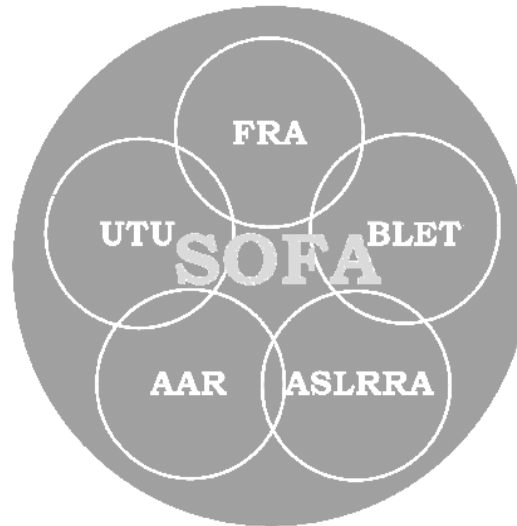
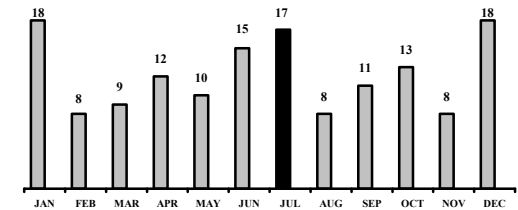


**Please Post Immediately**  
***Make Switching Fatality Free:***  
***Apply SOFA Operating Recommendations – Recognize Special Switching Hazards***

As of June 15, one Switching Fatality has occurred in 2006:  
*April 2, 2006 at Palmer, MI*



Historically, upcoming July is a month of increased hazard to employees engaged in switching



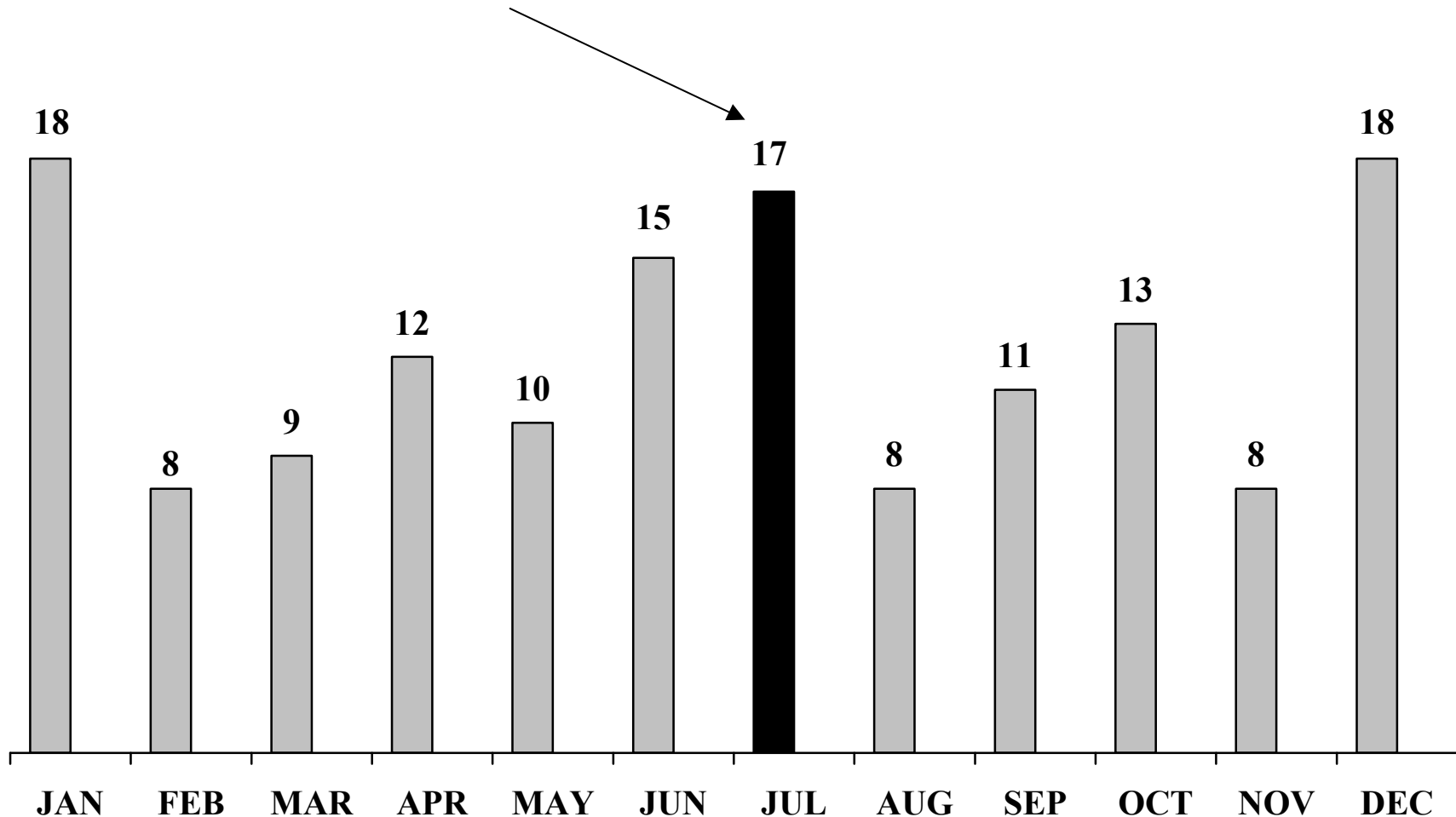
**July 2006 Switching Fatality and Severe Injury Update**  
 (Feel free to use, reproduce, and circulate this information in your safety efforts.)

