

**STATE OF WYOMING
DEPARTMENT OF FIRE PREVENTION AND
ELECTRICAL SAFETY**



**Annual Report
Calendar year 2009
Prepared –Nov-2010**

**Lanny Applegate
Director**

Department of Fire Prevention and Electrical Safety

2009 Annual Report

Plan Period: January 1, 2009 through December 31, 2009

Results Statement:

- ✦ Wyoming families and individuals living in a stable, safe, supportive, nurturing, healthy environment.
- ✦ A diverse and stable economy that provides a livable income and ensures wage equality.

Our Contribution to Wyoming 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 Lanny Applegate. The contact person for the agency is Lanny Applegate, 122. West 25th Street, Herschler Building, 1 West, Cheyenne, WY 82002; our web address is <http://wyofire.state.wy.us>, and our phone number is 307-777-7288. Our agency's statutory references are W.S. 35-9-101 through 35-9-130.

The Department of Fire Prevention and Electrical Safety consists of 36 personnel in 4 divisions: Administration (3), Fire Prevention (10), Electrical Safety (12), and Training (11). Our main office is located in Cheyenne with field offices in Riverton, Douglas, Green River, Sheridan, Afton, Worland and Laramie.

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

Funding: The total operating budget for the department for FY 09-10 is \$7,436,789. Of this amount \$6,871,701.00 are General Funds, and \$565,088.00 are Other Funds (electrical licenses and permits).

Division Budgets: Administration: \$1,311,563 Fire Prevention: \$1,883,831

Electrical Safety: \$2,292,360 Training: \$1,330,214 Wyoming Fire Academy: \$618,821

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:

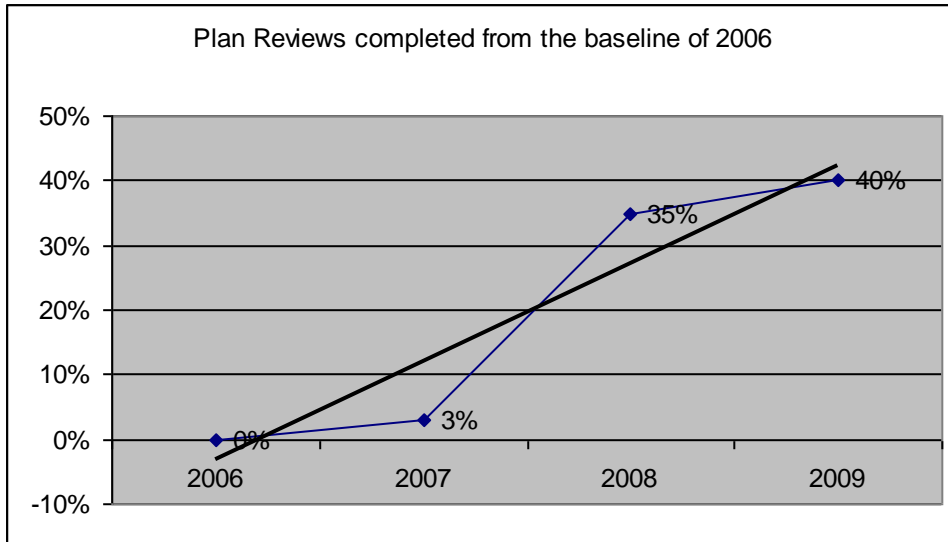
1. ***Conduct Fire and Life Safety, and Electrical Inspections*** in public buildings such as hotels/motels, schools, day cares, restaurants, and institutions.
2. ***Train Firefighters*** from across Wyoming in all aspects of fire suppression and fire prevention.
3. ***Provide Fire and Safety Education 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.
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.

Performance Measures:

Performance measures reflect work for the 2009 calendar year.

Performance Measure#1:

Projected percentage increase in construction plans reviewed, percentage increase in permits issued, and percentage increase in electrical licenses issued/renewed.

