

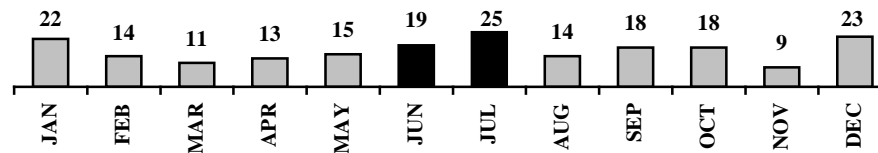
# SOFA Switching Fatality and Severe Injury Update – 2016 Second Quarter

## PLEASE POST IMMEDIATELY

### Switch Safely this Summer...and all career long!

- This *SOFA Update* focuses on switching risk in summer months
- Since 1992, 44 fatalities occurred in June and July, 22 percent of all switching fatalities
- Fatalities in June and July have averaged 22.0 fatalities vs. 15.7 fatalities for the other 10 months
- July has had more fatalities than any other month, 25
- Discuss summer risk in safety briefings and training. See *pages 2-7* for information on some of these risks
- And work safely in June and July...and all career long

201 Switching Fatalities, by month,  
January 1, 1992 through March 26, 2016



### One switching fatality in 2016 through March 26

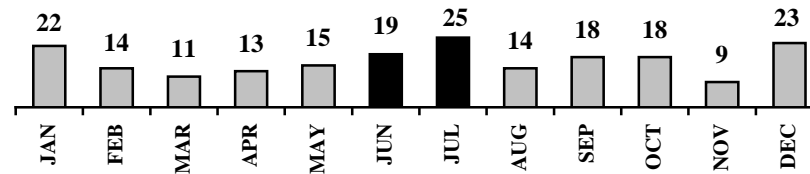
- March 26 – CP – St. Paul, MN: An engineer was struck by a freight train while crossing tracks in a yard at 12:30 am. [based on preliminary information with circumstances subject to change pending investigation]

### Switching Operations Fatality Analysis (SOFA)

- A voluntary, non-regulatory, railroad-safety partnership of representatives from AAR, ASLRRA, BLET, FRA, and UTU-SMART-TD
- Seeks to prevent switching fatalities through education based on facts about causes
- SOFA is not part of a rulemaking or regulatory process
- Recognizes that all have responsibility for switching safety: employees, managers, and regulators
- SOFA's goal is Zero Switching Fatalities achieved through education and non-punitive interactions among stakeholders
- Find SOFA reports and information at: <http://www.fra.dot.gov/SOFA> [accessed June 21, 2016]

# Switch Safely this Summer...and all career long!

201 Switching Fatalities, by month,  
January 1, 1992 through March 26, 2016



- **Historically, the risk of a switching fatality increases in summer. Since 1992, 44 switching fatalities occurred in June and July, 22 percent of all switching fatalities. Fatalities in June and July have averaged 22.0 per month vs. 15.7 in the other 10 months. July has had more fatalities than any other month, 25**
- **The reasons for this increase in June and July are not altogether clear. If risk increases in these summer months on your railroad, possibly you can think of reasons why?**
- **Special emphasis to reduce risk in these months is warranted. Emphasis should include recognition of any local conditions that change during summer – in yards, out on the mainline, and at industrial sites. Pertinent company policies; and SOFA Advisories and Lifesavers/Recommendations should be stressed**
- **While switching fatalities have dramatically declined in the last four years, it is historically true that risk increases in June and July. It need not be so. Risk can be recognized and remedied. Get the word out: June and July bring additional risk to those engaged in switching. Consider placing special emphasis on summer risk**
- **Action Item: Discuss summer safety on your railroad. What are some ways to work safely this summer? Raise awareness about risks that may be summer related**
- **Switch safely this summer...and all career long!**

# Switch Safely this Summer...and all career long! (continued)

Quotes about summer risk from *Findings and Advisories of the SOFA Working Group, Volume I and II, March 2011 Update*

Find SOFA reports and information at: <http://www.fra.dot.gov/SOFA> [accessed June 21, 2016]