6 of 17 July Switching Fatalities occurred in the first seven days of July: ←

July <u>01</u> , 1998	Buechel, KY	Close Clearance	age: 54	service: 30 years
July <u>05</u> , 1994	Essex, MT	Free-Rolling Railcars	age: 59	service: 35 years
July <u>05</u> , 2005	Emporia, KS	Shoving Movement	age: 26	service: 6 months
July <u>07</u> , 1992	Conlen Siding, TX	Struck by Mainline Train	age: 58	service: 12 years
July <u>07</u> , 1996	Sidney, IN	Recommendation 5	age: 29	service: 1 year
July <u>07</u> , 2000	Wichita, KS	Recommendation 1	age: 39	service: 19 years

## 17 Switching Fatalities in July since 1992

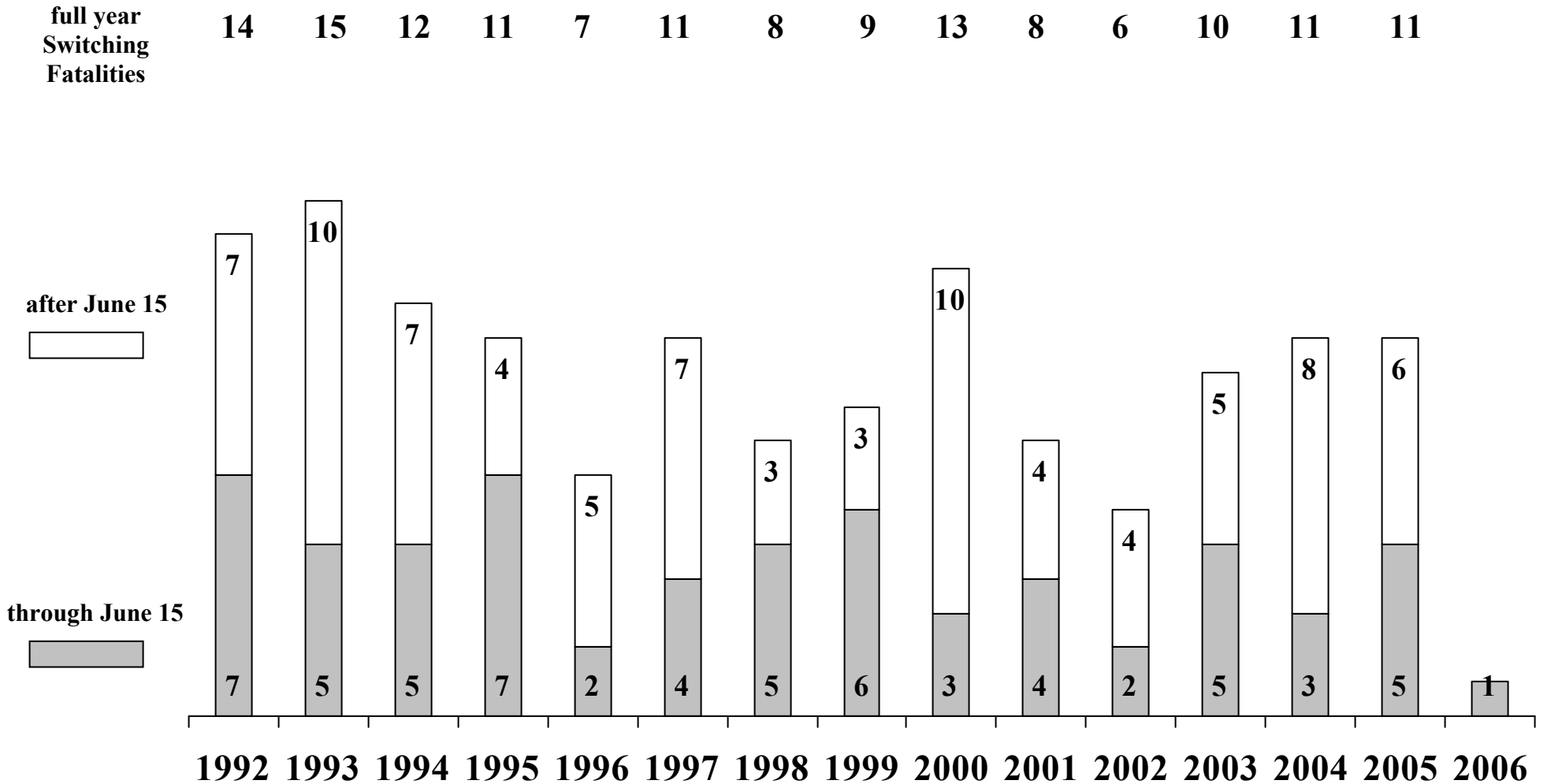
Although there is always risk to employees engaged in switching, historically July is a month of high hazard



**10.4 Switching Fatalities occur on average each year**  
– a Switching Fatality every 35 days!

# 147 Switching Fatalities Since 1992: One Fatality in 2006

**April 2, 2006 at Palmer, MI:** A Lake Superior and Ishpeming (LSI) conductor was run over by his train and killed after falling from the leading end of the shove move.

