2</b>	<b>27</b>	<b>100</b>
%	19	4	11	59	7	100	
Average Age	7	27	49	72		55	

**Table 1. Age distribution of fatal incidents in 2000.**



**Figure 1. Distribution of 2000 Indiana fatalities by general type of incidents.**

Table 2 summarizes the specific types of incidents associated with Indiana’s farm fatalities in 2000. Several types of fatalities that have been historically common to farming did not occur during the year, or none were identified, including PTO entanglements, falls from farm structures and being crushed by farm machinery.



Type of Incident		Fatalities
Entrapments or suffocations	Grain entrapments	2
Livestock-related incidents	Kicked by horse	1
	Attacked by bull	1
Machinery-related incidents	Other entanglements	1
	Runovers	1
Tractor-related incidents	Overturns	3
	Roadway collisions	2
	Runovers	6
	Crushings/pinnings	2
	Falls	2
	Fires	1
Combine-related	Runovers	1
Drownings	Horse trough	2
Other incidents (struck/crushed by flying/falling objects, heat stroke)		2
<b>Total</b>		<b>27</b>

**Table 2. 2000 Indiana farm fatalities by specific type of incidents.**

Table 3 provides a listing of fatalities occurring in Indiana counties in 2000. Fatal farm work-related incidents are described here by (1) date of incident, (2) county of report, (3) age of victim, (4) gender of victim, (5) description of circumstances surrounding the incident, and (6) Farm and Agricultural Injury Classification (FAIC) Code. The FAIC code is used to facilitate consistent and accurate classification of farm and agriculturally-related injuries. Additional information on the FAIC code is available from the American Society of Agricultural Engineers.<sup>2</sup>

The FAIC code system:

- parallels, to the extent appropriate, current nationally established methods for classifying and assigning work-related injury cases to an industry;
- provides a systematic mechanism for separating farm production work cases from non-farm-production cases; and
- permits the identification of cases that uniquely reflect the situational exposures predominate to the agricultural industry.

<sup>2</sup> ASAE Standard 575, 2000. ASAE, 2950 Niles Road, St. Joseph, MI 49085. Tel: 616-429-0300



	Date	County	Age	Sex	Description of incident	FAIC
1	26-Jan-00	Ripley	46	M	Pulled under tractor tire after being thrown from seat	1 <sup>3</sup>
2	20-Mar-00	Parke	15	M	Tree fell on victim	5 <sup>4</sup>
3	22-Mar-00	Shelby	53	M	Grain engulfment in bin	1
4	11-Apr-00	Marshall	49	M	Trapped between tractor tire and utility pole	5
5	28-Apr-00	Pulaski	81	M	Tractor run-over from by-passing starter switch	1
6	5-May-00	Huntington	61	M	Tractor struck by school bus causing tractor rollover	Unknown
7	13-May-00	Henry	77	M	Tractor runover - tractor started in gear to pinpoint hydraulic leak	1
8	13-May-00	Cass	76	M	Semi tried to pass farm truck that was making left turn	Unknown
9	14-May-00	Grant	67	M	Tractor rear overturn	5
10	17-May-00	Montgomery	70	M	Tractor fell off jack	1
11	4-Jun-00	St. Joseph	13	F	Tractor rollover after striking obstruction in tall grass	5
12	26-Jun-00	Brown	27	M	Tractor backfired and ignited fumes causing severe burns	1
13	10-Jul-00	Greene	64	M	Tractor rollover	5
14	28-Jul-00	Johnson	60	M	Fall from tractor	Unknown
15	7-Aug-00	Delaware	84	M	Tractor runover	1
16	2-Aug-00	Kosciusko	13-months	M	Horse trough drowning	6 <sup>5</sup>
17	15-Aug-00	Fulton	5	M	Tractor runover	6
18	18-Aug-00	Daviess	Unknown	M	Victim kicked by horse	1
19	22-Aug-00	Elkhart	2	M	Horse trough drowning	6
20	4-Sep-00	Washington	80	M	Tractor operator struck by tree	5
21	16-Sep-00	Cass	71	M	Man charged by bull	1
22	23-Sep-00	Morgan	84	M	Extra rider on tractor fell off	1
23	27-Sep-00	Allen	68	M	Fell from tractor	1
24	2-Oct-00	Allen	85	M	Victim pulled into equipment	1
25	3-Oct-00	Adams	60	M	Grain wagon runover	1
26	20-Oct-00	Hancock	Unknown	M	Combine runover	1
27	2-Nov-00	Hamilton	70	M	Grain engulfment outside bin	1

**Table 3. 2000 Indiana farm fatalities by date.**

Figure 2 presents a geographic distribution of Indiana's farm-related fatalities in 2000, and Figure 3 presents a geographic distribution of Indiana's farm related fatalities in the years 1980 through 2000. The five counties with the most identified fatalities over the past 21 years were Elkhart, LaGrange, Greene, Dubois and Allen.

