



TENNESSEE STATE FIRE MARSHAL'S OFFICE COMMISSIONER'S ANNUAL REPORT FOR 2020

Submitted in accordance with Tennessee Code Annotated § 68-102-133

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Department of Commerce and Insurance Authorization No.335201 | February 2021 This public document is electronic only and was promulgated at a cost of \$0.00 per copy.



The commissioner shall, annually, on or before February 15, transmit to the governor a full report of the commissioner's proceedings under this chapter, and such statistics as the commissioner may wish to include in the report, for the year previous.

The commissioner shall also recommend any amendments to the law that, in the commissioner's judgment, are deemed advisable. The report of the commissioner shall include a full and complete report of all collections made and all expenditures and for what purposes they were made and to whom paid.

Overview of State Fire Marshal's Office Operations

The mission of the Division of Fire Prevention, also known as the Tennessee State Fire Marshal's Office (SFMO), is to reduce the loss of life and property from fire and explosions. The SFMO and its seven Sections are committed to protecting the safety of Tennesseans and their property through: fire prevention, education, codes enforcement, inspection, and regulation. Each Section of the SFMO incorporates one or more of these core functions which aligns our focus and provides vision for the future.

The Education & Outreach Section assists the fire service, elected officials and the communities they serve to realize the potential economic incentives of prevention by measuring trends, setting benchmarks, analyzing data and compiling comprehensive loss reports. The Education & Outreach Section serves as a resource for fire prevention efforts and also oversees the registration and fire loss data reporting for fire departments across the state. The Sections of Codes Enforcement, Electrical, Residential and Marina Inspections, and Manufactured Housing & Modular Building work to ensure engineered environments are designed and constructed to applicable standards and codes which reduces the susceptibility of buildings to fire and lowers the likelihood of a related fatality. The Tennessee Fire Service and Codes Enforcement Academy (TFACA) and the Commission on Firefighting Personnel Standards and Education (Commission) are tasked with the training and certification of firefighters in Tennessee. Both TFACA and the Commission serve to promote professionalism and competency throughout the fire service. Lastly, the Administrative Services Section provides support for the SFMO overseeing the processing of over 20 types of permits, licenses and certificates.

In working towards our mission, the SFMO interacts with the general public, state and local elected officials, the fire service, and many regulated industries on a daily basis. The SFMO also collaborates with the Tennessee Mutual Aid System and the Tennessee Emergency Management Agency (TEMA) to ensure resources are coordinated for fire service operations during widespread disasters.

Fire Prevention Division Sections

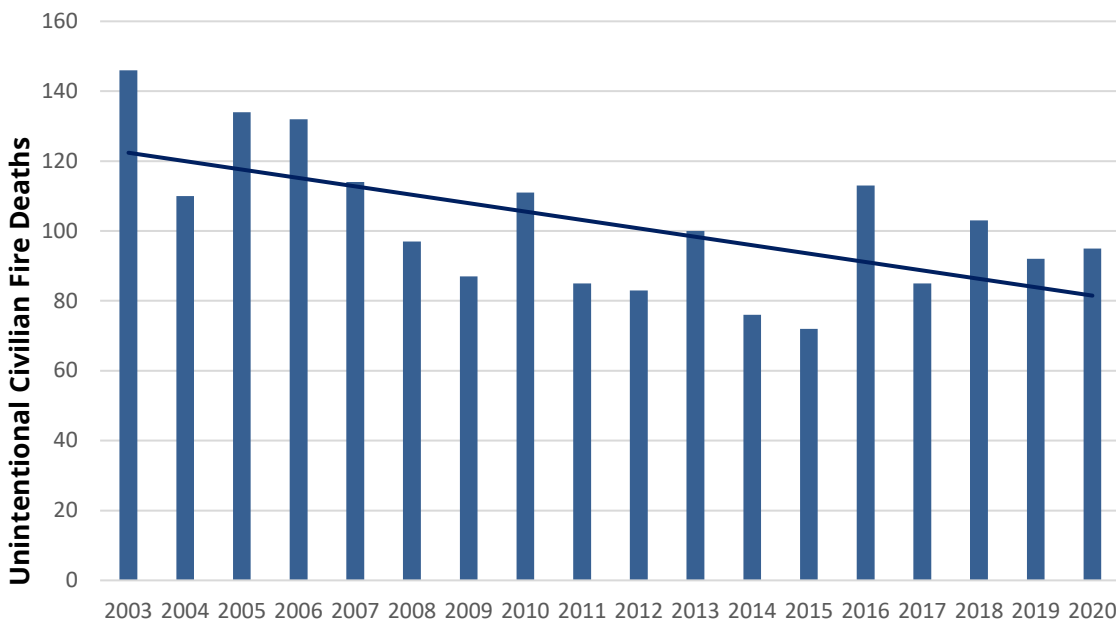
Education & Outreach
Codes Enforcement
Electrical, Residential and Marina Inspections
Manufactured Housing & Modular Building
TFACA
Commission on Firefighting Personnel Standards and Education
Administrative Services

