

Summary of the CII 2017 Safety Rates

Prepared by the Construction Industry Institute

August 2018

Table of Contents

1. Introduction	2
2. Summary of the Safety Data	4
3. Overall TRIR and DART Rates	5
4. Safety Rates by Organization Type (Owners versus Contractors)	6
5. Safety Rates by Industry Sector	7
6. Safety Rates by Location (Domestic versus outside the U.S.).....	9
7. Fatalities	10

1. Introduction

CII has collected annual corporate safety performance data from its member organizations since 1990 as part of its long-term commitment to improving safety in the construction industry. Starting in 2018, the CII/CURT Safety Portal is the online tool CII uses to collect safety data. This document summarizes the findings of the most recent CII/CURT Safety Survey, which captured 2017 fiscal year safety data. **While the new CII/CURT Safety Portal combines data from CII members and non-members, this document summarizes safety rates experienced by CII members only.**

CII intends to revise these numbers at the end of 2018 and include any additional data collected over the year. CII members that did not provide their data during the spring campaign will still be able to do so until the end of 2018. If you want to provide your company data, please use the following link to access the safety portal (you will need a CLMA account, which can be obtained free of charge):

<https://www.curt.org/resources/safety-benchmarking-portal/>

Limitations

Respondents (both owners and contractors) were asked to provide safety data for both their direct-hire employees and their contractors' employees. However, because contractors were not uniquely identified in the owner responses, some double reporting of contractor data is possible. This overlap often presents itself in two ways:

- Owners reporting on their contractors' employees
- Contractors reporting on their direct-hire employees

Readers should use caution when comparing results across sectors, since some sectors have relatively small sample sizes. (This discrepancy is reflected in the number of companies and workhours associated with each sector reported in the charts below.)

With regard to the industry sectors addressed in this report, it is important to note that the classifications used here differ from both the system OSHA currently uses, the 2002 North American Industrial Classification System (NAICS), and the Standard Industrial Classification (SIC) system that OSHA used prior to 2003. The construction industry divisions of the NAICS and the SIC system consist of three major groups:

1. General Building (NAICS 236 and SIC 15)
2. Heavy Construction except for Buildings (NAICS 237 and SIC 16)
3. Special Trade Contractors (NAICS 238 and SIC 17)

However, the data collected by CII does not address all the categories above. Most importantly, it does not include residential construction, which is included in the “General Building” category above.

Therefore, the OSHA data are not directly comparable to CII/CURT data.

Survey Instrument

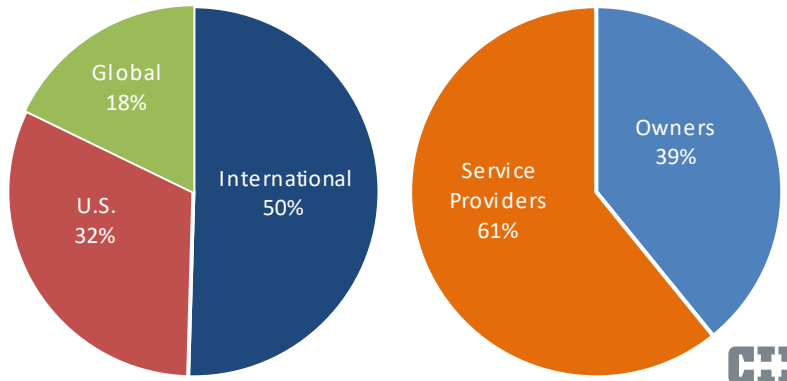
The CII/CURT safety survey gathers the data by industry sector, location, and employee type. The main data entry fields are the following:

- Total Work Hours
- Total Recordable Incident Cases
- Days Away and Restricted or Transferred (DART) Cases
- Days Away (DA) Cases
- Total Number of Days Associated with Days Away (DA) Cases
- Total Number of Days Associated with Job Restriction or Transfer (RT) Cases
- Number of Fatalities

In addition, the survey includes questions regarding near misses, first aid cases, and fatalities. All safety terms used in the survey are aligned with OSHA definitions in order to allow comparisons of the survey results to the yearly safety statistics that OSHA provides on the overall U.S. construction industry. **Most importantly, this survey focuses on safety data associated with capital projects, excluding operations and maintenance (this is particularly important for owners reporting their safety data).**

2. Summary of the Safety Data

From among CII's membership, 66 organizations submitted their corporate safety statistics for the 2017 calendar year. These data represent a total of 2.9 billion work hours.