<sup>3</sup> FAIC-1 Farm production work

<sup>4</sup> FAIC-5 Farm tractors, machines, tools, equipment, products, places, etc, not being used for farm production

<sup>5</sup> FAIC-6 Nonwork work site



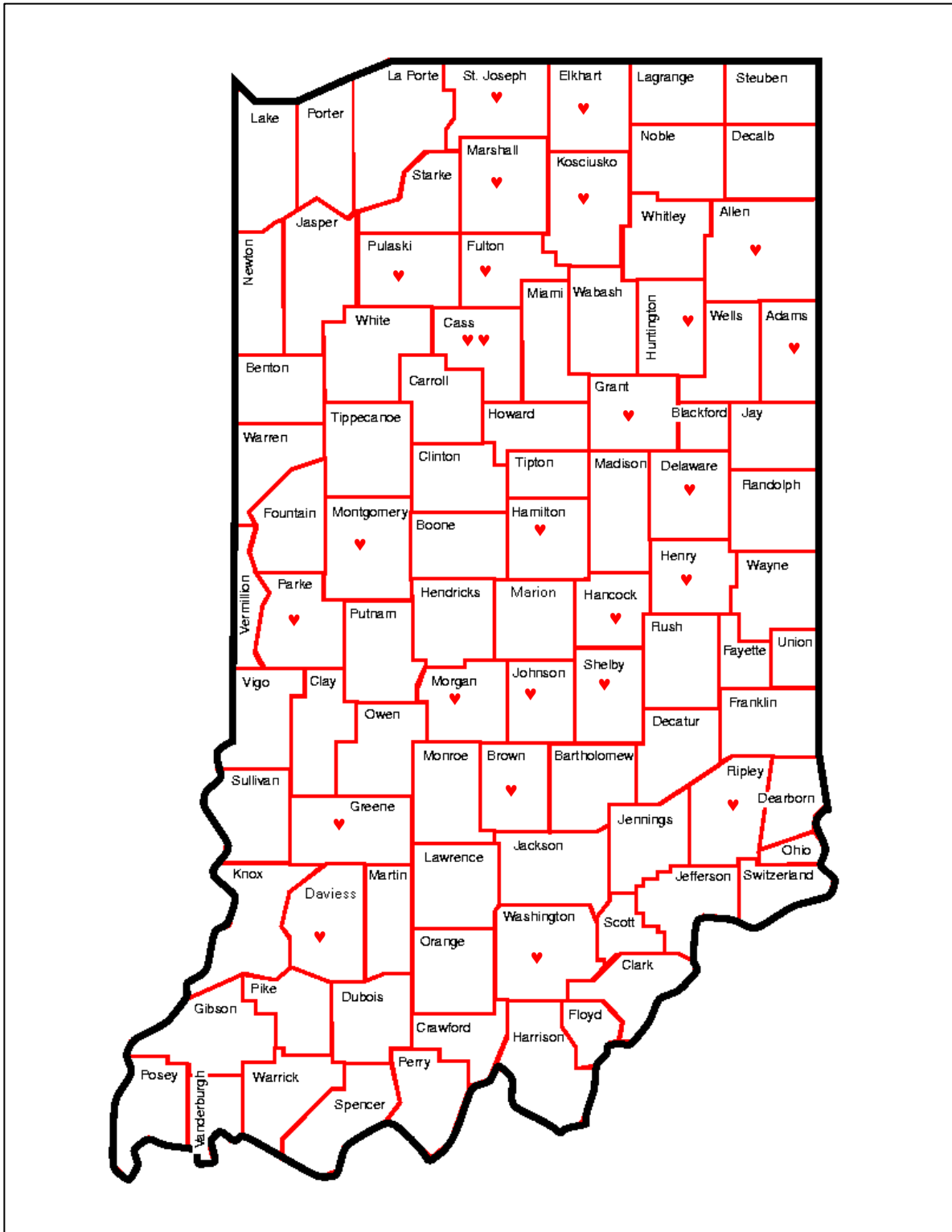


Figure 2. Geographic Distribution of 2000 Indiana Farm Fatalities.