State of the State

Tennessee has historically ranked among the highest states in the country in its rate of unintentional civilian fire deaths. The SFMO is committed to reducing the loss of life and property due to fires by focusing on education, codes enforcement, inspection, regulation, and investigation. Like most of the United States, Tennessee has experienced a reduction in fire deaths over the past several decades due, in part, to these programs. In 2017, the National Fire Protection Association (NFPA) released its report 'U.S. Fire Death Rates by State' which showed that Tennessee had dropped from the 8th highest rate of fire deaths to the 11th highest rate.

The preliminary 2020 fire data show a 2% increase in unintentional civilian fire deaths from last year. According to SFMO records, there were 95 such fire deaths in Tennessee during 2020, which is up slightly from the 92 fire deaths the previous year. The overall trend of fire deaths since 2003 has been downward. The rate of unintentional civilian fire deaths in 2020 was 13.9 deaths per million.

TENNESSEE CIVILIAN FIRE DEATHS



Year	Fatalities
2003	146
2004	110
2005	134
2006	132
2007	114
2008	97
2009	87
2010	111
2011	85
2012	83
2013	100
2014	76
2015	72
2016	113
2017	85
2018	103
2019	92
2020	95
Total	1,835

Most unintentional civilian fire deaths occur in residential structures. Eighty-seven (91.6%) of the ninety-five deaths last year were from household fires. More than four out of five fire deaths in 2020 occurred in single-family homes. This is consistent with other years. From 2016-2020, 80.4% of fire deaths occurred in single-family homes.

Structure Type	Deaths	%
Single Family	71	76.3%
Apartment/Condominium	12	12.9%
Duplex	4	4.3%
Other	4	4.3%
Triplex/Quadplex	1	1.1%
Townhouse	1	1.1%
Total	93	100.0%

In 2020, there was a reduction in the total number of reported fires and structure fires as 8,080 structure fires were reported by fire departments to the SFMO. This is 663 fewer structure fires than the 8,743 structure fires reported in 2019. The 2020 numbers are expected to go up marginally as fire departments continue to submit reports from 2020 incidents during the first part of 2021.

The adjacent table represents all incidents and dollar loss, as reported to the Tennessee Fire Incident Reporting System (TFIRS), for the 2020 calendar year, but is considered preliminary until April 2021 to ensure that all fires reported are complete and accurate. TFIRS also requires reporting fire departments to identify the cause of the fire from 16 standard cause categories according to the reported heat source, equipment involved in ignition and factors contributing to ignition. One category is “unknown” which reports the cause as undetermined.

The 21,413 total reported fires caused an estimated \$206,850,601 in property loss for Tennesseans. These loss estimates are from incident reports submitted by fire departments. As with the structure fires, the SFMO expects this number to increase slightly as fire departments are still submitting and updating incident reports from 2020. The preliminary estimated \$206 million in fire loss is down 16% from the approximately \$248 million reported in 2020.