## Hot Summer Weather

Make hot weather an issue upcoming safety awareness campaigns. Increasing workforce awareness of this problem could be an important step in reducing fatalities in hot weather during the summer. Since many fatalities occur right at the beginning of summer, get an early start with a weather awareness campaign. Emphasize the increase risk on industrial properties and shove moves. -*Vol. II, p. H-7*

Educate the workforce on how to prevent heat exhaustion, how to recognize the symptoms, and what to do if it occurs. The symptoms of heat exhaustion include: headache, heavy sweating, intense thirst, dizziness, fatigue, loss of coordination, nausea, impaired judgment, loss of appetite, hyperventilation, tingling in hands or feet, anxiety, cool moist skin, weak and rapid pulse (120-200), and low to normal blood pressure. Employees should not continue work if their judgment, concentration, or reaction time is impaired. -*Vol. II, p. H-7*

## Heat Exhaustion

Heat exhaustion occurs when bodies are unable to compensate and properly cool themselves. Impaired judgment is one of the symptoms of heat exhaustion and can be deadly in a railroad switching environment. It may be possible heat exhaustion can creep up on an employee because he or she can continue on with duties without realizing judgment, concentration, and reaction time may be deteriorating. Employees may not recognize the early symptoms of heat exhaustion or be unwilling to express their concerns to peers who continue to work. -*Vol. II, p. H-6 and H-7*

Outside the railroad industry there is a study of the relationship between hot weather conditions and hospital admissions due to work-related accidents in Tuscany, Italy<sup>1</sup>. It shows hot weather conditions might represent a risk factor for work-related accidents in Italy during summer. In particular, the early warming days during June stood out as a peak period. June is also a peak month for SOFA fatalities.... The early days of summer could be a time when some employees have not acclimated to changing climate conditions and may not have adjusted their clothing and fluid intake for the new conditions. -*Vol. II, p. H-6*

## Summer Safety Education

The railroad industry may want to consider additional preparation and education of the workforce on adapting to changing conditions in summer and winter. -*Vol. I, p. 51*

<sup>1</sup> *Relationship between work-related accidents and hot weather conditions in Tuscany (central Italy)*. Morabito M, Cecchi L, Crisci A, Modesti PA, Orlandini S. *Ind Health*. 2006 Jul;44(3):458-64

# Switch Safely this Summer...and all career long!

## June: Five most recent switching fatalities in this month

**June 24, 2014**     **Birmingham, AL**

**Reasons assigned by SOFA:**

**Case has not yet been reviewed by SOFA**

Employee protecting shoving movement into an industrial track was fatally injured when one of the cars being shoved derailed and collided with cars on an adjacent track. [*based on preliminary information with circumstances subject to change pending investigation*]

**June 10, 2010**     **Doswell, VA**

**Reasons assigned by SOFA:**

**SOFA Advisory: Struck by Mainline Trains**

**Special Switching Hazard: Drugs and Alcohol**

A 54 year-old conductor, with 32 years-of-service was struck and killed by a passing main track train in Doswell, VA. The conductor was the regular conductor and his locomotive engineer had worked this area most of his career as well. The conductor was in the process of finishing up a class one air brake test on 18 cars he had picked up, as he was walking between his train and the main track #3, he was struck from behind by a passing train that was blowing the horn and using the bell.

**June 24, 2009**     **Albertville, AL**

**Reasons assigned by SOFA:**

**SOFA Advisory: Industrial Hazard**

**SOFA Advisory: Close Clearance**

**Special Switching Hazard: Derailment**

A two-person crew was shoving cars into spot at an industry with the conductor controlling the movement via radio communications. The conductor gave car counts from 12 down to 3 during the shove, and shortly after that transmission the engineer stopped the movement when he heard an "OH" transmission. The conductor was found deceased on the leading end of the lead car on the platform, pinned against a car of scrap metal.

