

**State of Wyoming
Department of Fire Prevention and Electrical Safety**



**Annual Report
Fiscal Year 2018
Prepared– August 2019**

**Michael Reed
Director**

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HISTORY OF THE WYOMING STATE FIRE MARSHAL'S OFFICE

The office of the Wyoming State Fire Marshal was created by an act of the 33rd Legislature during the 1955 Session, and signed into law by Governor Milward Simpson.

On August 1, 1955, O.M. Toole of Lovell, Wyoming, was employed as Assistant State Fire Marshal. Principal duties of the office consisted of fire prevention inspections of buildings requiring conformance to standards of prevention and safety, and of use of premises, as promulgated by the National Board of Fire Underwriters, or by the National Bureau of Standards; investigation of fires that were suspected of being caused by arson; and the collection of reports from fire departments relating to fires and explosions and resulting losses.

Involvement in various aspects of fire training also began in this period, and state fire schools were initiated with the State Fire Marshal being the principal sponsor, along with the assistance and cooperation of other organizations, i.e., Casper College, the Casper Fire Department, the Department of Education, the Wyoming State Firemen's Association and others. Fire evacuation training classes were begun for hospitals, nursing homes, and like facilities, with special attention being given to personnel in the handling of fire extinguishers.

Clifford P. Hansen was elected Governor of Wyoming in 1962 and once again appointed Paul H. Bachman as State Commissioner of Labor and Statistics and State Fire Marshal, ex officio. Edwin P. Bradley, retired Fire Inspector from Laramie, was employed as Assistant State Fire Marshal. Dale Terwilliger became Deputy Fire Marshal and Steven E. Karlsson was employed as Fire Inspector.

1963

Department of Fire Prevention Created

In 1963 legislation was enacted which established the Wyoming Department of Fire Prevention and provided for the appointment of the following:

- A State Fire Commission
- A State Fire Marshal
- A Chief Deputy State Fire Marshal
- A State Electrical Board
- A State Electrical Inspector

The Department was to be separate from all other state departments. New responsibilities consisting of electrical safety in buildings and the licensing of electricians were added.

1973-74 the division was re-named the Department of Fire Prevention and Electrical Safety,

The following information is an indication of the success experienced in the reduction of structural fire issues in Wyoming resulting from the efforts of the Wyoming State Fire Marshal's office to increase the availability of public education concerning building requirements and other fire related issues based on the constantly changing environment in the electrical and construction fields. This changing environment has a direct impact on the educational piece of training Firefighters in our state.

State of Wyoming

Department of Fire Prevention and Electrical Safety

Report Period: January 1, 2018 through December 31, 2018

Our Contribution to Wyoming's Quality of Life:

Through aggressive and effective electrical and fire prevention programs we can:

Ensure Wyoming children, families, and the public are safe from fire and electrical hazards.

Protect the stability of our economic base through effective fire prevention and firefighter training programs.

Be responsible as a steward of state assets and effectively responds to the needs of residents and guests.

Department Facts:

The Director/State Fire Marshal of the agency is James M. Reed. The contact person for the agency is James M. Reed, 320 West 25th Street, Capitol Hill Building, Cheyenne, WY 82002; our web address is <http://wsfm.wyo.gov> and our phone number is 307-777-7288. Our agency's statutory authority is referenced in W.S. 35-9-101 through 35-9-131.

The Department of Fire Prevention and Electrical Safety consists of 33 personnel in 4 divisions: Administration (3), Fire Prevention (9), Electrical Safety (11), and Training (10). Our main office is located in Cheyenne with field offices in Riverton, Douglas, Green River, Sheridan, Worland, Laramie and Newcastle.

The clients served by our agency include the following: fire service, law enforcement, architects, engineers, building & fire code officials, federal/state/county agencies, municipal agencies, building & electrical contractors, electrical industry, media, child care providers, and the general public.

Funding: The total operating budget for the department for FY19 is \$3,561,951 of this amount \$3,138,667 are General Funds and \$423,284 are Other Funds (electrical licenses and permits).

Division Budgets: Administration: \$466,997; Fire Prevention: \$949,858;
Electrical Safety: \$752,189 (GF) / \$423,284(OFF); Training: \$732,515;
Wyoming Fire Academy: \$237,108.

Boards and Commissions:

The State Electrical Board reports to the Department of Fire Prevention and Electrical Safety, and has five members who are appointed by the Governor. The State Electrical Board meets *at least twice* a year to meet the statutory mandated requirement.

The Council on Fire Prevention and Electrical Safety reports to the Department of Fire Prevention and Electrical Safety, and has five members who are appointed by the Governor. The Council on Fire Prevention meets *at least twice* a year to meet the statutory mandated requirement.

Six primary functions of our Department:

1. ***Conduct Fire and Life Safety, and Electrical Inspections*** in public buildings such as hotels/motels, schools, day cares, restaurants, and institutions.
2. ***Train Firefighters*** from across Wyoming in all aspects of fire suppression and fire prevention. Maintaining the most current information available and providing that to the fire service across Wyoming.
3. ***Provide Fire and Safety Education Programs*** to the children, families and general public in Wyoming.
4. ***Collect and Analyze Fire Data*** to identify fire problems and trends so resources are accurately directed towards their mitigation. And when requested investigate cause and origins on fire scenes across the state. Giving assistance to local jurisdictions assuring the safety of communities and fire service while assessing the primary reason for the incidents.
5. ***Conduct Non-Structural Plan Reviews*** for compliance with fire and life safety and electrical codes on public buildings being constructed or remodeled.
6. ***License*** all electricians working in the state and ***issue permits*** for electrical work being conducted across the state.

