

U.S. Department of Labor

MSHA

Mine Safety & Health Administration

**MINE SAFETY AND HEALTH
ADMINISTRATION**

**PROFESSIONAL ENGINEERS IN
MINING MEETING**

LEXINGTON, KY

SEPTEMBER 15, 2017

TRENDS IN RECENT FATALITIES AND COAL'S TRAINING ASSISTANCE INITIATIVE (UPDATE)

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District Manager
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COAL FATALITIES 2017

- **12 Fatalities**
 - 3 Surface Mines
 - 6 Underground Mines
 - 1 Surface Facility
 - 1 Surface Facility of Underground Mine
 - 1 Refuse Bank

 - 6 Accidents in WV
 - ❖ Of last 20 fatalities, 9 in WV (Since CY2016)
(all but 2 in southern WV)
 - 2 in KY
 - 1 each in Montana, Alabama, Pennsylvania and Colorado

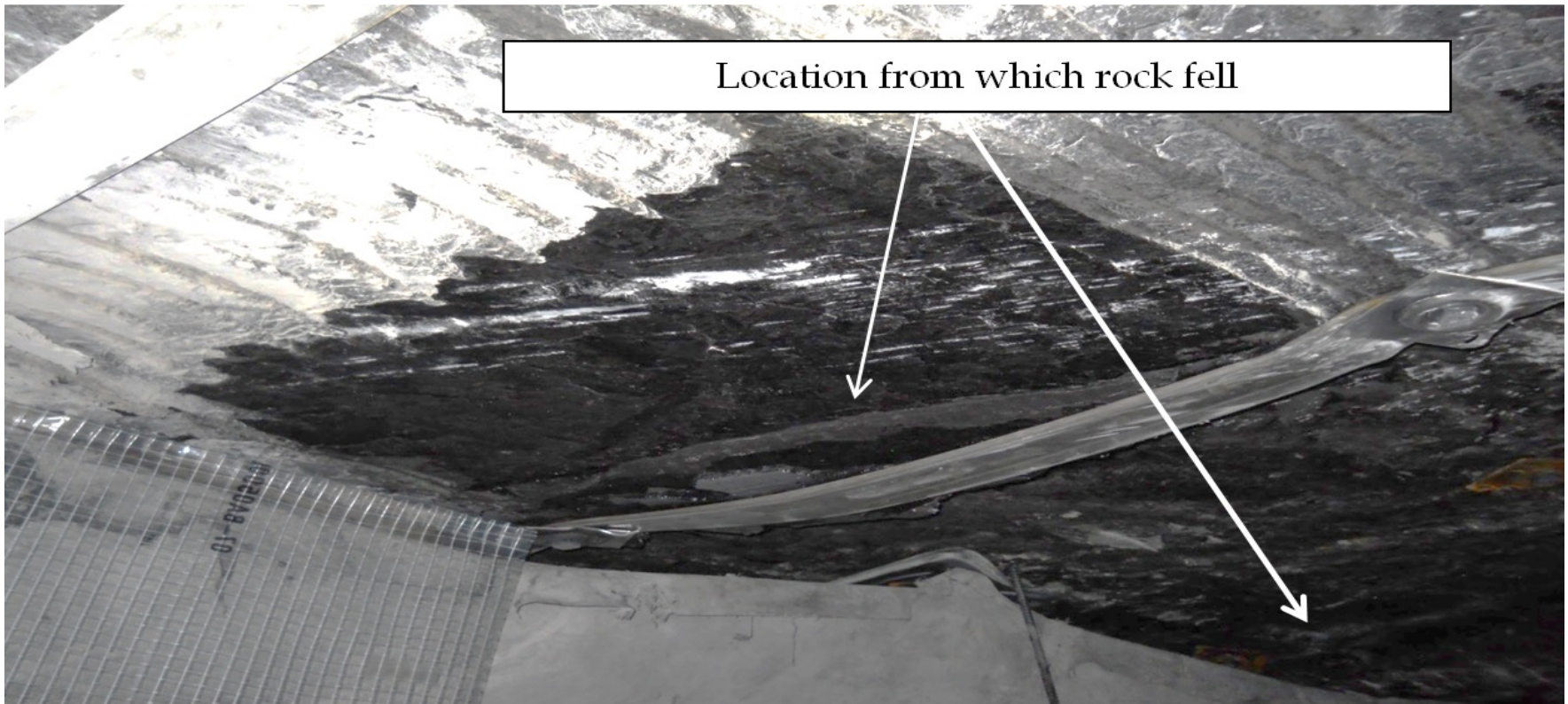
On Thursday, January 26, 2017, a 42-year-old miner, with less than 1 year of experience at the mine and less than 1 year of experience at the job he was performing, was fatally injured when he contacted a moving drive roller for the section belt. The victim was positioned between the guard and the conveyor belt drive when he came in contact with the shaft of the belt drive roller.