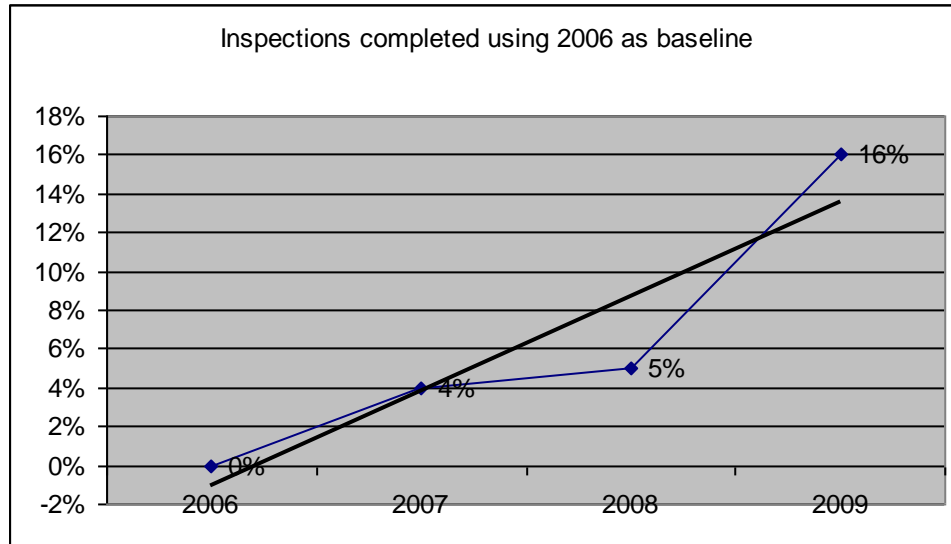


Story behind the Performance Measure #1:

Of five major business processes we conduct in the department we have selected the above to illustrate a trend within our department and one for which we must plan now if we are to maintain the same level of services and improve on timeliness in the future. We cannot control the number of project plans we review for code compliance, but the trend has been, and continues to be increasing. We saw a tremendous increase in the construction numbers during 2007. This was an accurate reflection of building activity just prior to the financial crisis hitting the country. In 2008, we still saw an increase of 5%, largely we believe due to two factors. The first being there remained a number of projects funded and in the pipeline. Second, we know bids for construction projects were coming in much lower than anticipated. Project owners were taking advantage of reduced construction costs. As we near completion of 2010, plan review numbers have remained active and consistent with 2008 numbers.

Performance Measure #2:

Percentage of fire inspections being completed.



Story behind Performance Measure #2:

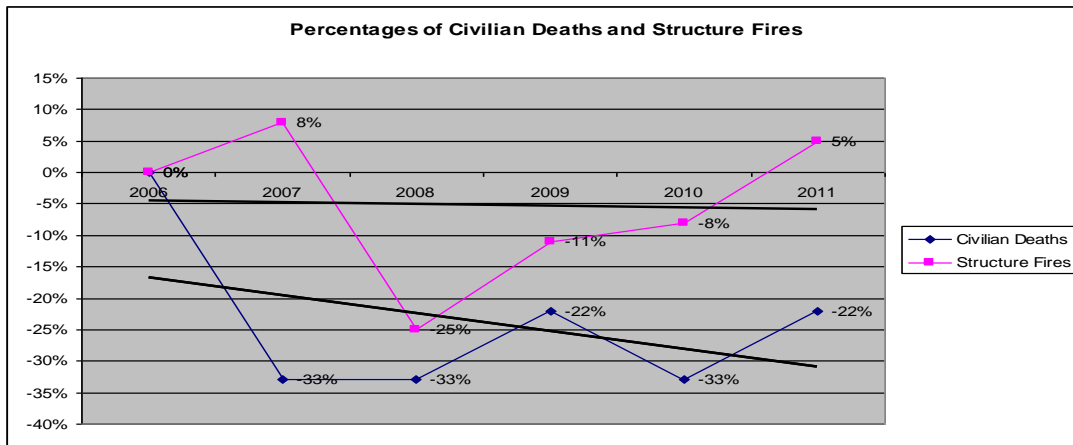
Fire Prevention – Fire inspections are generated from primarily two sources. First, priority plan review inspections come from any buildings newly constructed or remodeled that go through the plan review process of the agency. Second, maintenance inspections are prioritized and conducted using the following 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.