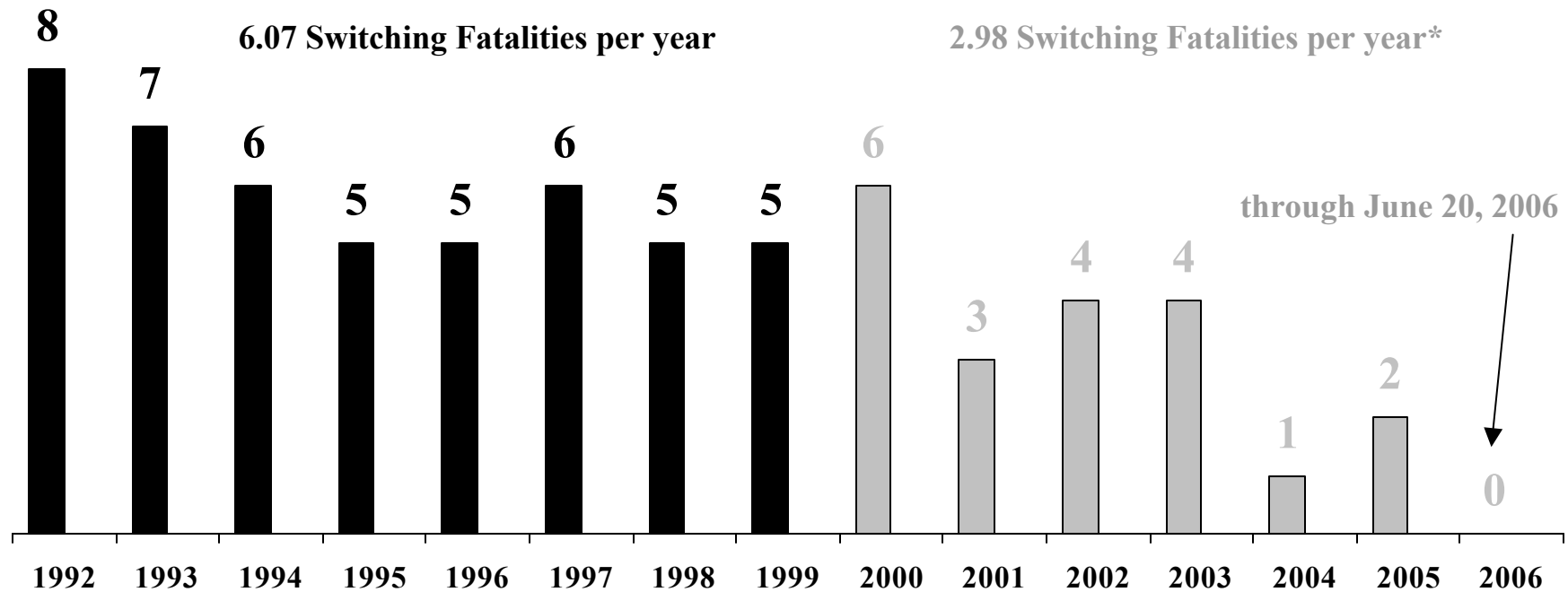


# 67 Switching Fatalities Related to SOFA Operating Recommendations

## 51 percent decline in yearly rate – 6.07 vs. 2.98 deaths per year

The original *SOFA Report*<sup>1</sup> was released in October 1999. Prior to the release, there were 47 Switching Fatalities related to the Five Operating Recommendations in the 7.75-year period January 1992 through September 1999. Expressed as a rate, there were 6.07 Switching Fatalities per year related to Operating Recommendations.

In the post-SOFA Report period of 6.71 years, October 1, 1999 through June 15, 2006, there were 20 Switching Fatalities related to the Five Operating Recommendations. Expressed as a rate, there were 2.98 Switching Fatalities per year\* related to Operating Recommendations.

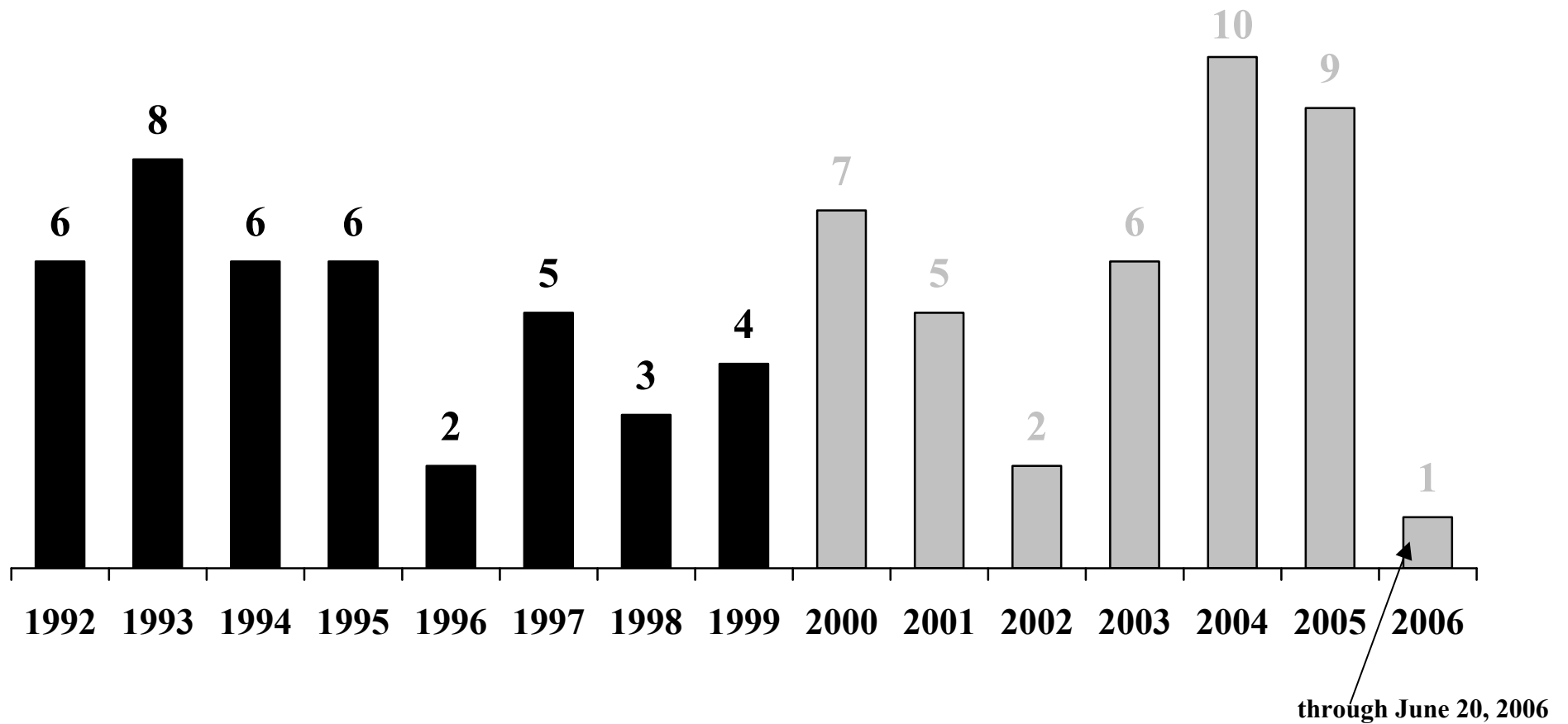


\* The Switching Fatality at Burlington, IA, on December 4, 2005, is believed to involve a Close Clearance Special Switching Hazard. If further review by the SOFA Working Group determines one or more Operating Recommendations were involved, the Switching Fatality rate after the release of the *SOFA Report* would increase from 2.98 to 3.13.

