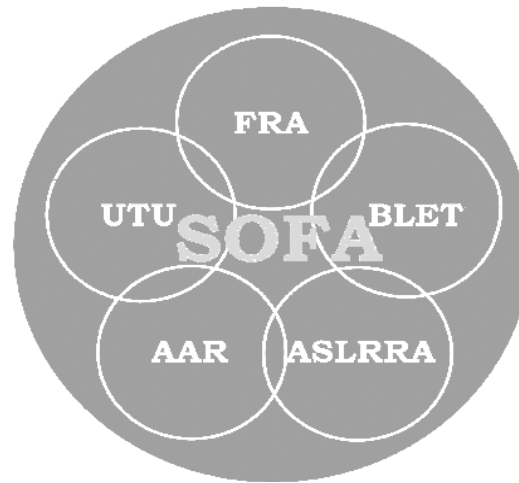


Please Post Immediately



September 2005 Switching Fatality and Severe Injury Update

Since 1992, 11 Switching Fatalities occurred in September. Three of these Fatalities occurred within 13 days of each other from September 12 to September 24, 2003. *pages 7-15*

3 of the 11 September Switching Fatalities involved SOFA Operating Recommendation 5. The shortened Lifesaver version of Recommendation 5 is *Mentor less experienced employees to perform service safely.* *page 15*

8 of the 11 September Switching Fatalities – and 7 of the 8 Switching Fatalities occurring in 2005 through August 9th – involved shoving as the direction of movement. **Shoving is a Special Switching Hazard.** *page 16*

1,105 Severe Injuries have occurred to Train and Engine employees from January 1, 1997 to May 31, 2005. **150** of these Severe Injuries were amputations. *pages 18-20*

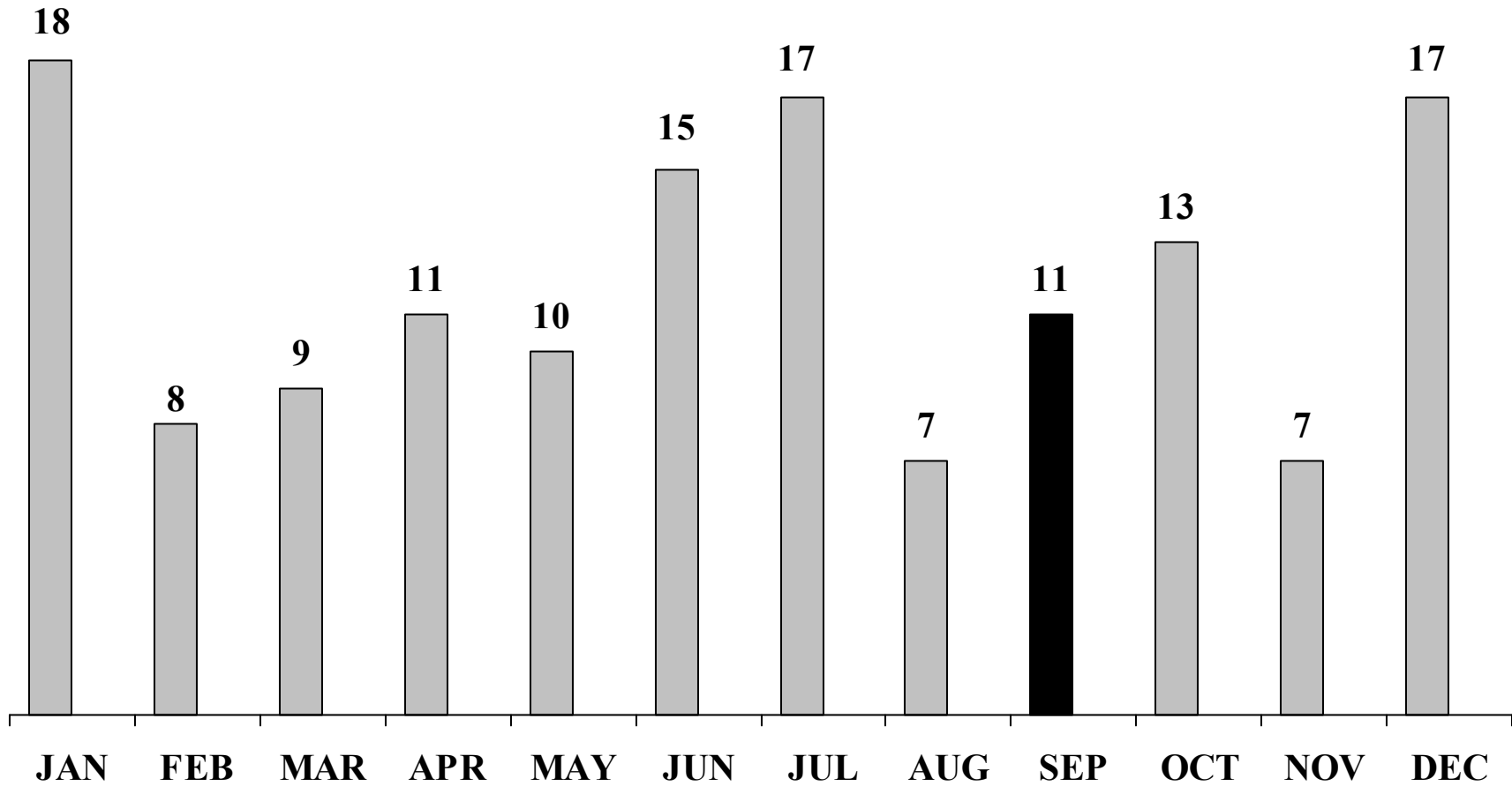
8 Switching Fatalities in 2005. Most recent July 22.

(Information on 2005 Switching Fatalities is preliminary pending formal investigation.)

