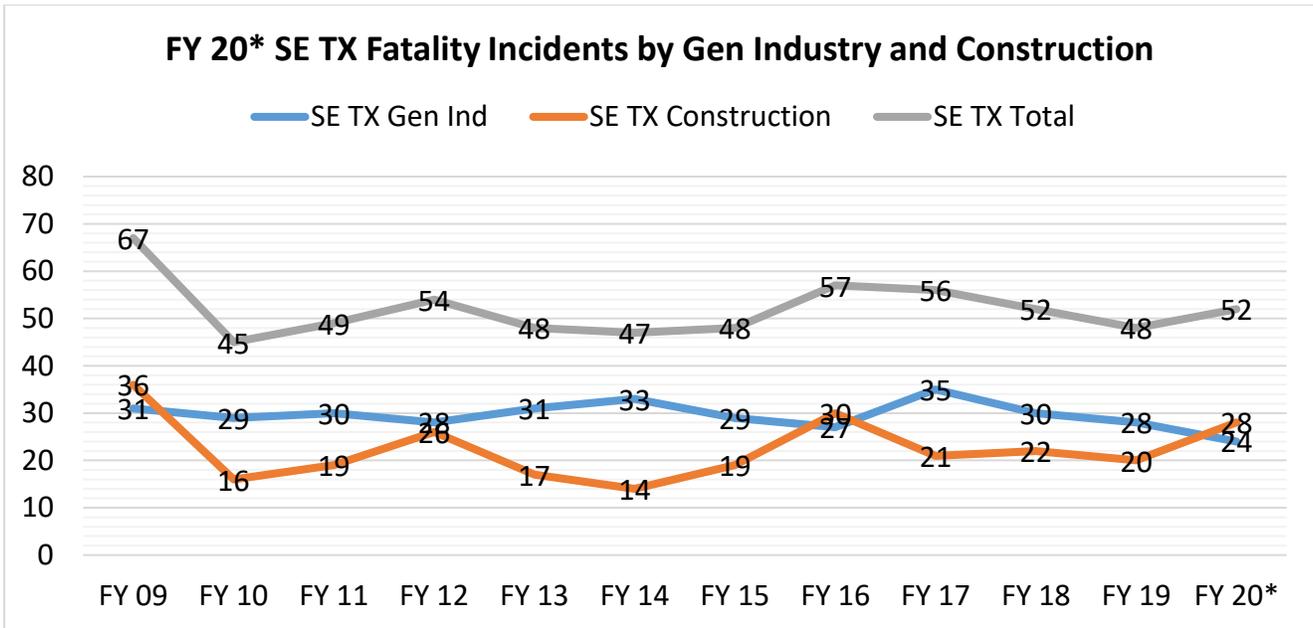
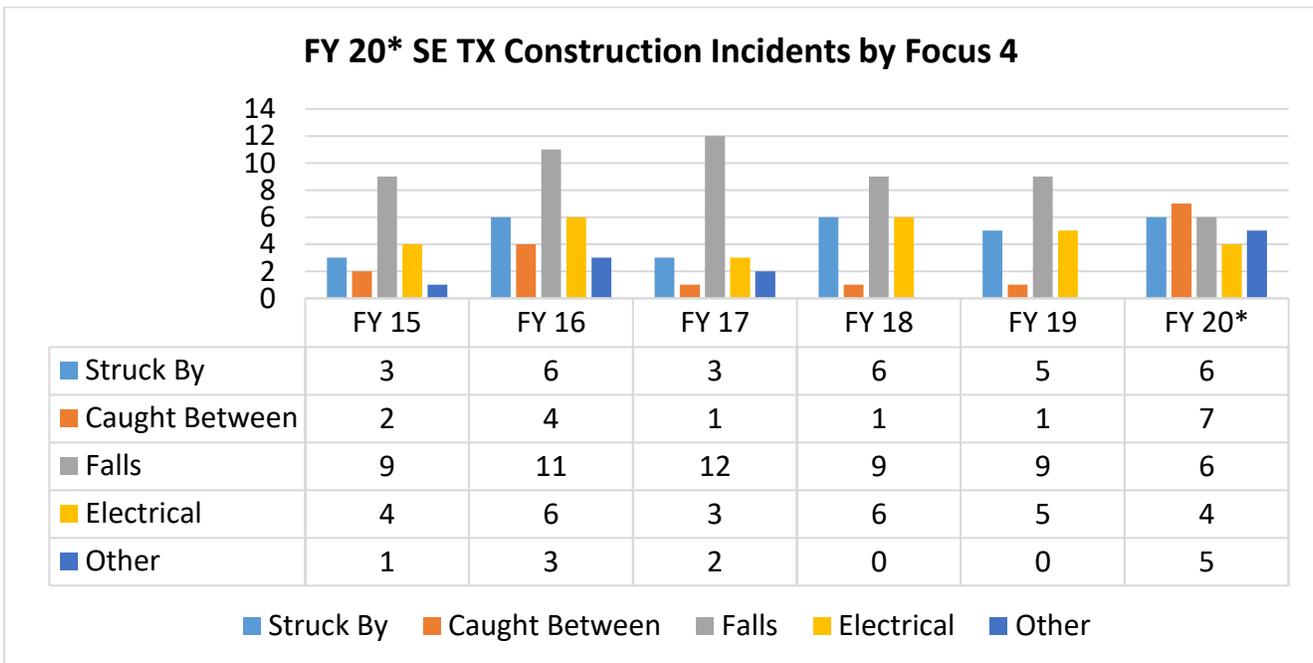