<sup>1</sup> *Findings and Recommendations of the SOFA Working Group*. October 1999. Available at <http://www.fra.dot.gov/us/content/102>

# 80 Switching Fatalities Related to Special Switching Hazards

## *Recognize Special Switching Hazards*



## *Recognize Special Switching Hazards*

“In addition to the Five Operating Recommendations, the SWG (SOFA Working Group) wants to make those engaged in switching operations aware of Special Switching Hazards. In its review of each of the 124 fatalities, the SWG identified a number of fatalities involving close clearances (10 fatalities), being struck by mainline trains (8 fatalities), and occurring during shove movements (61 fatalities). The number of fatalities involving close clearance and being struck by mainline trains would be greater if those classified both as a Special Switching Hazard and an Operating Recommendation were included in these fatality counts.” – from *Findings and Recommendations of the SOFA Working Group: August 2004 Update*. p. xiv.

- Close Clearances\*
- Free Rolling Railcars
- Exposure to Mainline Trains
- Tripping, Slipping, or Falling Exposures
- Adverse Environmental Conditions
- Shoving Movements
- Unsecured Cars
- Unexpected Movement of Cars
- Equipment Defects
- Motor Vehicles or Loading Devices
- Drugs and Alcohol
- Other Special Hazards or Events

\* The SOFA Working Group has broadened the traditional definition of ‘close clearances’ to include situations “When an employee is passing, or being passed, by an object or equipment and the conditions are such that there is not enough room for the employee to avoid being struck.” From *Findings and Recommendations of the SOFA Working Group: August 2004 Update*. p.48-50. Available at: <http://www.fra.dot.gov/us/content/102>

## 17 July Switching Fatalities

#	Date	RR	Location	Age	Service (yrs)	Employee's Job	Employee Act	Employee Location	Fatal Event	SOFA Recommendations	Special Switching Hazard
1	07/07/92	SSW	Conlen Siding, TX	58	12	road engineer	walking	between tracks	struck by on-track equipment		Struck by Mainline Trains
2	07/24/92	GBW	Wisconsin Rapids, WI	34	13	road brakemen	coupling air hose	on track	struck by on-track equipment	2, 3	
3	07/25/92	UP	Portland, OR	54	28	road brakemen	walking	between tracks	struck by on-track equipment	4	
4	07/15/93	CR	Anderson, IN	43	25	yard brakeman	coupling air hose	on track	struck by on-track equipment	4	
5	07/05/94	BN	Essex, MT	59	35	road brakemen	operating	between cars/loc	crushed while operating		Free-Rolling Railcars
6	07/21/95	CR	Hershey, PA	61	40	yard conductor	riding	between cars/loc	fell from equipment		Employee Tripping
7	07/07/96	NS	Sidney, IN	29	1	yard conductor	standing	on track	struck by on-track equipment	5	
8	07/18/97	MNCW	Stamford, CT	40	7.58	road conductor	flagging	on track	struck by on-track equipment		Struck by Mainline Trains

(Continued on next page)



## 17 July Switching Fatalities (continued)

#	Date	RR	Location	Age	Service (yrs)	Employee's Job	Employee Act	Employee Location	Fatal Event	SOFA Recommendations	Special Switching Hazard	
9	07/01/98	NS	Buechel, KY	54	30	misc.	riding	on side of car	rolled between car a		Close Clearance	
10	07/07/00	CKRY	Wichita, KS	39	19	road conductor	adjusting coupler	on track	struck by on-track equipment	1		
11	07/24/00	PARN	Skagway, AK	55	22	yard conductor	walking	on track	struck by on-track equipment	4		
12	07/28/00	UP	St. Louis, MO	48	27	yard brakeman	walking	near on-track equip-on ground	other impacts-on track equipment		Close Clearance	
13	07/13/01	CPRS	Bensenville, IL	55	32	yard conductor	riding	on side of car	collision between on-track equipment		Free-Rolling Railcars	
14	07/16/02	NS	Bonlee, NC	55	34	road conductor	standing	in/on loc	collision between on-track equipment	4		
15	07/05/05	BNSF	Emporia, KS	26	6 months	<b>To be reviewed by SOFA Working Group</b>						Special Switching Hazard
16	07/18/05	UP	Memphis, TN	n/a.	n/a	<b>To be reviewed by SOFA Working Group</b>						Special Switching Hazard
17	07/22/05	ATRR	Ragland, AL	n/a	n/a	<b>To be reviewed by SOFA Working Group</b>						Special Switching Hazard

# July Switching Fatalities

Note: The Switching Fatality narrative summaries are taken from *Findings and Recommendations of the SOFA Working Group: August 2004 Update*. All other information is from the SOFA Matrix, the SOFA Working Group's electronic database.

## No. 1 of 17: **July 07, 1992 – SSW – Conlen Siding, TX**

A two-person crew was called to deadhead to a siding and bring the train that was there and tied down into the yard. Upon arrival at the train, the conductor began releasing handbrakes on the train and the engineer began releasing handbrakes and inspecting the four head end locomotives. An approaching 60 MPH mainline train whistled for a highway crossing at grade and the conductor stopped what he was doing and positioned himself to do a roll by train inspection. His engineer was killed when he was struck by the passing train as he stepped out from between two of his units and began walking adjacent to, and in the foul of, the main track.