Inspection numbers have consistently increased since 2006. For 2006, the number of inspections used for the baseline was 2106. The projected number of inspections for 2007 was 2257. The actual number of inspections in 2007 is 2580 and is reflected in the annual report. Though much of the country is experiencing a recession in building construction, activity in Wyoming has remained active. As such, demand for plan review, life and fire safety inspections is expected to increase in the coming years.

What do you propose to do to improve performance in performance measure #2 the next two years?

Fire Prevention - A critical area will be to continue to gather and document narrative data that communicates how reviewers and inspectors have effectively impacted the fire problem that exists today.

**Performance Measure #3:
Percentage of fire departments engaged in fire prevention
and public education programs through our department.**



Story Behind the Performance Measure #3:

There is a great deal of data that supports the idea that fire prevention measures, specifically, fire fatalities/injuries and property loss can be significantly reduced through public education programs.

Deaths from fires and burns are the fifth most common cause of unintentional injury deaths in the United States and the third leading cause of fatal home injury (Runyan 2004). 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.

Although the number of fatalities and injuries caused by residential fires has declined gradually over the past several decades, many residential fire-related deaths remain preventable and continue to pose a significant public health problem.

What do we propose to do to improve performance measure #3 in the next two years?

Expand the Smoke Alarm Placement Program to include more communities concentrating on homes of the elderly and low income families with children. Expansion will be sought by partnering with state and local agencies, as well as community fire departments, to identify households needing adequate protection provided by working smoke alarms and grant funding sources to acquire additional funding.

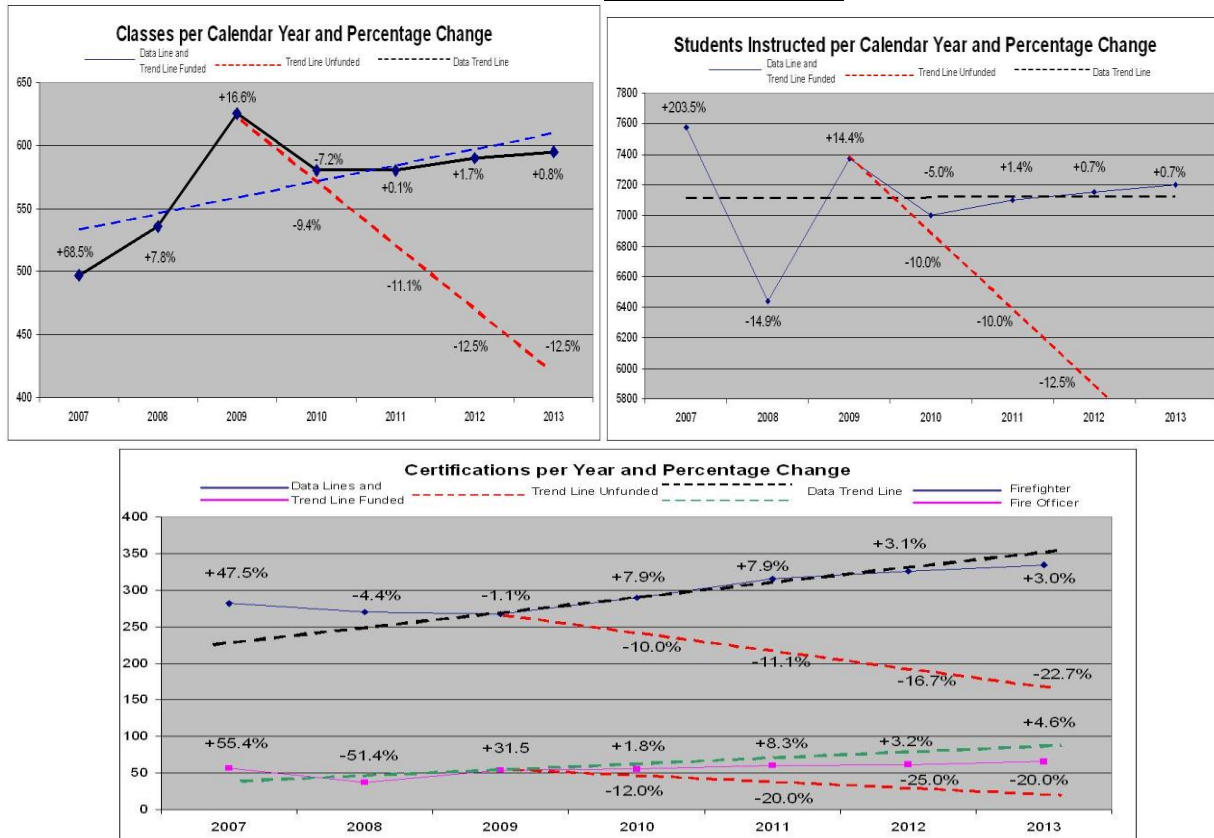
Continue the grant funded Juvenile Firesetter Intervention Program (initiated June 2004). Expand education on juvenile firesetter problems to mental health providers, law enforcement personnel and the Wyoming fire service to provide opportunities for early intervention and education.