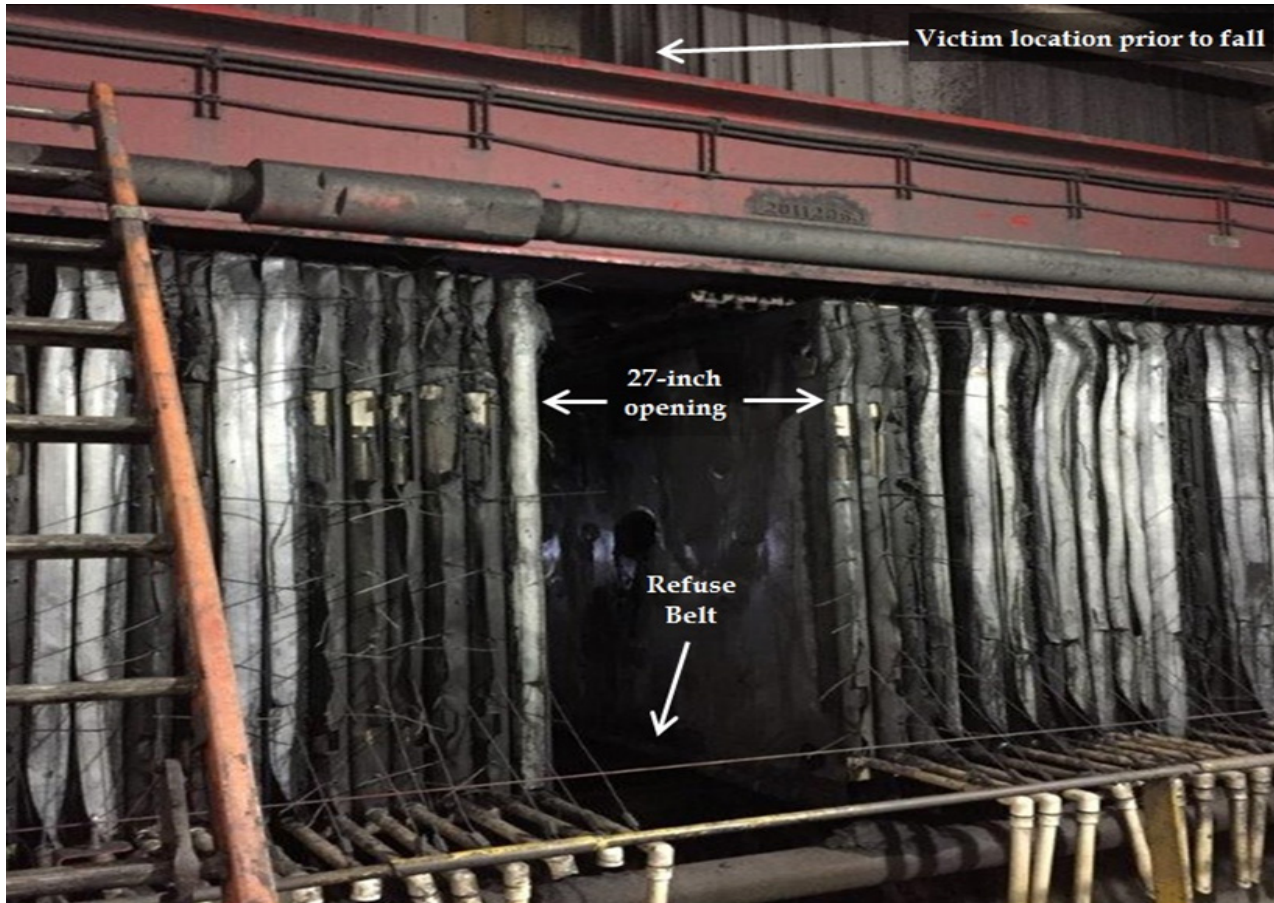
On February 3, 2017, a 54-year-old truck driver, with less than 1 year of experience at the mine, received hip and leg fractures when he jumped from the cab of his truck as it was overturning. The victim had positioned the truck on the dump pad and began raising the bed. Material in the bed was frozen or compacted and created an uneven load. As the bed reached full extension, the truck fell over. Due to complications associated with his injuries, the victim passed away 7 days later.



