

Illinois Injury Surveillance Efforts



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*Department of Agricultural
and Biological Engineering*



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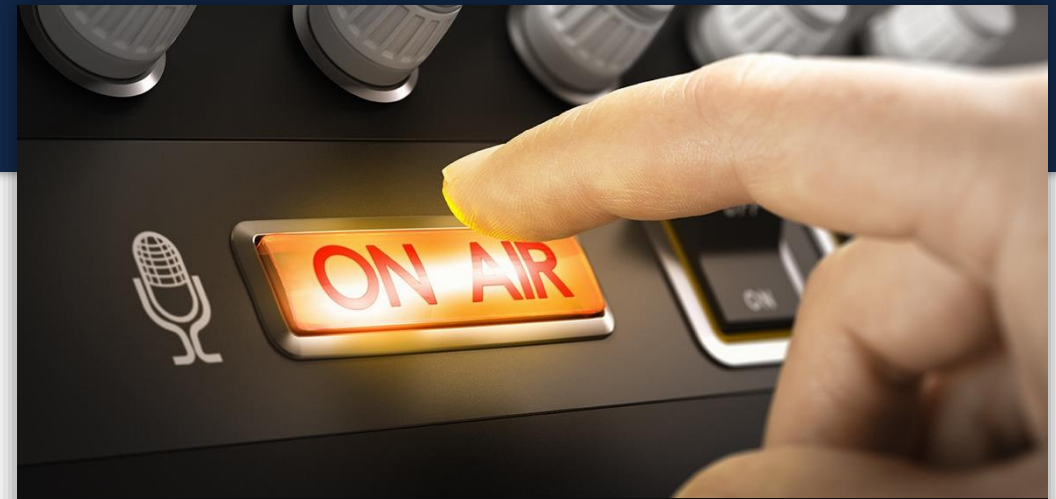


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Outline

- Overview of agriculture-related injury and illness tracking programs active in Illinois.
- News clipping surveillance system
 - data collection methods
 - trends identified
- How surveillance information guides prevention

Why focus on Agriculture Injury Surveillance?

Agriculture continues to be one of the deadliest industries in Illinois

Deaths per 100,000 workers

21.3



Agriculture

3.0



Workers Overall

Why focus on Agriculture Injury Surveillance?

- Farming is unique where residence and worksites often overlap
- Many farms are exempt from complying with Federal OSHA regulations



Bureau of Labor Statistics (BLS)

Census of Fatal Occupational Injuries (CFOI)

- Death certificates
- Workers' compensation reports
- Federal and State agency administrative reports

The screenshot displays the BLS website's navigation and content for the CFOI program. At the top, it identifies itself as an official U.S. government website and includes the BLS logo and name. A search bar is located in the top right corner. The main navigation menu includes links for HOME, SUBJECTS, DATA TOOLS, PUBLICATIONS, ECONOMIC RELEASES, CLASSROOM, and BETA. The current page is titled "Injuries, Illnesses, and Fatalities" and features a search bar and a navigation bar with links for IIF Home, IIF Publications, IIF Data, IIF Methods, About IIF, and Contact IIF. The main content area is titled "Census of Fatal Occupational Injuries (CFOI)" and provides a detailed description of the program, its history, and its purpose. It also lists the data compiled by the program and the reasons for its use, such as informing workers of hazards and promoting safer work practices. A list of publications and documents is provided at the bottom, including definitions, reports, news releases, data tables, and contacts.

An official website of the United States government [Here is how you know](#)

United States Department of Labor

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U.S. BUREAU OF LABOR STATISTICS

Search BLS.gov

HOME SUBJECTS DATA TOOLS PUBLICATIONS ECONOMIC RELEASES CLASSROOM BETA

Bureau of Labor Statistics > Injuries, Illnesses, and Fatalities > Home

Injuries, Illnesses, and Fatalities

Search Injuries, Illnesses

IIF Home IIF Publications IIF Data IIF Methods About IIF Contact IIF

Census of Fatal Occupational Injuries (CFOI)

The Bureau of Labor Statistics (BLS) Census of Fatal Occupational Injuries (CFOI) produces comprehensive, accurate, and timely counts of fatal work injuries. CFOI is a Federal-State cooperative program that has been implemented in all 50 States and the District of Columbia since 1992. To compile counts that are as complete as possible, the census uses multiple sources to identify, verify, and profile fatal worker injuries. Information about each workplace fatal injury—occupation and other worker characteristics, equipment involved, and circumstances of the event—is obtained by cross-referencing the source records, such as death certificates, workers' compensation reports, and Federal and State agency administrative reports. To ensure that fatal injuries are work-related, cases are substantiated with two or more independent source documents, or a source document and a follow-up questionnaire.

Data compiled by the CFOI program are issued annually for the preceding calendar year. These data are used by safety and health policy analysts and researchers to help prevent fatal work injuries by:

- Informing workers of life threatening hazards associated with various jobs;
- Promoting safer work practices through enhanced job safety training;
- Assessing and improving workplace safety standards; and
- Identifying new areas of safety research.

The National Safety Council adopted the CFOI figure beginning with the 1992 data year as the authoritative count for work-related deaths in the United States.

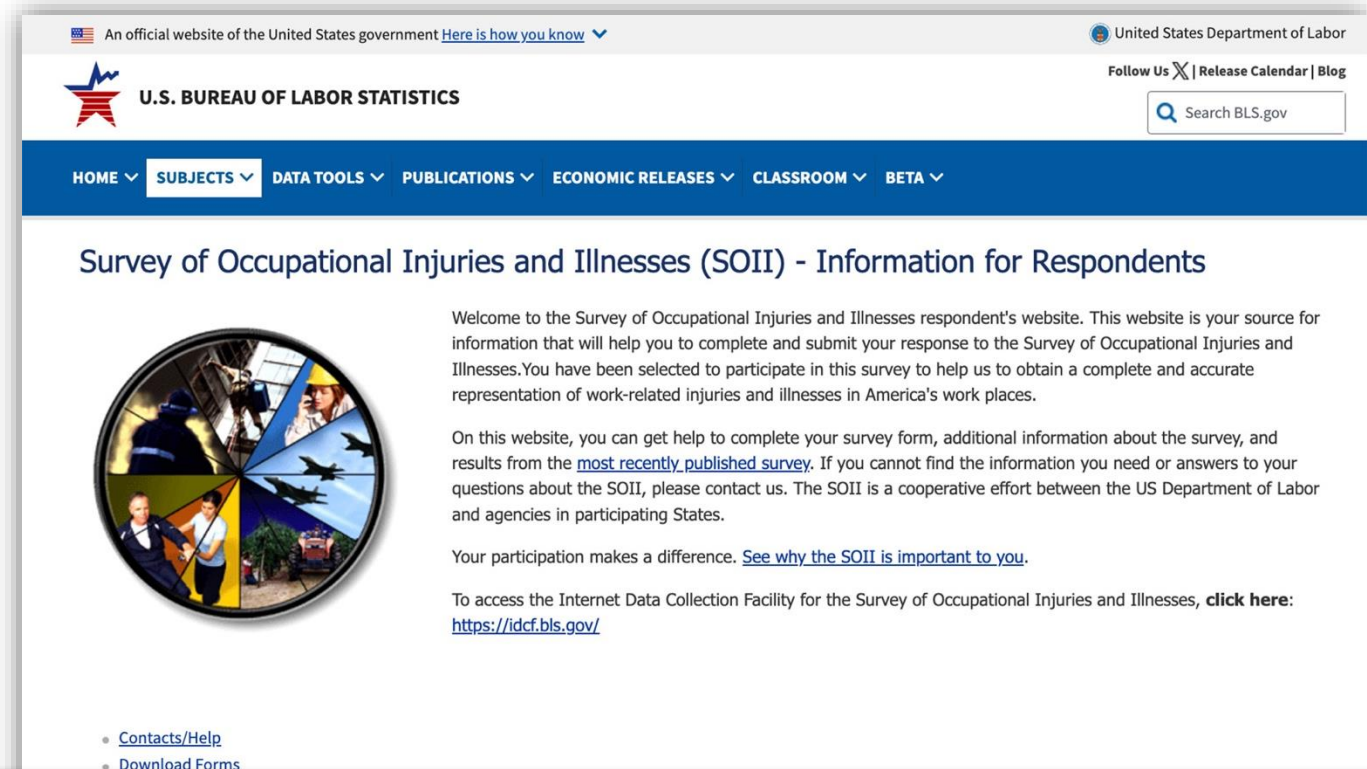
Publications and Documents

- [Definitions](#)
- [Reports and Research Articles](#)
- [News Releases](#)
- [Data Tables](#)
- [Contacts](#)

Bureau of Labor Statistics (BLS)

Survey of Occupational Injuries and Illnesses (SOII)

- Work-related injuries or illnesses to workers who require medical care beyond first aid
- Survey based
- Excludes
 - Self employed
 - workers on farms with 10 or fewer employees
 - private household workers
 - Volunteers
 - federal government workers



The screenshot shows the official website of the U.S. Bureau of Labor Statistics for the Survey of Occupational Injuries and Illnesses (SOII). The page is titled "Survey of Occupational Injuries and Illnesses (SOII) - Information for Respondents". It features a navigation menu with options like HOME, SUBJECTS, DATA TOOLS, PUBLICATIONS, ECONOMIC RELEASES, CLASSROOM, and BETA. The main content area includes a circular image showing various workers in different settings. The text on the page welcomes respondents and provides information on how to complete and submit their survey forms. It also mentions that the SOII is a cooperative effort between the US Department of Labor and agencies in participating States. At the bottom, there are links for "Contacts/Help" and "Download Forms".