*Global: responses that did not break down the data into U.S. (domestic) and international hours.

Figure 1. Percent of Work Hours by Project Location and Organization Type

The table below summarizes the data obtained for the CII/CURT Annual Safety Survey for the most recent calendar year. The reader should note that some respondents could not provide all of the requested data or give details across all categories. For instance, an organization may report the total recordable incidents but not be able to report the DART cases, in which case the aggregated amount of work hours for DART cases will be smaller. For this reason, the total overall workhours reported differs from many of the categories presented in Table 1. In particular, some owners had difficulty reporting information related to job restriction or transfer (RT) cases due to the short durations of the work tasks involved.

Table 1. Numbers of Cases and Work Hours for TRIR, DART, and Fatalities

	Owner	Service Provider	Grand Total
TRIR Cases	820	2,350	3,170
TRIR Work Hours	1,135,989,985	1,764,114,385	2,900,104,370
DART Cases	353	987	1,340
DART Work Hours	1,094,152,760	1,763,744,938	2,857,897,698
Fatality Cases	5	11	16
Fatality Work Hours	1,120,630,601	1,764,114,385	2,884,744,986

3. Overall TRIR and DART Rates

Figures 2 and 3 below display the trends of TRIR (known as RIR prior to 2002) and DART (called LWCIR prior to 2002) rates for survey respondents and for the U.S. construction industry as reported by OSHA. **Figure 2 shows that the TRIR for CII members improved by 15% from 2016 to 2017 while the DART rate remained the same as 2016.**

It is important to note that when OSHA changed its record-keeping rules on January 1, 2002, it altered some of the criteria that determine which injuries and illnesses are recorded. As a result, OSHA suggests that readers should use reasonable caution when comparing data produced under previous regulations with data produced under the new rules. Consequently, since 2003, the annual safety report has distinguished the safety data collected before and after the record-keeping rule changes, wherever necessary. Therefore, in Figures 2 and 3, a dashed green line marks the 2002 OSHA rule changes.