On February 23, 2017, a 62-year-old section foreman, with less than 1 year of experience at the mine and less than 1 year of experience at the job he was performing, was seriously injured by falling roof rock in the No. 3 entry of the active working section. The rock fell from between roof bolts and was approximately 3 feet by 2 feet by 3 to 4 inches thick. First-aid was administered and the injured miner was transported to a medical center. Due to medical complications from the injuries he sustained, the victim died on April 6, 2017.



On February 27, 2017, a 43-year-old plant attendant, with less than 1 year of experience at the mine and less than 1 year of experience at the job he was performing, was fatally injured when he fell through a 27-inch opening in a plate press. The victim had climbed a ladder to repair a damaged plate when he fell about 19 feet onto a moving refuse belt.



On March 30, 2017, at 2:09 am, a 33-year-old miner (auger operator/foreman), with less than 1 year of experience at the mine and 1 year of experience at the job he was performing, was fatally injured at a surface auger mine. The miner was struck by a rock that fell from the bottom section of the highwall while changing worn cutter-head bits located at the front of the auger machine. The rock was approximately 4 feet by 5 feet by 30 inches in size.



On Thursday, May 18, 2017, an outby utility miner, with less than 1 year of experience at the mine and less than 1 year of experience at the job he was performing, received fatal injuries when his head hit the mine roof and/or roof support. He and another miner were travelling in a trolley-powered supply locomotive when the accident occurred. While the locomotive was still in motion, the trolley pole came off the trolley wire. The victim grabbed the trolley pole to place it back on the trolley wire. In this slightly elevated position, the victim hit his head on the mine roof and/or roof support and was fatally injured.



On Tuesday, June 13, 2017, a 32-year-old continuous mining machine operator, **with less than 1 year of experience at the mine and less than 1 year of experience at the job he was performing**, was fatally injured when he was pinned between the cutter head of a remote controlled continuous mining machine and the coal rib. The victim was backing the continuous mining machine from the **working face when the accident occurred.**



On June 19, 2017, a 32-year-old preshift examiner, with less than 1 year of experience at the mine and less than 1 year of experience at the job he was performing, was fatally injured when he was thrown or jumped from a moving locomotive. Two locomotives (front and rear) were being used to transport three supply cars into the mine. The examiner was riding in the passenger seat of the front locomotive when the operators lost control on a grade and the front locomotive and the first two supply cars derailed.



On July 25, 2017, A 28-year-old bulldozer operator, **with over 7 years of experience at the job and less than two weeks of experience at the mine**, was fatally injured at a surface facility. The victim was operating a bulldozer, pushing material off of a refuse bank before the accident occurred. He was found lying in the bulldozer's push path at the top of an incline near the edge of the refuse bank. The bulldozer had run over the victim and continued over the edge of the incline, coming to rest at the bottom of the embankment.