- 1. JAN 10 at Buena Vista, AR...** A 53-year-old, Union Pacific (UP) conductor was struck and killed by lite engines that were running down the main track to the head end of his train, which was standing on the siding, to deliver a locomotive unit.
- 2. JAN 26 at Los Angeles, CA ...** A 52-year-old, Pacific Harbor Lines (PHL) conductor was struck and killed by his own cut of cars when he lined switches, thought the cars were going to one track, turned his back, and the cars came down the track he was fouling.
- 3. APR 06 at Selma, AL ...**A Norfolk Southern (NS) brakeman, part of a road crew, was assisting in and working with the local yard assignment in putting his train away. During a shove move, the brakeman was struck and killed by the leading end of a cut of cars the local yard assignment was moving.
- 4. APR 11 at Ogden, UT...**An Union Pacific (UP) switchman was riding on a car that was located at other than the leading end of a shove move and giving radio commands to the RCL operator who was controlling the locomotive being used to shove the cars into a track. Radio communication ceased, the move stopped and the switchman was found dead adjacent to the track being shoved.
- 5. MAY 13 at Detroit, MI...** A 24-year-old, Delray Connecting Railroad (DCRR) conductor died of injuries sustained when the car he was riding derailed. He was crushed between the car and a cement abutment.
- 6. JUL 5 at Emporia, KS...**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.
- 7. JUL 18 at Memphis, TN...**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.
- 8. JUL 22 at Ragland, AL...**An Alabama & Tennessee Railway Company conductor died when crushed against a wall when the car he was riding was derailed.

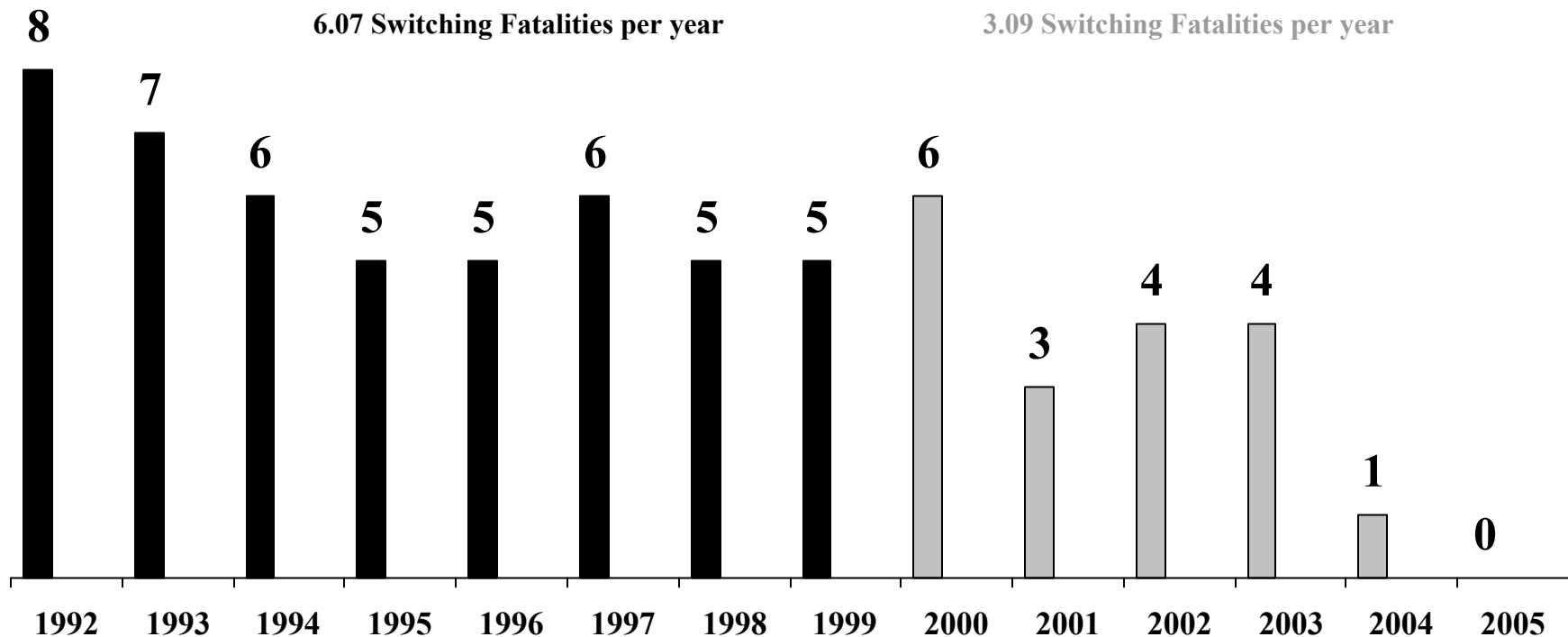
**Observing the Five SOFA Operating Recommendations and Recognizing Special Switching Hazards
Will Help Prevent Future Switching Fatalities and Achieve the Zero Switching Fatality Goal**