# **Switch Safely this Summer...and all career long!**

## **June: Five most recent switching fatalities in this month (continued)**

**June 08, 2008 La Porte, TX**

**Reasons assigned by SOFA:**

**SOFA Recommendation/Lifesaver: Move controlled by a combination of hand and radio signals or specific distances were not given**

**Special Switching Hazard: Failure to Confirm Route of Movement**

**Special Switching Hazard: Electronic Device (Cell phone, MP3 player)**

A three-person train crew was performing switching operations at an industrial location. The brakeman controlling movements by radio, instructed the engineer to back up four cars to a coupling. The engineer, watching in the side mirror of the locomotive, noticed the cars moving down curved track instead of the straight track to the coupling. The switch target as seen in the mirror indicated the switch was lined for the spur track, not the straight track. The engineer saw someone walk in front of the movement and it was determined later to be the brakeman, who was struck and killed by the erroneous movement. Cellular telephone records indicated the brakeman had made or received several telephone calls, including a two-minute call during the time of the fatal shove over the misaligned switch.

**June 06, 2003 Kingsport, TN**

**Reasons assigned by SOFA:**

**SOFA Advisory: Industrial Hazard**

**Special Switching Hazard: Struck by Motor Vehicle**

A three-person industrial switching crew was shoving one car on a track that ran down the middle of a two-lane road and that was located in an industrial area. The conductor was riding on one side of the car and the brakeman was riding on the other. As the move approached a standing eighteen-wheel truck awaiting permission to back into the same area that the railroad was servicing, the driver began to back up, jack-knifed the trailer, and struck the brakeman crushing him between the truck box and the car he was riding.

# Switch Safely this Summer...and all career long!

## July: Five most recent switching fatalities in this month

**July 25, 2015      Homewood, IL**

**Reasons assigned by SOFA:**

**Case has not yet been reviewed by SOFA**

A yard conductor with 26 months service suffered fatal injuries while working within Markham Yard. Conductor may have fallen and possibly his head made contact with the fuel tank of a passing locomotive while he was on the ground. [*based on preliminary information with circumstances subject to change pending investigation*]

**July 31, 2012      Mason City, IA**

**Reasons assigned by SOFA:**

**SOFA Lifesaver: Going Between Rolling Equipment; also addressed by FRA *Safety Advisory 2011-02 and 2013-03***

**SOFA Advisory: Lack or Inadequate Job Safety Briefing (first addressed by a SOFA Recommendation/Lifesaver)**

**Special Switching Hazard: Unexpected Movement of Railcars**

**Special Switching Hazard: Unsecured Cars**

After kicking cars into a track, a switchman was crushed between the equipment he was working on and free-rolling equipment previously kicked into the track.

**July 25, 2011      Bedford Park, IL**

**Reasons assigned by SOFA:**

**SOFA Lifesaver: Going Between Rolling Equipment; also addressed by FRA *Safety Advisory 2011-02 and 2013-03***

**Special Switching Hazard: Unsecured Cars**

A remote control operation switch crew (RCO) was coupling track 16 in Bedford Park, IL, from the west end. The track had a declining grade, from east to the west. The conductor has on the north side of the track and controlling the movement. The switchman was on the west end of the locomotive protecting the point. The conductor made three couplings and was 17 car lengths in the body of the track when a radio signal of “Man Down” was transmitted over the radio. The conductor was found lying on his back over the north rail, with his legs in the gauge of the track and between the 17th and 18th cars ahead of the locomotive with the couplers crossed with a fatal injury of his left lower abdomen.

# Switch Safely this Summer...and all career long!

## July: Five most recent switching fatalities in this month (continued)

July 13, 2010 East Deerfield, MA

### Reasons assigned by SOFA:

**SOFA Lifesaver: Going Between Rolling Equipment; also addressed by FRA *Safety Advisory 2011-02 and 2013-03***

A 34 year-old yard conductor was crushed between the couplers of two cars while aligning miss-aligned drawbars and/or opening couplers during a switching operations.

July 01, 2010 Meridian, MS

### Reasons assigned by SOFA:

**Special Switching Hazard: Employee Tripping, Slipping, or Falling**

A 42 year-old road conductor, with three year experience, was being assisted by a yard assignment to help set out 11 cars into a yard track. During the transition of the movement of being controlled by the road conductor to the movement being controlled by yard conductor, the road conductor was struck and killed by the leading end of the shove move.