In partnership with local fire departments, continue to target occupancy types that are showing the highest frequency of fires, property loss and lives lost for increased education and assist the local fire departments organize and to implement an educational program that addresses this.

Continue to utilize new and exciting methods of providing fire prevention and fire safety education.

Expand and develop new relationships with other state agencies and other likeminded agencies outside of state government to provide additional avenues for fire prevention education.

Performance Measure # 4
Monitoring Trends in Training/Education



Story behind the Last Year of Performance (Data& Graphs are on a calendar year)

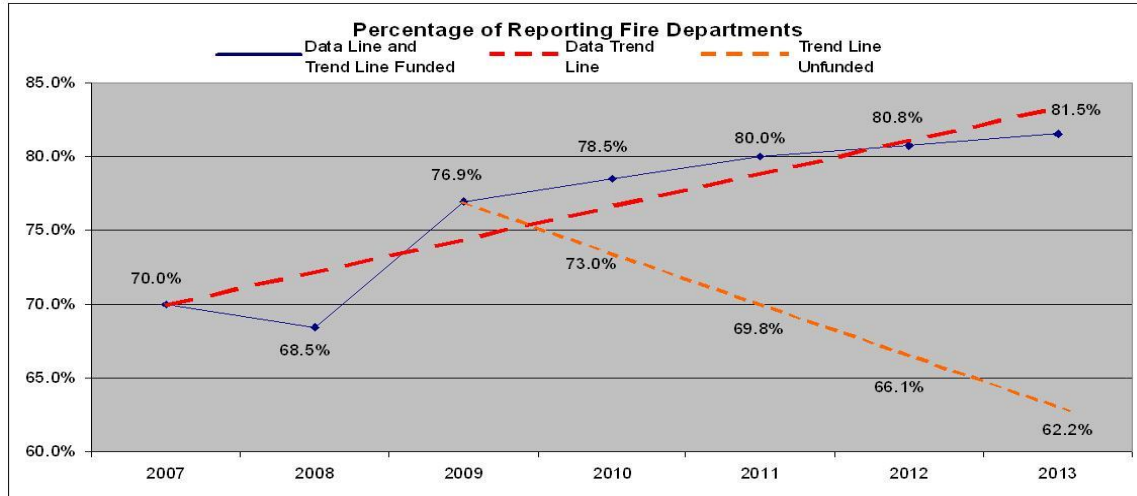
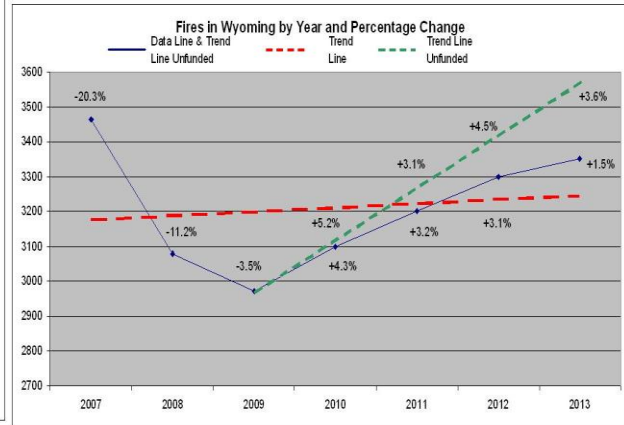
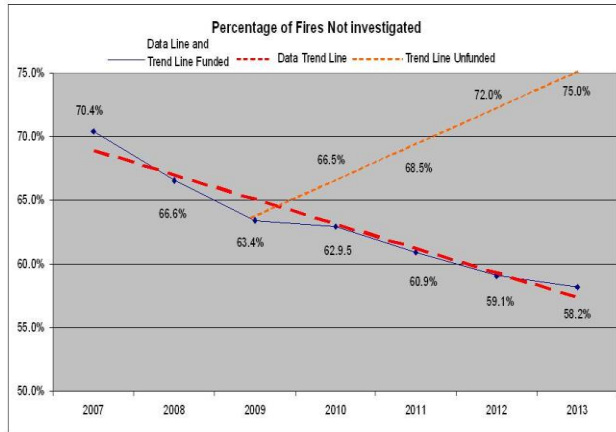
The Training Division of the Department of Fire Prevention and Electrical Safety, taught 625 classes to 7,370 students in 2009. This represents a 16.6% increase in classes from 2008 and a 14.4% increase in students. The main reason for these increases is a significant increase in the division’s on-line courses and their increasing popularity. Additionally, we experienced a 14.8% increase in certifications. This is again attributable to the increases in both classes and student counts, and the on-line training being offered by the division.