Great Lakes Center for Farmworker Health and Wellbeing

University of Illinois Chicago

- Develop a comprehensive system for tracking Illinois Farm Injuries
- Use:
 - Publicly available datasets
 - Worker Compensation Claims
 - Hospital Records
 - Emergency Medical Services
 - Clinic and Doctor's office records
 - Poison Centers
 - Police Crash Reports

The screenshot shows a webpage for the Great Lakes Center for Farmworker Health and Wellbeing at the University of Illinois Chicago. The page features a header with the UIC logo and the text 'UI HEALTH IS UIC'S ACADEMIC HEALTH ENTERPRISE'. Below the header, the page is titled 'RESEARCH PROJECT' and 'Agricultural Safety & Health Surveillance Program'. The main text describes the project's goal: to more effectively use surveillance data to identify and mitigate workplace hazards in Illinois, aiming to reduce morbidity and mortality and improve the wellbeing of hired farmworkers. The page is organized into sections: 'Research Area(s)' (Illness & injury, Workplace hazards), 'Co-Investigators' (Madigan, Dana; Friedman, Lee Scott; Abasilim, Chibuzor; Forst, Linda; Issa, Salah F), and 'Funding Source' (Centers for Disease Control and Prevention (CDC) / National Institute for Occupational Safety and Health (NIOSH)). An 'Abstract' section follows, detailing the project's objectives and methods, including the development of a comprehensive surveillance system, integration of outpatient health data, and translation of findings for stakeholders.

UIC UNIVERSITY OF ILLINOIS CHICAGO

Great Lakes Center for Farmworker Health and Wellbeing UI HEALTH IS UIC'S ACADEMIC HEALTH ENTERPRISE

RESEARCH PROJECT

Agricultural Safety & Health Surveillance Program

The goal of this project is to more effectively use surveillance data to identify and mitigate workplace hazards in Illinois. Our ultimate aim is to reduce the morbidity and mortality burden and improve the wellbeing of hired farmworkers.

Research Area(s)	Co-Investigators	Funding Source
Illness & injury Workplace hazards	Madigan, Dana Friedman, Lee Scott Abasilim, Chibuzor Forst, Linda Issa, Salah F	Centers for Disease Control and Prevention (CDC) / National Institute for Occupational Safety and Health (NIOSH)

Abstract

Agriculture is among the highest risk sectors in the economy, and hired migrant and seasonal farmworkers (FWs) are arguably the highest risk worker population within this sector. Surveillance for work-related illnesses and injuries (WRIs) is critical for prevention. FWs are hard to reach and count, and the U.S. surveillance system for WRIs is fragmented and incomplete. We will build a "system of systems approach" to more effectively use surveillance data to identify and mitigate workplace hazards in Illinois. Our ultimate aim is to reduce the morbidity and mortality burden and improve the wellbeing of hired FWs. The proposed project will: 1) develop a comprehensive and integrated state-based occupational health surveillance system for identifying and characterizing WRIs among hired FWs, utilizing existing data systems that principally capture acute moderate to severe illnesses and injuries; 2) integrate outpatient health data from clinics serving FW communities into our surveillance data repository, which would capture minor and chronic injuries and health conditions; and 3) translate evidence-based surveillance findings for targeted stakeholders for adoption, adaptation, integration, scale-up and sustainability in Illinois, the Midwest, and across the country.

UIUC: Agricultural Safety & Health Program

News clipping agricultural injury report

- Captures unique cases
 - Grain Entrapments
- Focused more on the severe cases (+ fatalities)
- Over 30 years of data.



Examples of News Clippings

Vandalia woman dies in rural Brownstown ATV accident

A 63-year-old Vandalia woman was killed in an ATV accident in rural Brownstown on Sunday afternoon, according to Fayette County Coroner Dave Harris.

Terri L. Davison was pronounced dead at Fayette County Hospital, Harris said. She was born Oct. 15, 1959, in Vandalia, the daughter of Wilbert and Marcia (Rhoades) Vaughn, according to an obituary.

She married Charles E. "Chuck" Davison on March 19, 1983; together they shared over 13 years of marriage and had two children before his death on May 10, 1996.

Davison was employed by Vandalia Elementary School as a secretary for over 25 years, according to the obit-

uary.

"But she was much more than a secretary; she was the glue that held the school together," the obituary said. "When she wasn't working, she was spending time with her grandkids and family; she loved to travel, whether it be on vacation or just a trip to the woods to mushroom hunt. Terri was a fan of the St. Louis Cardinals; she loved horses and the color purple."

She is survived by her parents, Wilbert and Marcia Vaughn of Brownstown; son, Kyle Davison and wife Heather of Brownstown; daughter, Kristin and husband Matthew Osorio of Ft. Campbell, KY; step daughter, Jenni and husband Kenny Warner of St. Elmo.

Highland man dies following tractor accident

By Dylan Suttles
STAFF WRITER

HIGHLAND — A Highland man has died following a tractor accident.

Douglas L. Pace, 48, of Highland, died Monday, May 8, following a tractor accident. He had celebrated his birthday just one week earlier.



Pace

Pace was born May 1, 1975, in Granite City and married Vicki Bohnak in 1998. He served in the Army for 10 years, from 1992 to 2003. According to his sister-in-law Julie Clayton, that service included time in Iraq, South Korea and Germany.

Clayton has created a GoFundMe page to help Pace's family with his funeral expenses. The page, located at <https://www.gofundme.com/f/please-help-the-pace-family>, has a goal of \$10,000. As of Thursday morning more than 75 donations had been made and the fund was at \$5,500.

A visitation for Pace is planned 9-11 a.m. Saturday, May 13, at the Meridith Funeral Home in Highland, immediately followed by his funeral and burial in St. Joseph Catholic Cemetery in Highland.

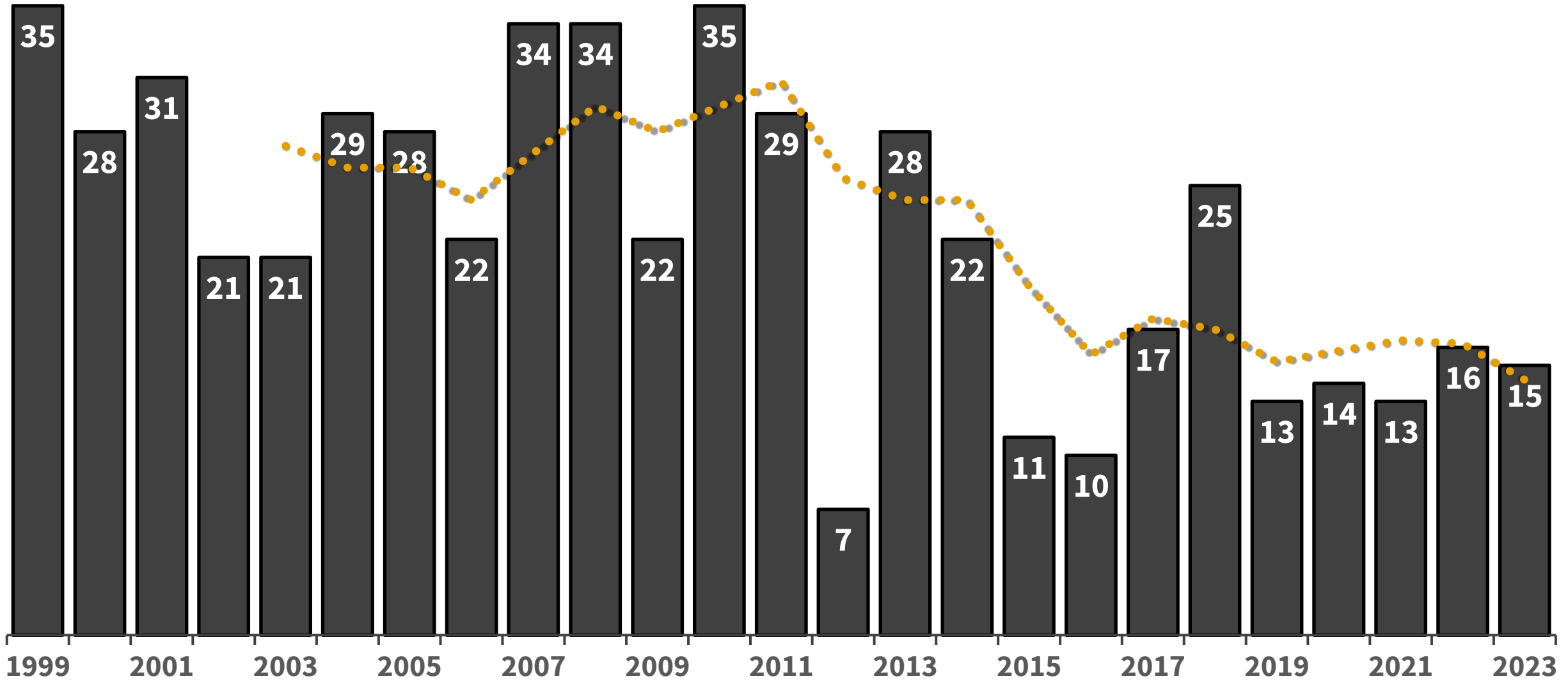
dylan.suttles@thebetelegraph.com

Pole barn fire on Old Centralia Lane

Jefferson Fire Protection District and multiple other agencies responded to a large pole barn fire Wednesday afternoon in the 21200 block of Old Centralia Lane in Jefferson County. Authorities say one person was airlifted from the scene with injuries. The cause of the fire is under investigation.