### **Special Switching Hazard(s):**

Possible Contributing Factor:

External Circumstances:

### **Struck by Mainline Trains**

Employee on or fouling track

Noise from FE's locomotives

Day of Week:

Tuesday

Time of Fatal Event:

8:37 AM

Time on Duty (hours: minutes):

0:37

Direction of Movement:

pulled

Crew's Next Move:

depart siding

Death Result of Train Movement?

yes

Other Movements Nearby?

yes

Track Type:

main/siding

Hit by Own Equipment?

no

Striking Train Within Rules?

yes

Speed of Equipment (mph):

60

Had Deceased Worked There Before?

yes

Crew Size:

2

Drugs Present?

no

Drugs a Factor?

no

## July Switching Fatalities

Note: The Switching Fatality narrative summaries are taken from *Findings and Recommendations of the SOFA Working Group: August 2004 Update*. All other information is from the SOFA Matrix, the SOFA Working Group's electronic database.

### No. 2 of 17: July 24, 1992 – GBW – Wisconsin Rapids, WI

The road job's brakeman was trying to help the switch crew make up his train. The brakeman was in between cars on an active track being used by the switch crew and was killed when the cars he was between moved upon being struck by a cut of free rolling cars.

#### SOFA Operating Recommendation(s):

Possible Contributing Factor:

Possible Contributing Factor:

External Circumstances:

2, 3

Employee on or fouling track

Employee's radio harness strap caught equipment

Improper mingling of crews members

Day of Week:

Time of Fatal Event:

Time on Duty (hours: minutes):

Temperature (Fahrenheit):

Direction of Movement:

Death Result of Train Movement?

Track Type:

Hit by Own Equipment?

Striking Train Within Rules?

Speed of Equipment (mph):

Crew Size:

Drugs Present?

Drugs a Factor?

Emergency Response Procedures Followed?

Thursday

12:40 AM

3:40

50

free-running

yes

yard/classification

no

yes

1

3

no

no

yes

# July Switching Fatalities

Note: The Switching Fatality narrative summaries are taken from *Findings and Recommendations of the SOFA Working Group: August 2004 Update*. All other information is from the SOFA Matrix, the SOFA Working Group's electronic database.

## No. 3 of 17: **July 25, 1992 – UP – Portland, OR**

A three-person crew had arrived at the yard, pulled their train into a track, cut off the engines and were given permission to return to the other end of the yard via an adjacent clear track. The conductor remained on the end originally entered and the brakeman stayed with the engineer. The brakeman got what he thought was the proper switch, instructed the engineer by radio to back up and, apparently turned his back on the move. Before the brakeman had a chance to mount the returning locomotives, he was struck and killed by the movement that continued for 400 feet before stopping when the engineer noticed the brakeman between the gauge of the rail in front of the locomotives.

<b>SOFA Operating Recommendation(s):</b>	<b>4</b>
Possible Contributing Factor:	Employee on or fouling track
External Circumstances:	Engineer didn't change ends
Day of Week:	Saturday
Time of Fatal Event:	11:40 AM
Time on Duty (hours: minutes):	4:40
Temperature (Fahrenheit):	76
Direction of Movement:	shoved
Crew's Next Move:	return to other end of yard
Death Result of Train Movement?	yes
Other Movements Nearby?	no
Track Type:	yard/rec/dec
Hit by Own Equipment?	yes
Striking Train Within Rules?	no
Speed of Equipment (mph):	3
Deceased Regular Job?	yes
Crew Size:	3
Drugs Present?	no
Drugs a Factor?	no
Emergency Response Procedures Followed?	yes

## July Switching Fatalities

Note: The Switching Fatality narrative summaries are taken from *Findings and Recommendations of the SOFA Working Group: August 2004 Update*. All other information is from the SOFA Matrix, the SOFA Working Group's electronic database.

### No. 4 of 17: **July 15, 1993 – CR – Anderson, IN**

After the brakeman had tied the locomotives onto a cut of cars in the yard, the engineer received an instruction, via radio, from the brakeman to “shove to hold more cars.” The engineer began to shove and didn't stop until he was on the other end of the track. The brakeman was run over by the shove move. There was no evidence of any other radio transmissions concerning the shove move.

#### **SOFA Operating Recommendation(s):**

Possible Contributing Factor:	4
Possible Contributing Factor:	Employee on or fouling track
Possible Contributing Factor:	Employee falling from moving equipment
Possible Contributing Factor:	Poor intra-crew communication about work in progress
Possible Contributing Factor:	Radio communication, improper

Day of Week:	Thursday
Time of Fatal Event:	5:25 PM
Time on Duty (hours: minutes):	1:25
Temperature (Fahrenheit):	75
Direction of Movement:	shoved
Crew's Next Move:	CO engine
Death Result of Train Movement?	yes
Track Type:	yard/flat/classification
Hit by Own Equipment?	yes
Striking Train Within Rules?	no
Speed of Equipment (mph):	4
Deceased Regular Job?	no
Crew Size:	3
Drugs Present?	no
Drugs a Factor?	no
Emergency Response Procedures Followed?	yes

# July Switching Fatalities

Note: The Switching Fatality narrative summaries are taken from *Findings and Recommendations of the SOFA Working Group: August 2004 Update*. All other information is from the SOFA Matrix, the SOFA Working Group's electronic database.

## No. 5 of 17: July 05, 1994 – BN – Essex, MT

A three-person work train crew was in the process of dropping 14 cars they thought were empty into a quarry-loading track. The brakeman was riding the leading and brake end of the car. As the cars were separated from the engine, he set the high brake on the car he was riding. However, because there were residual materials in many of the cars, the weight added momentum to the cars and the brakeman got off and back on between two other cars in an attempt to set more hand brakes. When the cut of cars collided with a ballast pile, used as a bumping post, that was located at the end of the track, he was crushed to death between the two cars he was trying to apply hand brakes.