## FY 2020 Southeast (SE) Texas Construction Fatality Incident Estimates\* (v1 Oct 2020)

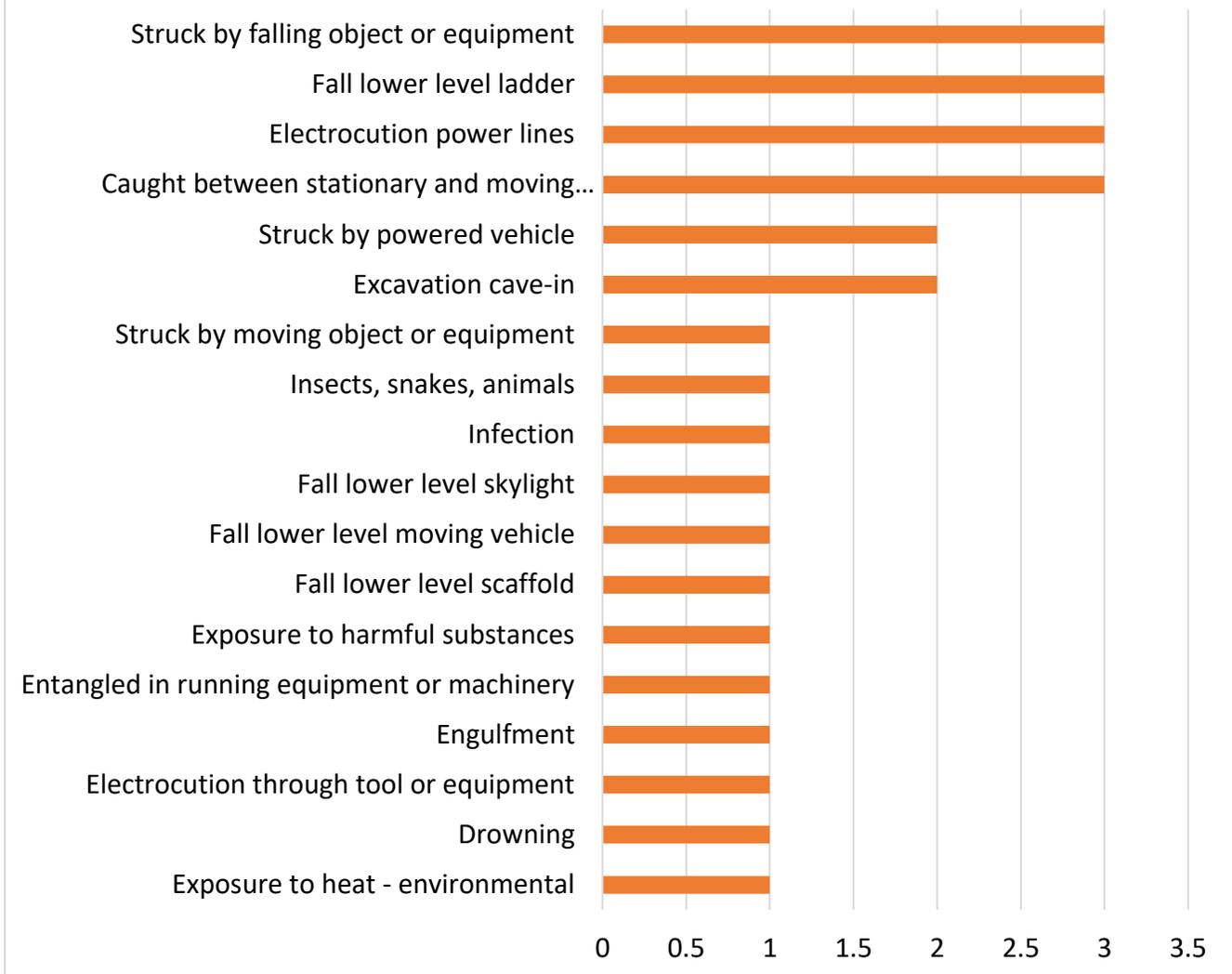
Based on records as of October 2, 2020, there were 52 total incidents in FY 2020 compared to 48 incidents the previous fiscal year. These incidents don't include any reported sole proprietor, auto accident, drug related, Covid-19, or workplace violence related deaths. Incidents in general industry declined and construction increased. Overall, there were four fatal workplace violence incidents, one non-OSHA jurisdiction incident (city government), and two drug related deaths. No suicides were reported.