These numbers are a result of the State of Wyoming taking over the ownership and operation of the Wyoming Fire Academy in the second half of 2007 as well as moving toward the delivery of classes in the smaller fire departments in the state that cannot provide such training on their own. Personnel within the division still go out and train at local fire departments but this is also supplemented by on-line training to cover required bookwork. This has greatly increased the effectiveness and productivity of trainers, and is gaining widespread acceptance throughout the state. Additionally, by focusing on offering fire officer and basic firefighter training at small local fire departments (through on-line and traditional classroom methods) we have been able to maintain the high number of certifications being completed. Training at small departments does not come without a cost, however as training personnel drove 87,456 miles with the four vehicles assigned to the division. Most of this travel time occurs at night and on weekends, when volunteers (who make up 80 % of Wyoming firefighters) are available to train.

What has been accomplished?

The initiatives started in 2007 showed tremendous results in 2008 and those result continued throughout 2009. Classes finished ahead of projections, and student counts increased. Classes instructed are in addition to the two conferences hosted by the agency, the five schools being supported, and the multiple week-long and two week long course deliveries that continued to be delivered.

**Performance Measure #5:
Monitoring Trends In Fire Reporting**



Story behind the last year of performance: (Data & Graphs are on a calendar year)

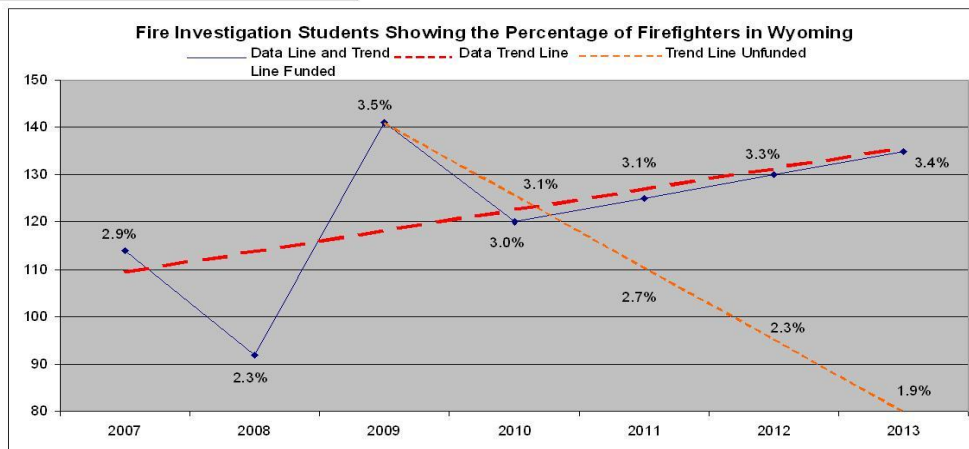
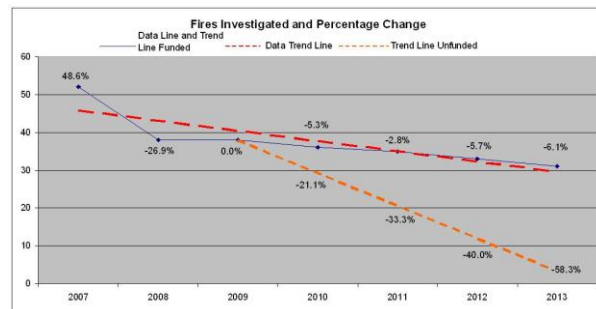
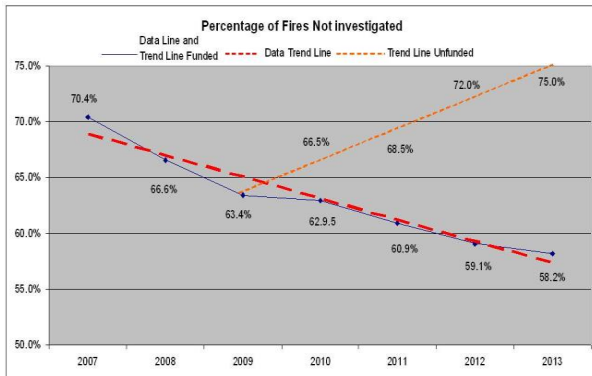
In 2009, the number of fires occurring in Wyoming decreased 3.5%. Additionally, the percentage of fires investigated and correctly reported increased 3.2%. Lastly, one hundred fire departments reported their fire incident information. Throughout 2009 the division worked with some of the larger departments (Casper, and Teton County for example) to resolve their computer and reporting issues, and have them begin to correctly report their information to the State of Wyoming. Though fewer fires were reported, the quality of the data being received by the agency is improving the overall result of our efforts. The trend of fewer fires, however is one we expect to see reverse as the economy of Wyoming begins to feel the effects of the national economic problems. This has been the prevailing trend during previous