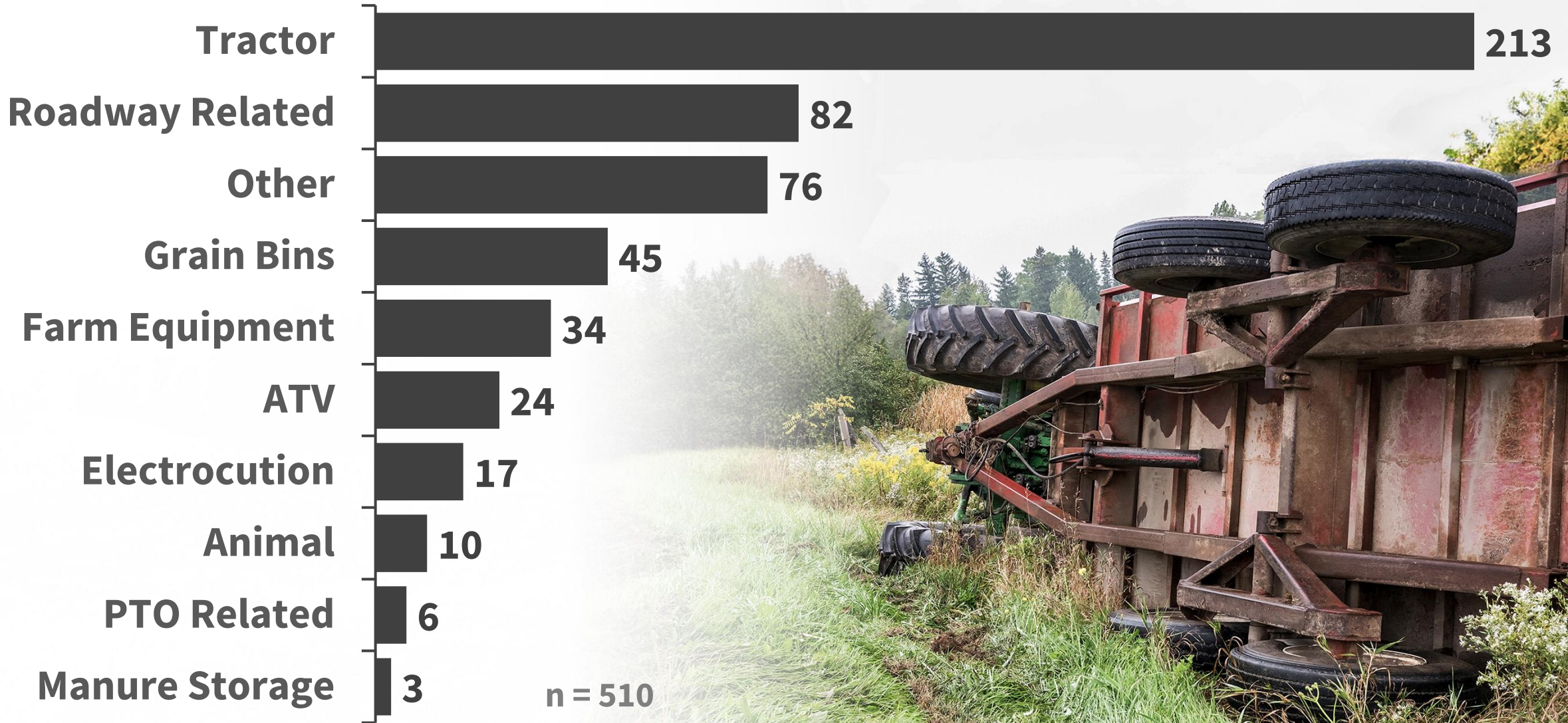


Illinois Fatal incidents in the last 24 years

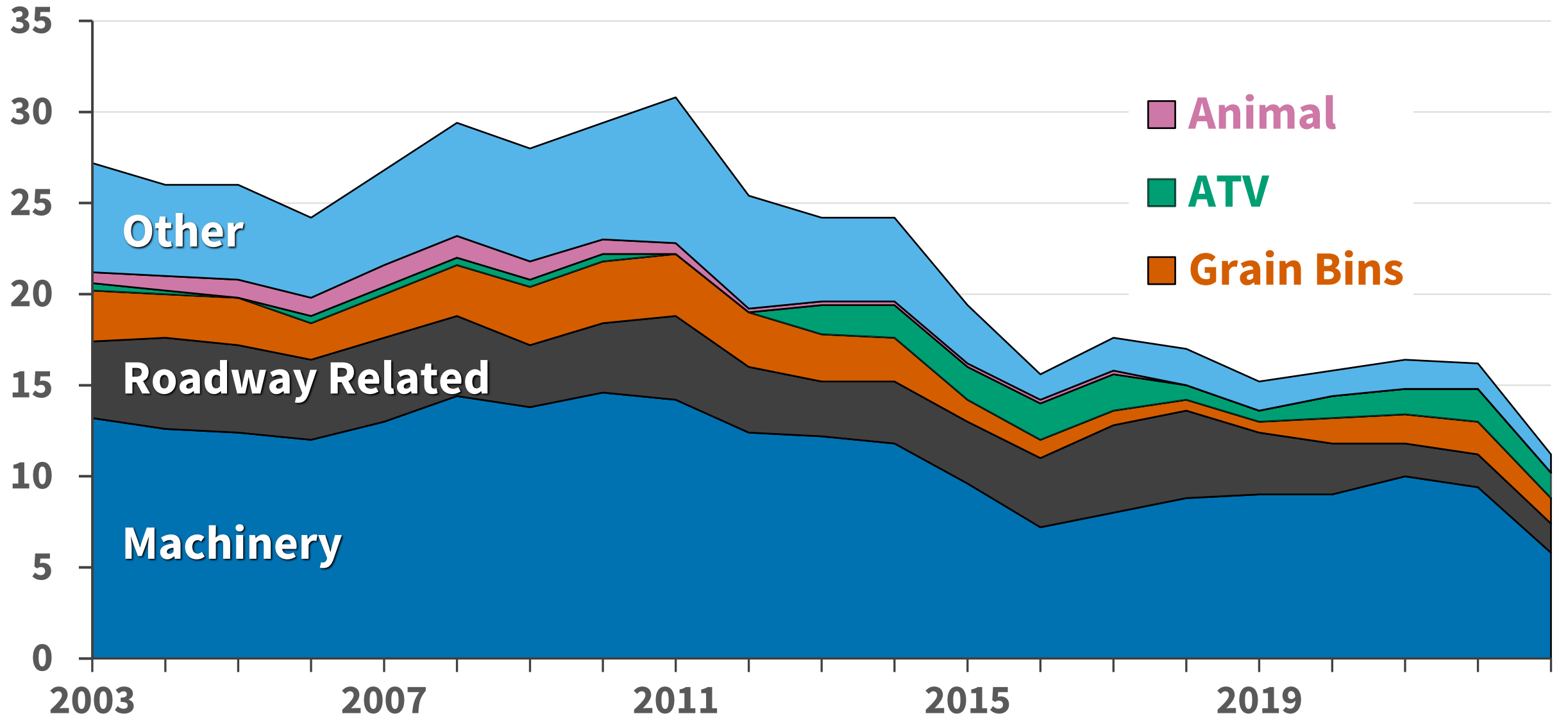


Two Decades of Agricultural Tragedy

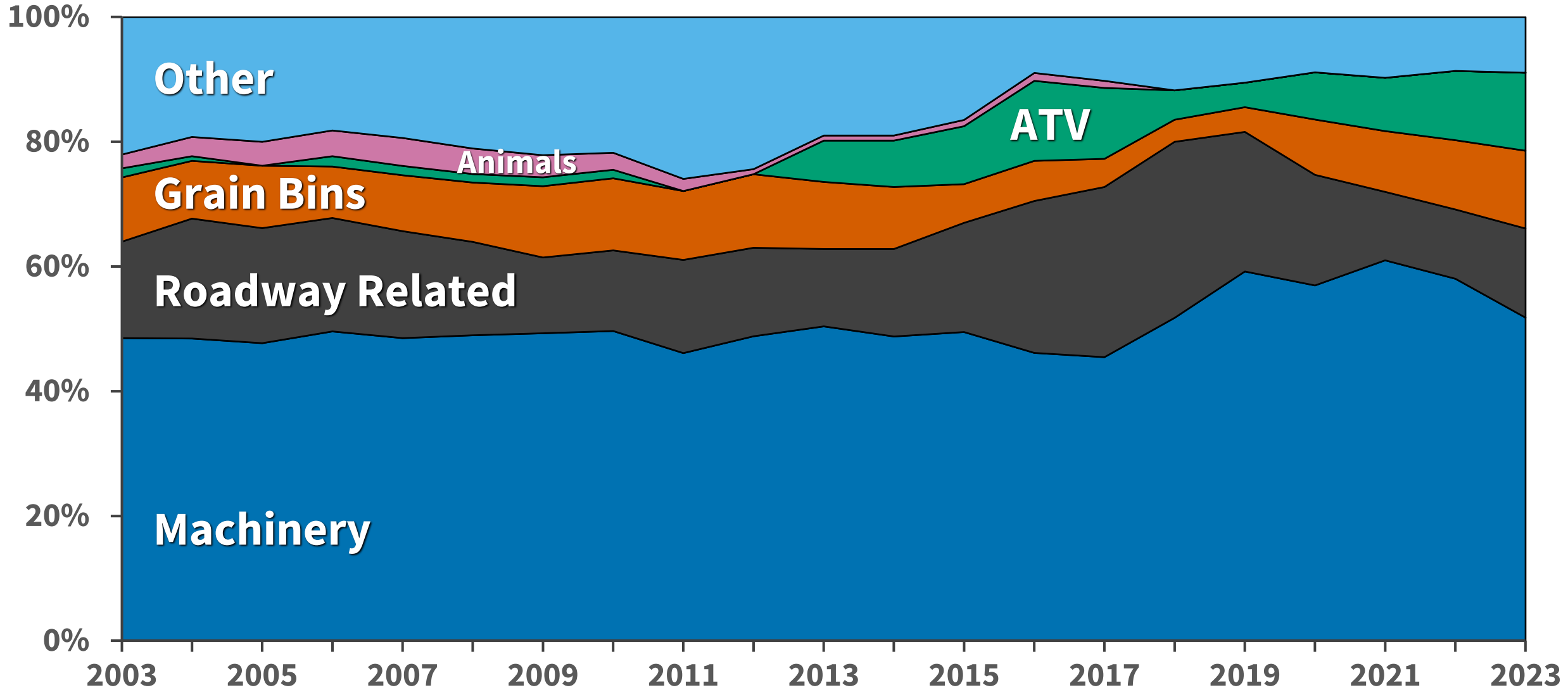
Fatal Incidents in Farming (1999-2019)



