

2019 Fatal Comparison Chart (based on preliminary report data, fatal alerts, & final reports) Updated: 3/14/2019

MMM Total	2	Fatal #'s	Coal Total	3	Fatal #'s	Total
Underground (UG)			Underground (UG)	2	1, 2	2
Surface & Sur of UG	2	3, 4	Surface & Sur of UG	1	5	3
Contractor			Contractor	2	1, 2	2
Powered Haulage			Powered Haulage	1	2	1
Non-Powered Haulage			Non-Powered Haulage			
Machinery	1	3	Machinery	2	1, 5	3
Roof, Rib, Highwall Fall			Roof, Rib, Highwall Fall			
Electrical			Electrical			
Slip & Fall of Persons	1	4	Slip & Fall of Person			1
Fall & Sliding Materials			Fall & Sliding Materials			
Ignition/Exploding Gas			Ignition/Explosion/Fire			
Hoisting			Hoisting			
Inundation			Inundation			
Exploding Vessel			Exploding Vessel			
Explosive/Breaking Agent			Explosive/Breaking Agent			
Maintenance/Repair Involved			Maintenance/Repair Involved			
Examiner, Supervisor, Owner			Examiner, Supervisor, Owner			
Other			Other			
Age 0-19			Age 0-19			
Age 20-29			Age 20-29			
Age 30-39	1	3	Age 30-39	1	5	2
Age 40-49	1	4	Age 40-49			1
Age 50-59			Age 50-59	2	1, 2	2
Age 60+			Age 60+			
Experience			Experience			
Less than 1 year	1	3	Less than 1 year			1
1-9 years	1	4	1-9 years			1
10-19 years			10-19	1	5	1
20+			20+	2	1, 2	2
Mine Site Experience			Mine Site Experience			
Less than 1 year	2	3, 4	Less than 1 year	2	1, 2	4
1-9 years			1-9 years	1	5	1
10-19			10-19			
20+			20+			
Job/Task Experience			Job/Task Experience			
0-7 days	1	3	0-7 days	1	1	2
Less than 1 year			Less than 1 year			
1-9 years	1	4	1-9 years	1	5	2
10-19			10-19			
20+			20+	1	2	1
Shift Time (occurred)			Shift Time			
1 st Shift (7am-3pm)	1	3	1 st Shift (7am-3pm)	2	2, 5	3
2 nd Shift (3pm-11pm)			2 nd Shift (3pm-11pm)			
3 rd Shift (11pm -7am)	1	4	3 rd Shift (11pm -7am)	1	1	2
Day of the Week:			Day of the Week:			
Sunday			Sunday			
Monday			Monday	1	2	1
Tuesday			Tuesday			
Wednesday	1	3	Wednesday			1
Thursday	1	4	Thursday	1	5	2
Friday			Friday			
Saturday			Saturday	1	1	1

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2019 - Month	MNM	Coal	Totals	Difference	Totals	2018 - Month	MNM	Coal
January	0	2	2	+1	1	January	1	0
February	0	0	0	-2	2	February	0	2
March	2	1	3	0	3	March	1	2
April					1	April	1	0
May					1	May	1	0
June					3	June	2	1
July					1	July	1	0
August					1	August	1	0
September					2	September	0	2
October					6	October	5	1
November					2	November	2	0
December					4	December	0	4
2019 Total:	2	3	5	-1	27	2018 Total:	15	12

Product	Fatal #'s For 2019	2019 Total product	2018 Total product	2017 Total product
Alumina				0
Cement				2
Clay				
Coal	1-2, 5	3	12	15
Copper	3	1	1	1
Diatomaceous Earth				1
Dimension Stone			1	
Gold Ore			2	2
Granite			1	1
Gypsum				
Kaolin				
Lead Ore			1	
Lime			1	
Limestone	4	1	1	2
Magnesite				
Phosphate				
Potash				
Sand & Gravel			6	3
Sandstone				
Shale				
Silver Ore				
Stone				1
Titanium				
Traprock			1	

State (2019)	Total	MNM	Coal	Fatal #
Alabama				
Illinois	1	0	1	1
Indiana				
Iowa				
Kentucky	1	0	1	2
Michigan				
Nevada				
New Mexico	1	1	0	3
New York				
Pennsylvania				
Texas	1	1	0	4
Virginia				
Washington				
West Virginia	1	0	1	5

Part 48 = 4	Part 46 = 1
All Coal = 3	Non Metal SUR# 4
Metal: UG = 1 SUR = 0	

Month	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	TOTAL	AVG
January	2	1	2	3	5	1	3	2	1	4	3	27	2.45
February	0	2	3	1	1	5	5	3	3	0	4	27	2.45
March	3	3	3	3	5	2	3	5	2	1	2	29	2.9
April		1	0	2	0	6	3	2	2	33	4	53	5.3
May		1	2	2	4	6	1	5	1	6	3	31	3.1
June		3	3	4	3	6	3	2	4	6	5	39	3.9
July		1	4	2	2	2	4	4	2	3	2	26	2.6
August		2	2	1	4	3	3	2	3	4	1	25	2.5
September		1	3	3	2	3	3	5	4	1	4	29	2.9
October		6	4	1	0	3	5	1	6	6	3	35	3.5
November		2	0	0	0	6	5	4	4	3	2	26	2.6
December		4	2	3	3	3	4	1	4	5	2	31	3.1
Total:	5	27	28	25	29	46	42	36	36	72	35	378	3.13/mo
										UBB			

Average over past 10 years (2009-2018) = 38 per year

Average over past 5 years (2014-2018) = 31 per year

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2019 – Combined Coal and MNM Fatafs

Fatal #1 – Machinery – UG Coal

Illinois

On Saturday, January 5, 2019, at approximately 3:00 am, a 55-year-old miner with 28 years mining experience was performing outby laborer work when he received fatal injuries. He was pinned between a pneumatically powered air lock equipment door and the concrete rib barrier located near the shaft bottom. (Experience: 5 weeks at mine site and 1 day performing the activity)

Cited Regulation: Final Report is not currently available.