economic downturns. Some of the difficulties encountered in fire incident reporting continue to come to the forefront and continue to be challenges. It is not uncommon to train a department on fire incident reporting two or three times a year with the high turnover rate among the volunteer fire service. Passwords and computer access to records also is an ongoing issue at the local level whenever this turnover occurs. As a result, the division has begun to look into a web based reporting system. This would eliminate the need for software to be installed on local computers, greatly reduce time spent dealing with IT issues on local computers, and allow fire departments to report information real time in the field. The National Fire Academy is also looking at these similar issues nationwide, and is making improvements to its software package. If they prove successful we may take a look at this as a low cost solution to our difficulties.

What has been accomplished?

The Training Division continued to work a quality control program to improve fire reporting in 2009. This was in addition to providing fire report training not only at fire schools, but also to local fire departments at their location. These programs continue to bear fruit, (as evidenced by the increased quality of reports received and in a record number of fire departments reporting in 2009) as we continue to offer more local training, continue our control efforts, and continue to get more voluntary compliance with incident reporting by fire departments. Additionally, we will work with local fire departments to help them through their computer and fire reporting issues, and try to get them to establish multiple people within their agencies who are responsible for fire reporting (thus decreasing these problems in the future).

**Performance Measure #6:
Monitoring Trends in Fire Investigations**



Story behind the last year of performance: (Data & Graphs are on a calendar year)

In 2009 the number of fire investigations conducted by the division was identical to 2008. This is after a year in which the division conducted thirteen less investigations (2007 to 2008). It does, however, indicate that the efforts spent training local fire departments to conduct fire investigations are continuing to show results. For the past two years, the division's personnel have trained local firefighters to conduct basic origin and cause investigations. We have not tried to discourage fire departments to call us, but have tried to make them somewhat self sufficient. At the same time, we have trained them to know when the fire is too complex, and they should call for help.