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## SOFA Recommendation/Lifesaver: Going Between Rolling Equipment

- ‘Going Between Rolling Equipment’ was the first safety remedy made by SOFA. SOFA called it a Recommendation/Lifesaver
- This safety remedy is still relevant as when SOFA made it in 1999
- Since 2010, five switching fatalities have involved Going Between Rolling Equipment (see *page 9*)
- Going Between Rolling Equipment is also addressed by the Federal Railroad Administration’s *Safety Advisory 2011-02 and 2013-03*

### **Recommendation 1**

Any crew member intending to foul track or equipment must notify the locomotive engineer before such action can take place. The locomotive engineer must then apply locomotive or train brakes, have the reverser centered, and then confirm this action with the individual on the ground. Additionally, any crew member that intends to adjust knuckles/drawbars, or apply or remove EOT device, must insure that the cut of cars to be coupled into is separated by no less than 50 feet. Also, the person on the ground must physically inspect the cut of cars not attached to the locomotive to insure that they are completely stopped and, if necessary, a sufficient number of hand brakes must be applied to insure the cut of cars will not move.

### **Discussion 1**

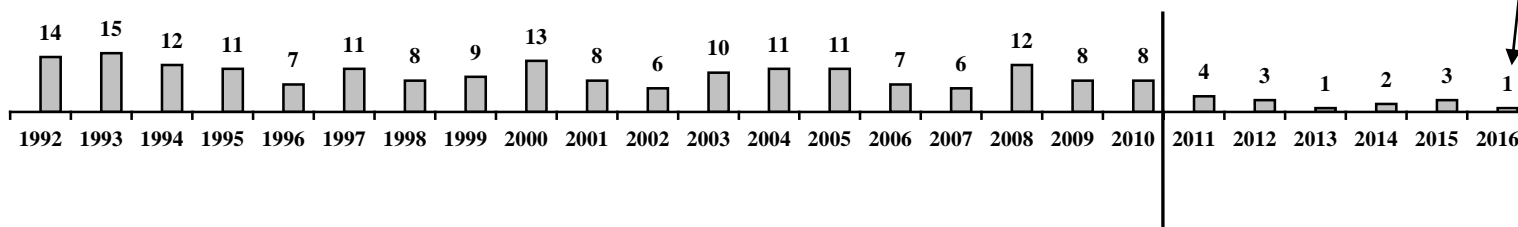
This recommendation emphasizes the importance of securing the equipment. A thorough understanding by all crew members that the area between cars is a hazardous location, whether equipment is moving or standing, is imperative.

# DATA SECTION – 2016 Second Quarter Update

Find SOFA reports and information at: <http://www.fra.dot.gov/SOFA> [accessed June 21, 2016]

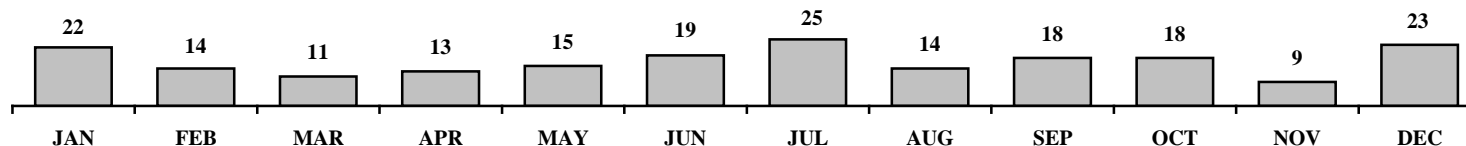
Annual switching fatality counts are lower since 2011...from 1992 through 2010, annual fatality counts averaged 9.8; from 2011 through 2015, counts averaged 2.6