Reported Incident Type	Reported Incidents	% of Total
Fire: Structure	8,080	1.5%
Fire: Vehicle	4,622	0.9%
Fire: Other	8,711	1.6%
Fire Subtotal	21,413	4.0%
Rescue: Medical Treatment	338,428	62.7%
Rescue: Others	3,658	0.7%
Rescue Subtotal	342,936	63.6%
False Call: Malicious	4,083	0.8%
False Call: Other	44,385	8.2%
False Call Subtotal	48,468	9.0%
Hazardous Condition	15,419	2.9%
Explosions	850	0.2%
Service Calls	35,476	6.8%
Good Intent Calls	72,546	13.5%
Severe Weather or Natural Disaster	1,102	0.2%
Special Incident	1,158	0.3%
2020 Total Reported Calls	539,518	100.0%
Total Structure Fire Dollar Loss	\$177,529,475	
Total Fire Dollar Loss	\$206,850,601	

Education & Outreach Section

The Education & Outreach Section provides fire safety educational materials and resources to the citizens and fire departments of Tennessee. The Section’s programs include fire incident reporting, fire data analysis, fire department recognition, public education, community risk reduction, and the “Get Alarmed Tennessee!” program that provides free smoke alarms to fire departments and volunteer organizations installation inside Tennessee homes. Education & Outreach works with its partners on both national and local levels to share the latest information in fire prevention. By using strategies developed to address specific risks identified through data analysis, the Section seeks to reduce fire loss in Tennessee through direct communication with the public and by empowering fire departments to educate the communities they protect.

Since “Get Alarmed Tennessee!” started in 2012, at least 314 residents have been alerted to fires in their homes and escaped without serious injury thanks to smoke alarms installed through the program. In 2020, the SFMO was awarded \$251,190.48 in funding from the Federal Emergency Management Agency’s Fire Prevention and Safety grants to continue the program.

Get Alarmed Tennessee in 2020

- 14,079 smoke alarms installed
- 4,132 households received in-home fire safety education and free smoke alarms
- At least 27 residents escaped home fires due to these smoke alarms
- 246 smoke alarms installed in distressed counties
- 1 save from Get Alarmed Tennessee in distressed counties
- 70 Get Alarmed Tennessee partners in distressed counties

In 2020, the Section delivered custom community risk assessments to 39 fire departments as part of its statewide community risk reduction plan. The community risk assessments for fire departments include the most common causes of fires in their communities along with maps showing areas with a high risk for residential structure fires. Providing risk assessments allows fire departments to focus on prevention and mitigation strategies to help their communities. Additionally, the Statewide Community Risk Reduction Program was expanded this year. So far, 30 fire departments have submitted community risk reduction plans to the SFMO based on these risk assessments.

Also, in 2020, the SFMO worked to develop a new program called the Volunteer Firefighter Equipment and Training Grant following the passage of legislation which earmarked \$500,000 for the purchase of firefighting equipment by Tennessee's volunteer fire departments or to help volunteer fire departments meet local matching requirements for federal grants to purchase equipment. The SFMO received over 170 applications from volunteer fire departments with the applications being scored internally and submitted to a seven-member committee which made final award selections. The funds were awarded equally to volunteer fire departments across the three Grand Divisions and 41 volunteer fire departments were awarded a grant from this program.

In the face of the COVID-19 pandemic, the SFMO shifted gears to implement creative manners to show appreciation to the fire service. As such, 2020 was highlighted by monthly visits to volunteer fire departments to provide donation items while conducting a listening tour. These events began in July 2020 alongside First Lady Maria Lee to encourage communities to support their local fire department and have continued with an emphasis on learning how the SFMO can better assist volunteer fire departments. These events have allowed Education & Outreach to have direct contact with fire departments while connecting state and local officials to key information about the needs of the fire service across the state.