Chapter 1

Fire Division



Figure 1

2014 – 2018 Plan Review Comparison Chart

The Department of Fire Prevention and Electrical Safety conducts fire and life safety plan reviews of new, addition and remodel building construction projects state wide. Our department also conducts plan reviews of above ground storage tanks, commercial kitchen hoods, fire alarm systems, fire sprinkler systems and electrical systems. The purpose of conducting plan reviews is to ensure that buildings, and associated systems, are constructed in compliance with nationally recognized and state adopted fire, life and electrical safety codes. Since 2014 our plan review activity has fluctuated somewhat with an increase reflected in 2018.

FIRE INSPECTION COMPARISON

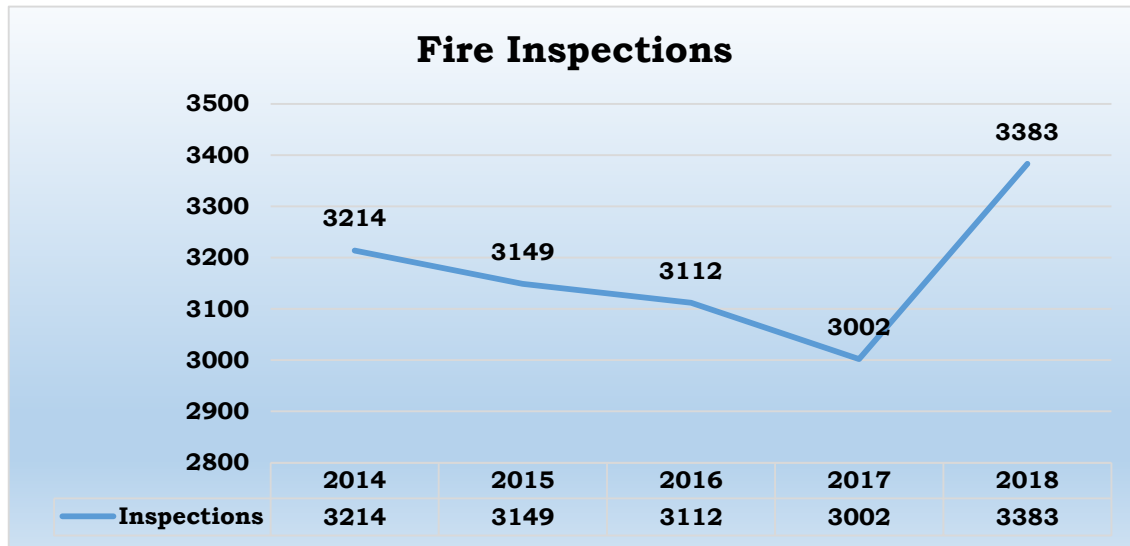


Figure 2

2014 – 2018 Fire Inspection Comparison Chart

The Department of Fire Prevention conducts fire inspections in our area of jurisdiction state wide. Fire inspections are generated from primarily 2 sources. First, plan review inspections come from newly constructed or remodeled buildings, above ground storage tanks, commercial kitchen hoods, fire alarms systems, fire sprinkler systems and electrical systems that go through the plan review process. Secondly, maintenance inspections are prioritized and conducted on a regular basis using the following general criteria; educational facilities, hotels/motels/senior centers, state owned/public leased buildings, assembly occupancies, day care centers, business occupancies and above ground storage facilities. Fire inspections are conducted to ensure compliance with nationally recognized and state adopted fire and life safety codes. It is important to note as each newly constructed building passes final inspection and is occupied the said building becomes our responsibility to inspect on a regular basis for the life of the building.