11 of 143 Switching Fatalities since 1992 Occurred in September



Switching Fatalities Related to Five SOFA Operating Recommendations

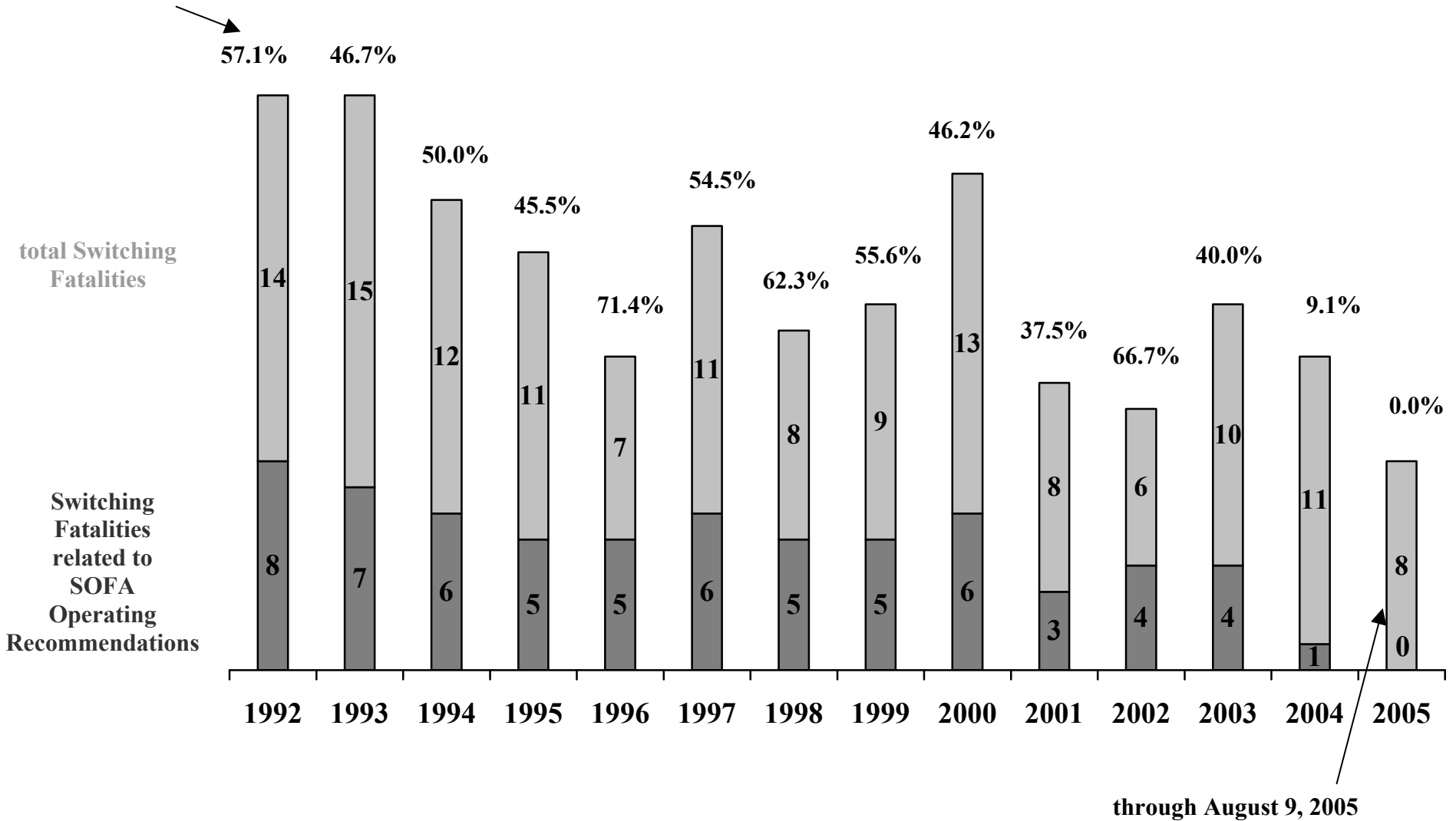
- There were 47 Switching Fatalities related to the Five Operating Recommendations in the pre-SOFA Report period, January 1992 through September 1999 – 7.75 years. The first SOFA Report¹ was released in October 1999.
- There were 18 Switching Fatalities related to the Five Operating Recommendations in the post-SOFA Report period, October 1999 through July 2005 – 5.83.
- Expressed as rates per year: 6.07 fatalities per year, pre-SOFA Report v. 3.09 fatalities per year, post-SOFA Report.



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

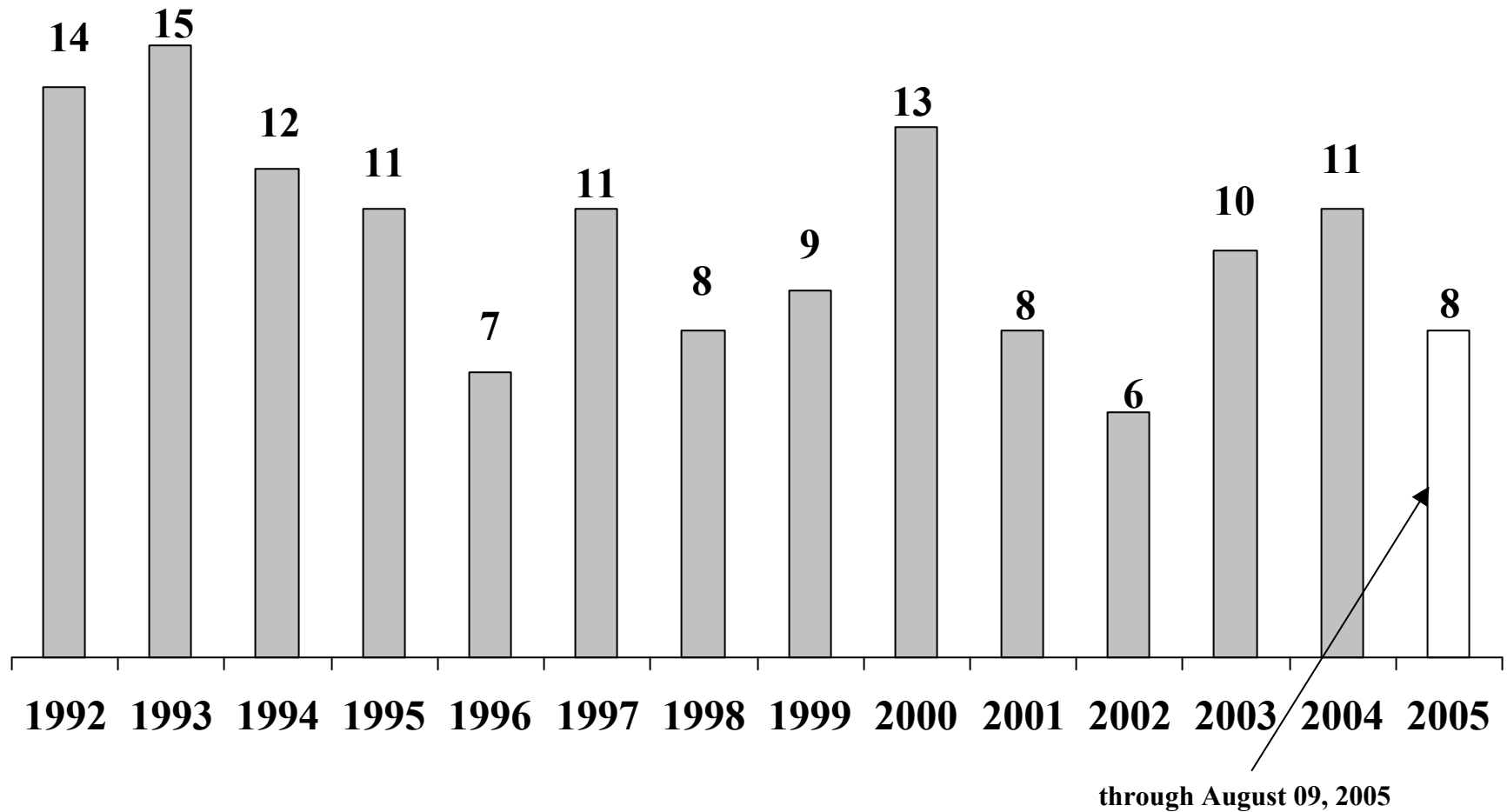
Total Switching Fatalities and Switching Fatalities Related to the Five SOFA Operating Recommendations

Percentages indicate the percent Switching Fatalities related to Operating Recommendations are of total Fatalities in a year.