Fire Department and Firefighter Statistics

The SFMO recognizes 699 fire departments. Of these fire departments, 687 protect public property, whereas 12 solely protect private property, such as an industrial or commercial facility, military facilities, or airports. 669 of these 699 fire departments have reported detailed staffing information to the SFMO.

Of those 669 fire departments that provided staffing information, only 45 (6.4%) are career fire departments where all firefighters receive financial compensation for their services. 506 (72.3%) of the fire departments in Tennessee are staffed entirely by volunteers. The remaining 118 (16.9%) fire departments are staffed by a combination of volunteer and career firefighters. Most firefighters in Tennessee are volunteers who receive either no compensation or a nominal fee for their services.

Based on information from fire departments, the SFMO estimates that there are about 20,184 active firefighters in Tennessee. Career fire departments reported 7,597 active firefighters. These full-time career firefighters make up 37.6% of all firefighters in the state. Determining the number of volunteer firefighters is more complicated because department rosters are subject to more change and because firefighters may volunteer for multiple departments. The SFMO estimates that there are currently 12,587 volunteer firefighters, which is 62.4% of the fire service in Tennessee. Of these 12,587 volunteers, an estimated 2,063 receive a small payment or stipend for responding to emergency calls.

Codes Enforcement Section

The Codes Enforcement Section enforces statewide adopted fire and building construction safety codes and standards to afford a reasonable degree of safety to life and property from fire and hazardous incidents. This Section oversees the design, construction, alteration, and repair of buildings or structures across the state including state buildings, commercial residential structures, high hazard occupancies, jails and prisons, covered malls, assembly spaces with 300 or greater occupants, schools, and daycares. The Section also conducts annual inspections for schools, daycares and other buildings requiring an inspection from the SFMO to receive an initial license from the Administrative Services Section and other state agencies.

Complaints relating to buildings under its jurisdiction are investigated by the Codes Enforcement Section. The Section also investigates complaints regarding licensees or entities licensed by the Administrative Services Section which includes conducting safety inspections at annual and seasonal fireworks locations as well as the review of all public fireworks displays to ensure a reasonable degree of safety.

Plans Review and Inspections in 2020

- Plan submittals received: 1,042
- Inspections performed: 17,352
- Schools inspected: 1,610
- Schools inspected in distressed counties: 90
- Annual fireworks retailers inspections: 8
- Seasonal fireworks retailers inspections: 749
- Public fireworks displays reviewed: 240

Electrical, Residential and Marina Inspections Section

The Electrical, Residential and Marina Inspections Section is responsible for critical safety inspections in Tennessee. This Section issues permits and performs inspections to enforce the provisions of Tennessee's adopted electrical code, residential building code, and energy conservation code. It is important to note that in 2020 the SFMO adopted a new residential building code with Tennessee specific amendments following a stakeholder review process with interested parties including homebuilders, code officials, engineers, architects, the fire service, and other interested parties.

Permits and Inspections in 2020

- Total residential building permits issued: 1,158
- Residential building permits issued in distressed counties: 37
- Total residential building inspections performed: 2,866
- Total electrical permits issued: 129,034
- Electrical permits issued in distressed counties: 5,066
- Total electrical inspections performed: 261,015
- Total marinas inspected: 25

Following the passage of the Noah Dean and Nate Act, Tenn. Code Ann. § 68-102-601 *et seq.*, this Section added marina safety inspections to its operations. The law requires each public marina to be inspected once every five years. A range of safety violations have been found including but not limited to: energized electrical cords in water, no installed main disconnects at which power can be disconnected in the event of a situation, electrical wiring under docks not properly installed, no Ground Fault Indicators installed on some marinas and faulty electrical wiring. These violations, if not detected, could have caused serious injuries, even death, to people entering the water in the vicinity of these hazards.