CIVILIAN FIRE-RELATED DEATHS REPORTED

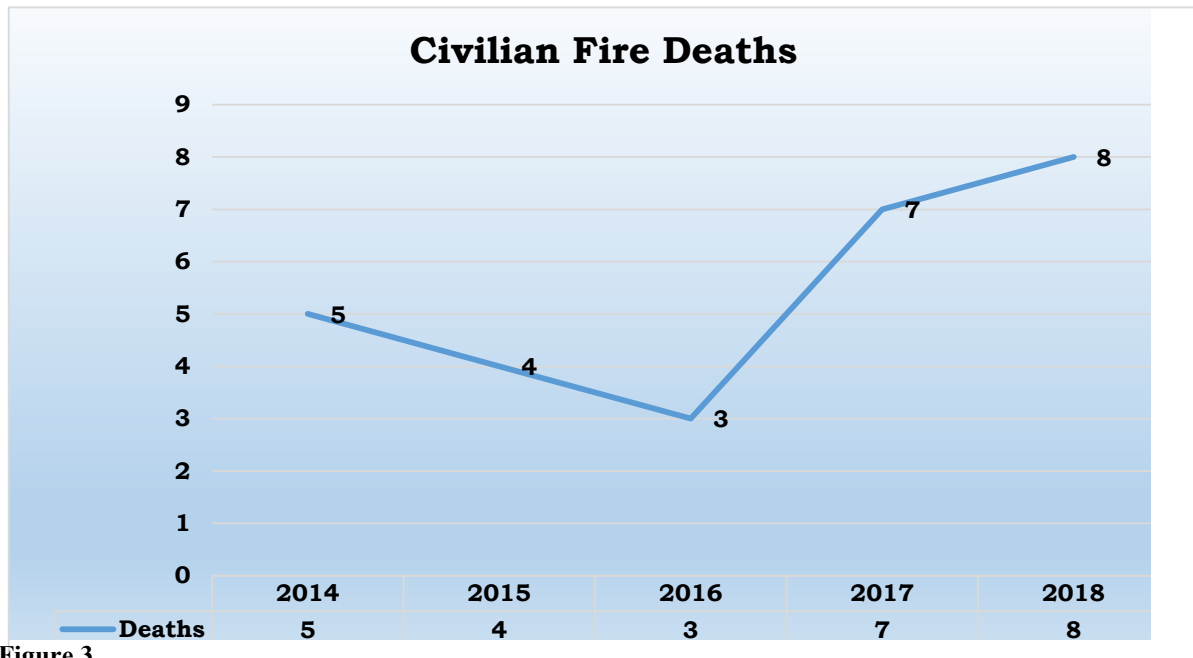


Figure 3

2014 – 2018 Civilian Fire Death Comparison Chart

The vast majority of fire deaths in Wyoming occur in residential occupancies. There are three population groups considered to be at risk in fire situations: infants/youth, elderly, and developmentally disabled. We also know low income households are more susceptible to fires resulting in death and injury. Most residential fire-related deaths remain preventable and continue to pose a significant public health problem. There is a great deal of data that supports the idea that fire prevention measures, especially, fire fatalities/injuries and property loss can be significantly reduced through effective plan review, fire inspection, code enforcement, public education activities, and the installation of commercial and residential fire sprinkler systems.

Chapter 2

Fire Academy

Overall activity for the Training Division in 2018 (excluding fire investigations) can be broken down into three (3) categories; Academy training classes, events held at the academy and certificates issued. Classes offered at the Academy; include those offered by regional trainers around the state, the fire academy and online courses. Also, included are the various events we either participate with, sponsor or conduct throughout the year. The combination of all three represent the bulk of instructional activities conducted statewide and range from basic firefighting to hazardous materials, technical rescue, chief officer development, industrial and various other first responder training.

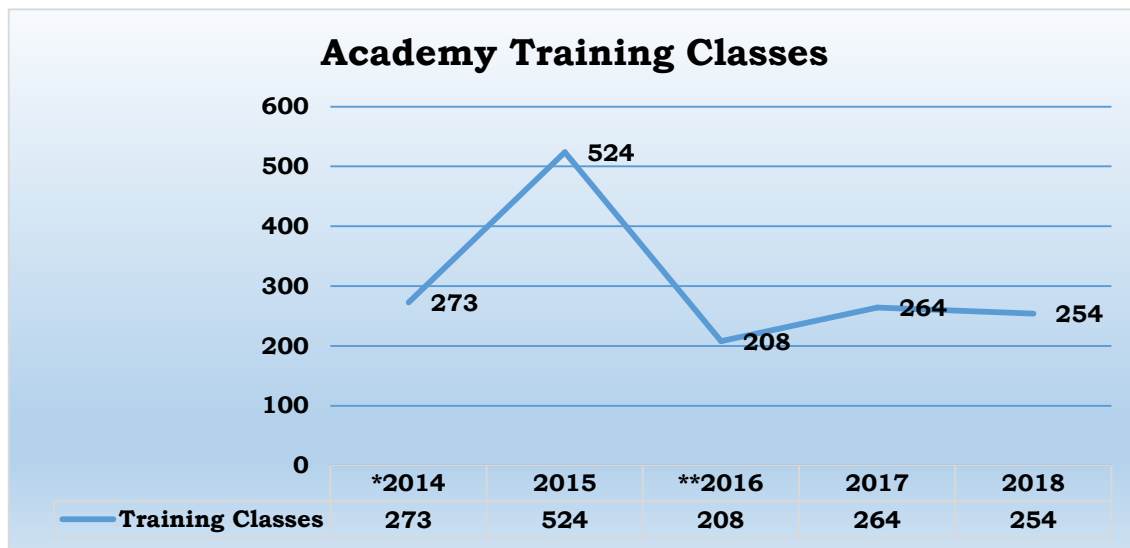


Figure 4 * 2014 Data variance due to a vacant trainer position within the Training Division
** 2016 Data variance due to change in tracking ideology from previous years (2013-2015)

2018 DFPES Training Division activity can also be measured by the number of classes conducted, students contacted, events and participants. Throughout the year classes include, but are not limited to; traditional classroom delivery, both regional and at the academy, fire schools and blended online learning. As stated previously, these instructional activities range from basic firefighting to hazardous materials, technical rescue, chief officer development and various other first responder training. There were 254 classes of this nature conducted contacting 3,106 students statewide.