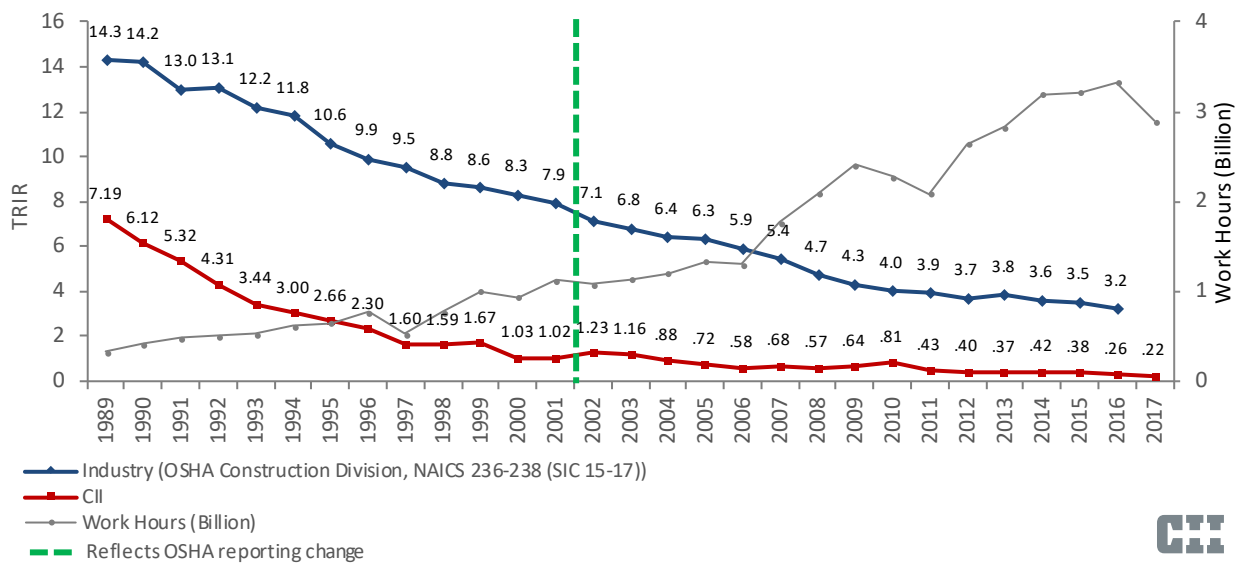


Figure 2. TRIR (RIR) Rate, Aggregated Data, 1989-2017 (CII Membership only)

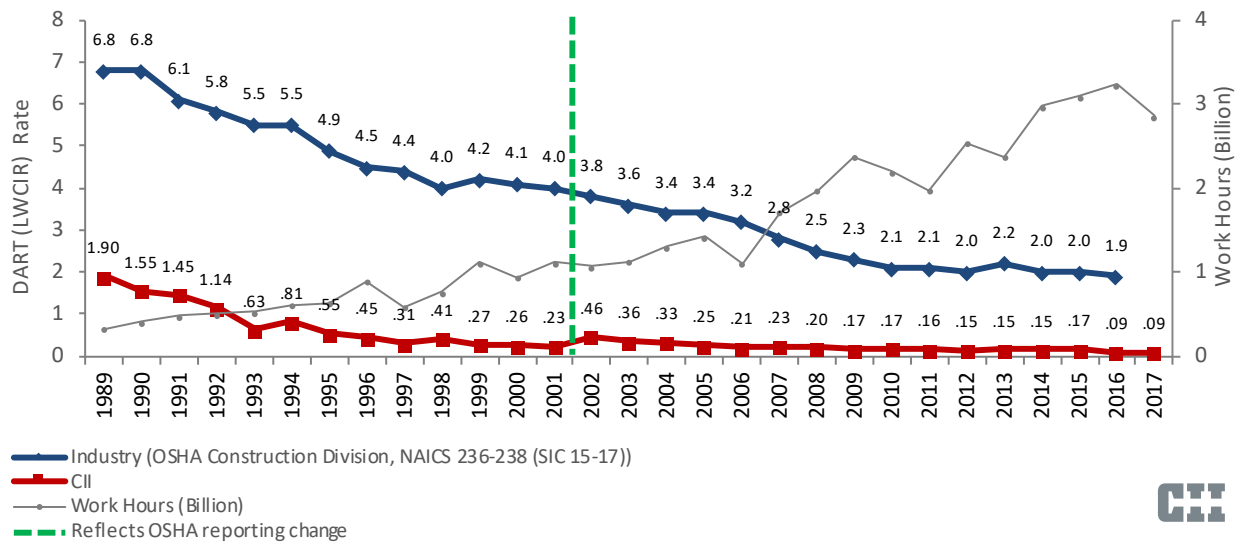


Figure 3. DART (LWCIR) Rate, Aggregated Data, 1989-2017 (CII Membership only)

4. Safety Rates by Organization Type (Owners versus Contractors)

The table below describes the change in safety rates since the last survey across owners and contractors as well as for the combined set of responses (the “All” category).

Table 2. 2016-2017 Trends

	Rate	2016	2017	Difference
All	TRIR Rate	0.26	0.22	-15%
	DART Rate	0.09	0.09	0%
	DA Rate	0.05	0.05	0%
	Fatality Rate	1.75	1.11	-37%
Owners	TRIR Rate	0.18	0.14	-22%
	DART Rate	0.05	0.06	20%
	DA Rate	0.03	0.04	33%
	Fatality Rate	1.68	0.89	-47%
Contractors	TRIR Rate	0.32	0.27	-16%
	DART Rate	0.12	0.11	-8%
	DA Rate	0.06	0.06	0%
	Fatality Rate	1.81	1.25	-31%

5. Safety Rates by Industry sector

The safety survey collects data from four industry sectors: Heavy Industrial, Light Industrial, Buildings and Infrastructure. The Figures below summarize the TRIR and DART rates by the four sectors, and by respondent type. The “Total” (green) bars represent the combined rate including both owners and service providers.