Average Number of Fatal Injuries

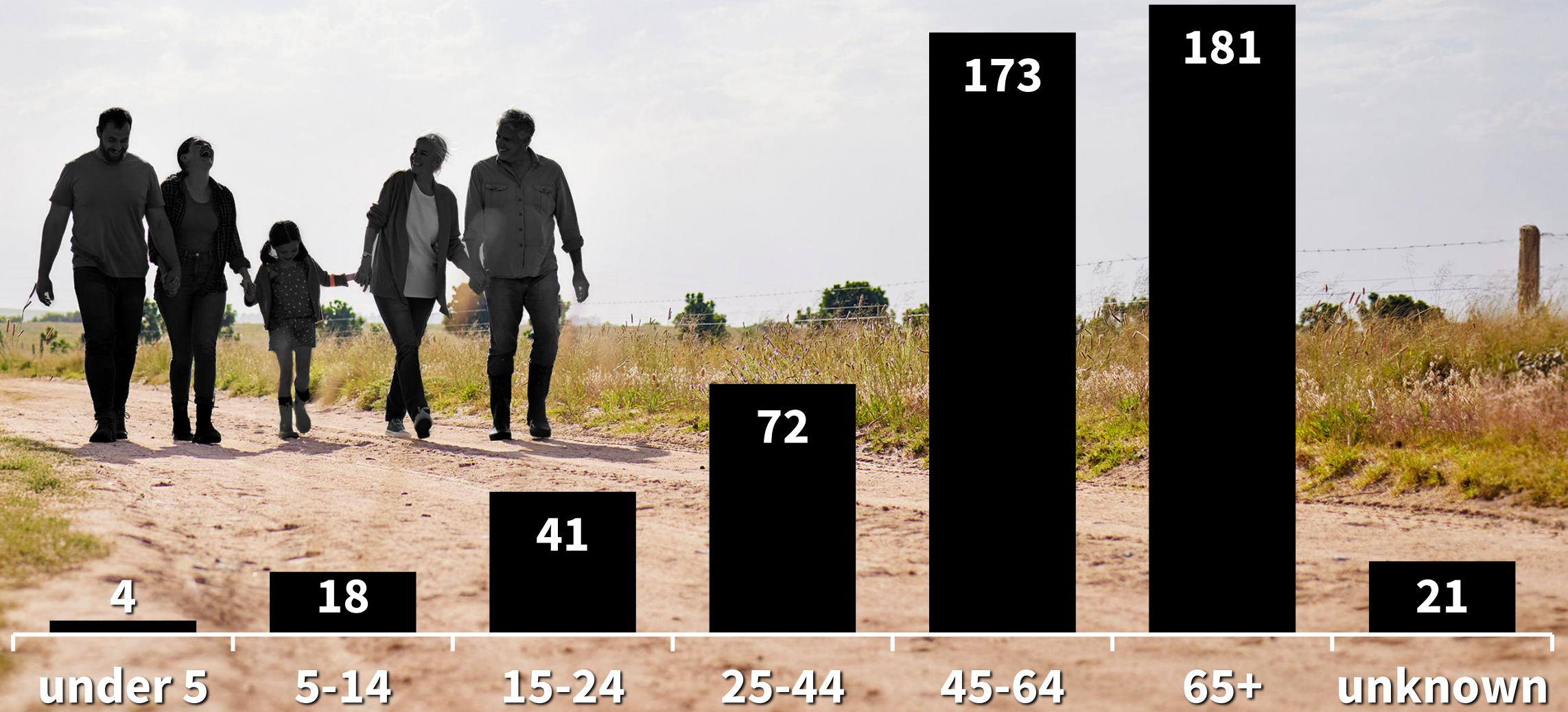


Percentage of Fatal Injuries

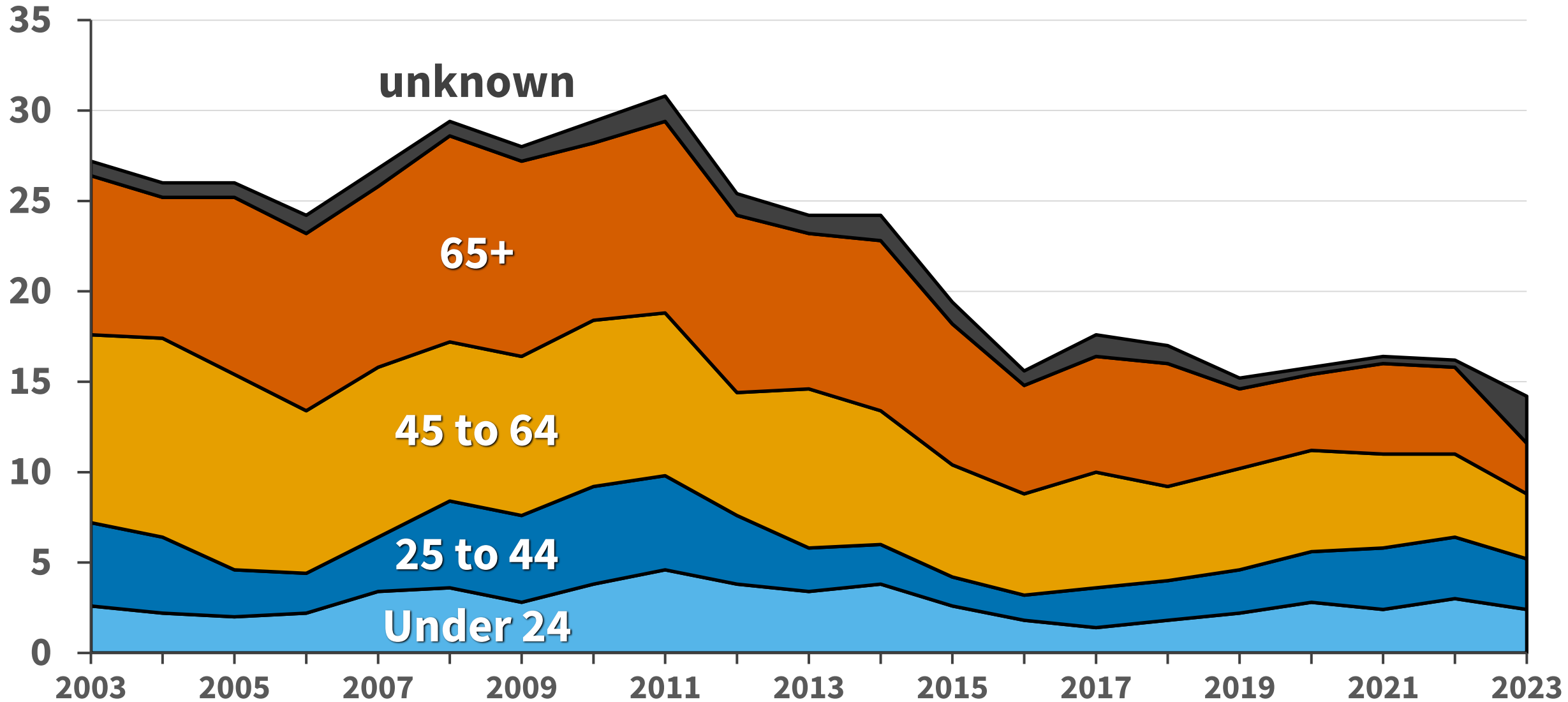


The Generational Impact

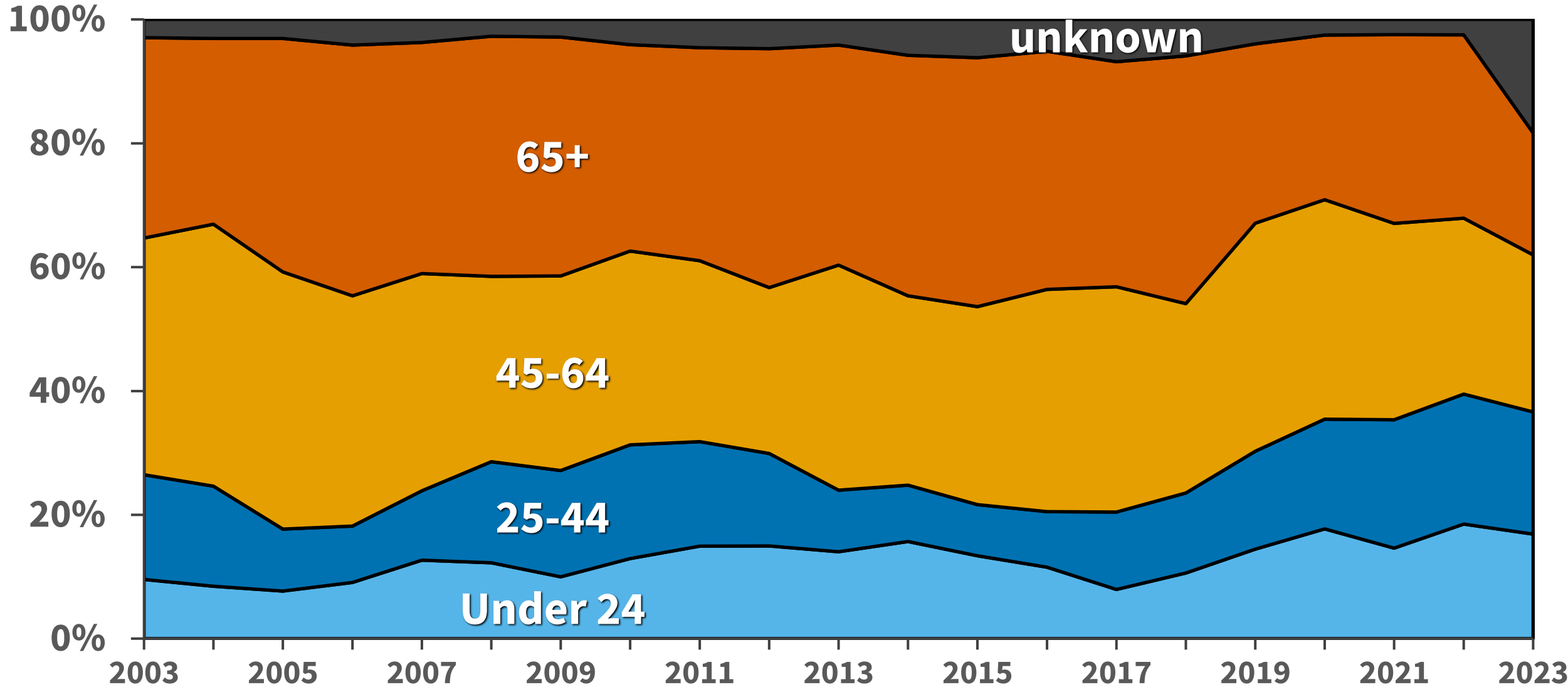
Fatal Farm Injuries Across Age Groups (1999-2019)