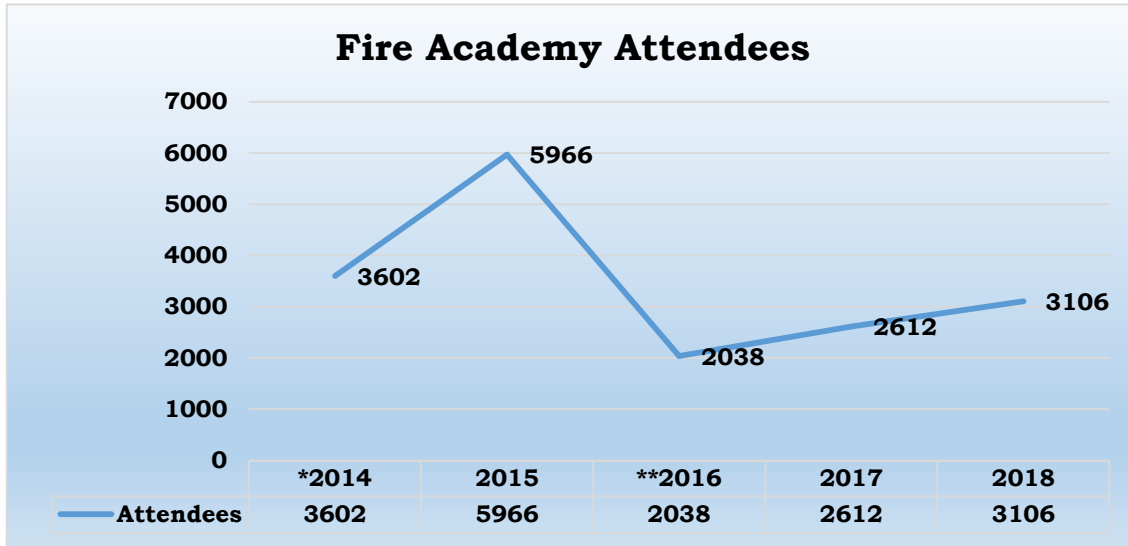


Figure 5 * 2014 Data variance due to a vacant trainer position within the Training Division
 ** 2016 Data variance due to change in tracking ideology from previous years (2013-2015)

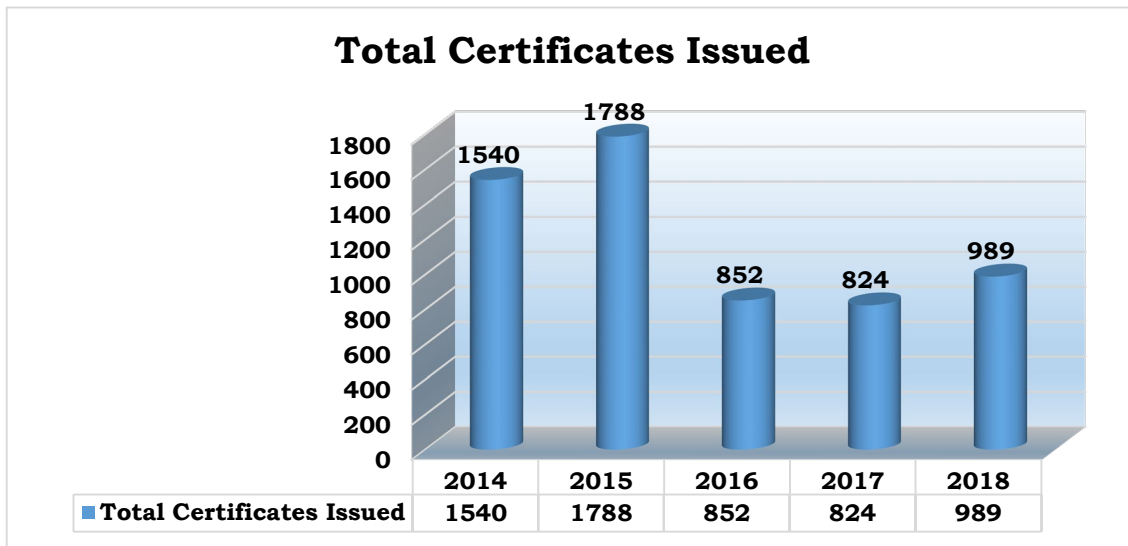


Figure 6

The DFPES Training Division is tasked with maintaining the state’s fire service certification program. Certification is the direct result of training activities conducted by division staff, both regionally and at the fire academy. The division offers both State of Wyoming and nationally accredited (Pro Board) firefighter certifications across several standards maintained by our office and a state advisory committee. In 2018, there were 615 state certifications issued, 374 nationally accredited certifications for a total of 989.