143 Switching Fatalities Since 1992

The Switching Operations Fatality Analysis (SOFA) Group reviews each Switching Fatality after the Federal Railroad Administration completes its investigation. There have been 143 fatalities since 1992. There were 11 fatalities in 2004. Eight fatalities have occurred in 2005 through August 9.



10.5 Switching Fatalities occur each year on average

11 September Switching Fatalities, January 1992 through December 2004

#	Date	RR	Location	Age	Service (yrs)	Employee's Job	Employee Act	Employee Location	Fatal Event	SOFA Recommendation	Special Switching Hazard
1	09/02/93	ATSF	Carlsbad, NM	55	24	road conductor	crossing between	on track	struck by on-track equipment		Miscellaneous coupled up
2	09/20/94	ARR	Clear Site, AK	49	20	road brakemen	sitting	in car	derailments		Struck by Motor Vehicle
3	09/03/96	DGNO	Dallas, TX	43	0.06*	road brakemen	standing	on end of car	ran into on-track equipment	5	
4	09/14/99	AM	Van Buren, AR	47	0.5	road conductor	adjusting coupler	between tracks	struck by on-track equipment	1,5	
5	09/09/00	BNSF	Keokuk, IA	53	27	yard conductor	walking	on track	struck by on-track equipment	4	
6	09/02/02	CSXT	Madisonville, KY	52	24	road conductor	walking	on track	struck by on-track equipment		Unexpected Movement of Railcars
7	09/12/03	GC	Dublin, GA	45	0.2	road brakemen	walking	on track	struck by on-track equipment	5	
8	09/14/03	UP	Ogden, UT	53	26	yard conductor	handbrakes, releasing	on end of car	lost balance		Equipment
9	09/24/03	BNSF	Fresno, CA	35	2.3	yard conductor	riding	on side of car			Miscellaneous fell or dislodged from shove move
10	09/02/04	BNSF	Clovis, NM	Being reviewed by SOFA Working Group.							
11	09/20/04	AA	Saline, MI	Being reviewed by SOFA Working Group.							

*Brakeman had just returned to work after 10 years of not being involved in switching options. Prior to that gap, brakeman had 10 years service.

3 Switching Fatalities within 13 days.

Narratives of the 11 September Switching Fatalities

1...September 02, 1993 – ATSF – Carlsbad, NM

A three-person crew, accompanied by an engineer and a brakeman trainee, were trying for the second time to make a coupling between two cars in a yard. The conductor was allowing the brakeman trainee to learn radio use and had just told him to tell the engineer to come back for another attempt at coupling. The brakeman turned toward the locomotives, relayed the conductor's instructions, looked back at the conductor and saw him impaled between the knuckles of the two cars.

Special Switching Hazard:	Miscellaneous (coupled up)
Possible Contributing Factor:	Employee on or fouling track
Possible Contributing Factor:	Failure to provide adequate space between equipment
Possible Contributing Factor:	Passed couplers
External Circumstances:	Too many students assigned to job
Day of Week:	Thursday
Time of Fatal Event:	12:30 PM
Direction of Movement:	shoved
Crew's Next Move:	couple
Death Result of Train Movement?	yes
Hit by Own Equipment?	yes
Speed of Equipment (mph):	3

2...September 20, 1994 – ARR – Clear Site, AK

A three-person work train crew was shoving their train on the main line. The locomotive engineer was operating the locomotive and the brakeman and conductor were in the caboose. A tractor-trailer pulled over the crossing and was struck by the shove move, derailing the caboose and killing the brakeman.

Special Switching Hazard:	Struck by Motor Vehicle (tractor trailer)
Possible Contributing Factor:	Highway user inattentiveness
Possible Contributing Factor:	Highway user cited for violation of highway-rail grade crossing traffic laws
External Circumstances:	Highway user unawareness due to environmental factors (angle of sun, etc.)
Day of Week:	Tuesday
Time of Fatal Event:	7:19 PM
Direction of Movement:	shoved
Crew's Next Move:	shove cars
Death Result of Train Movement?	yes
Hit by Own Equipment?	no
Speed of Equipment (mph):	19
Deceased Regular Job?	no
Had Deceased Worked There Before?	yes

Narratives of the 11 September Switching Fatalities (continued)

3...September 03, 1996 – DGNO – Dallas, TX

Yard switch crew, engineer, conductor and brakeman, while switching at an industry on a downhill grade experienced an unwanted run away car. While FE (brakeman) was in position on a car and setting a hand brake, the car started to roll away from the crew. FE continued to try to apply hand brake in an effort to stop the car. When discovering that the car was rolling away, the conductor attempted to slow and stop it by putting wood blocks under the wheels. The car accelerate to 30 to 35 mph. FE did not detrain before car collided with seven other cars at that speed. FE had three weeks experience.

SOFA Operating Recommendation:

5

Possible Contributing Factor: Failure to properly secure hand brake on car(s) railroad employee
Possible Contributing Factor: Release lever would not set in the on position properly
Possible Contributing Factor: Insufficient training
Day of Week: Tuesday
Time of Fatal Event: 6:30 PM
Direction of Movement: free-running
Crew's Next Move: spot cars
Death Result of Train Movement? yes
Hit by Own Equipment? no
Speed of Equipment (mph): 25
Deceased Regular Job? yes

4...September 14, 1999 – AM – Van Buren, AR

A two-person switching crew was in the process of shoving ten cars onto a clear track, with the intention of cutting three off, and pulling out the other seven out. The conductor counted down the cars via radio, and the engineer stopped one half-car lengths after the last radio transmission of one-half cars to go. Subsequently, the engineer discovered that the conductor had stepped in between the cars and had been coupled up.