### Special Switching Hazard(s):

Possible Contributing Factor:

Possible Contributing Factor:

External Circumstances:

Day of Week:

Time of Fatal Event:

Time on Duty (hours: minutes):

Temperature (Fahrenheit):

Direction of Movement:

Crew's Next Move:

Death Result of Train Movement?

Other Movements Nearby?

Track Type:

Hit by Own Equipment?

Striking Train Within Rules?

Speed of Equipment (mph):

Deceased Regular Job?

Crew Size:

Drugs Present?

Drugs a Factor?

Emergency Response Procedures Followed?

### Free-Rolling Railcars

Failure to control speed of car using hand brake

Crew thought they had 14 empties, had 5 partial loads - extra 52 tons

Failure to test hand brake

Tuesday

4:45 PM

9:45

76

free-running

stop the drop

yes

no

industrial/spot(load/unload)/outside/stub track

yes

no

10

yes

3

no

no

yes

## July Switching Fatalities

Note: The Switching Fatality narrative summaries are taken from *Findings and Recommendations of the SOFA Working Group: August 2004 Update*. All other information is from the SOFA Matrix, the SOFA Working Group's electronic database.

### No. 6 of 17: July 21, 1995 – CR – Hershey, PA

A three-person crew was switching an industry. The conductor had directed a few switching moves and then instructed the engineer to haul out of the plant. The conductor was observed by a plant employee riding on the trailing end of the first of two tank cars being pulled out of the plant. Moments later the conductor fell between the cars and was killed when he was run over by the trailing car in the two car move.

#### Special Switching Hazard(s):

Possible Contributing Factor:

#### Employee Tripping

Employee falling from moving equipment

Day of Week:

Friday

Time of Fatal Event:

9:10 AM

Time on Duty (hours: minutes):

3:10

Temperature (Fahrenheit):

80

Direction of Movement:

pulled

Crew's Next Move:

set out cars

Death Result of Train Movement?

yes

Other Movements Nearby?

no

Track Type:

industrial/spot/(load/unload)/outside

Hit by Own Equipment?

yes

Striking Train Within Rules?

yes

Speed of Equipment (mph):

3

Deceased Regular Job?

yes

Crew Size:

3

Drugs Present?

no

Drugs a Factor?

no

Emergency Response Procedures Followed?

yes

## July Switching Fatalities

Note: The Switching Fatality narrative summaries are taken from *Findings and Recommendations of the SOFA Working Group: August 2004 Update*. All other information is from the SOFA Matrix, the SOFA Working Group's electronic database.

### No. 7 of 17: **July 07, 1996 – NS – Sidney, IN**

Road crew, engineer and conductor, while stopped on siding track to meet an opposing train, FE (conductor) detrained to perform a roll-by inspection of other train. FE stepped off his train shortly before opposing trains arrival then stood in that trains track while trying to adjust his portable radio. Opposing train struck FE at this point. FE had one year of experience.

<b>SOFA Operating Recommendation(s):</b>	<b>5</b>
Possible Contributing Factor:	Employee on or fouling track
Possible Contributing Factor:	Metal stress over physical exam/lack of sleep
Day of Week:	Sunday
Time of Fatal Event:	1:08 AM
Time on Duty (hours: minutes):	5:08
Temperature (Fahrenheit):	75
Direction of Movement:	pulled
Crew's Next Move:	meet train
Death Result of Train Movement?	yes
Other Movements Nearby?	yes
Track Type:	main
Hit by Own Equipment?	no
Striking Train Within Rules?	yes
Speed of Equipment (mph):	38
Deceased Regular Job?	yes
Had Deceased Worked There Before?	yes
Crew Size:	2
Drugs Present?	no
Drugs a Factor?	no
Emergency Response Procedures Followed?	yes

## July Switching Fatalities

Note: The Switching Fatality narrative summaries are taken from *Findings and Recommendations of the SOFA Working Group: August 2004 Update*. All other information is from the SOFA Matrix, the SOFA Working Group's electronic database.

### No. 8 of 17: July 18, 1997 – MNCW – Stamford, CT

A conductor/flagman was assigned to protect contractor workers that were installing construction poles near a passenger station platform. To better observe the work, the conductor/flagman placed himself within the gauge of a "live" main track and was struck and killed by a passing train.

#### Special Switching Hazard(s):

Possible Contributing Factor:

#### Struck by Mainline Trains

Employee on or fouling track

Day of Week:

Friday

Time of Fatal Event:

1:29 AM

Time on Duty (hours: minutes):

0:00

Temperature (Fahrenheit):

75

Direction of Movement:

pulled

Death Result of Train Movement?

yes

Other Movements Nearby?

no

Track Type:

main

Hit by Own Equipment?

no

Striking Train Within Rules?

yes

Speed of Equipment (mph):

38

Crew Size:

1

Drugs Present?

no

Drugs a Factor?

no

## July Switching Fatalities

Note: The Switching Fatality narrative summaries are taken from *Findings and Recommendations of the SOFA Working Group: August 2004 Update*. All other information is from the SOFA Matrix, the SOFA Working Group's electronic database.

### No. 9 of 17: July 01, 1998 – NS – Buechel, KY

A three-person local switching crew (conductor, engineer and utility employee) had just begun to pull five cars out of an industrial loading dock while the conductor and the utility employee began to walk toward the door providing egress out of the dock area. Suddenly, according to the conductor, the utility employee allegedly tripped on some material on the dock, grabbed the side of the outgoing cut of cars and was pulled between the car he was holding onto and the handrail structure that accompanied the stairs leading from the platform to the door. He died two weeks later.

#### Special Switching Hazard(s):

Possible Contributing Factor:

Possible Contributing Factor:

External Circumstances:

#### Close Clearance

Poor intra-crew communication about work in progress

Close or no clearance

Illegal handrail

Day of Week:

Wednesday

Time of Fatal Event:

2:50 AM

Time on Duty (hours: minutes):

2:51

Temperature (Fahrenheit):

74

Direction of Movement:

pulled

Crew's Next Move:

switch cars

Death Result of Train Movement?

yes

Track Type:

industrial/spot(load/unload)/inside

Speed of Equipment (mph):

3

Deceased Regular Job?

yes

Crew Size:

3

Drugs Present?

no

Drugs a Factor?

no

Emergency Response Procedures Followed?

yes

## July Switching Fatalities

Note: The Switching Fatality narrative summaries are taken from *Findings and Recommendations of the SOFA Working Group: August 2004 Update*. All other information is from the SOFA Matrix, the SOFA Working Group's electronic database.