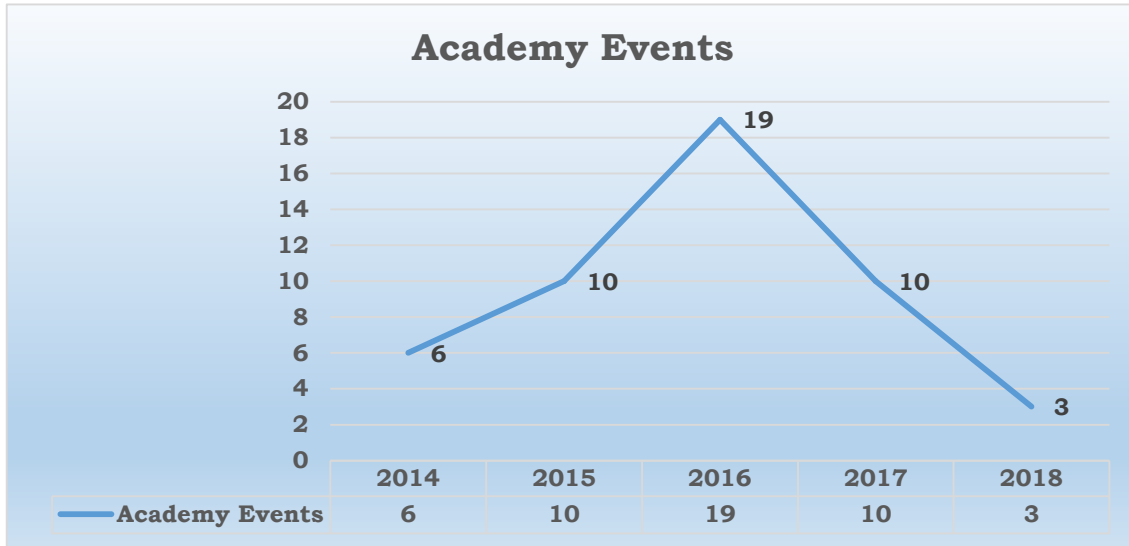


Figure 7

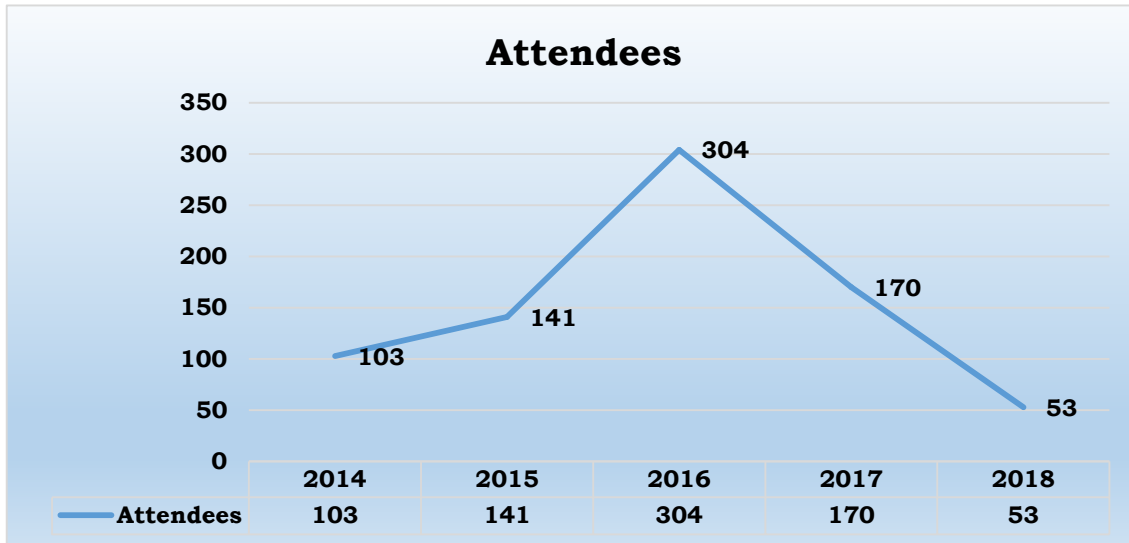


Figure 8

Events sponsored or supported by the Training Division amounted to 3 with 53 participants. These are recorded mainly as meetings and range from those conducted by the Wyoming Office of Homeland Security, the National Weather Service, Emergency Management and Industry. This is another metric used to measure fire academy usage beyond direct training related activities.