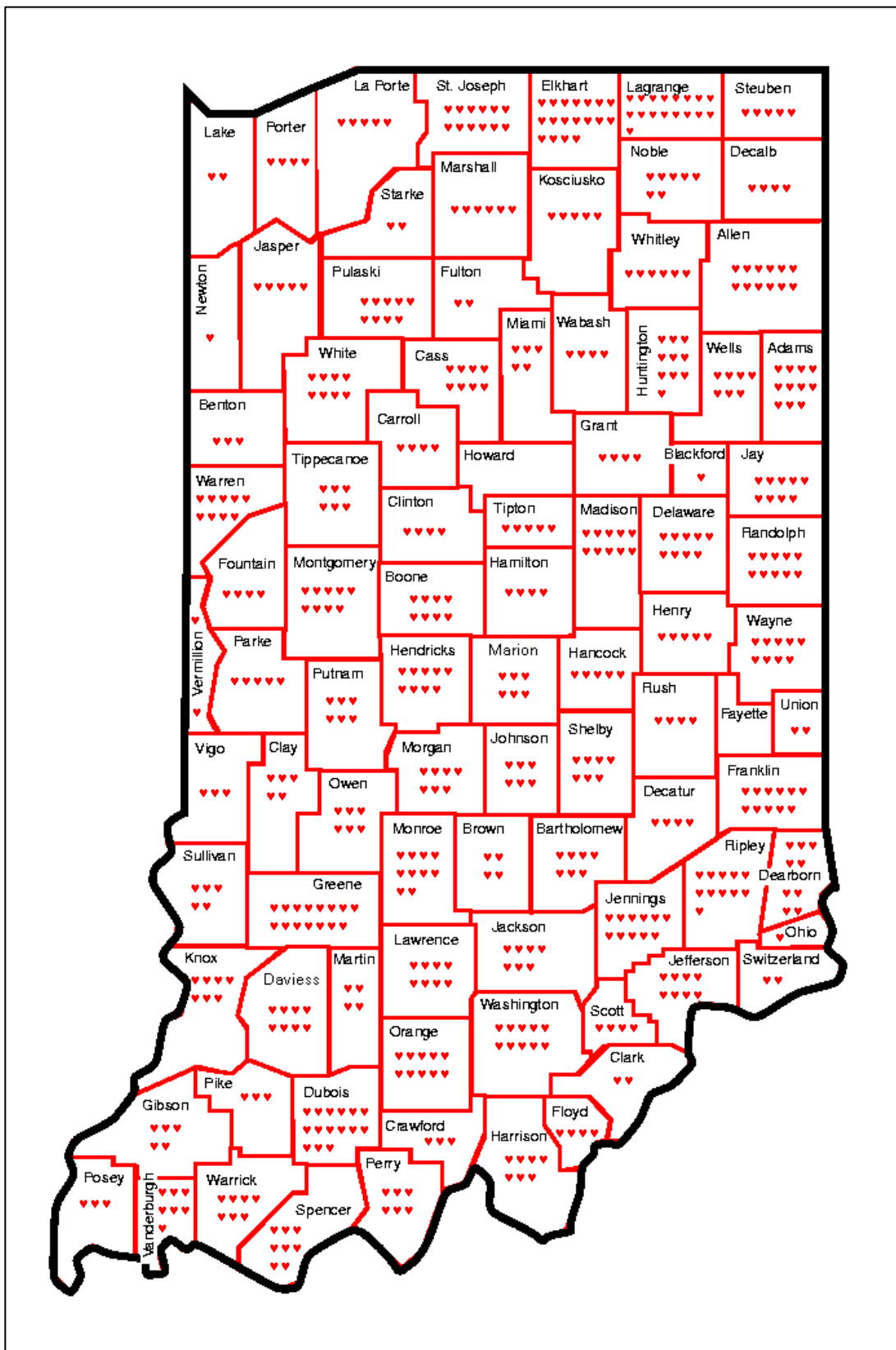
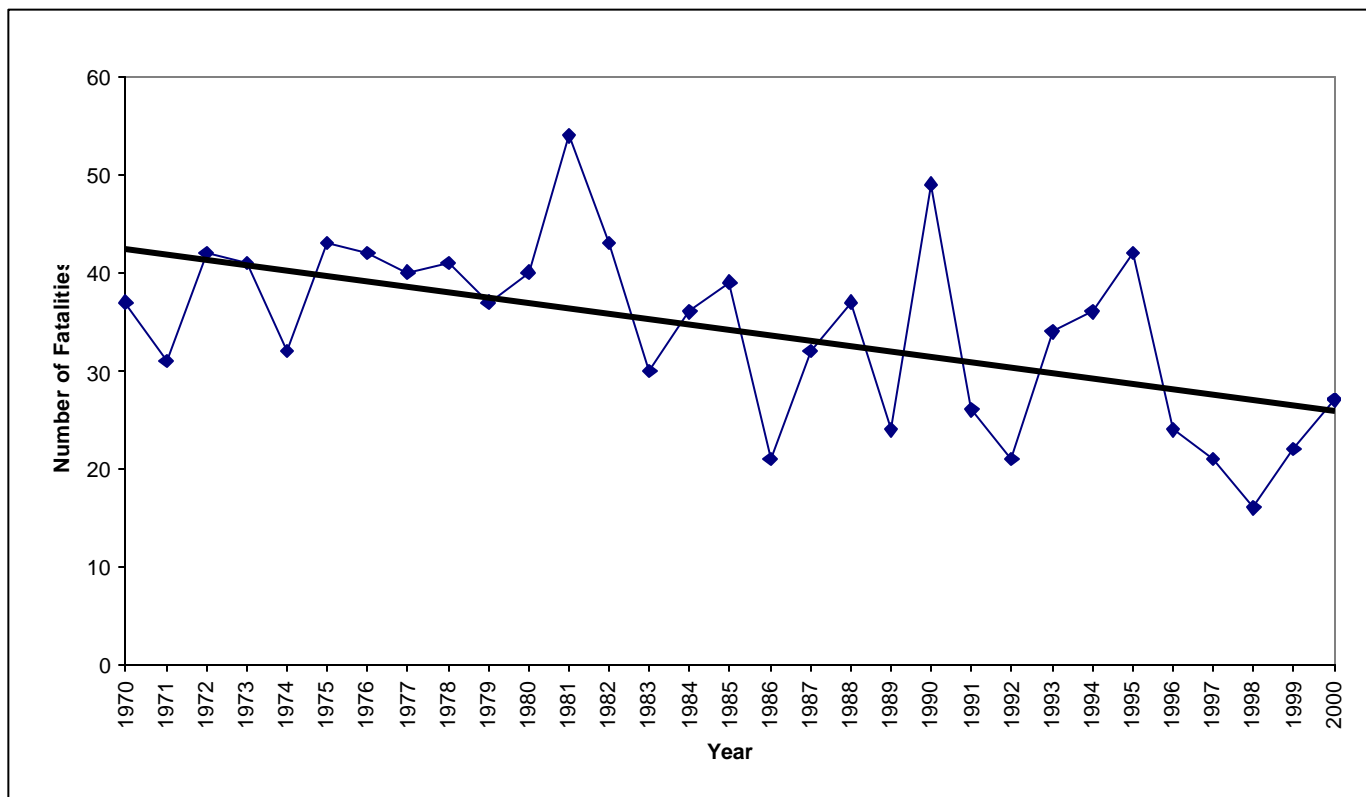