### No. 10 of 17: July 07, 2000 – CKRY – Wichita, KS

Employee was struck by his own train when he tripped and fell onto the rail as he stepped in between moving equipment to open a knuckle while walking backwards.

#### SOFA Operating Recommendation(s):

Possible Contributing Factor:

1

Employee on or fouling track

Possible Contributing Factor:

Other general switching rules

Day of Week:

Friday

Time of Fatal Event:

9:55 AM

Time on Duty (hours: minutes):

15:00

Direction of Movement:

shoved

Crew's Next Move:

couple to track

Death Result of Train Movement?

yes

Other Movements Nearby?

no

Track Type:

main/yard/flat/lead

Hit by Own Equipment?

yes

Striking Train Within Rules?

yes

Speed of Equipment (mph):

2

Deceased Regular Job?

yes

Crew Size:

3

Drugs Present?

no

Drugs a Factor?

no

Emergency Response Procedures Followed?

yes

## July Switching Fatalities

Note: The Switching Fatality narrative summaries are taken from *Findings and Recommendations of the SOFA Working Group: August 2004 Update*. All other information is from the SOFA Matrix, the SOFA Working Group's electronic database.

### No. 11 of 17: **July 24, 2000 – PARN – Skagway, AK**

A two-person yard switching crew was in the process of moving their light locomotives to a track where it was to be stored for the night. The conductor was on the leading end of the unit and directing the move by radio communication. After instructing the engineer to stop, the conductor got off the locomotive, lined two switches and told the engineer to back up. The engineer backed up until he placed the unit at the location where it is always left without further radio contact from his conductor. The conductor was struck and killed by the locomotive and found, by the engineer, under the locomotive's fuel tanks.

#### **SOFA Operating Recommendation(s):**

Possible Contributing Factor:	4
Possible Contributing Factor:	Employee on or fouling track
Possible Contributing Factor:	Poor intra-crew communication about work in progress
Possible Contributing Factor:	Radio communication, improper

Day of Week:	Monday
Time of Fatal Event:	12:15 PM
Time on Duty (hours: minutes):	6:15
Temperature (Fahrenheit):	52
Direction of Movement:	pulled
Crew's Next Move:	tie up
Death Result of Train Movement?	yes
Other Movements Nearby?	no
Track Type:	yard/flat/service
Hit by Own Equipment?	yes
Striking Train Within Rules?	no
Speed of Equipment (mph):	5
Deceased Regular Job?	yes
Crew Size:	2
Drugs Present?	no
Drugs a Factor?	no
Emergency Response Procedures Followed?	yes

## July Switching Fatalities

Note: The Switching Fatality narrative summaries are taken from *Findings and Recommendations of the SOFA Working Group: August 2004 Update*. All other information is from the SOFA Matrix, the SOFA Working Group's electronic database.

### No. 12 of 17: July 28, 2000 – UP – St. Louis, MO

A three-person local switching crew was in the process of setting cars into a track within an industry. The switchman was riding the side ladder of the leading end of the leading car as it went into the building. The doorway would not clear a man riding on the side of the car and the trainman was killed as he was compressed between it and the car he was riding.

#### Special Switching Hazard(s):

Possible Contributing Factor:

Possible Contributing Factor:

#### Close Clearance

Close or no clearance

Failure to communicate unsafe condition

Day of Week:

Friday

Time of Fatal Event:

8:45 AM

Time on Duty (hours: minutes):

9:15

Direction of Movement:

shoved

Crew's Next Move:

spot cars

Death Result of Train Movement?

yes

Other Movements Nearby?

no

Track Type:

industrial/spot(load/unload)/inside

Hit by Own Equipment?

yes

Striking Train Within Rules?

yes

Speed of Equipment (mph):

3

Deceased Regular Job?

yes

Crew Size:

4

Drugs Present?

no

Drugs a Factor?

no

Emergency Response Procedures Followed?

yes

## July Switching Fatalities

Note: The Switching Fatality narrative summaries are taken from *Findings and Recommendations of the SOFA Working Group: August 2004 Update*. All other information is from the SOFA Matrix, the SOFA Working Group's electronic database.

### No. 13 of 17: July 13, 2001 – CPRS – Bensenville, IL

The three-person crew had just finished kicking a flat car into a clear track and the conductor was about to mount the leading end of a cut of cars to be kicked into another track further down the lead. As the conductor issued instructions to the engineer to begin the move, and to the crew, the flat car had not cleared the fouling point to the lead. The shove move rode up onto the flat car derailing the car the conductor was riding on which crushed him to death.

#### Special Switching Hazard(s):

Possible Contributing Factor:

Possible Contributing Factor:

Possible Contributing Factor:

External Circumstances:

#### Free-Rolling Railcars

Car left afoul

Shoving movement, man on or at leading end of movement, failure to control

Other miscellaneous causes

Location of pile of cross ties

Day of Week:

Friday

Time of Fatal Event:

11:10 PM

Time on Duty (hours: minutes):

8:10

Temperature (Fahrenheit):

69

Direction of Movement:

shoved

Crew's Next Move:

line switch

Death Result of Train Movement?

yes

Other Movements Nearby?

no

Track Type:

yard/classification

Hit by Own Equipment?

yes

Striking Train Within Rules?

no

Speed of Equipment (mph):

8

Deceased Regular Job?

yes

Crew Size:

3

Drugs Present?

no

Drugs a Factor?

no

Emergency Response Procedures Followed?

yes

## July Switching Fatalities

Note: The Switching Fatality narrative summaries are taken from *Findings and Recommendations of the SOFA Working Group: August 2004 Update*. All other information is from the SOFA Matrix, the SOFA Working Group's electronic database.