<b>Average Age of Construction Worker</b>	45.3	<b>Median Age of Construction Worker</b>	43.5
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### FY 20\* SE TX Construction Incidents by Event



### FY 20\* SE TX Construction Fatality Incidents

#### Caught between stationary and moving equipment or objects

- Employee was a pipe layer working inside an excavation connecting PVC pipe to the directional drill stems. He then told the operator of the horizontal drilling machine, to proceed with pulling the pipe into the hole. The operator began pulling the pipe and the horizontal drill stem rotated and pulled back. The swivel is functioned to eliminate the rotating moment of the drill stem and also the PVC pipe. However, at the time of the incident, since the swivel is not installed correctly, the swivel caused the PVC pipe to rotate violently and he was caught in between the PVC pipe and the trench box.
- Employee was welding angle iron on a gymnasium under construction. He was working from an aerial lift and became caught between the steel beam above him and the control panel of the aerial

lift. He was found unresponsive with the aerial lift still applying pressure to him. He was removed from the lift and was pronounced dead at the hospital.

- Employee was bolting/connecting steel joists from an aerial lift at a height of approximately 40'. He was going to move lift 25' towards the crane's spread bar to untie the joist bed. As he initiated the movement he traveled backwards and his neck became pinned between the steel joist and aerial lift control console. A co-worker saw him pinned and not responsive and yelled for another worker on the ground to start lowering the aerial lift. As the aerial lift was being lowered, he fell out of the aerial lift and struck the ground. He had a fall protection system, but he was not tied off. He died from multiple blunt force trauma.

### **Drowning<sup>1</sup>**

- Employee was intoxicated and jumped into a retention pond that was located behind the new home he and his coworkers were painting and drowned.

### **Electrocution power lines**

- Employee was working to install a metal roof onto a building addition for an existing business. He was using a steel tape measure to determine the length needed for the next piece of sheet metal roofing when the wind caught the extended tape and blew in into a powerline that was approximately 6'-7' from the roof. He was hit with 19,920 volts of electricity and then he fell more than 25' to the ground. He suffered from severe electrical burns to his legs and torso and blunt force trauma to the back of his head.
- Employee was standing on a scissor lift installing waterproofing material below the gutter of a commercial building. As the work was about to finish, his brother backed up the scissor lift instead of lowering it. He contacted an 18,000 V line and was electrocuted.
- Employee was in the process of replacing an insulator on a substation while working from an aerial lift. At some time during the process, he received an arc flash from induced voltage and was electrocuted. Estimated electric voltage was 138 kV.

### **Electrocution through tool or equipment**

- Employee was working on a project was to install a new water meter and he was contracted to bore into the existing main water pipeline. As he was using the pneumatic mole boring tool, he struck an electrical line for a light pole and was electrocuted.