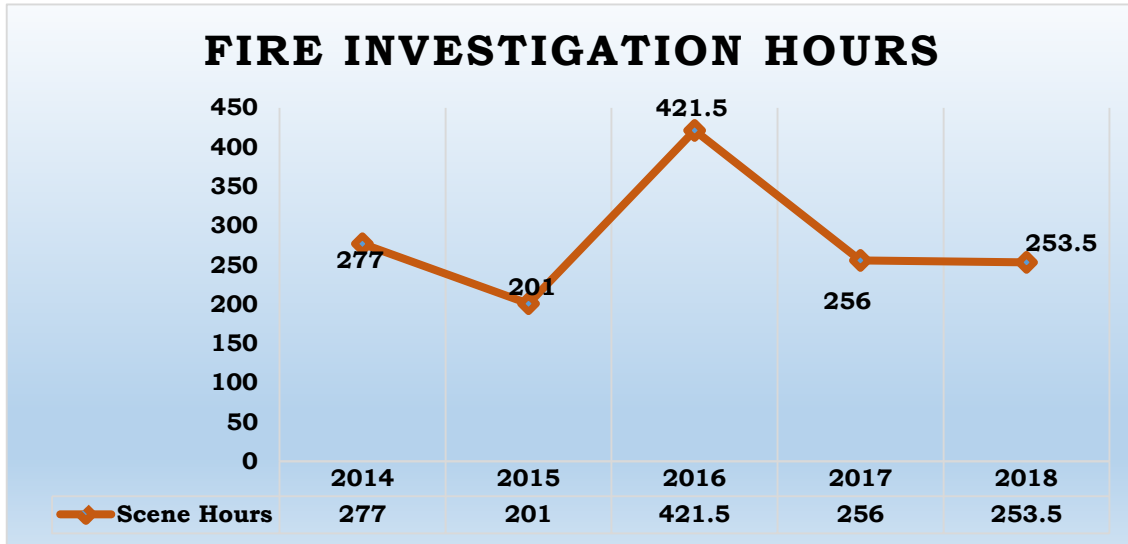


Figure 9

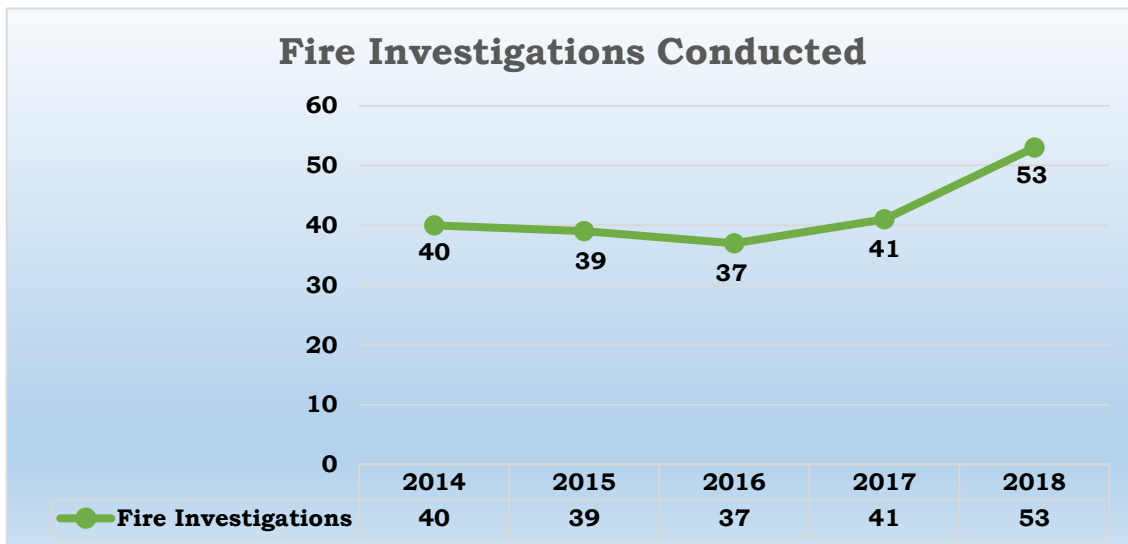


Figure 10

Fire investigations are another metric used to gauge academy activity throughout the year. In 2018, our staff was requested and completed 53 suspicious fire investigations statewide amounting to 1,605 hours of investigation time, averaging almost 30.3 hours per investigation on average. These hours include travel time to and from, scene hours, report and follow up hours. Investigation requests by the fire service fluctuate from year to year depending on the number of fires occurring and complexity. This is a statutorily mandated duty for the DFPES and falls on our regional staffs that are state and/or nationally certified.

2018 Totals Breakdown

DFPES Training Division

Training & Certification

254 Classes Delivered
3,106 Students Instructed
3,036.5 Contact Hours

989 Total Certifications Issued

- 615 State Certifications
- 374 National Accredited Certifications

3 Fire Academy Events Sponsored or Supported
53 Event Participants

Fire Investigations

53 Fires Investigated by the DFPES training staff
1,605 Hours Utilized for Investigations

WFIRS Data

Fire – 2,698
Overpressure Rupture, Explosion, Overheat (no fire) – 54
Rescue & Emergency Medical Service Incident – 19,911
Hazardous Condition (no fire) – 1,476
Service Call – 1,718
Good Intent Call – 4,348
False Alarm & False Call – 2,247
Severe Weather & Natural Disaster – 38
Special Incident Type/Other – 95

Number of Fire Departments that reported in 2018 – 81
Total number of Wyoming Departments that report – 140
Total percentage Current – 58%

Chapter 3

Electrical Division

Plan Review Inspections: Our plan review division reviews plans submitted by professional engineers, architects and designers. Once the plans are approved they are assigned to the appropriate inspector. Since plan review projects are constructed in phases they are usually inspected more than once and currently we inspect **100%** of all electrical plan reviews. In the 2018 calendar year the Electrical Plans Examiner reviewed **255 electrical plans** which resulted in **2303 inspections**.