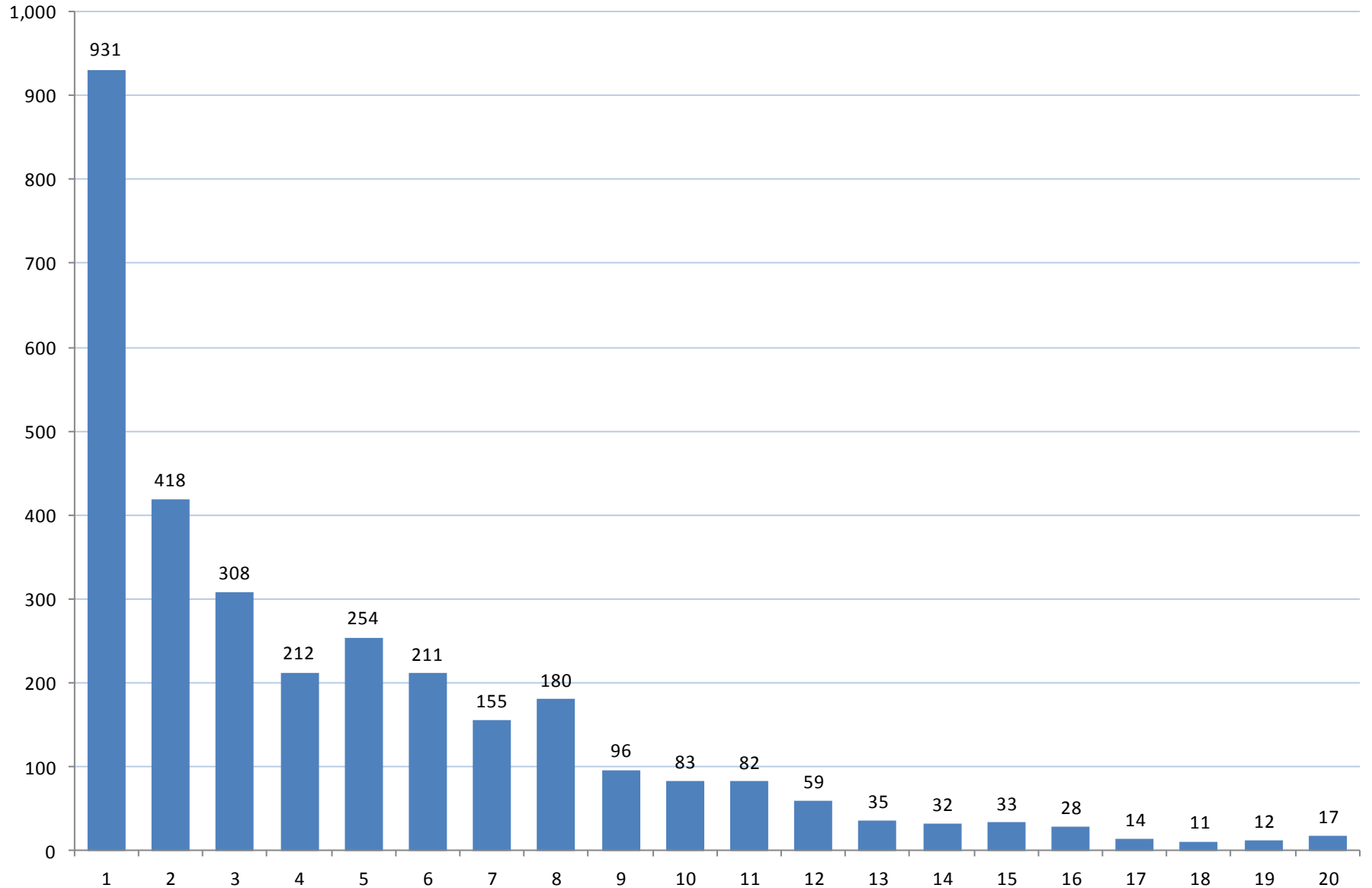


CAUSES & TRENDS OF FATALITIES

- **Causes of Accidents**
 - 6 Powered Haulage
 - 1 Slip/Fall of Person
 - 1 Fall of Face/Rib/Highwall
 - 1 Fall of Roof
 - 2 Machinery
 - 1 Falling Material
- **Trends in Fatalities**
 - In 9, miner had one year or less experience at the mine
 - In 7, miner had one year or less experience at the job