SOFA Operating Recommendations:

1,5

Possible Contributing Factor: Employee on or fouling track
Possible Contributing Factor: Impairment of efficiency or judgment because of drugs or alcohol
Day of Week: Tuesday
Time of Fatal Event: 3:00 PM
Direction of Movement: shoved
Death Result of Train Movement? yes
Hit by Own Equipment? yes

Narratives of 11 September Switching Fatalities (continued)

5...September 09, 2000 – BNSF - Keokuk, IA

While shoving one car into an industry site, and using radio communication, the switch foreman was run over by the leading wheel as the shove move continued until coupling was made.

SOFA Operating Recommendation:	4
Possible Contributing Factor:	Close or no clearance
Possible Contributing Factor:	Employee on or fouling track
Possible Contributing Factor:	Radio communication, improper
External Circumstances:	radio holster/suspenders may have been hooked by movement
Day of Week:	Saturday
Time of Fatal Event:	11:22 AM
Direction of Movement:	shoved
Crew's Next Move:	pull car
Death Result of Train Movement?	yes
Hit by Own Equipment?	yes
Speed of Equipment (mph):	4
Deceased Regular Job?	yes

6...September 02, 2002 – CSX – Madisonville, KY

A two-person road crew stopped at a yard to make a set-off. The conductor made the cut on his train, instructed the engineer to haul ahead to clear the switches into the yard, lined the switches into what he thought was Track 4 and told the engineer to begin backing the set off into the yard. The conductor was struck and killed by the leading end of the shove move as it entered Track 3.

Special Switching Hazard:	Unexp. Movement of Railcars
Possible Contributing Factor:	Radio communication, failure to comply
Possible Contributing Factor:	Employee on or fouling track
Possible Contributing Factor:	Other general switching rules
Day of Week:	Monday
Time of Fatal Event:	4:05 AM
Direction of Movement:	shoved
Death Result of Train Movement?	yes
Hit by Own Equipment?	yes
Speed of Equipment (mph):	9
Deceased Regular Job?	yes

Narratives of 11 September Switching Fatalities (continued)

7...September 12, 2003 – GC – Dublin, GA

A two-person train crew was in the process of setting off and picking up cars in a small yard. The conductor, who had 8 weeks of experience, was killed when the leading car of the shove struck him as he stepped into its path.

SOFA Operating Recommendation: 5
Possible Contributing Factor: Employee on or fouling track
Possible Contributing Factor: Shoving movement, man on or at leading end of movement, failure to control
Possible Contributing Factor: Insufficient training
Day of Week: Friday
Time of Fatal Event: 10:45 AM
Direction of Movement: shoved
Crew's Next Move: shove cars into track
Death Result of Train Movement? yes
Hit by Own Equipment? yes
Speed of Equipment (mph): 1
Deceased Regular Job? yes

8...September 14, 2003 – UP - Ogden, UT

A four-person yard switching crew had been working together and classifying cars into various tracks throughout the morning. The conductor was on the leading end of a two car free rolling cut of cars moving at 3 miles per hours when he fell from the leading end and was run over by the car he had been riding.

Special Switching Hazard: Equipment
Possible Contributing Factor: Employee falling from moving equipment
Possible Contributing Factor: Other body defects (car)
Day of Week: Sunday
Time of Fatal Event: 1:15 PM
Direction of Movement: free-running
Crew's Next Move: line switch
Death Result of Train Movement? yes
Hit by Own Equipment? yes
Speed of Equipment (mph): 2
Deceased Regular Job? yes

Narratives of 11 September Switching Fatalities (continued)

9...September 24, 2003 – BNSF – Fresno, CA

A three-person switching crew was shoving a cut of cars into a yard track and the switching foreman was riding the leading end of the 35-car cut. There was no air in the train line and the engineer was using engine brake to control the shove during the 50 car lengths of clear track to be shoved prior to making a coupling on other cars in the same track. Twenty cars into the move the foreman was either dislodged or fell from the leading end of the movement and was run over by the sixth head car of the shove.

Special Switching Hazard:	Miscellaneous (fell or dislodged from shove move)
Day of Week:	Wednesday
Time of Fatal Event:	1:15 AM
Direction of Movement:	shoved
Crew's Next Move:	couple
Death Result of Train Movement?	yes
Hit by Own Equipment?	yes
Speed of Equipment (mph):	5
Deceased Regular Job?	yes

10...09/02/04 – BNSF – Clovis, NM

Being reviewed by SOFA Working Group

11...09/20/04 – AA – Saline, MI

Being reviewed by SOFA Working Group

Note: The Switching Fatality narrative summaries are 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 database.

September Switching Fatality(s) Involving SOFA Recommendation 1

Van Buren, AK

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.

Lifesaver 1

Secure equipment before action is taken.

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.

September Switching Fatality(s) Involving SOFA Recommendation 2

none

Recommendation 2

When two or more train crews are simultaneously performing work in the same yard or industry tracks, extra precautions must be taken:

SAME TRACK

- Two or more crews are prohibited from switching into the same track at the same time, without establishing direct communication with all crew members involved.

ADJACENT TRACK

- Protection must be afforded when there is the possibility of movement on adjacent track(s). Each crew will arrange positive protection for (an) adjacent track(s) through positive communication with yardmaster and/or other crew members.

Lifesaver 2

Protect employees against moving equipment.

Discussion 2

FE-06-94 and FE-31-94 both involved standing equipment left by another crew. In both cases, it can be argued that there was no possibility of either piece of equipment being moved. However, the fact that both pieces of equipment contributed to the fatalities and in both cases the respective crews had no knowledge that the equipment had been moved into the work area and that the physical layout expected by each fatality had changed contributed to the incident. Compliance with and an understanding of this recommendation would have prevented the other seven fatalities.

September Switching Fatality(s) Involving SOFA Recommendation 3

none

Recommendation 3

At the beginning of each tour of duty, all crew members will meet and discuss all safety matters and work to be accomplished. Additional briefings will be held any time work changes are made and when necessary to protect their safety during their performance of service.