201 Switching Fatalities, by year: 1992 through 2015, full year; 2016, part year through March 26

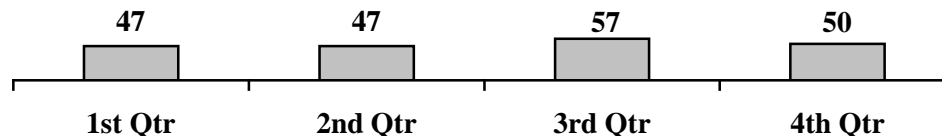


201 Switching Fatalities, by month: January 01, 1992 through March 26, 2016

Switching fatalities occur in every month...always be alert



201 Switching Fatalities, by quarter: January 01, 1992 through March 21, 2016





## 22 Recent Switching Fatality Cases, January 01, 2010 through March 26, 2016

- These 22 fatality cases occurred subsequent to the 179 cases (1992 through 2009) which formed the basis of the *2011 SOFA Report*. The purpose of displaying this information is to aid identification of any emerging risks in switching
  - fourteen of the 22 cases (64 percent) involve three SOFA Lifesavers/Advisories: Close/No Clearance, Going between Rolling Equipment, and Inexperience
    - six cases involve Close/No Clearance. Five of these six cases involve the temporary hazard of cars left afoul
    - five cases involve Going between Rolling Equipment, addressed by a SOFA Recommendation/Lifesaver; and also *FRA Safety Advisories 2011-02 and 2013-03*
    - four cases involve Inexperience
- (Note: one case (Kenmare, ND) involves both Close/No Clearance and Inexperience. So the number of reasons is greater than the number of cases)

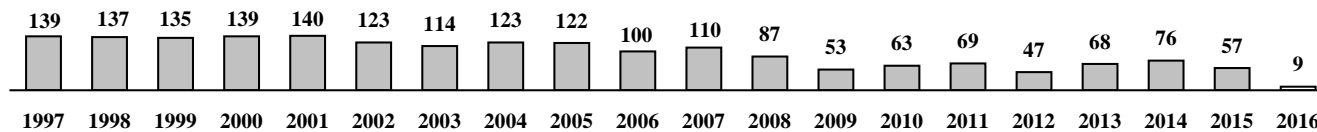
Year	Count	Date	City	State	Reviewed or Preliminary	Fatality Reasons: brief description
						Risks other than those listed are often involved. Cases marked 'preliminary' are subject to revision of event reasons
2010	1	04/23/10	Riverdale	IL	reviewed	Lack or Inadequate Job Safety Briefing
	2	05/31/10	Kearny	NJ	reviewed	Close/ No Clearance (fueling structure)
	3	06/10/10	Doswell	VA	reviewed	Struck by Mainline Train; and Drugs and Alcohol
	4	07/01/10	Meridian	MS	reviewed	Employee Tripping, Slipping, or Falling
	5	07/13/10	East Deerfield	MA	reviewed	Going between Rolling Equipment
	6	09/02/10	Bridgeport	NJ	reviewed	Close/ No Clearance (cars left afoul)
	7	09/04/10	Mobile	AL	reviewed	Industrial Hazard; and Miscellaneous Causes
	8	10/11/10	Orange	TX	reviewed	Inexperience; and Employee Tripping Slipping, or Falling
2011	9	02/08/11	Kankakee	IL	reviewed	Close/ No Clearance (cars left afoul)
	10	07/25/11	Bedford Park	IL	reviewed	Going between Rolling Equipment; and Unsecured Cars
	11	08/15/11	Kansas City	KS	reviewed	Going between Rolling Equipment; and Miscellaneous Causes
	12	09/08/11	Botkins	OH	reviewed	Going between Rolling Equipment; and Unexpected Movement of Railcars
2012	13	01/30/12	Gary	IN	reviewed	Close/ No Clearance (cars left afoul); and Environment; and Industrial Hazard
	14	05/28/12	Kenmare	ND	reviewed	Close/ No Clearance (cars left afoul); and Inexperience; and Failure to Confirm Route of Movement
	15	07/31/12	Mason City	IA	reviewed	Going between Rolling Equipment; and Lack or Inadequate Job Safety Briefing; and Unexpected Movement of Railcars; and Unsecured Cars
2013	16	02/16/13	Cleveland	OH	reviewed	Inexperience; and Drugs and Alcohol; and Employee Tripping, Slipping, or Falling
	17	06/24/14	Birmingham	AL	preliminary	Derailment
2014	18	10/08/14	Colorado Springs	CO	preliminary	Close/ No Clearance (cars left afoul)
	19	07/25/15	Homewood	IL	preliminary	Came in contact with a shove movement
2015	20	08/12/15	Hattiesburg	MS	preliminary	Inexperience
	21	09/29/15	Kansas City	KS	preliminary	Struck by equipment being operated by RCO
2016	22	03/26/16	St. Paul	MN	preliminary	Struck by passing train