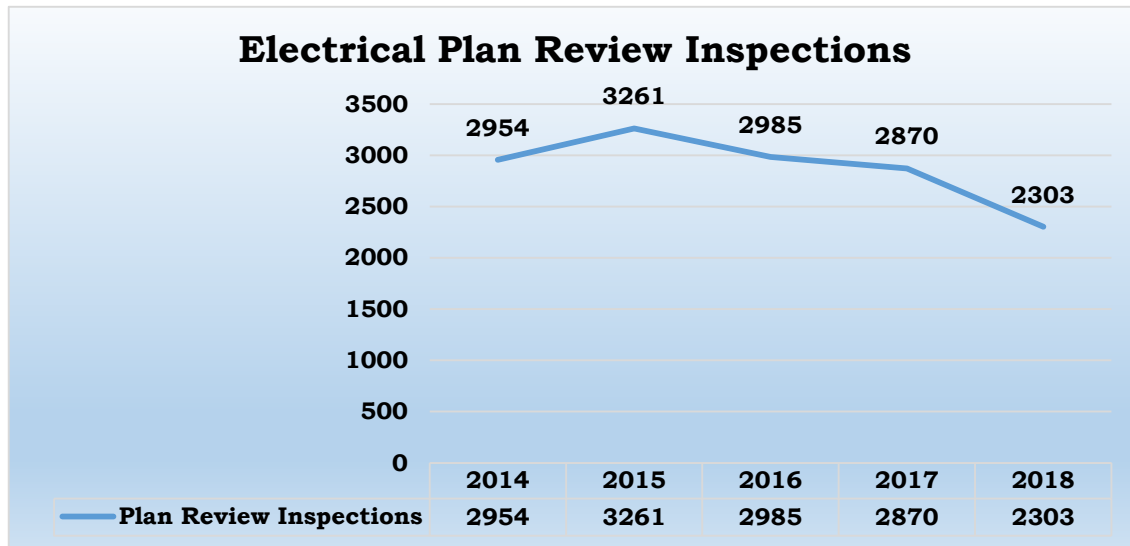


Figure 11

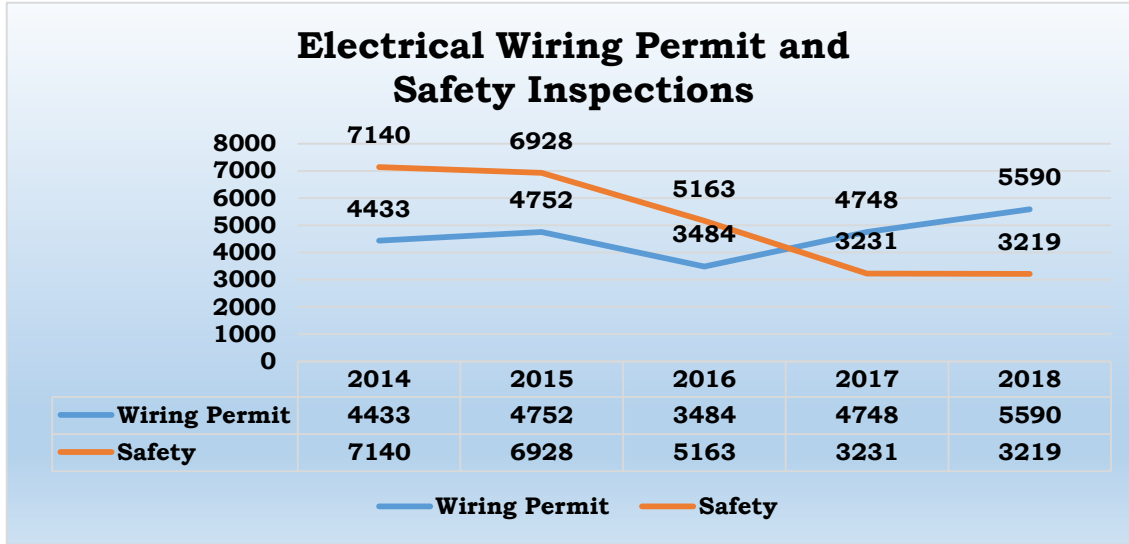


Figure 12

Inspections: Cease & Desist Orders, Safety, Complaint, License Verification, Courtesy, Public Assist and Warning Notices. These are usually initiated by phone calls in which we are notified of an electrical hazard, unlicensed electricians, or someone needing advice on their electrical installations. Warning notices are usually not issued on the first occurrence. However, if the contractor or electrician is sited a second time for a licensing violation, permit violation or a NEC violation, a warning notice is issued. If a third warning notice is issued, the contractor or electrician may pay a civil penalty up to \$1000 or be required to appear in front of the Electrical Board for a possible revocation of their license.

The table below depicts the total number of inspections of all types that were accomplished in 2014, 2015, 2016, 2017 and 2018.