Lifesaver 3

Discuss safety at the beginning of a job or when a project changes.

Discussion 3

Safe switching operations require teamwork and accountability among all crew members. Each crew member takes responsibility for their own and their fellow crew member's safety. Team work begins with a detailed, effective job briefing, but includes continued updates to all crew members describing the current state of each move as it is executed.

September Switching Fatality(s) Involving SOFA Recommendation 4

Keokuk, IA

Recommendation 4

When using radio communication, locomotive engineers must not begin any shove move without a specified distance from the person controlling the move. Strict compliance with "distance to go" communication must be maintained.

When controlling train or engine movements, all crew members must communicate by hand signals or radio signals. A combination of hand and radio signals is prohibited. All crew members must confirm when the mode of communication changes.

Lifesaver 4

Communicate before action is taken.

Discussion 4

The SOFA group believes that the key to radio use when backing, shoving or pushing a train or cut of cars is the communication between the locomotive engineer and the train crew. The crew must develop the discipline to remain stopped until specific car counts are given by the ground person, rather than to begin moving and then expect to receive the count. If this is done, fatalities related to improper radio communication can be substantially reduced. Additionally, mixing radio and hand signals causes confusion, reduces the chance that other members of the crew would hear of a change in the switching operations, thereby greatly increasing misunderstandings, and, has directly led to fatalities studied by the SOFA Group.

September Switching Fatality(s) Involving SOFA Recommendation 5

Dallas, TX

Van Buren, AR

Dublin, GA

Recommendation 5

Crew members with less than one year of service must have special attention paid to safety awareness, service qualifications, on-the-job training, physical plant familiarity, and overall ability to perform service safely and efficiently. Programs such as peer review, mentoring, and supervisory observation must be utilized to insure employees are able to perform service in a safe manner.

Lifesaver 5

Mentor less experienced employees to perform service safely.

Discussion 5

While classroom training time has increased, in general, the SOFA group has focused on experience and on-the-job training. We have found that limited training and experience continues to factor into many switching operation fatalities. Additional on-the-job training and experience, while working with more experienced peers, may help reduce fatalities among crew members with limited service.

September Switching Fatality(s) Involving 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.

Carlsbad, NM

Miscellaneous

Clear Site, AK

Motor Vehicles or Loading Devices (Struck by Motor Vehicle)

Madisonville, KY

Unexpected Movement of Cars

Ogden, UT

Equipment

Fresno, CA

Miscellaneous

Special Switching Hazards Identified by SOFA Working Group

- 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

* 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.

8 of the 11 September Switching Fatalities – and 7 of the 8 Switching Fatalities occurring in 2005 through August 9th – involved shoving as a direction of movement. Shoving is a Special Switching Hazard. In its last report, the SOFA Working Group (SWG) classified shoving as a Special Switching Hazard:

In reviewing the 124 switching fatalities, it was apparent to the SWG that shove movements present special risks in switching operations. Sixty-one fatalities involved shove moves. There are 116 of the 124 fatalities known to involve train movement. Thus, 53 percent (61/116) of fatalities involving movement had shoving as the direction of movement.

Whether given the amount of shoving done, compared to pulling, makes fatalities with shoving as the direction of movement over- or under-represented in switching operations is answerable only by having the appropriate number of train miles dimensioned by direction of movement. But whatever the answer is does not change the fact that fatalities involving shoving are a sizable cluster of switching fatalities.

Shove movements clearly create an exposure to greater risk than pulled train movements. Wherever feasible, efforts should be made to avoid shoved movements especially where light engines are involved. Greater use of procedures such as running around cars and changing ends should be utilized.

– from *Findings and Recommendations of the SOFA Working Group: August 2004 Update*. Available at: <http://www.fra.dot.gov/us/content/102>

The SWG referred to shoving in Operating Recommendation 4:

Recommendation 4

When using radio communication, locomotive engineers must not begin **any shove move** without a specified distance from the person controlling the move. Strict compliance with “distance to go” communication must be maintained.

When controlling train or engine movements, all crew members must communicate by hand signals or radio signals. A combination of hand and radio signals is prohibited. All crew members must confirm when the mode of communication changes.

Discussion 4

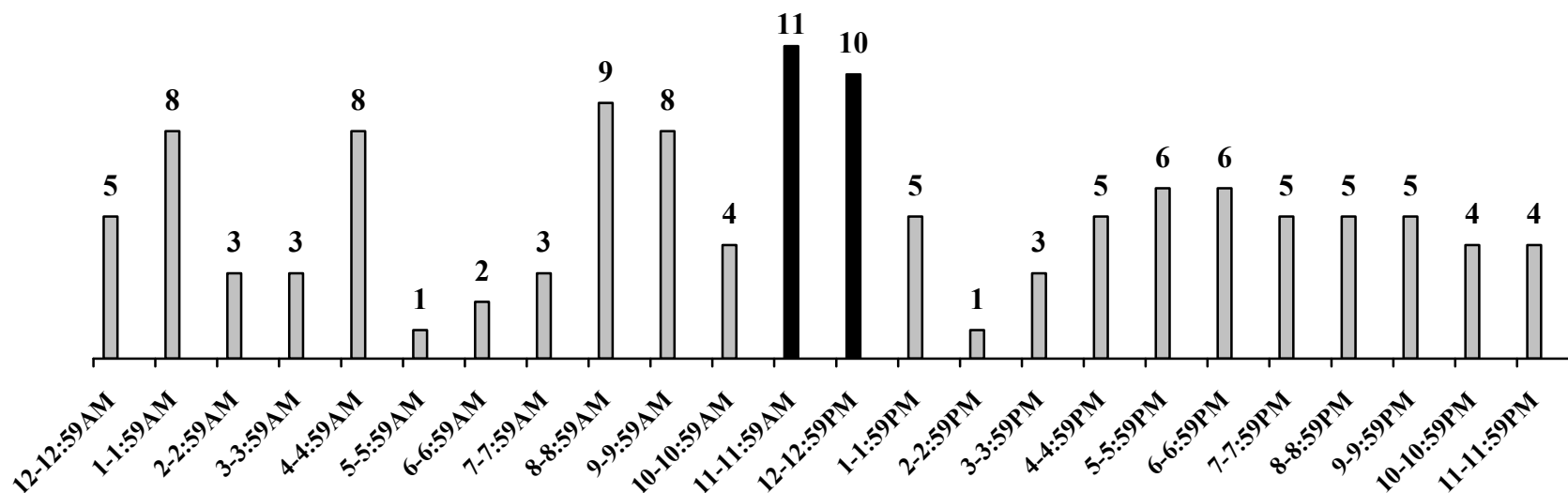
The SOFA group believes that the key to radio use when backing, **shoving** or pushing a train or cut of cars is the communication between the locomotive engineer and the train crew. The crew must develop the discipline to remain stopped until specific car counts are given by the ground person, rather than to begin moving and then expect to receive the count. If this is done, fatalities related to improper radio communication can be substantially reduced. Additionally, mixing radio and hand signals causes confusion, reduces the chance that other members of the crew would hear of a change in the switching operations, thereby greatly increasing misunderstandings, and, has directly led to fatalities studied by the SOFA Group.