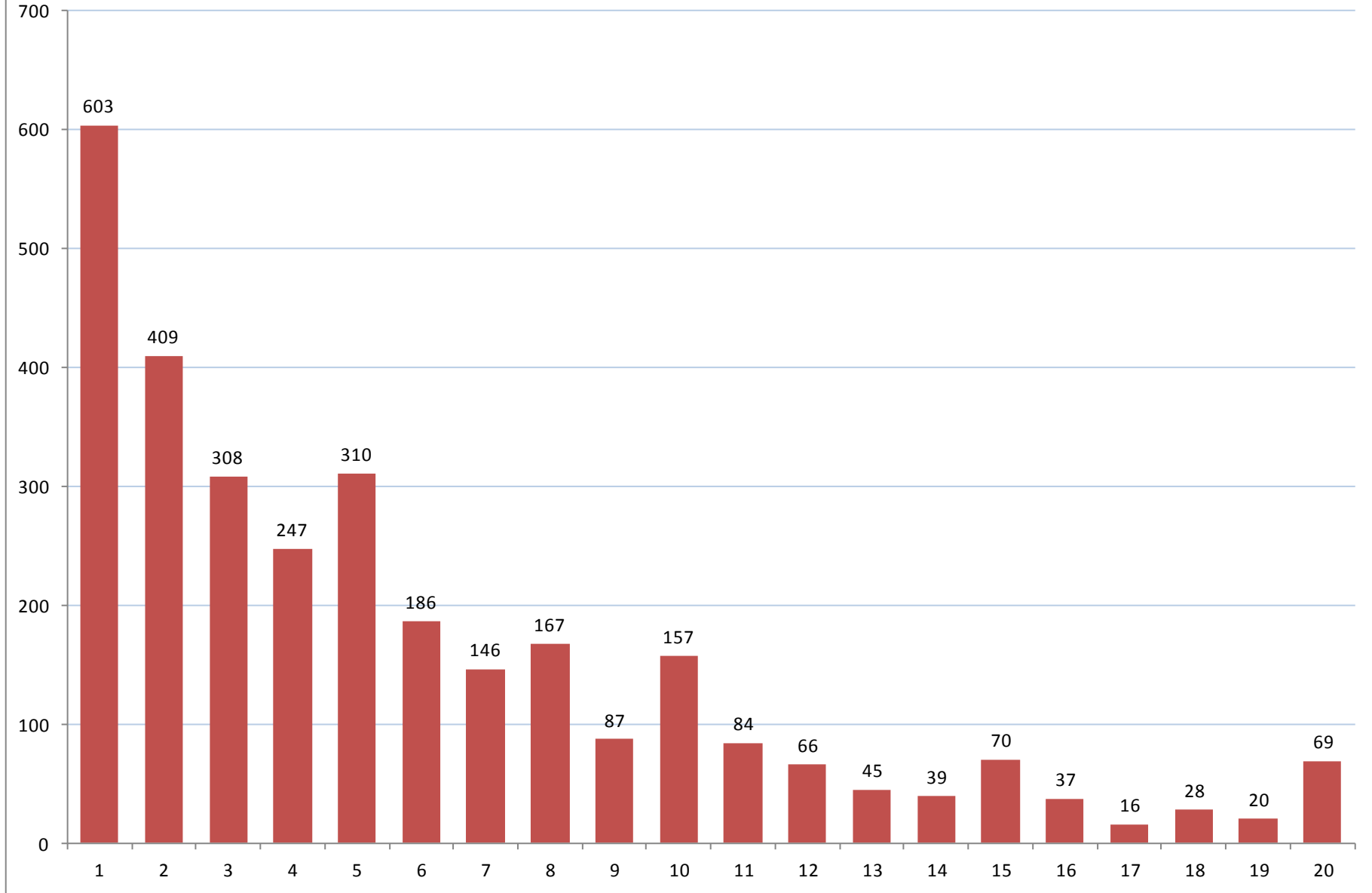
Injuries by Years of Experience at a Mine

FY 2016 Q1 - FY 2017 Q3 (data from 7000-1)