On January 27, 2020, the Section launched the Online Permitting System which modernizes the electrical and residential permit purchasing and inspection process. By allowing statewide purchasing and online inspection requests, customers are now able to purchase and request inspections by simply going online. It is important to note that the Online Permitting System does not impact electrical and/or residential permitting processes in exempt jurisdictions where adoption and enforcement of codes are independent from the state. The Online Permitting System updated the Section's process from paper to electronic which in turn provides customer focused options to allow for requests to be made 24/7 while still maintaining physical selling locations. Mobile inspections and online permitting have drastically reduced the amount of time of permit issuance and receipt making it virtually instantaneous and benefiting Tennesseans by increasing efficiency and decreasing wait times. Since the launch of the system, 71% of all electrical permits have been sold through customer self-service which has saved those consumers approximately \$450,000 in fees collected by Issuing Agents.

Manufactured Housing & Modular Building Section

The Manufactured Housing & Modular Building Section administers portions of the Uniform Standards Code for Manufactured Homes Act related to U.S. Department of Housing and Urban Development (HUD) Labeled Manufactured Homes and the Tennessee Manufactured Home Installation Act. This Section acts as HUD's State Administrative Agent (SAA) and exclusive In Plant Inspection Agency (IPIA) to administer certain aspects of the National Manufactured Housing Construction and Safety Standards Act of 1974. The Section also administers the Consumer Complaint Process, as well as the Dispute Resolution Process. These two processes provide direct assistance to any consumer that has safety concerns or feels they have been provided a defective product.

This Section completes all licensing functions for the Manufactured Housing and Modular Buildings Industry and is responsible for inspection of the installation of new and used manufactured homes. The Section is required statutorily to ensure that at least 5% of the manufactured homes installed in the state are inspected each year and in 2020, the Section performed 2,135 inspections of new and used manufactured homes, which is approximately 62% of the new and used manufactured homes installed in Tennessee.

Manufactured Housing continues to be an affordable means of housing nationwide, especially in Tennessee. The Section's Installation Program places an emphasis on Tennessee's distressed counties. It is the Section's goal to inspect, at a minimum, the average inspection rate of 50% inside these counties. By accomplishing this inspection goal, the Section ensures adequate coverage in these counties which hopefully deters the possibility of unsafe installations and consumer scams. There were 402 installations submitted in distressed counties with 252 being inspected which totals to a 63% inspection rate that surpasses our goal of 50%.

Inspections and Activities in 2020

- Floors inspected in plant: 22,241
- HUD labels sold: 22,388
- Consumer complaints resolved: 26
- Installations: 4,234
- Installations in distressed counties: 396
- Installations inspected: 2,546
- Installations inspected in distressed counties: 251
- Modular Labels Sold: 1,450
- Modular Plans Reviewed: 449

Tennessee Fire Service and Codes Enforcement Academy

The Tennessee Fire Service and Codes Enforcement Academy (TFACA) plans, develops, and facilitates education and training programs to promote the professionalism and competency of fire service and codes enforcement personnel through a standardized statewide program. These programs enhance the individual and collective ability of those in the fire service to protect the life and property of Tennesseans. TFACA's focus on both fire service and codes enforcement establishes it as regional center for the training, testing, and certification of codes enforcement officials, firefighters and other homeland security first responders.

Training and Activities in 2020

- Total students enrolled: 10,222
- Total classes conducted: 833

The COVID-19 pandemic has significantly impacted the operations at TFACA as it marked a decrease in courses taught, students and overall student contact hours in 2020. At the onset of the pandemic both fire and code program courses were cancelled but through the efforts of many, TFACA developed a health plan which allowed for classes to resume with restrictions in place to ensure a safe environment for students, instructors and staff.

On November 13, 2020, TFACA celebrated the grand opening of their newly completed conference center. The 19,330 square foot conference center equipped with state-of-the-art audio and visual equipment provide additional meeting space with a 200-seat auditorium and theater-style seating, a multipurpose room that can accommodate up to 542 people and four new classrooms including one that can be configured to support incident management training and facilitate simulation training used for wildland fires, mass evacuation, flood modeling and hazardous materials plume modeling. Prior to the opening of the conference center, the largest classroom at TFACA had a maximum occupancy rating of 55 people so the space has provided an opportunity to meet the growing needs of the fire service and code officials.