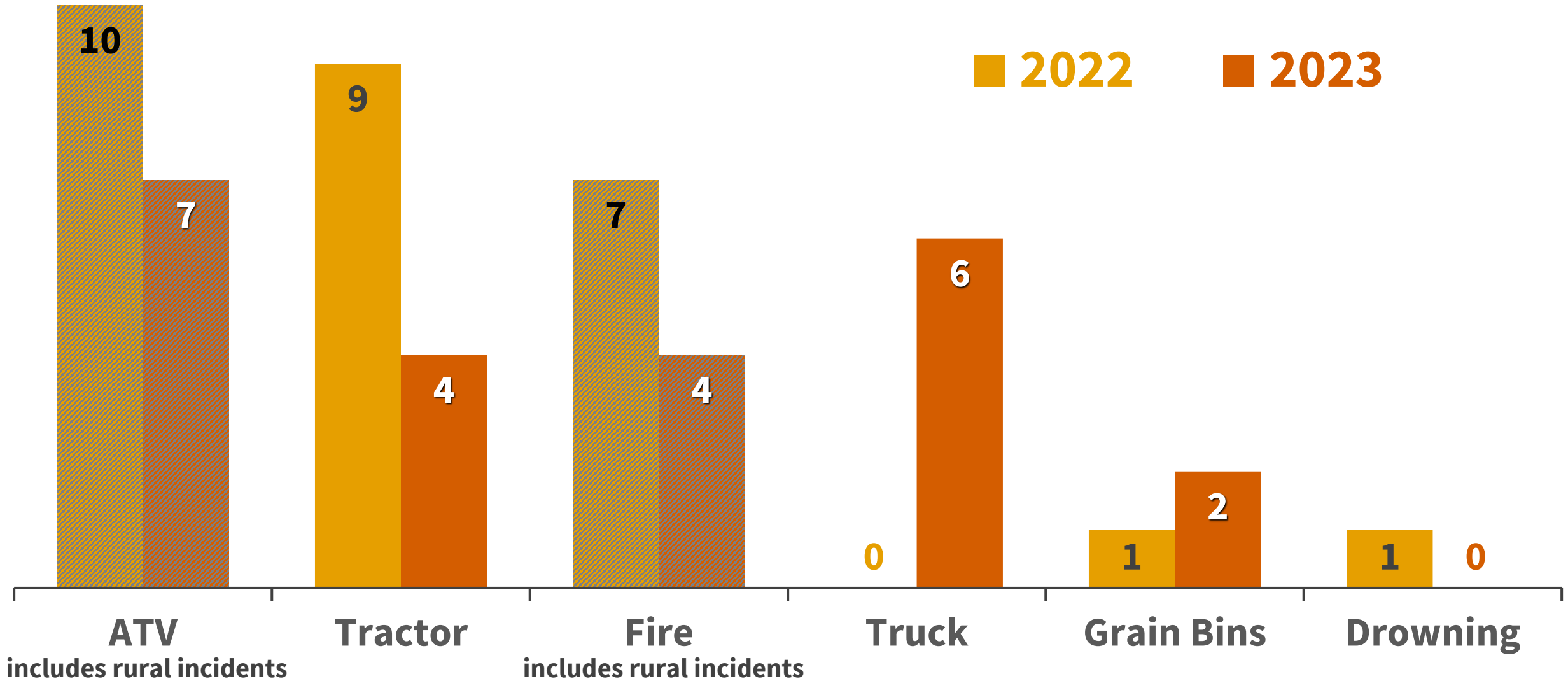
Number of fatal injuries by age



Percent of fatal injuries by age



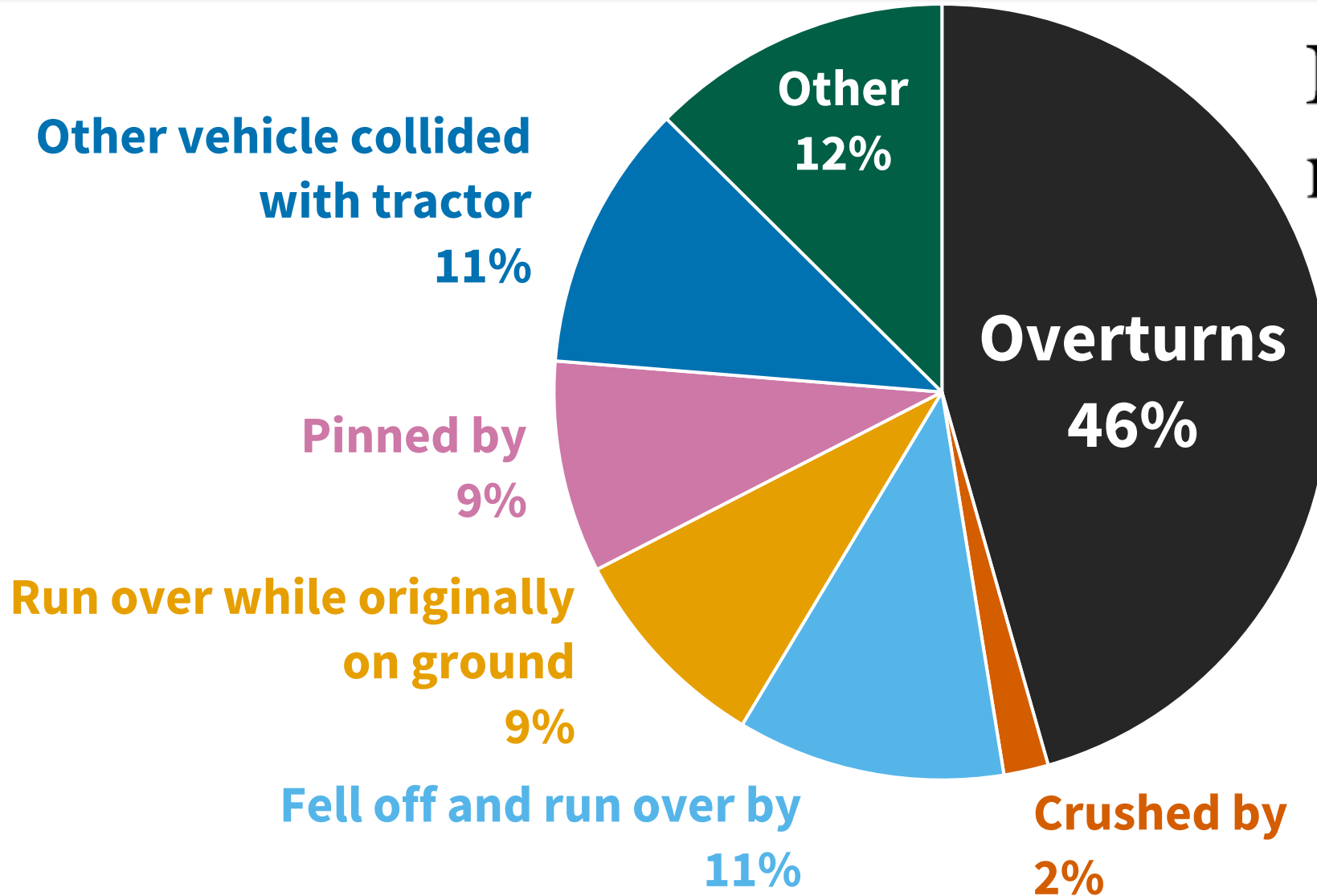
Recent trends in farm fatalities



What do these incidents look like at a farm level



Tractors



Man killed in tractor rollover in Ottawa

Southern Illinois man, 90, killed in tractor accident,

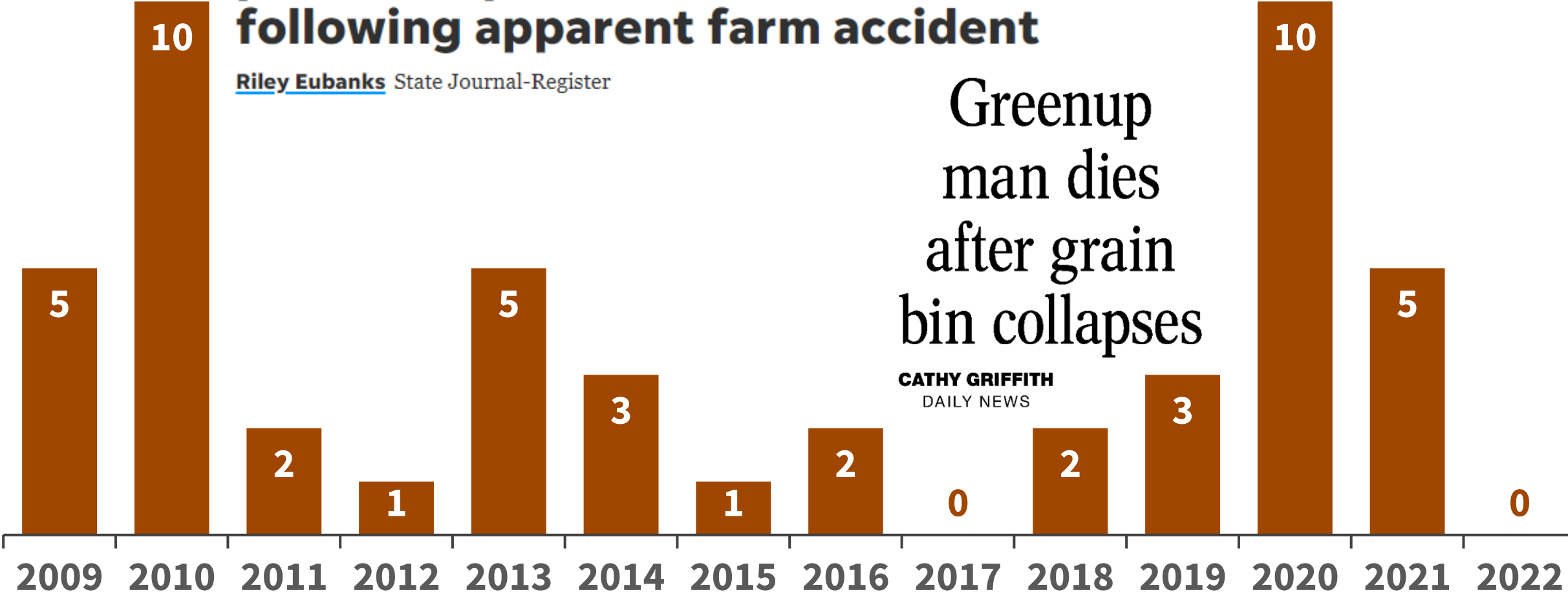
IL Grain Entrapment incidents over time