# SOFA-defined Severe Injury Update

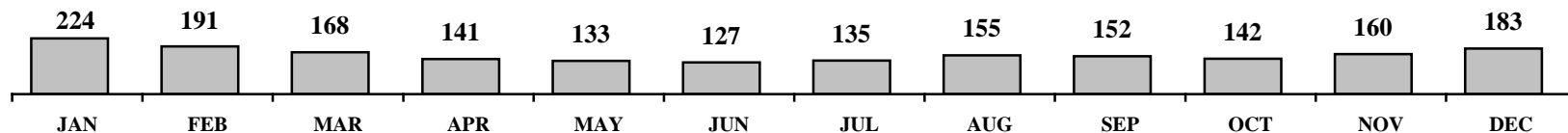
**Definition:** Based on its interests (i.e., potentially involving the same factors as fatalities), *Severe Injuries* are defined by the SOFA Working Group as (1) potentially life threatening; (2) having a high likelihood of permanent loss of function, permanent occupational limitation, or other permanent disability; (3) likely to result in significant work restrictions; and (4) resulting from a high-energy impact to the human body. ‘Severe Injuries’ include amputation, dislocation of the neck, loss of eye, electric shock or burn, and fracture to any bone except the lower arm, fingers, foot, and toes. 1997 is the first year these Injuries to train and engine service employees can be determined as defined by the interest of the SOFA Working Group. For more information, see *Severe Injuries to Train and Engine Service Employees: Data Description and Injury Characteristics*. July 2001.

**Note:** The definition of *SOFA-defined Severe Injuries* is not to suggest that other injuries and illnesses resulting from operations are not also ‘severe’ and/or cause hardship to employees.

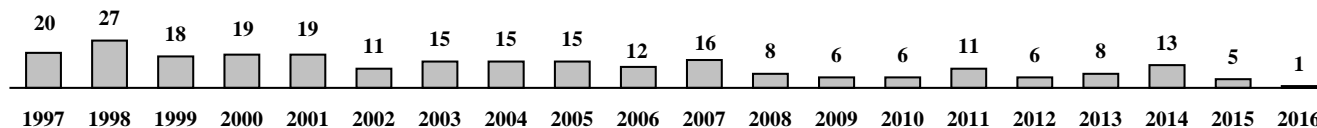
**1,911 SOFA-defined Severe Injuries, by year:  
full year, 1997 through 2015; part year, 2016 through March**



**1,911 SOFA-defined Severe Injuries, by month:  
January 1997 through March 2016**



**251 Amputations (counts are included in Severe Injuries), by year:  
full year, 1997 through 2015; part year, 2016 through March**