Root Cause: Final Report is not currently available.

Best Practices:

- Design and maintain ventilation controls, including airlock doors to provide air separation and permit travel between or within air courses or entries.
- Ensure that airlock doors are designed and maintained to prevent simultaneous opening of both sets of doors.
- Ensure miners are trained in the proper use of automatic doors and procedures to follow in the event the doors malfunction.
- Provide means to override automatic airlock doors and allow manual operation in case of an emergency.
- Keep the path of automatic doors clear of miners and equipment.
- When changes in ventilation are made, test automatic doors to ensure they operate safely under the new conditions.
- Perform thorough examinations of airlock doors to assure safe operating conditions. When a hazardous condition is found, remove the doors from service until they are repaired.

Use the following links to view additional information:

Preliminary Report	Fatal Alert	Final Report
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2019 – Combined Coal and MNM Fatal

Fatal #2 – Powered Haulage – UG Coal

Kentucky

On Monday, January 14, 2019, a 56-year-old survey crew member with 30 years mining experience was fatally injured after he was struck by a loaded shuttle car. The victim was measuring the mining height in an entry that was part of the travelway used by the shuttle car to access the section feeder.

Cited Regulation: Final Report is not currently available.

Root Cause: Final Report is not currently available.

Best Practices:

- Before performing work in an active haulage travelway, communicate your position and intended movements to mobile equipment operators and park mobile equipment until work has been completed.
- Never assume mobile equipment operators can see you. Always wear reflective clothing and permissible strobe lights to ensure high visibility when traveling or working where mobile equipment is operating.
- Be aware of blind spots on mobile equipment when traveling in the same areas where mobile equipment operates.
- Place visible warning and barrier devices at all entrances to areas prior to performing work in active travelways of mobile equipment.
- Operate mobile equipment at safe speeds and sound audible warnings when visibility is obstructed, making turns, reversing direction, etc. Ensure sound levels of audible warnings are significantly higher than ambient noise.
- Ensure directional lights are on when equipment is being operated. Maintain all lights provided on mobile equipment in proper working condition at all times.

Use the following links to view additional information:

Preliminary Report	Fatal Alert	Final Report
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2019 – Combined Coal and MNM Fatal

Fatal #3 – Machinery – Surface MNM

New Mexico

Preliminary: On Wednesday, March 6, 2018, a 35-year-old mechanic (contractor) with 35 weeks mining experience (3 days experience at this mine site) was placing the last of four 500-ton hydraulic jacks in position under a 4100A shovel when the relief valve was ejected from the jack. The hydraulic jack was being pumped up to make contact with the shovel frame. The relief valve struck the victim in the lower left abdomen causing a deep laceration.

Cited Regulation: Final Report is not currently available.

Root Cause: Final Report is not currently available.

Best Practices: Fatal Alert is not currently available.

Use the following links to view additional information:

Preliminary Report	Fatal Alert	Final Report
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Fatal #4 – Slip/Fall of Person – Surface MNM

Texas

Preliminary: On Thursday, March 7, 2018, a fatal accident occurred at a surface limestone mine. A contract miner was changing drive belts on a log washer motor. The victim lost his balance and fell backwards through a narrow gap between two log washers and landed on a cable tray nine feet below.

Cited Regulation: The Final Report is not currently available.

Root Cause: The Final Report is not currently available.

Best Practices: The Fatal Alert is not currently available.

Use the following links to view additional information:

Preliminary Report	Fatal Alert	Final Report
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2019 – Combined Coal and MNM Fatal

Fatal #5 – Machinery – Surface Coal

West Virginia

Preliminary: On Thursday, March 7, 2018, a 38-year-old miner with 11 years mining experience received fatal injuries while he was working on the pad of the highwall mining machine (HWM). The miner's head was caught in a pinch point between a post and a section of the HWM (i.e. push beam) that was being removed as part of the normal mining cycle.

Cited Regulation: Final Report is not currently available.

Root Cause: Final Report is not currently available.

Best Practices: Fatal Alert is not currently available.

Use the following links to view additional information:

Preliminary Report	Fatal Alert	Final Report
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MSHA investigates all deaths on mine property; however, some deaths are unrelated to mining activity and are not counted in the statistics MSHA uses to assess the safety performance of the mining industry. These deaths are termed "[non-chargeable](#)" and include homicides, suicides, deaths due to natural causes, and deaths involving trespassers.

MSHA uses a formal Fatality Review Committee to determine whether a questionable death is chargeable. There are eight (8) ***2019 combined (Coal and MNM) mining accidents that are pending chargeability determination.***

Coal Fatal Data (1900 – 2018) – This chart shows the number of coal miners working and the number of fatalities for each year.

MNM Fatal Data (1900 – 2018) – This chart shows the number of MNM miners working and the number of fatalities for each year.

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