### **Engulfment**

- Employee was on top of a holding hopper working on the conveyor belt motor where two belts had come off the pulleys. While he was on top of the holding hopper, the hopper gates opened and he fell through the hoppers suffering blunt force trauma and suffocation from the rocks. Energy sources were not isolated while he was standing on top of the rocks.

### **Entangled in running equipment or machinery**

- Employee was attempting to clear a jammed chain on the conveyor of an asphalt paver. He was using a screwdriver and sledgehammer between the conveyor and bed of the unit. A co-worker

was in the operator's seat with the engine running. The jam cleared and his hand was pinned between the conveyor and bed. He was pulled inwards to one opening of the asphalt spreader and suffered an amputation of one finger and blunt force trauma to the torso and neck area. He died from blunt force trauma and asphyxia due to compression of the neck and torso.

#### **Excavation cave-in**

- Employee was working in a trench installing communication cable when the trench collapse and caved in.
- A two man crew was working behind a shopping center replacing an existing 6" sewer line. One employee was working in the excavation and died when the unsupported soil of the wall collapsed trapping him.

#### **Exposure to harmful substances**

- Employees showed up at the work site to "pig" out sewer lines in the area. An employee went down the manhole to install a valve and collapsed. A co-worker saw this and went down the manhole to try and rescue and also collapsed. Emergency services responded and they were removed from the manhole later that afternoon. The fire department took H2S readings and their meter pegged out.

#### **Exposure to heat – environmental**

- Employee was observed stumbling in the street next to the construction site. He was observed by an individual from the site driving by. He was incoherent and taken to the hospital and shortly thereafter died. He had a body temperature of 106.4.

#### **Fall lower level ladder**

- Employee was working with his crew at a unit under construction. The crew had been assigned the task to lay cable trays and place conduit for future electrical installations. It is believed the he stepped out from the 17' high guarded scaffold platform to access an adjacent scaffold ladder and at some point while on the ladder, he fell, striking his head on the cement ground.
- A roofing contractor employee was ascending an extension ladder and fell approximately 13' and was pronounced dead from blunt force trauma to the neck.
- Employee was re-switching lights and fell from the ladder and struck his head and died.

#### **Fall lower level moving vehicle**

- Employee was moving the aerial lift when a mechanical failure occurred and he was catapulted from the basket and his head hit the arm of the aerial lift and he fell 12'-16' to the concrete ground. He was brain dead from the head trauma and later died after being removed from life support.

#### **Fall lower level scaffolding**

- Employee was working from second level of scaffold using a ladder to install siding. He fell backwards to the ground and later passed away.

### **Fall lower level skylight**

- Employee was working on a metal building roof and stepped through a skylight. He fell about 40' to the ground below and died from blunt force trauma to the upper body and head.

### **Infection**

- Employee was hammering a form stake for a footing with a sledge hammer. He missed the stake and the weight of the hammer caused the employee to twist and fall onto his right knee. He originally had a sprain right knee and a torn medial meniscus tear that resulted in amputation above the right knee. The wound became infected and he died due to medical complications.

### **Insects, snakes, animals**

- Employee was bulldozing a fence line that was going to be rebuilt, when he ran into some bees, and the bees attacked him. He was hospitalized and later died.

### **Struck by falling object or equipment**

- Two employees were using a skid steer to drive wooden fence posts into the ground. One employee was operating the skid steer, while the other supported the posts. The skid steer bucket was filled with soil which was used to drive the 7' long, 4" diameter posts into the ground. The employee was standing in front of the skid steer supporting a post when the operator pushed down on the post the bucket detached from the control arm and struck him. He was pinned between the bucket, soil, and ground. He suffered a skull fracture and died.
- Employees were working in a 30' pit putting together two 20' sections of a 108" diameter pipe. They were trying to join the sections together with the use of a sleeve. The employee welded an I-beam onto the end of a pipe so that the excavator could maneuver the pipe into the sleeve. As he was standing near the I-beam, the weld on the I-beam broke, and the I-beam fell on him.
- Employees were in an excavation installing the cone section of a manhole/drainage assembly. An excavator with an attachment was being used to hoist the concrete manhole cone down into the trench. After placing the cone into position, the operator proceeded to move the excavator arm out of the trench when the lifting chain caught the lifting point of the cone causing it to tip over and strike an employee.