## SOFA-defined Severe Injuries January 1997 through March 2016

Among *SOFA Updates*, counts previously presented may change based on revisions to FRA data. The latest month available from the FRA lags the calendar month of this *Update* by three months. Information used in this table was extracted on May 28, 2016, from FRA's publically available data.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	totals	average
<b>JAN</b>	11	13	16	15	21	12	11	11	20	10	14	13	6	6	8	9	8	6	11	3	<b>224</b>	<b>11.2</b>
<b>FEB</b>	17	15	9	9	9	13	17	14	10	6	15	12	4	7	9	2	5	10	4	4	<b>191</b>	<b>9.6</b>
<b>MAR</b>	14	12	17	11	10	10	13	10	9	9	11	5	5	4	5	6	3	5	7	2	<b>168</b>	<b>8.4</b>
<b>YTD</b>	<b>42</b>	<b>40</b>	<b>42</b>	<b>35</b>	<b>40</b>	<b>35</b>	<b>41</b>	<b>35</b>	<b>39</b>	<b>25</b>	<b>40</b>	<b>30</b>	<b>15</b>	<b>17</b>	<b>22</b>	<b>17</b>	<b>16</b>	<b>21</b>	<b>22</b>	<b>9</b>		
<b>APR</b>	8	10	6	10	12	6	9	13	10	7	8	9	5	7	5	2	4	6	4		<b>141</b>	<b>7.4</b>
<b>MAY</b>	6	12	8	8	12	14	9	6	6	8	3	7	1	7	8	4	5	7	2		<b>133</b>	<b>7.0</b>
<b>JUN</b>	9	10	8	11	8	5	10	9	7	11	5	3	6	4	2	6	2	6	5		<b>127</b>	<b>6.7</b>
<b>JUL</b>	9	14	10	8	10	7	6	10	5	12	8	1	4	4	5	3	7	5	7		<b>135</b>	<b>7.1</b>
<b>AUG</b>	13	10	11	14	8	10	7	14	10	10	13	5	4	5	5	1	5	7	3		<b>155</b>	<b>8.2</b>
<b>SEP</b>	10	11	15	10	20	12	5	4	9	6	10	12	5	3	4	5	4	3	4		<b>152</b>	<b>8.0</b>
<b>OCT</b>	12	12	16	10	5	11	9	7	11	5	11	4	2	4	4	1	6	9	3		<b>142</b>	<b>7.5</b>
<b>NOV</b>	12	9	12	11	13	14	10	10	13	8	6	8	3	6	9	3	5	7	1		<b>160</b>	<b>8.4</b>
<b>DEC</b>	18	9	7	22	12	9	8	15	12	8	6	8	8	6	5	5	14	5	6		<b>183</b>	<b>9.6</b>
<b>totals</b>	<b>139</b>	<b>137</b>	<b>135</b>	<b>139</b>	<b>140</b>	<b>123</b>	<b>114</b>	<b>123</b>	<b>122</b>	<b>100</b>	<b>110</b>	<b>87</b>	<b>53</b>	<b>63</b>	<b>69</b>	<b>47</b>	<b>68</b>	<b>76</b>	<b>57</b>		<b>1,911</b>	<b>98.9</b>

## Amputations (a type of Severe Injury) January 1997 through March 2016

A type of SOFA-defined Severe Injury, Amputations are displayed separately because of the extreme trauma to employees engaged in switching, and the likelihood of permanent occupational and lifestyle limitations. Counts for Amputations are contained in the counts of SOFA-defined Severe Injuries (shown on previous page). Information used in this table was extracted on May 28, 2016, from FRA's publically available data.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	totals	average
<b>JAN</b>	1	0	2	1	0	0	2	2	2	0	1	1	1	0	2	0	0	0	1	1	<b>17</b>	<b>0.8</b>
<b>FEB</b>	0	1	0	1	0	2	1	2	0	2	1	0	0	1	2	0	1	1	1	0	<b>16</b>	<b>0.8</b>
<b>MAR</b>	3	4	3	2	1	1	3	1	2	1	0	1	1	0	0	1	0	1	0	0	<b>25</b>	<b>1.2</b>
<b>YTD</b>	<b>4</b>	<b>5</b>	<b>5</b>	<b>4</b>	<b>1</b>	<b>3</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>4</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>1</b>		
<b>APR</b>	1	2	0	1	2	0	1	1	2	2	3	3	1	0	1	0	0	0	1		<b>21</b>	<b>1.1</b>
<b>MAY</b>	1	2	3	0	2	2	2	0	0	1	1	0	0	1	2	0	2	2	0		<b>21</b>	<b>1.1</b>
<b>JUN</b>	2	1	1	0	1	0	0	1	0	0	1	1	0	0	1	0	0	1	1		<b>11</b>	<b>0.6</b>
<b>JUL</b>	1	5	1	0	4	0	1	2	1	2	2	0	1	1	0	0	1	2	0		<b>24</b>	<b>1.3</b>
<b>AUG</b>	1	0	1	4	0	1	0	2	2	0	3	0	1	1	0	0	1	1	0		<b>18</b>	<b>0.9</b>
<b>SEP</b>	2	4	3	2	5	4	0	0	3	1	1	2	0	1	0	2	0	1	1		<b>32</b>	<b>1.7</b>
<b>OCT</b>	2	5	2	2	0	0	2	2	0	0	2	0	0	1	1	1	2	2	0		<b>24</b>	<b>1.3</b>
<b>NOV</b>	2	2	2	2	3	0	1	1	2	3	1	0	0	0	1	0	0	2	0		<b>22</b>	<b>1.2</b>
<b>DEC</b>	4	1	0	4	1	1	2	1	1	0	0	0	1	0	1	2	1	0	0		<b>20</b>	<b>1.1</b>
<b>totals</b>	<b>20</b>	<b>27</b>	<b>18</b>	<b>19</b>	<b>19</b>	<b>11</b>	<b>15</b>	<b>15</b>	<b>15</b>	<b>12</b>	<b>16</b>	<b>8</b>	<b>6</b>	<b>6</b>	<b>11</b>	<b>6</b>	<b>8</b>	<b>13</b>	<b>5</b>		<b>251</b>	<b>13.0</b>