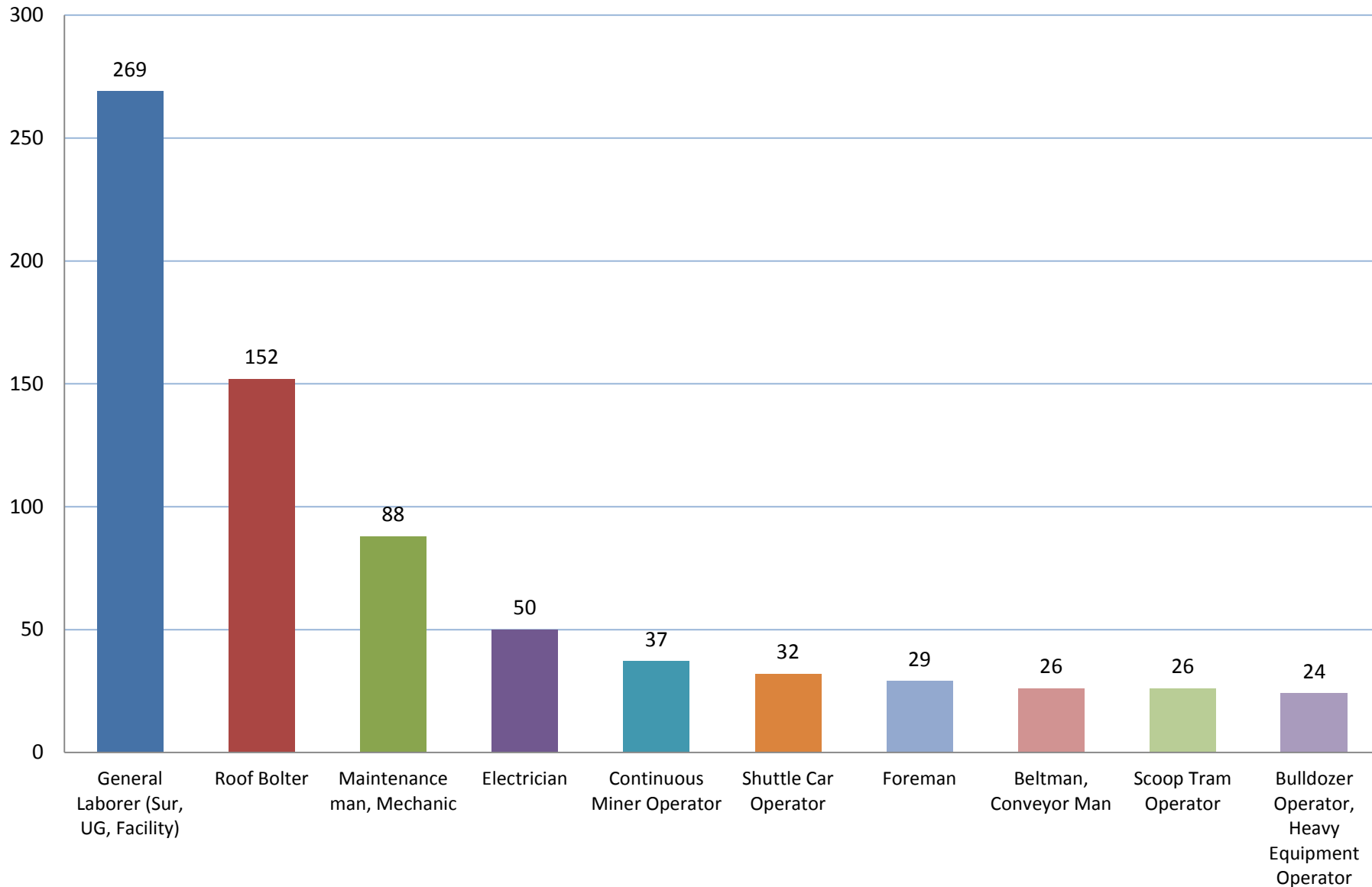
Injuries by Years of Job Experience

FY 2016 Q1 - FY 2017 Q3 (data from 7000-1)



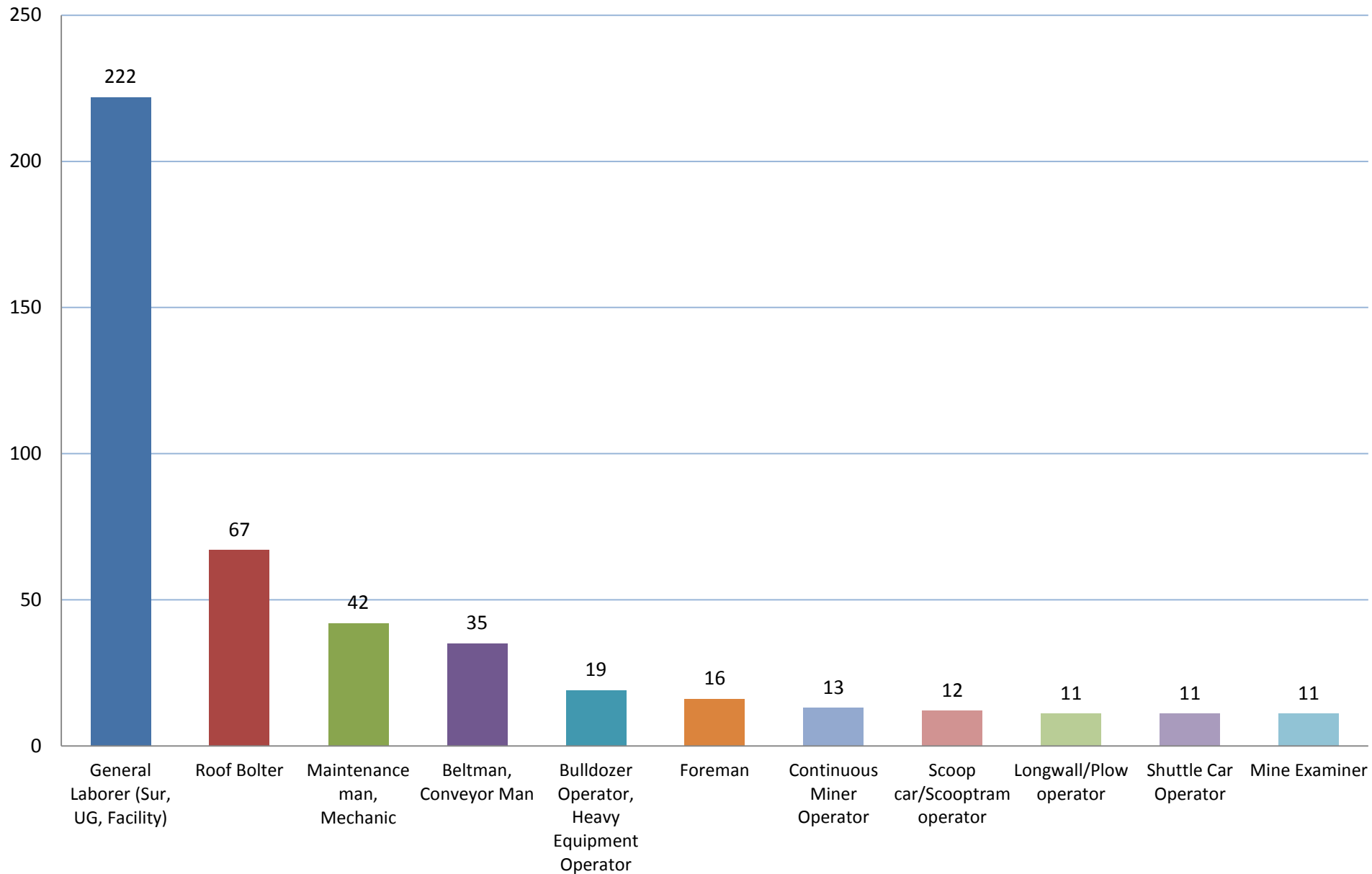
Top 10 Occupations by Injuries for Miners with One Year or Less at the Mine