### **Struck by moving object or equipment**

- Employee was part of a boring crew that was running wire inside of drill stems. While the boring crew stopped to clean the mud pit, he placed a pipe tong on a stem. After the mud pit was cleaned the boring operator was told to initiate boring. The area around the pipe stems was not cleared and he was struck in the back of the head by the pipe tong that was attached to the stem. He was transported to the hospital and died from blunt force trauma to the head.

## Struck by powered vehicle

- Employee was working along a road when a driver lost control of their vehicle and drove through the traffic drums and struck him. He died of blunt force trauma.
- Employee was laying chalk lines on a two lane road in a commercial area as preparation for sawing and removing concrete. He did not have a high visibility vest on and the lane was not closed, and no warning or direction signs were used. It was in the morning hours before the sun came up and he was hit by a vehicle.

## FY 20 SE TX Observations and Hazards

Construction fatality incidents **up 40 %**

General Industry fatality incidents **down 14 %**

### Incident Observations:

- There were five aerial/boom lift related fatality incidents. Four were in construction and one in general industry. In the previous year, FY 19, there were two aerial/boom lift related fatalities. There was also and one scissor lift fatality last fiscal in construction and one in FY 19. The most frequent events involved in these incidents over the last two years are contacting overhead power lines and getting caught between the lift and a structure or equipment. Fatalities while working at heights off of mobile equipment seem to be increasing. Historically the fatalities tended to be more frequently fall related and currently electrical seems to be more frequent now. The issue will be looked at more closely in the near future.
- There were three drownings, two in general industry and one in construction. The local government fatality that was not under OSHA jurisdiction was also a drowning.
- There were two trench cave-in fatalities along with three other trench related incidents were a worker was struck by equipment or materials.
- There were three forklift fatalities versus five the previous year. Though they seem to be trending down, forklift safety is still an issue in the SE TX area.
- There were two, possibly three confined space related fatality incidents.
- If you look at both construction and general industry, six of the incidents involved overhead power lines which would be almost 10% of all the SE TX incidents.
- An area that will be further looked at is the appearance that construction, and even a number of general industry incidents seem to be more related to 'utilities' services e.g. installing or working around pipelines, sewers, electrical, plumbing, communications versus commercial building construction. For example, three incidents involved drilling or boring equipment.

<sup>1</sup>Selected OSHA Recordkeeping Q & A FAQ ID: 210

Q: Would an incident be recordable if an employee was under the influence of drugs?

A: If the employee experienced a work-related injury or illness that meets one or more of the general recording criteria then the case must be recorded appropriately on the log. The fact that the employee was under the influence of drugs is not considered in the decision making process

<sup>1</sup>Selected OSHA Recordkeeping Q & A FAQ ID: 94

Q: If an employee fails a post-accident screen for illegal drugs and alcohol is a workplace accident still considered to be work related?

A: Yes. You must consider an injury or illness to be work-related if an event or exposure in the work environment either caused or contributed to the resulting condition or significantly aggravated a pre-existing injury or illness. Work-relatedness is presumed for injuries and illnesses resulting from events or exposures occurring in the work environment, unless an exception in § 1904.5(b)(2) specifically applies. There is no exception for alcohol or drug impairment under 1904.5(b)(2).

Source: OSHA e-correspondence

\*Disclaimer: Preliminary information – The OSHA Fiscal Year (FY) runs from Oct 1 through September 30. Fatalities and Catastrophes are logged or recorded in various mediums and reports generated using various criteria. Late reporting, natural causes which may have generated an initial report, fatalities transferred to other jurisdictions and other factors may affect the overall numbers over time. SE TX data is edited to determine a count of fatalities/catastrophes under OSHA jurisdiction and may change over time as records are updated. Narratives are rewritten and edited and may not reflect the final results of an investigation. Motor vehicle incidents, workplace violence, sole proprietors, Covid-19, drugs related, suicide etc. are not included. The numbers and information are for accident prevention purposes and trending and is not intended to be a statistical study or evaluation. For questions contact the Houston North OSHA Office, Jim Shelton, CAS, at [shelton.james@dol.gov](mailto:shelton.james@dol.gov)