124 Switching Fatalities by Time of Day, January 1, 1992 to December 31, 2003

Time	Switching Fatalities	Percent	Time	Switching Fatalities	Percent
12 – 12:59AM	5	4.0%	12 – 12:59PM	10	8.1%
1 – 1:59AM	8	6.5%	1 – 1:59PM	5	4.0%
2 – 2:59AM	3	2.4%	2 – 2:59PM	1	0.8%
3 – 3:59AM	3	2.4%	3 – 3:59PM	3	2.4%
4 – 4:59AM	8	6.5%	4 – 4:59PM	5	4.0%
5 – 5:59AM	1	0.8%	5 – 5:59PM	6	4.8%
6 – 6:59AM	2	1.6%	6 – 6:59PM	6	4.8%
7 – 7:59AM	3	2.4%	7 – 7:59PM	5	4.0%
8 – 8:59AM	9	7.3%	8 – 8:59PM	5	4.0%
9 – 9:59AM	8	6.5%	9 – 9:59PM	5	4.0%
10 – 10:59AM	4	3.2%	10 – 10:59PM	4	3.2%
11 – 11:59AM	11	8.9%	11 – 11:59PM	4	3.2%

For the 124 Switching Fatalities fully reviewed by the SOFA Working Group (SWG), occurrence during the 12 years, January 1, 1992 to December 31, 2003, varies by time of day. In the two-hour period, 11:00 am to 12:59 pm, there were 21 Switching Fatalities. By comparison in the next, afternoon two-hour period, 1:00 pm to 2:59 pm, there were 6 Switching Fatalities. (High/low comparisons are evident among other time periods.)

If Switching Fatalities occurred at a constant rate, about 5.2 Fatalities (about 4.2 percent of all Switching Fatalities) would occur each hour. The 21 Fatalities occurring in the two-hour period, 11:00 am to 12:59 pm, are about four times what would be expected if Switching Fatalities were evenly distributed throughout the day. The SWG does not know the reasons for hourly differences.



SOFA-defined Severe Injuries ¹

Injuries

Amputations ²

January 1992 to May 2005

	1997	1998	1999	2000	2001	2002	2003	2004	2005		1997	1998	1999	2000	2001	2002	2003	2004	2005
JAN	11	13	16	15	21	12	11	11	22		1	0	2	1	0	0	2	2	2
FEB	17	15	9	9	9	13	17	14	10		0	1	0	1	0	2	1	2	0
MAR	14	12	17	11	10	10	13	10	9		3	4	3	2	1	1	3	1	2
APR	8	10	6	10	12	6	9	13	10		1	2	0	1	2	0	1	1	2
MAY	6	12	8	8	12	14	9	6	4		1	2	3	0	2	2	2	0	0
YEAR-TO-DATE	56	62	56	53	64	55	59	54	55		6	9	8	5	5	5	9	6	6
JUN	9	10	8	11	8	5	10	9			2	1	1	0	1	0	0	1	
JUL	9	14	10	8	10	7	6	10			1	5	1	0	4	0	1	2	
AUG	13	10	11	14	8	10	7	14			1	0	1	4	0	1	0	2	
SEP	10	11	15	10	20	12	5	4			2	4	3	2	5	4	0	0	
OCT	12	12	16	10	5	11	9	7			2	5	2	2	0	0	2	2	
NOV	12	9	12	11	13	14	10	10			2	2	2	2	3	0	1	1	
DEC	18	9	7	22	12	9	8	15			4	1	0	4	1	1	2	1	
totals	139	137	135	139	140	123	114	123			20	27	18	19	19	11	15	15	