Menard County Farm Bureau president pronounced dead following apparent farm accident

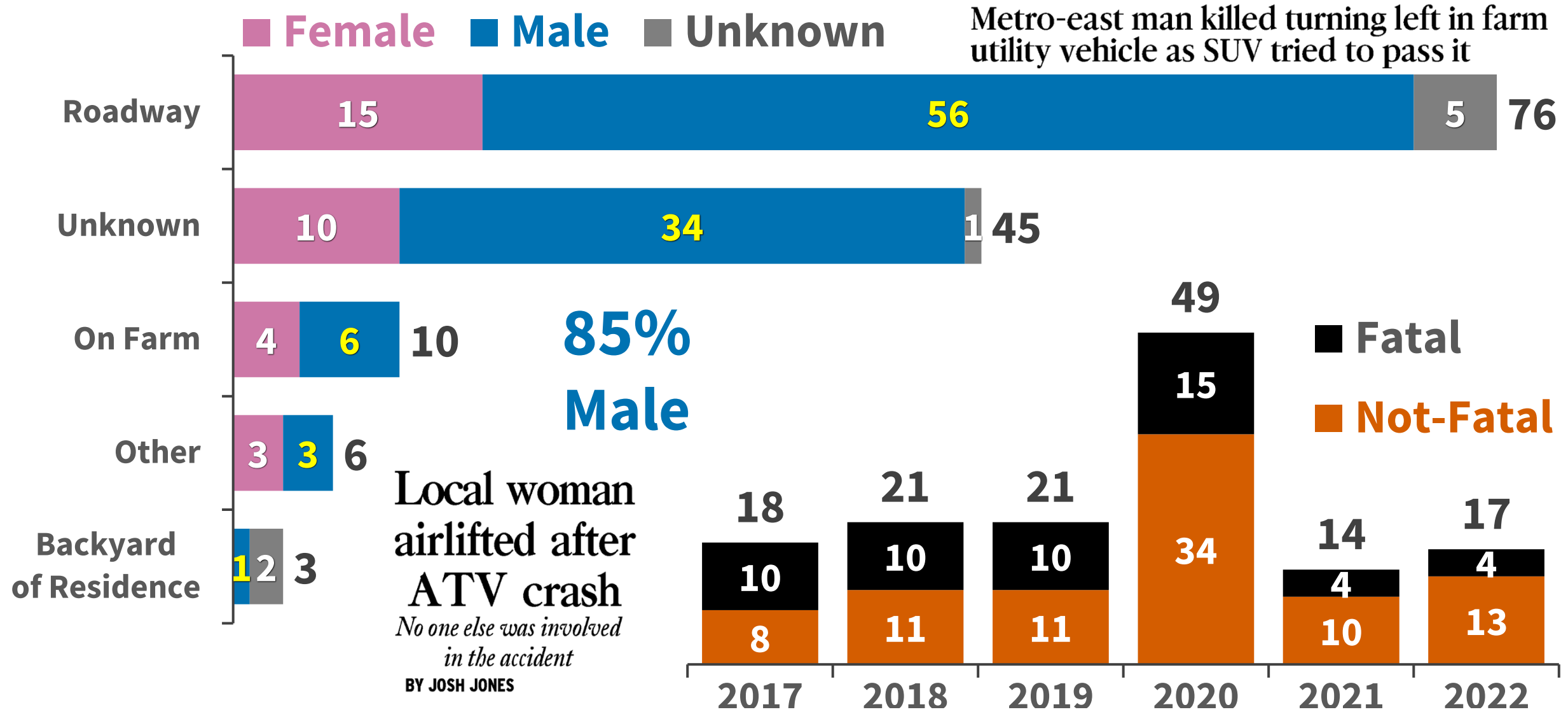
Riley Eubanks State Journal-Register

Greenup man dies after grain bin collapses

CATHY GRIFFITH
DAILY NEWS



ATV/UTV Accidents in Rural Illinois (2017-2022)



Anhydrous Ammonia

5 dead after crash, anhydrous ammonia leak

ROB STROUD

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SCOTT PERRY

scott.perry@lee.net

U.S.