10/01/2015 - 05/17/2017 (data from 7000-1)



Top Occupations by Injuries - With One Year or Less at the Occupation

FY 2016 Q1 - FY 2017 Q3 (data from 7000-1)



GOALS OF TRAINING ASSISTANCE INITIATIVE

- CAP/EFSMS personnel talk to & observe work practices of miners with less experience at the mine or on the job
 - For miners with one year or less experience at mine, evaluate new or experienced training
 - For miners with one or less year experience at job, evaluate task training
- Identify deficiencies and offer suggestions in training
- Work with operator to improve training programs

TRAINING ASSISTANCE INITIATIVE TIMELINE

- During week of **June 12**, MSHA Coal Districts reached out to operators to explain initiative, ask for participation and for a list of miners who:
 - Were hired in the last 12 months
 - Have been in their current job activity for 12 months or less
 - The list **to include** miners' shifts and job activities
- **We encouraged operators to assist us by providing these lists in a timely manner**

TRAINING ASSISTANCE INITIATIVE TIMELINE

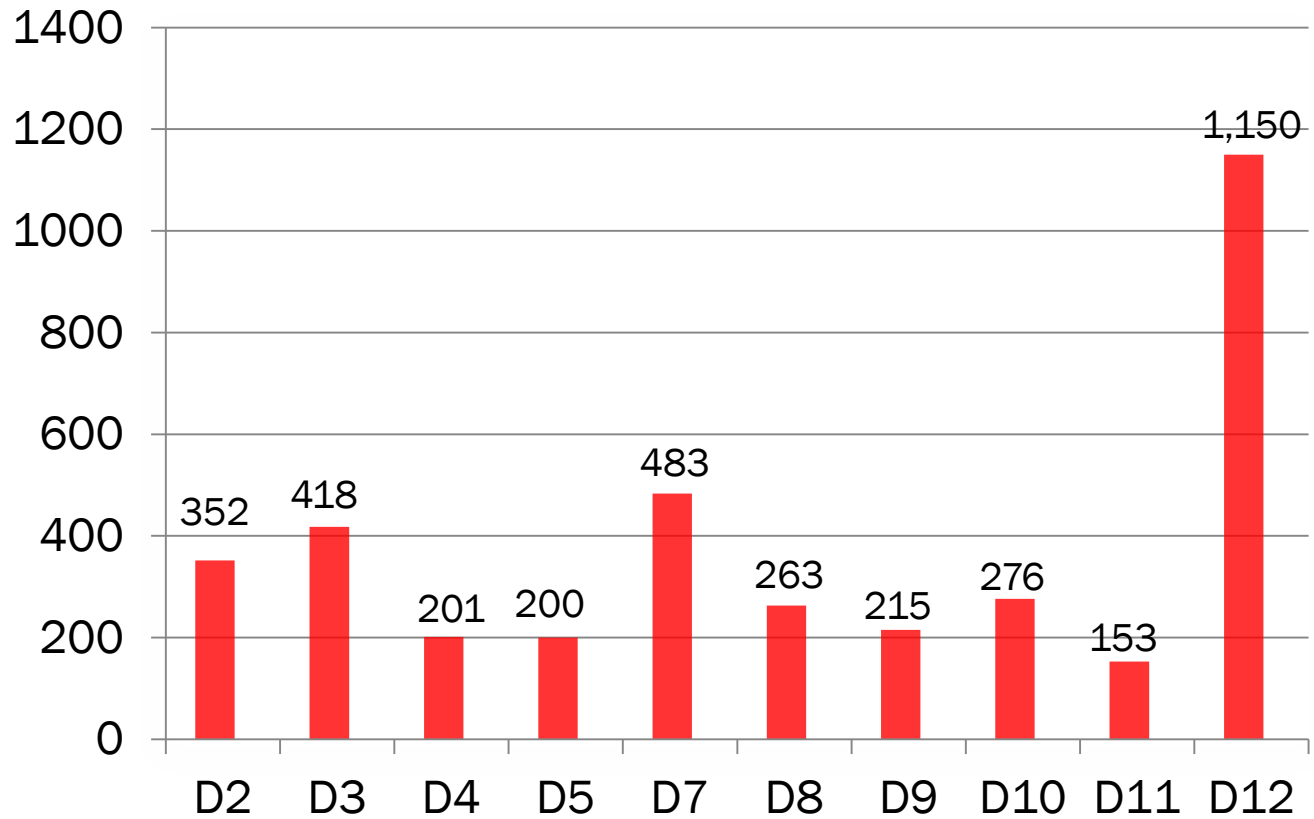
- Initiative will continue through **September 30**, unless it is necessary to extend it
- Initial focus in District 12 due to number of miners with less than one year at mine and less than one year experience at job and the number (6) of recent fatalities at coal mines in that District
- Districts requested operators to allow miners with greater experience to travel with MSHA to visit inexperienced miners