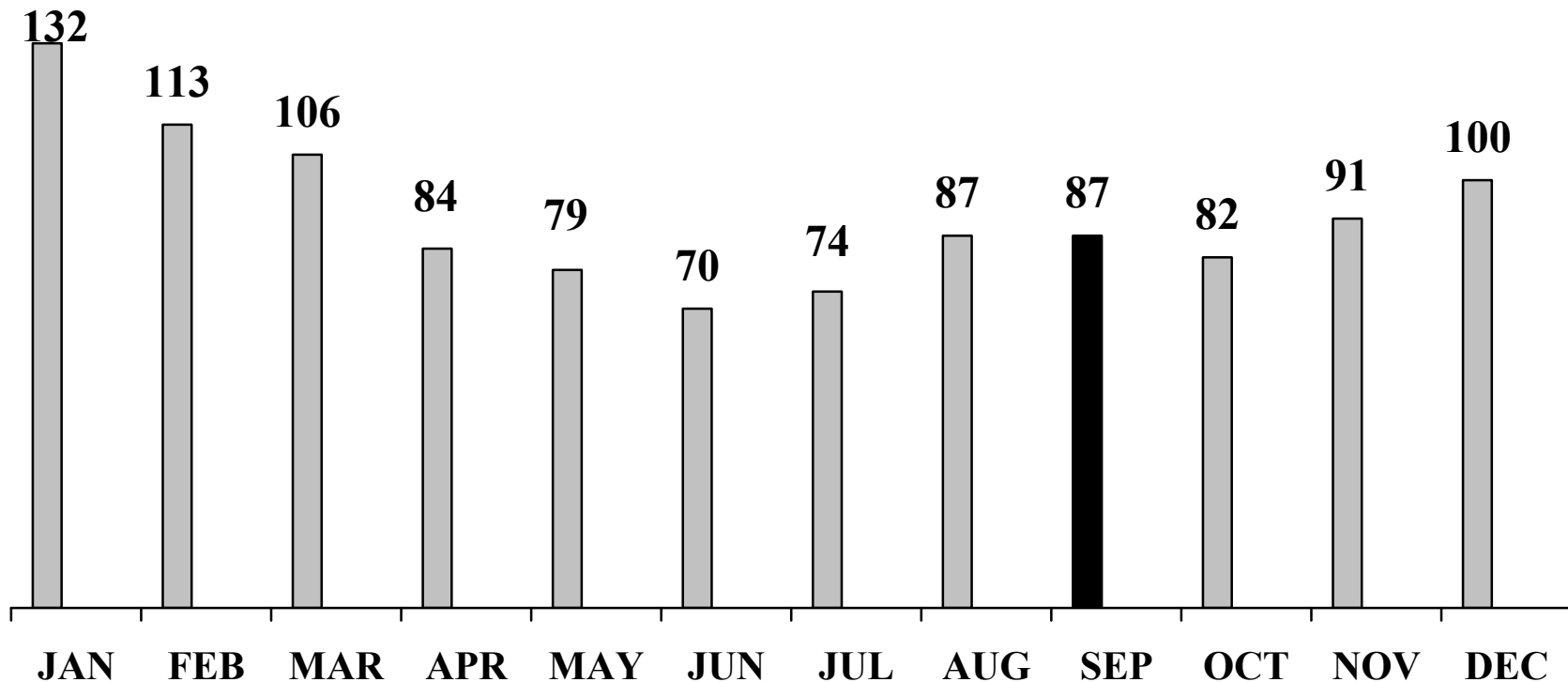
¹ *Severe Injuries* were defined by the SOFA Working Group as (1) potentially life threatening; (2) high likelihood of permanent loss of function, permanent occupational limitation, or other permanent disability; (3) likely to result in significant work restrictions; and (4) result from a high-energy 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. This report may be found on the FRA's website.

² Amputations are a type of SOFA-defined Severe Injury and are counted in 'Injuries'. Amputations are broken out separately because of the extreme nature of trauma to employees engaged in switching operations, and the potential for permanent occupational limitation.

87 SOFA-defined Severe Injuries (including amputations) in September since 1997

Severe Injuries were 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. This report is on the FRA's website.

(January to May represents 9 years of Severe Injuries. All other months are 8 years.)



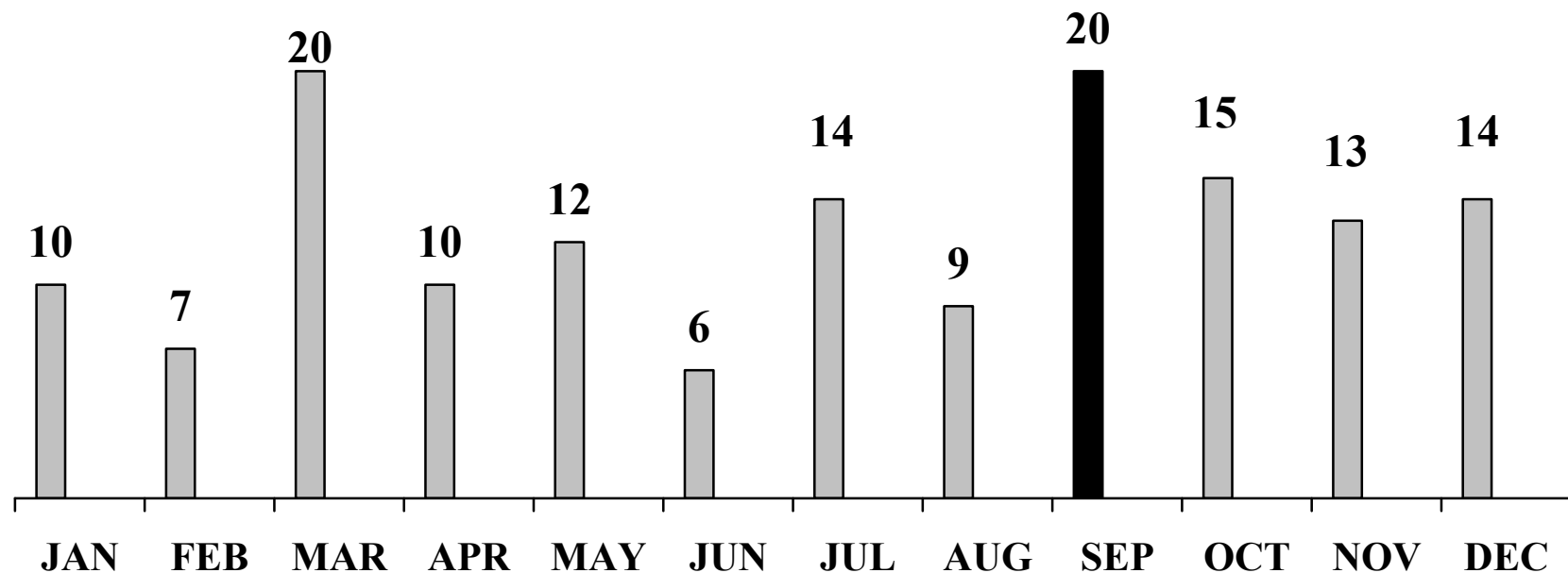
1,105 Severe Injuries occurred from January 1997 through May 2005

131.3 SOFA-defined Severe Injuries occur each year on average

9 Amputations (a type of Severe Injury) in September since 1997

- Amputations are a type of SOFA-defined Severe Injury and are counted in Severe Injuries.
- Amputations are displayed separately because of the extreme nature of trauma to employees engaged in switching operations, and the potential for permanent occupational limitation.

(January to April represents 9 years of Severe Injuries. All other months are 8 years.)



150 Amputations occurred from January 1997 through May 2005

18.0 Amputations occur each year on average