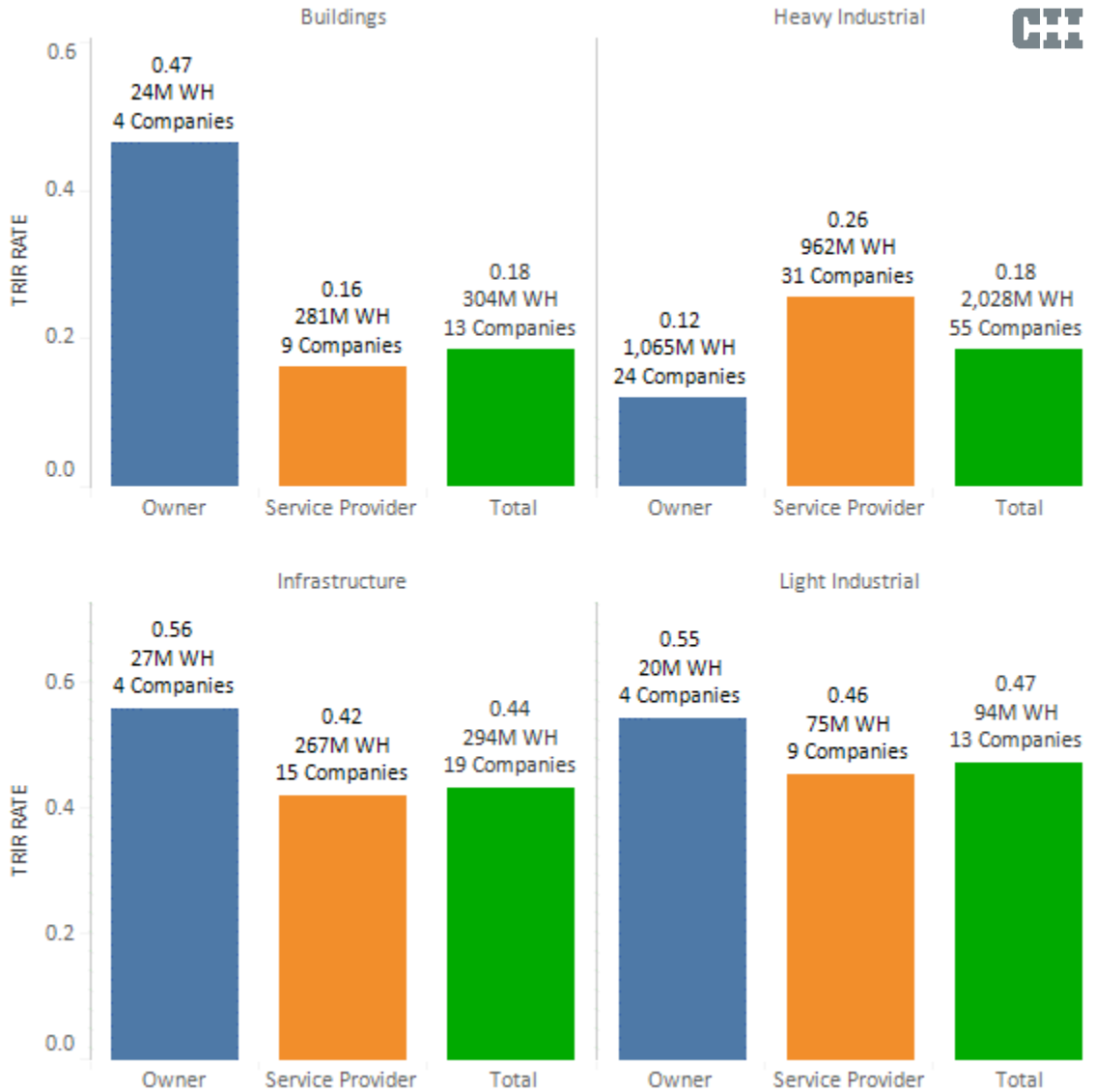


Figure 4. TRIR Rates by Industry Group

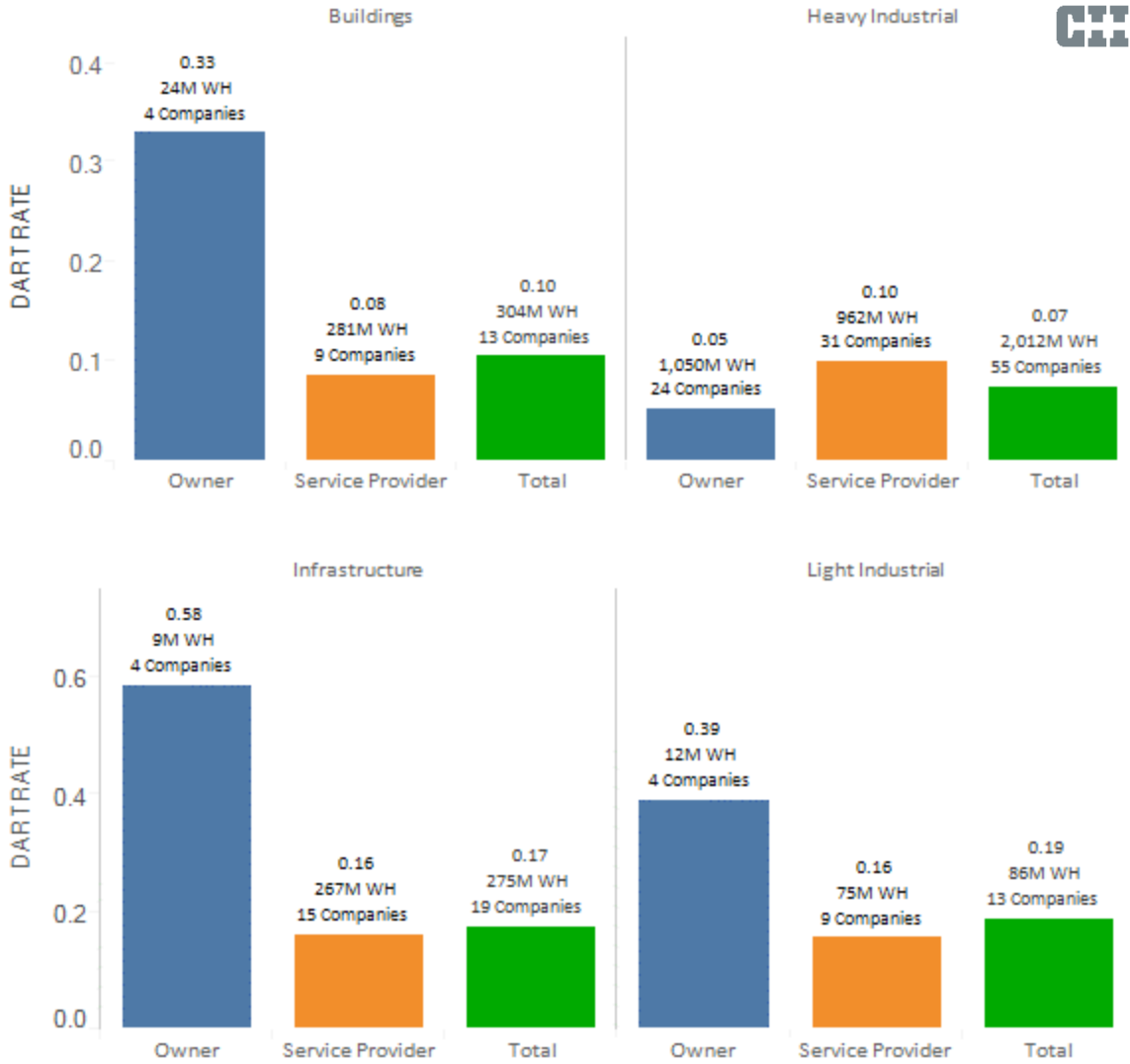


Figure 5. DART Rates by Industry Group

6. Safety Rates by Location (Domestic versus outside the U.S.)

Survey respondents are involved in capital projects around the world. To address the differences between U.S. and non-U.S. projects, this chapter compares the safety performance of these two groups of projects. Note that, ideally, the non-U.S. number should be further broken down by geographic region. But the availability of data is limited to most regions and, therefore, this document aggregated all non-U.S. data under the non-U.S. group. The Global group represents the set of all collected data.

Previous years' surveys showed that international projects experienced better safety rates than did U.S. projects, regarding both TRIR and DART rates. Figure 6 shows that the same overall pattern is still present in the data.