Figure 3. Geographic distribution of Indiana’s farm related fatalities in the years 1980 through 2000.



Figure 4 presents a trend of identified farm-related fatalities over the past 30 years. It is believed that 1998 recorded the lowest number of fatalities of any year since Purdue's Agricultural Safety and Health Program has been keeping records. The 1999 data, though showing an increase of four deaths, also followed the decreasing trend in the number of farm fatalities. In 2000, the number of identified cases reflected a slight change in the trend.



**Figure 4. Annual Summary of Farm-related Fatalities.**

Using the estimate of 60,000 productive farms in the state and the estimated farm population of 200,000 who might be exposed to farm hazards on a regular basis, it was estimated that 1 out of every 2,400 farms experienced a farm-related fatality and the death rate was 12 –13 per 100,000 farm residents. The rate compares to an estimated national death rate of 3.8 per 100,000 for workers in all industries and 22.1 per 100,000 for those engaged in agricultural production.<sup>6</sup>

Farm-related injuries are not documented by any source in the state. Therefore, there is little data on the number and frequency of injuries occurring during farm work. Prior statewide surveys have indicated, however, that approximately 1 out of every 9 farms annually experiences a farm-related injury requiring medical attention. Based upon the estimated 60,000 farms in the state, it can be projected that in 2000 there were approximately 6,500 treated injuries. Prior research suggests that 2% of reported farm injuries result in permanent disabilities which indicates that approximately 130-150 such cases occurred in the state in 2000.

<sup>6</sup> The **estimated death rates** of 3.8 per 100,000 workers in all industries and 22.1 per 100,000 workers in agricultural production come from the National Safety Council Injury Facts, 1999 ed.



To gain a perspective of the potential economic impact of farm injuries to the state, an estimated medical cost of \$1,000 per injury would result in an economic loss of over \$6.5 million excluding the costs of transportation to receive medical services, replacement labor, property damage, emergency services, and long-term rehabilitation services. This estimated total, however, would be substantially increased if the cost associated with the 27 fatalities were included.

In addition to the cost of human injuries, the ongoing monitoring of farm-related accidents and injuries reveals that fires result in significant losses to Indiana farm families. Property damage due to unintentional fires are the leading type of incident reported through the statewide media clipping service.

For additional information on agricultural safety and health resources, check out the [www.farmsafety.org](http://www.farmsafety.org) website or call 765-494-1191.