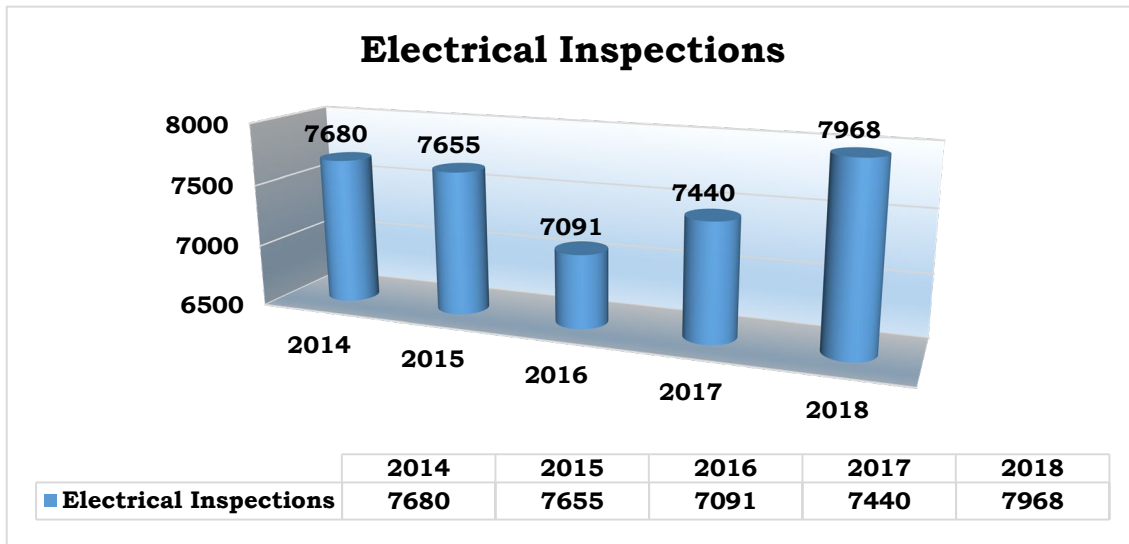


Figure 13

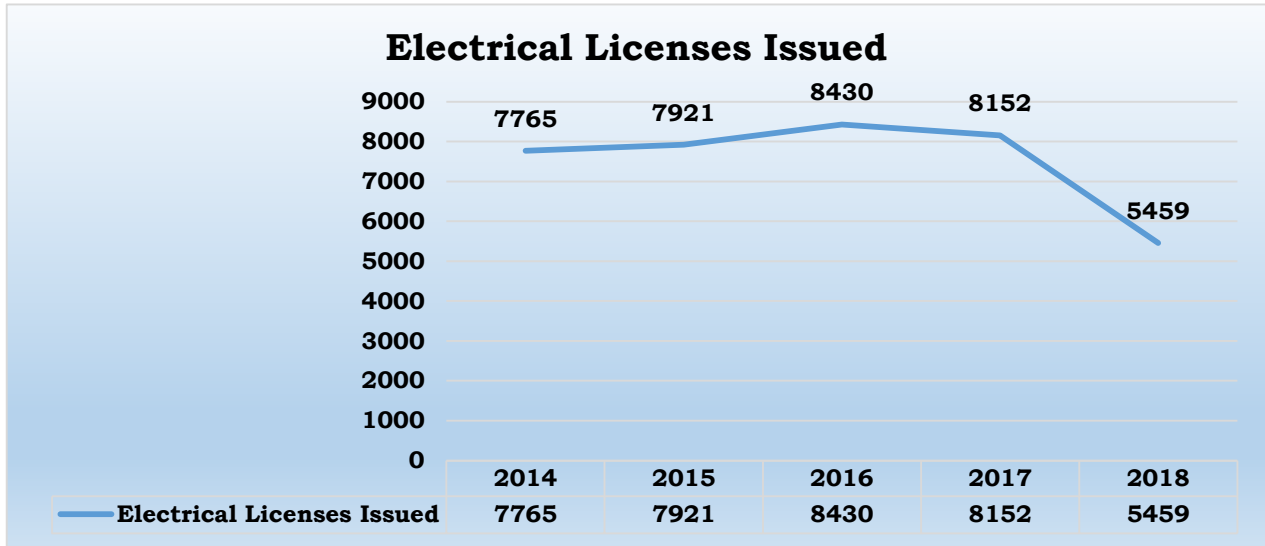
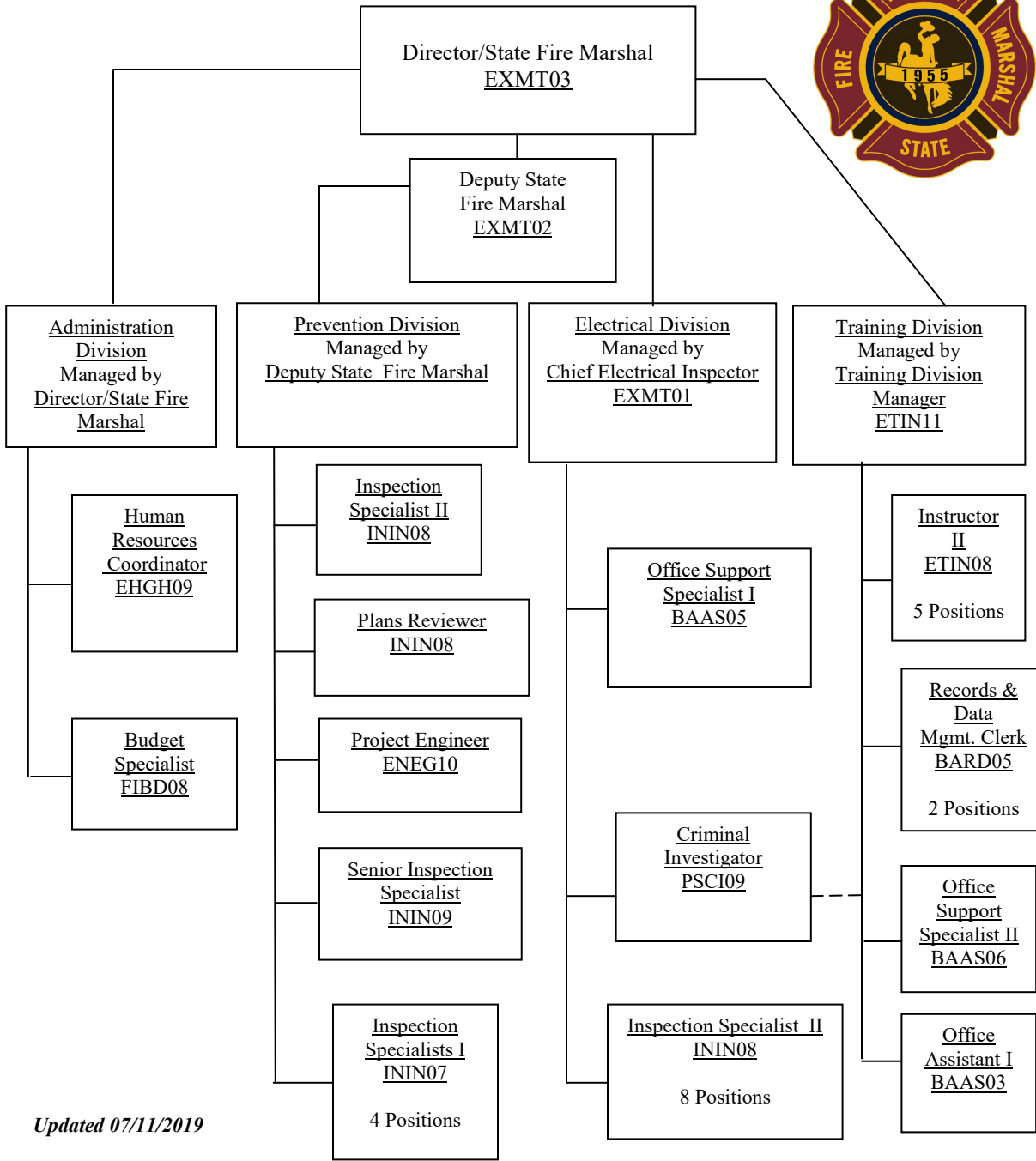


Figure 14

The Electrical Licensing Division has thirteen different categories of professional license. Annual licenses include Electrical Contractors, Limited/Low Voltage Contractors, Apprentice Electricians and Apprentice Technicians. Three year licenses include Master Electrician, Journeyman Electrician and Low Voltage/Limited Technicians that were granted either license by exam, reciprocity or by renewal. All licenses are considered a professional license. The Electrical Division reviews the applications and data required for licensing, examinations, including verifying education, training, work experience, licensure in other states and the status of disciplinary actions. These must be verified before the issuance of a license or allowing an applicant to sit for an exam.



Updated 07/11/2019

**Wyoming State Fire Marshal's
Office
2019 Organizational Chart**