TRAINING ASSISTANCE INITIATIVE

- This **training assistance initiative** - a compliance assistance effort by MSHA - is being conducted by CAP/EFSMS personnel
- Over **3,560** miners contacted by CAP/EFSMS personnel for all Districts
- Over **250** miners contacted by CAP/EFSMS personnel for District 10

TOTAL CONTACTS PER DISTRICT

6-19-2017 – 8-23-2017



DEFICIENCIES FOUND BY D10 CAP PERSONNEL

Miner/Scoop/Ram Car Operators

- Continuous mining machine operator stepped out in front of wing curtain while cutting
- Continuous mining machine operator stepped out to check sights before air cleared
- Ram car operator reached his arm out of cab with the pump motor running and foot on the brake to retrieve some trash that had fallen off of the scoop
- When rock dusting, scoop operator did not always stay on clean air side
- Ram car operator trammed through a check curtain and did not ring his bell or flash his lights

DEFICIENCIES FOUND BY D10 CAP PERSONNEL

Roof Bolting Machine Operators

- Hand on the rotating steel while drilling the hole.
- Riding the boom up with his off hand.
- Advancing the roof bolting machine while canopy pressurized against the roof
- Poor hand placement when switching out drill steel extensions
- Cleaning out dust box with other roof bolting machine operator down wind

DEFICIENCIES FOUND BY D10 CAP PERSONNEL

Roof Bolting Machine Operators

(CONTINUED)

- Failed to establish visual or audible contact with his partner prior to advancing the roof bolting machine
- Clearing an obstruction in a clogged drill steel by striking the steel against the ATRS
- Not following approved bolting pattern when installing cable bolts for extended cuts
- Taking a break on the return side of an active continuous mining machine

COMMENTS FROM SECTION FOREMAN WITH LESS THAN A YEAR'S EXPERIENCE ON THE JOB

- Knowledgeable about plans but appeared overwhelmed and stated he could have used more job training before running a section
- Stated it was almost impossible for one person to run a unit and keep up with 2 MMU's. Also stated that company does a good job with its training program
- Response to the training initiative was positive and all suggestions were well received

MINER/OPERATOR RESPONSE TO DEFICIENCIES

- In each instance, miner accepted our comments and changed behavior. The miners were always willing to work with us and appeared to appreciate our assistance
- At times, the miners stated that they had forgotten these safe work procedures and/or were just in a hurry to get the work completed
- Operators pledged to discuss deficiencies/recommendations with miners performing the same tasks and/or incorporate the findings into future training sessions
- Operators stated that their employees feel more comfortable around MSHA due to the increased interactions between MSHA and the miners
- D10 CAP personnel have not found any deficiencies in the operator's training programs

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Questions and Answers