Ammonia leak in Chicago suburb sends 37 people to hospitals



Farm Fires

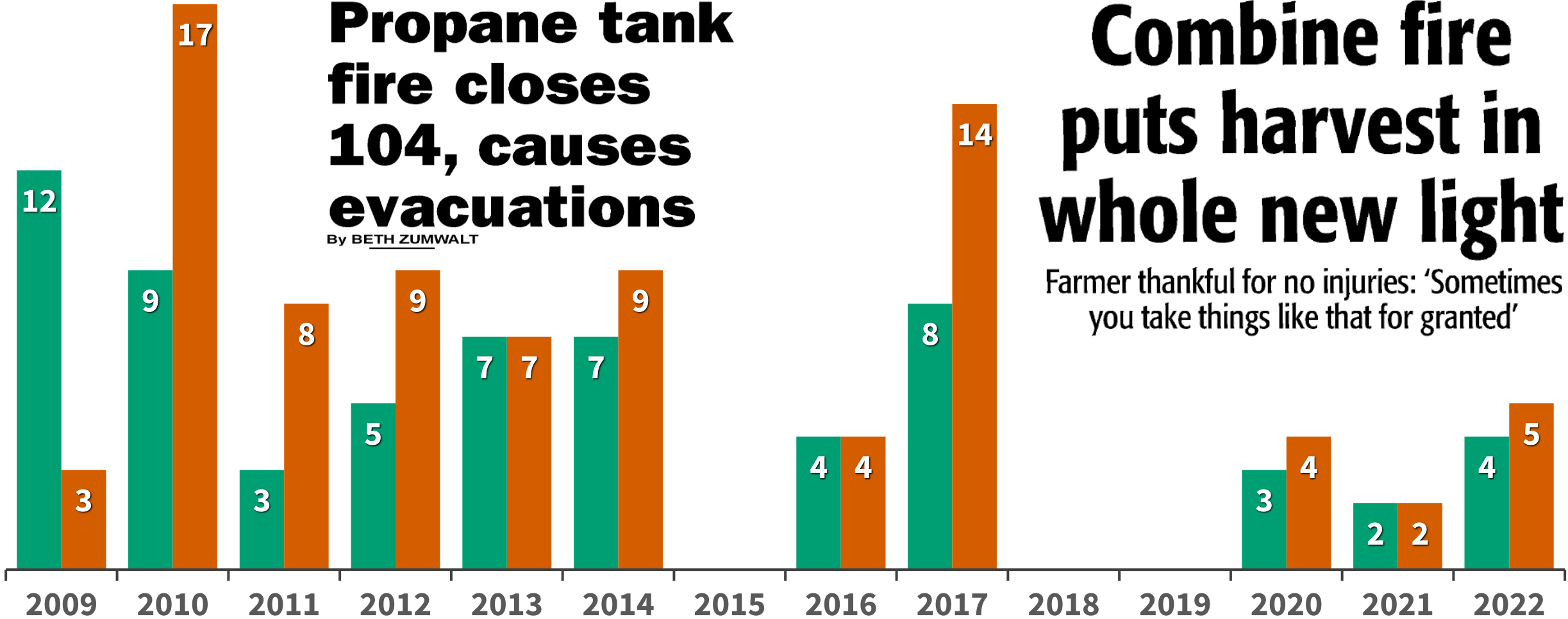
■ Confined Space ■ Farm Machinery

**Propane tank
fire closes
104, causes
evacuations**

By BETH ZUMWALT

**Combine fire
puts harvest in
whole new light**

Farmer thankful for no injuries: 'Sometimes you take things like that for granted'



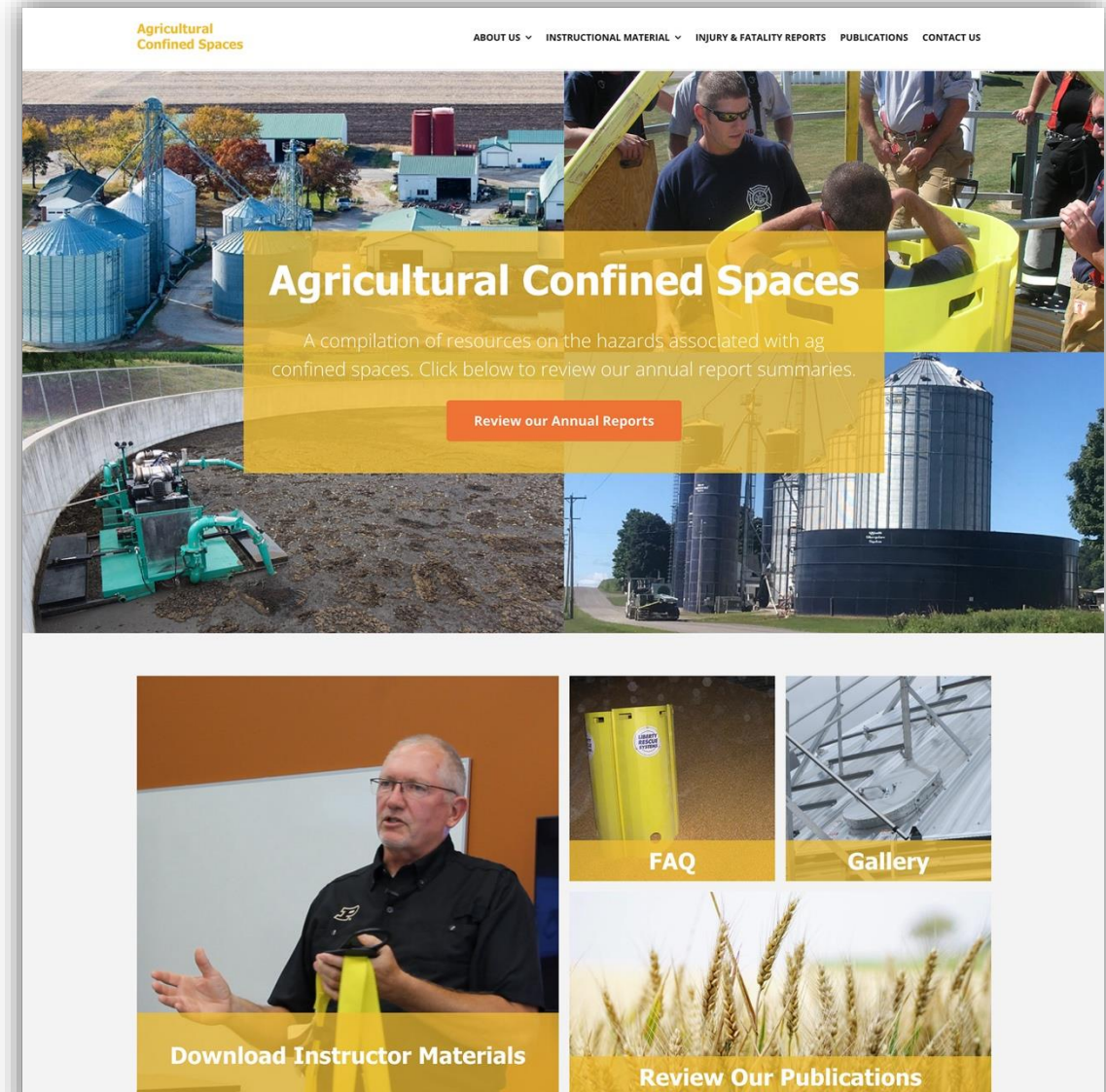
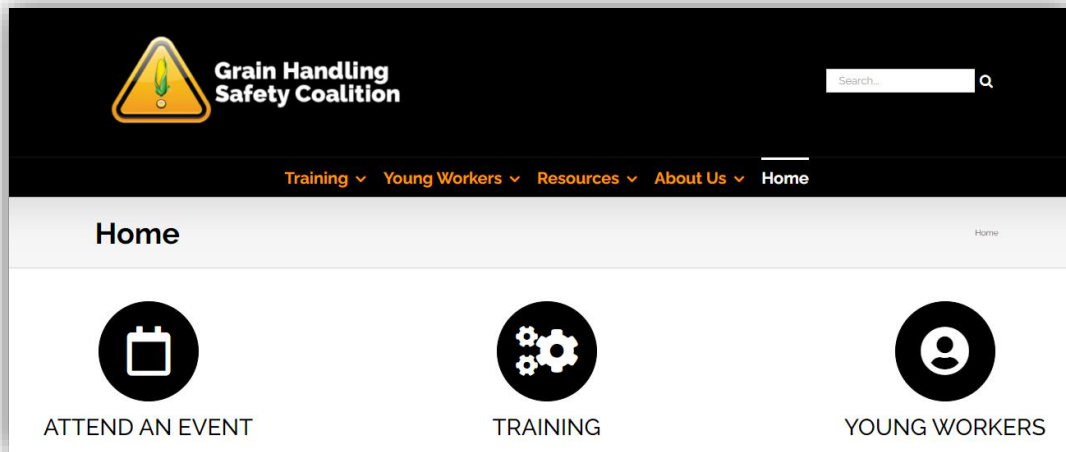
How surveillance information guides prevention initiatives