# Switching Fatalities, SOFA-defined Severe Injuries, and Other Reportable Events

Source: Switching fatalities from SOFA Database; all other information used in this table was extracted on May 28, 2016, from FRA's publically available data. Note: Among SOFA Updates, counts previously presented may change based on revisions to FRA data

Year	SOFA Switching Fatalities	SOFA-defined Severe Injuries	Amputations (counts are included in SOFA-defined Severe Injuries)	All Employee On-duty Fatalities less SOFA Switching Fatalities	T&E Employee On-duty Fatalities less SOFA Switching Fatalities	All Reportable Employee Casualty to T&E Employees (includes Fatalities and Severe Injuries)	All Accidents	Human Factor Accidents	Highway-Rail Crossing Incidents	Trespasser Incidents (not at crossings)
1992	14	*	*	20	6	6,648	2,359	864	4,910	1,049
1993	15	*	*	32	16	5,649	2,611	865	4,892	1,032
1994	12	*	*	19	9	5,026	2,504	911	4,979	981
1995	11	*	*	23	10	4,215	2,459	944	4,633	955
1996	7	*	*	26	15	3,726	2,443	783	4,257	945
1997	11	139	20	26	10	3,489	2,397	855	3,865	**1,049
1998	8	137	27	19	8	3,642	2,575	971	3,508	**1,049
1999	9	135	18	22	12	3,835	2,768	1,031	3,489	924
2000	13	139	19	11	2	3,893	2,983	1,147	3,502	877
2001	8	140	19	14	6	3,561	3,023	1,035	3,237	915
2002	6	123	11	14	3	3,022	2,738	1,050	3,077	935
2003	10	114	15	9	3	2,935	3,019	1,230	2,977	896
2004	11	123	15	14	9	2,910	3,385	1,353	3,085	**878
2005	11	122	15	14	7	2,817	3,266	1,270	3,066	**878
2006	7	100	12	9	0	2,483	2,998	1,068	2,942	992
2007	6	110	16	11	4	2,520	2,693	1,047	2,778	877
2008	12	87	8	14	4	2,217	2,481	910	2,429	889
2009	8	53	6	8	2	1,972	1,912	656	1,933	760
2010	8	63	6	12	5	1,883	1,902	650	2,052	830
2011	4	69	11	17	11	1,735	2,028	751	2,062	766
2012	3	47	6	13	4	1,553	1,765	666	1,987	820
2013	1	68	8	13	2	1,742	1,849	710	2,101	859
2014	2	76	13	8	2	1,908	1,831	718	2,293	894
2015	3	57	5	8	1	1,720	1,874	735	2,060	883
JAN-MAR 2015	0	22	2	4	0	471	534	200	538	181
JAN-MAR 2016	1	9	1	3	0	376	364	128	485	214
change						-20.2%	-31.8%	-36.0%	-9.9%	18.2

\*SOFA-defined Severe Injuries are defined only back to 1997

\*\*Counts happened to be identical for these successive years