Commission on Firefighting Personnel Standards and Education

The Commission on Firefighting Personnel Standards and Education (Commission) is responsible for the certification of volunteer and paid firefighters in the State of Tennessee. The certification program is designed to be an incentive to firefighters to develop their skills and further their training and education. The Commission also manages and administers the daily operations for the annual In-Service Training and Educational Incentive Pay Program which provides an \$800 supplement to career firefighters who complete at minimum 40 hours of in-service training at an accredited program.

Testing and Activities in 2020

- Total exams administered: 8,199
 - Written exams administered: 5,592
 - Practical exams administered: 2,607
- Total number of test events: 608
 - Written exam events: 417
 - Practical exam events: 156
- Reciprocity granted: 651
- Fire departments participating in In-Service Training and Educational Incentive Pay Program: 110
- Fire service professionals receiving annual In-Service Training and Educational Incentive Pay: 6,966 (\$800 per qualified firefighter; totaling \$5,572,800.00)

Administrative Services Section

The Administrative Services Section provides administrative support for the SFMO in the areas of budgeting, purchasing and personnel management. The Section ensures that qualified applications are properly processed under the State's laws and regulations for various professions and issues over 4,500 professional permits, licenses, and certificates of registration.

The Permits and Licenses unit specifically processes regulatory permits, licenses and certificates of registration for the certified inspector program, explosives, fireworks, fire extinguisher, fire sprinkler and liquefied petroleum (LP) gas industries. Additionally, the unit processes complaints for related licenses and refers violations to its Legal Division for potential disciplinary action.

Permits, Licenses, and Certification Programs in 2020

Below are the number of regulatory applications processed and individuals/entities licensed during the year 2020.

Portable and Fixed Fire Extinguisher Systems

Firms	144
Branches	14
Specialists	456
Technicians	50

Liquefied Petroleum (LP) Gas

Dealers	569
Managers	13
Responsible Managing Employee	16

Fireworks

Annual Retailers	94
Seasonal Retailers	641
Operators	96
Exhibitors	12
Display Permits Issued	240

Fire Protection Sprinkler Systems

Contractors	215
Responsible Managing Employee	282

Certified Inspectors (Fire, Building, Mechanical, and Plumbing Inspectors; Electrical Inspectors)

Inspectors	665
Certified Electrical Inspectors	61

Explosives

Firm	43
Handlers	356
Blasters	147
Limited Blasters	3

Fire Safe Cigarettes

Manufacturers	3
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SFMO/Division of Fire Prevention Operating Cost

Entire Division of Fire Prevention

FY 2020

	Budget	Actual
Expenditures	\$25,157,000	\$23,640,899.40
Revenues	\$25,157,000	\$31,766,328.08

Revenues collected include funding from the Fire Insurance Premium Tax, pursuant to Tenn. Code Ann. § 68-102-142, penalties, fees for services, or forfeitures collected under Tenn. Code Ann. §§ 68-102-101 through 68-102-143, 68-102-147, and 68-102-148.

Expenditures associated with the Fire Premium Tax are included in Tenn. Code Ann. §§ 56-4-208, 56-4-205(c), 56-22-114, 68-102-142 and 68-102-203.

Recommended Amendments

There are no recommended amendments or suggested statutory changes as current law provides the SFMO/the Division of Fire Prevention the authority to carry out its mission of saving lives, reducing property loss and preventing injuries.



Thank You!

The Tennessee State Fire Marshal's Office sincerely expresses its support for the men and women currently serving in the Tennessee fire service. We remain dedicated to protecting the safety of Tennesseans and their property.



Department of
**Commerce &
Insurance**

State Fire
Marshal's Office

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