The number of correctly reported fires rose 3.2% in 2009 and the number of fire departments reporting reached record levels as well (a total of one hundred fire departments reported fire data in 2009). This means not only are more and more fire departments investigating their own fires, as well as are properly reporting their findings to the DFPES. We continue to offer as many fire investigation courses each year (sixteen were offered in 2008 and seventeen in 2009), and the number of students attending these courses is increasing as well (141 students attended these classes in 2009). This is also supported by the record number of Origin and Cause Certifications issued by this office in 2008 (those people who certified in 2009 are now investigating fires in 2010).

We continue to work on reversing the trend of poor incident reporting through a more "hands-on" communication approach with local fire departments. This means training while conducting investigations and while attending functions around the state. Additionally, the agency has been able to continue the positive trends mentioned above by continuing to stress the need for accurate incident reporting.

What has been accomplished?

We have increased the quality and quantity of fire investigations occurring in Wyoming through more face to face communication with the fire service and a more aggressive program of providing training at the local level. We will continue to work fire incident reporting to make certain the paperwork shows these improvements as well.

Supplemental Budget Implications

Although there are several items where the Training Division can use a budgetary increase, none are of an emergency nature. Therefore there will be no supplemental request by the Training Division. Instead, we will pursue low cost or no cost, solutions and work with existing vendors and within existing parameters to pursue the agency's and division's goals. An example of this is, while communicating with our fire incident reporting software vendor about the need for on-line reporting, they placed us on their priority list. They chose a larger state to pilot the program, but we will be the beneficiaries of this effort. As a subscriber and user of this software and by being involved in conversations on the development, we should be one of the first to receive it as part of our regular subscription. We will also team up with the National Fire Academy in their initiatives to improve fire incident reporting.

2009 Annual Report for DFPES – Training Division

Train Firefighters

- 625 Classes delivered – up 16.6%
- 7,370 Students instructed – up 14.4%
- 267 Firefighter certifications issued – down 1.1%
- 54 Fire Officer certifications issued – up 31.5%

Critical analysis of the fire problem

- 33,916 Total calls for service – up 12.0%
- 2,971 Fire incidents reported – down 3.5% - 8.8% of the total calls
- 22,384 Emergency medical calls – up 15.8% - 65.5% of the total calls
- 3,105 Good Intent/cancelled En-route – up 2.2% - 9.2% of the total calls
- 2,184 False alarms/false reports – up 6.4% - 6.4% of the total calls
- 1,087 Fires properly documented – up 5.6%
- 100 Fire departments reporting – up 12.4%
- \$4,700.30 Dollars lost per fire – up 23.4%

Investigate fires

- 38 Fires investigated by the DFPES – an identical number to 2008
- 17 Fire investigation classes taught – up 6.3%
- 141 Students instructed in fire investigation – up 53.3%
- 3.5% of all Wyoming firefighters trained in fire investigation in 2009

Additional information

It should be noted, when compared to previous years, the Training Division has seen significant increases in its numbers (classes, students, certifications, and activities). This is the result of a near maximum effort from all of the Training Division’s personnel. Although there may be some additional increases in 2010, they can be somewhat attributed to the additional 6 months of accounting for the training held at the Wyoming Fire Academy. It is very likely, that in order to sustain and surpass these numbers, additional resources for the Training Division will need to be found. This will be in addition to the resources that are needed to develop the Wyoming Fire Academy.

Additionally, the division is currently analyzing more ways operations can be streamlined. The most obviously outward sign of this will be the decrease in the number of conferences offered, or finding new partners to help offset the cost of conferences. In the past, where two or three conferences were held, efforts will be consolidated into one slightly larger, all encompassing, and grant funded program, or new partners will be involved into existing programs.

Performance Measure #7:

Electrical inspections are a priority to ensure that the facilities in Wyoming are safe from electrical hazards and fire.

	2007	2008	2009
Plan Review	1888	3142	249
Permits	2684	2837	2892
Other	1127	2234	7179

The table above depicts the types of electrical inspections and how many inspections were accomplished in 2007, 2008 and 2009.

Below is a brief description of the types of inspections performed by our electrical inspectors.

1. **Plan Review Inspections:** Our plan review division reviews plans sent in 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. Currently we inspect 100% of all electrical plan reviews. In the 2009 calendar year the Electrical Plans Examiner reviewed **249 electrical plans** which resulted in **338 inspections**. Currently we inspect 100% of all electrical plan reviews.