New Emphasis areas

Long term surveillance allowed for establishment focus areas:

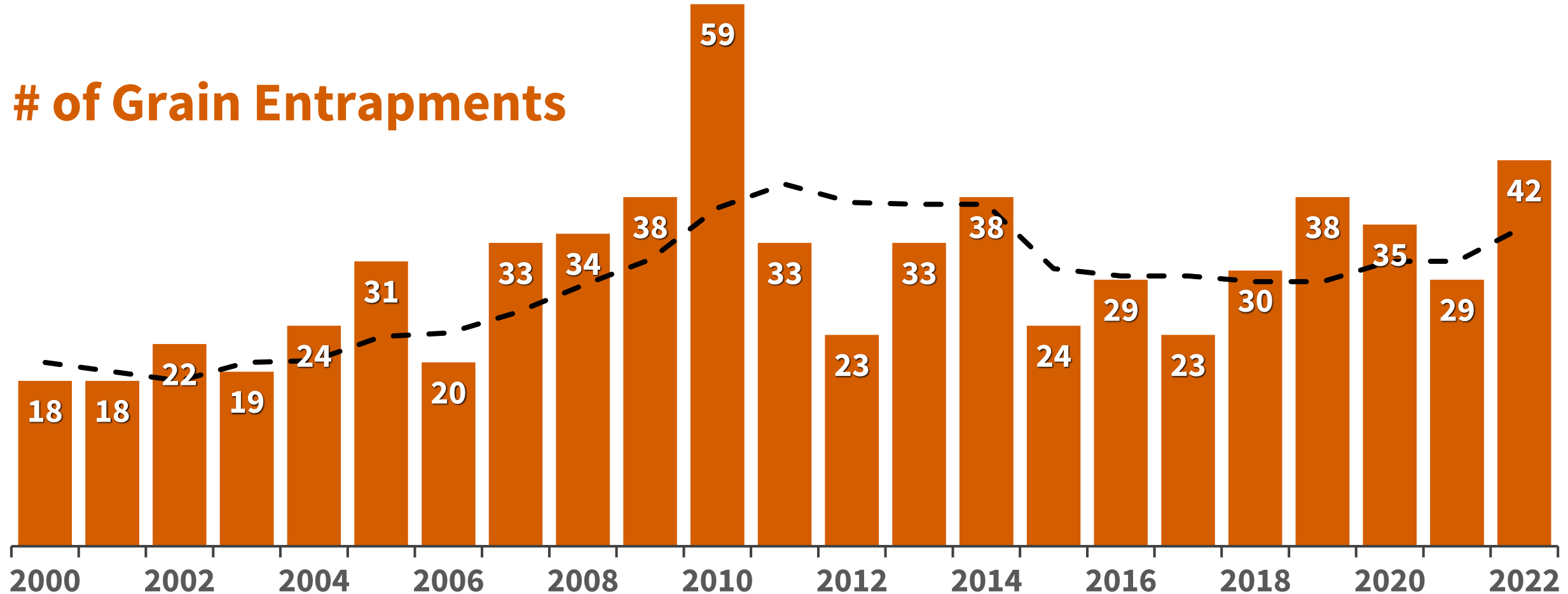
Example: Grain Entrapments



Track long-term progress

Are the initiatives and programs working

of Grain Entrapments



Track Demographics: Youth injuries

2022 Fact Sheet Childhood Agricultural Injuries



#1 Agriculture had the leading number of occupational fatalities across industries for youth age 17 and younger from 2011-2020.

Population at Risk

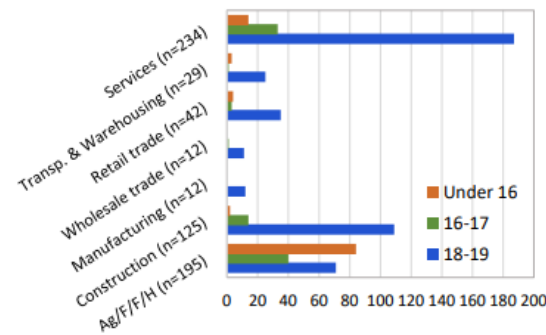
Farms	<ul style="list-style-type: none"> In 2021, there were approximately 2.01 million farms in the United States.¹ The number of large farms is increasing, small- to mid-size farms are decreasing, and life-style farms (with children) are increasing²
Children	<ul style="list-style-type: none"> About 893,000 youth lived on farms in 2014 and more than half (51%) worked on their farm.³ More than 265,600 non-resident youth were hired in agriculture in 2014.³ An estimated 25 million youth visit farms with 95% being frequent or occasional visitors.⁴ Rural communities are highly diverse including Hispanic, Anabaptist, American Indian, Black or African, and Asian residents. They have a disproportionate level of financial, housing and food insecurity, along with social isolation and compromised access to health care and broadband internet.⁵

Fatal Childhood Agricultural Injuries

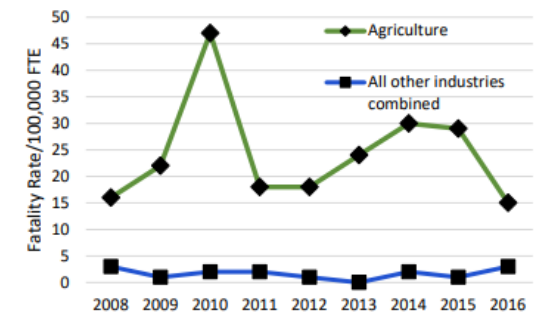
All Youth	<ul style="list-style-type: none"> A child dies in an agriculture-related incident about every 3 days.* Youth under age 16 have 12 times the risk of ATV injuries (fatal and non-fatal), compared to adults.⁶
Working Youth	<ul style="list-style-type: none"> From 2001 to 2015, 48% of all fatal injuries to young workers occurred in agriculture.⁷ In 2016, young workers were 7.8 times more likely to be fatally injured in agriculture when compared to all other industries combined (14.57 per 100,000 FTE vs 1.87 per 100,000 FTE).⁷ Tractors and ATV/UTVs are the or leading sources of fatal events.⁷ Of the leading sources of fatalities among all youth, 47% involved transportation (including tractors), 20% involved contact with machinery, and 13% involved violent contact with animals and other humans.⁸

Fatalities for Young Workers Across Industries

Number of Occupational Youth Fatalities by Industry: 2011-2020



Ages 15-17 by FTE, 2008-2016



Ag/F/F/H = agriculture, forestry, fishing, and hunting; FTE = full-time equivalent; Transp. = transportation⁹. Data from US Bureau of Labor Statistics Census of Fatal Occupational Injuries.

* From reported 115 agriculture-related deaths annually from 1995 to 2000.⁸

** From estimated 11,942 injuries in 2014.¹⁰

† Household youth are youth who live on a farm.

‡ Converted from published 2005 dollars to 2022 dollars

NOTE: There is no central repository of childhood agricultural injuries. This fact sheet draws from the best available data.

Conduct programs

- Host Training & Outreach
- Secure funding



Events



[Illinois Injury Surveillance Efforts](#)
July 16, 2024



[Farm Safety for Youth: Keeping the Next Generation Safe](#)
August 20, 2024



[Addressing Mental Health and Stress in Agriculture](#)
September 17, 2024



[Resources for Farmers in Crisis](#)
October 15, 2024

Conclusion

- The top three types of fatal injuries in Illinois are tractor-related, roadway-related, and grain bin.
- Around half of the fatal incidents in Illinois are machinery-related.
- Over one third (35%) of the victims are the elderly (over 65 years old)



Conclusion

Surveillance is an important resource

- Provide new focus areas
- Support funding for new programs
- Monitor progress



Conclusion

News clippings is an important source for tracking agricultural injuries

- Tracks significant events occurring at rural communities.
- Provides a glimpse into agricultural injuries
 - Is representative at fatality level.

Limitations

- The lack of any type of central required reporting/documentation process will continue to ensure under reporting of Ag-related incidents in Illinois
- News clippings by default means that number of incidents are under reported
- The data were limited due to the inability to conduct additional on-site investigations involving interviews with victims and witnesses

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