### No. 14 of 17: **July 16, 2002 – NS – Bonlee, NC**

While shoving lite engines back to train on mainline, employees failed to control the movement by radio, resulting in a collision with a standing train.

#### **SOFA Operating Recommendation(s):**

Possible Contributing Factor:	4
Possible Contributing Factor:	Radio communication, failure to give/receive
Possible Contributing Factor:	Other causes relating to train handling or makeup
Possible Contributing Factor:	Radio communication, failure to comply
Possible Contributing Factor:	Shoving movement, man on or at leading end of movement, failure to control

Day of Week:	Tuesday
Time of Fatal Event:	11:59 AM
Time on Duty (hours: minutes):	5:59
Temperature (Fahrenheit):	85
Direction of Movement:	shoved
Crew's Next Move:	couple
Death Result of Train Movement?	yes
Other Movements Nearby?	no
Track Type:	main
Hit by Own Equipment?	yes
Striking Train Within Rules?	no
Speed of Equipment (mph):	13
Deceased Regular Job?	yes
Crew Size:	4
Drugs Present?	no
Drugs a Factor?	no
Emergency Response Procedures Followed?	yes

## **July Switching Fatalities**

Note: The Switching Fatality narrative summaries are taken from *Findings and Recommendations of the SOFA Working Group: August 2004 Update*. All other information is from the SOFA Matrix, the SOFA Working Group's electronic database.

### **No. 15 of 17: July 5, 2005 at Emporia, KS (To be reviewed by SOFA Working Group)**

A 26-year-old, Burlington Northern Santa Fe (BNSF) trainman, with six months experience, was crushed when the car he was riding during a shove move impacted a standing cut of cars.

### **No. 16 of 17: July 18, 2005 at Memphis, TN (To be reviewed by SOFA Working Group)**

An Union Pacific (UP) conductor died when the car he was riding on the point of a shove move was struck at a private crossing by a semi-tractor trailer truck at an industrial location.

### **No. 17 of 17: July 22, 2005 at Ragland, AL (To be reviewed by SOFA Working Group)**

An Alabama & Tennessee Railway Company conductor died when crushed against a wall when the car he was riding on the point of a shove move was derailed.

### **The SOFA Working Group**

Comprised of union, management, and government representatives, the SOFA Working Group is trying to *Make Switching Fatality Free* through education and monthly dissemination of information on how Fatalities occur – and how such events, averaging 10.4 per year (a rate of one Fatality every 35 days), can be prevented.

# SOFA-defined Severe Injuries

January 1992 to March 2006

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	totals	average
<b>JAN</b>	11	13	16	15	21	12	11	11	20	10	140	13.9
<b>FEB</b>	17	15	9	9	9	13	17	14	10	6	119	12.0
<b>MAR</b>	14	12	17	11	10	10	13	10	9	8	114	11.8
<b>To date</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>24</b>		<b>37.4</b>
<b>APR</b>	8	10	6	10	12	6	9	13	10		84	9.3
<b>MAY</b>	6	12	8	8	12	14	9	6	6		81	9.0
<b>JUN</b>	9	10	8	11	8	5	10	9	7		77	8.6
<b>JUL</b>	9	14	10	8	10	7	6	10	5		79	8.8
<b>AUG</b>	13	10	11	14	8	10	7	14	10		97	10.8
<b>SEP</b>	10	11	15	10	20	12	5	4	9		96	10.7
<b>OCT</b>	12	12	16	10	5	11	9	7	11		93	10.3
<b>NOV</b>	12	9	12	11	13	14	10	10	13		104	11.6
<b>DEC</b>	18	9	7	22	12	9	8	15	12		112	12.4
<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>1,196</b>	

Three month total historically low.

**138.0 Severe Injuries occurred on average per year from 1997 through 2001**

**120.5 Severe Injuries occurred on average per year from 2002 through 2005**

*Severe Injuries* are defined by the SOFA Working Group as (1) potentially life threatening; (2) high likelihood of permanent loss of function, permanent occupational limitation, or other permanent disability; (3) likely to result in significant work restrictions; and (4) result 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, See *Severe Injuries to Train and Engine Service Employees: Data Description and Injury Characteristics*. July 2001. Available at: <http://www.fra.dot.gov/us/content/102>

# Amputations

## A type of SOFA-defined Severe Injury

Amputations are shown separately because of the extreme trauma to employees engaged in switching, and the potential for permanent occupational limitations.

### January 1992 to March 2006

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	totals	average
<b>JAN</b>	1	0	2	1	0	0	2	2	2	0	10	1.0
<b>FEB</b>	0	1	0	1	0	2	1	2	0	2	9	1.0
<b>MAR</b>	3	4	3	2	1	1	3	1	2	1	21	2.2
<b>to date</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>4.0</b>
<b>APR</b>	1	2	0	1	2	0	1	1	2		10	1.1
<b>MAY</b>	1	2	3	0	2	2	2	0	0		12	1.3
<b>JUN</b>	2	1	1	0	1	0	0	1	0		6	0.7
<b>JUL</b>	1	5	1	0	4	0	1	2	1		15	1.7
<b>AUG</b>	1	0	1	4	0	1	0	2	2		11	1.2
<b>SEP</b>	2	4	3	2	5	4	0	0	3		23	2.6
<b>OCT</b>	2	5	2	2	0	0	2	2	0		15	1.7
<b>NOV</b>	2	2	2	2	3	0	1	1	2		15	1.7
<b>DEC</b>	4	1	0	4	1	1	2	1	1		15	1.7
<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>162</b>	

**20.6 Amputations occurred on average per year from 1997 through 2001**

**14.0 Amputations occurred on average per year from 2002 through 2005**

# Severe Injuries and Amputations by Month, January 1997 to March 2006

Amputations are a type of Severe Injury and are contained in the Severe Injury counts