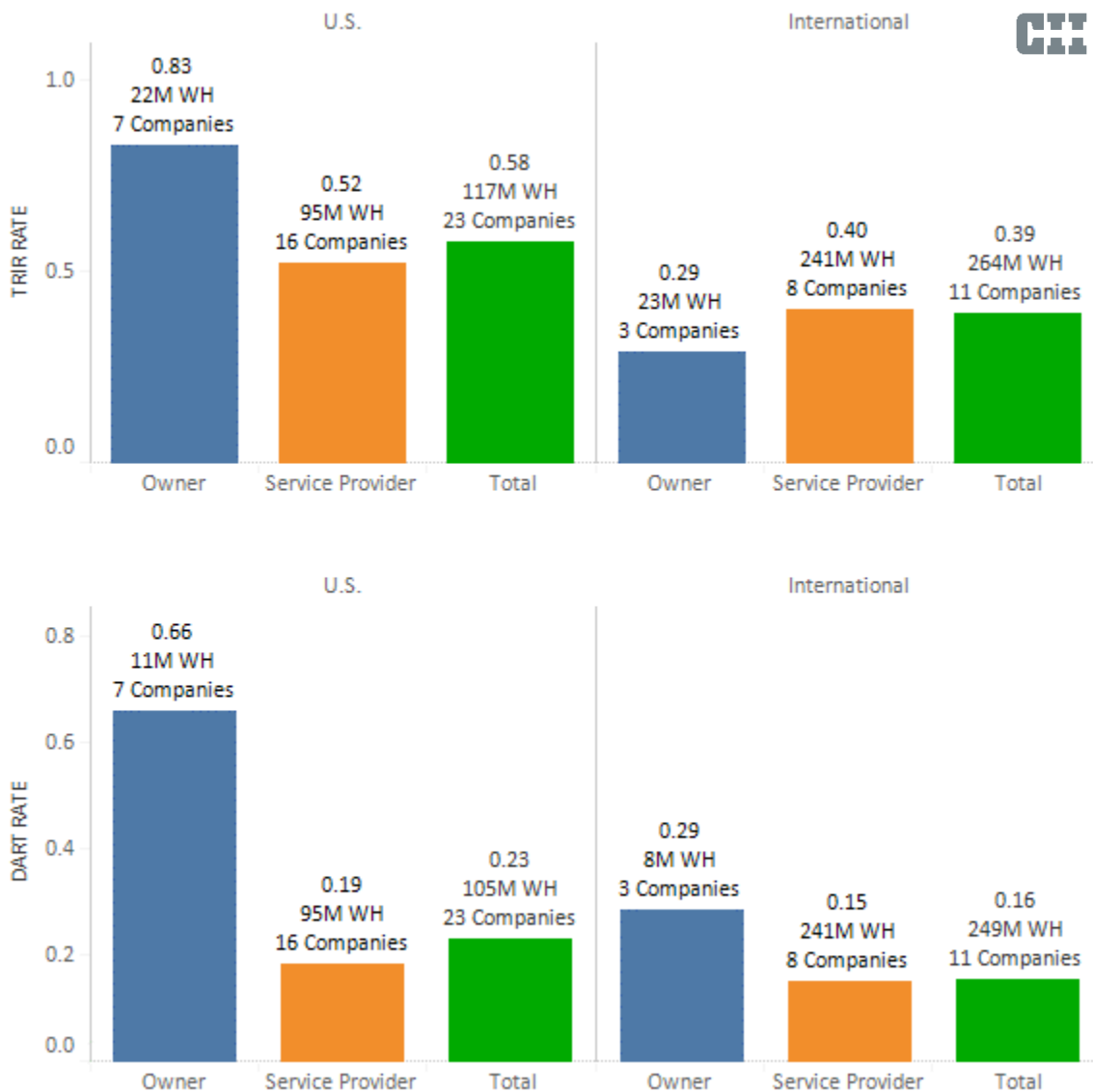


Figure 6. Rates by Project Locations

7. Fatalities

As shown in the figure below, for the year 2017, the overall fatality rate of CII members decreased to 1.11 from the 1.75 rate reported in 2016.

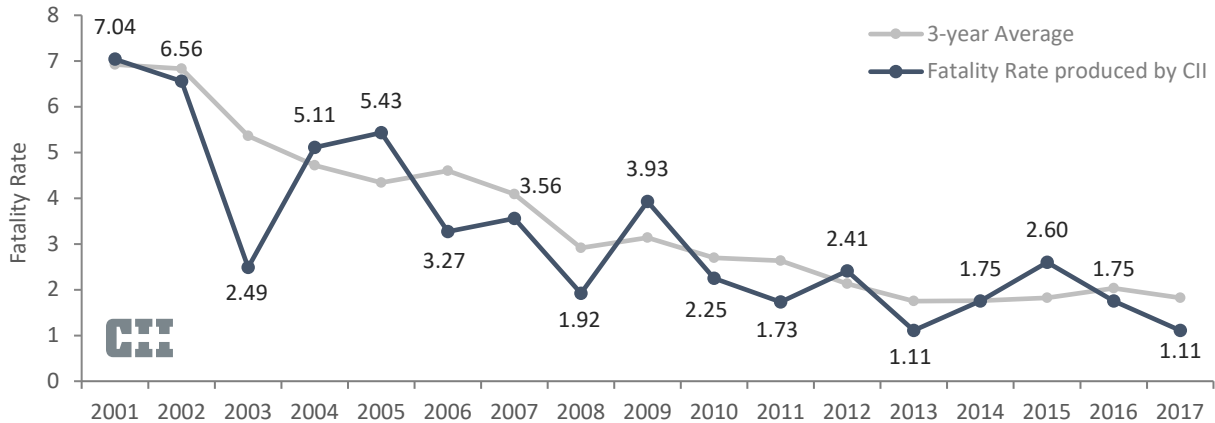


Figure 7. Yearly and 3-year Average Fatality Rate Trend (2001 – 2017) (CII Membership only)

In 2017, 16 fatalities were reported by CII members. Figure 8 shows that the leading cause was the contact with objects and equipment, followed by falls. No fatality was reported in the category of assault and violent acts.

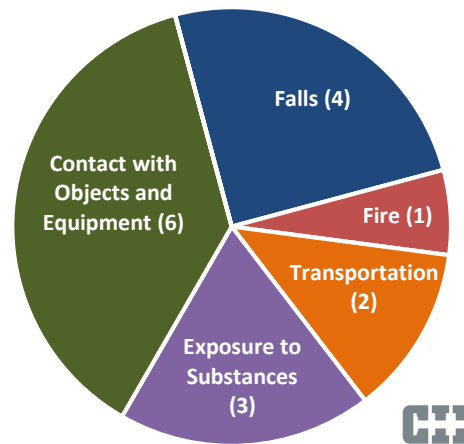


Figure 8. Fatality Causes in 2017 (CII Membership only)