2. **Permit Inspections:** Electrical wiring permits are required by statute prior to electrical power being energized by the power company. In the 2009 calendar year, **2892** permits were processed in the office by the permit technicians and then assigned to the appropriate inspector for inspection. Out of the 2892 permits received, **7,179** permit inspections were completed. Since electrical wiring is also done in phases, these can be inspected more than once. Due to the quantity of permits each inspector receives monthly, permits get inspected in a priority manner. Paid inspections would come first with public facilities following compared to a simple residential re-model, etc.
3. **Other 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 appear in front of the Electrical Board for a possible revocation of his license.
4. For the 2009 calendar year we performed 7179 Inspections in categories of plan review, permits, safety, complaints, license checks and warning notices and drove 200,453 miles. In the 2010 calendar year January through June we performed 3,790 inspections in categories of plan review, permits, safety, complaints, license checks and warning notices and drove 153,215 miles.

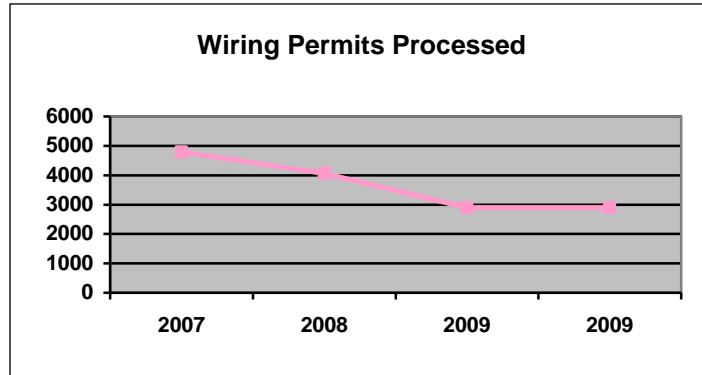
Performance Measure #8:
Professional Electrical Licenses' Issued 2007-2009



Story behind the last two years of electrical license issued:

The Electrical Licensing Division has thirteen different categories of professional license. Annual licenses include Electrical Contractors and eleven categories of Limited/Low Voltage Contractors, Apprentice Electricians and eleven different categories of Apprentice Technicians. All of these licenses need to register or renew yearly. Tri-annual licenses include Master, Journeyman and Low/Limited Technicians that were processed either by exam, reciprocity or by renewal, as these licenses are good for and renew every three years. Therefore, these numbers will vary from year to year depending on which year they received the tri-annual license. All licenses are considered a professional license. The Occupational Licensing Specialist reviews all 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. This is very time consuming but as part of our new business case the on-line application process for electrical licensing will improve this situation.

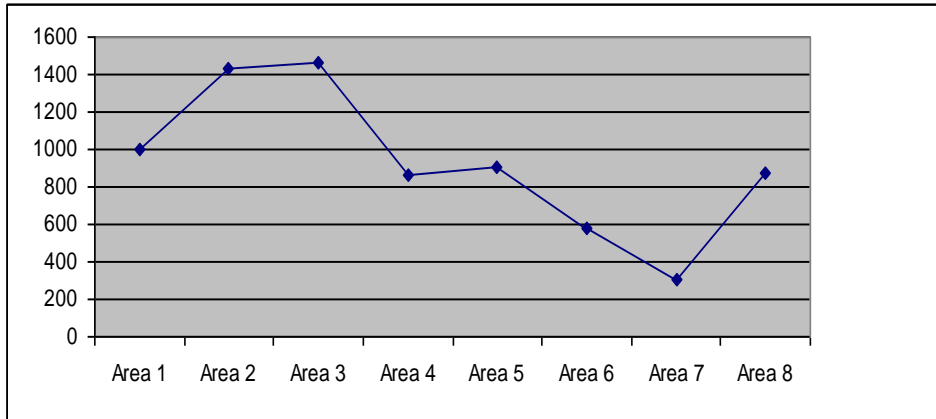
Performance Measure #9:
Electrical Permits
Electrical Wiring Permits Received For Processing 2007-2009



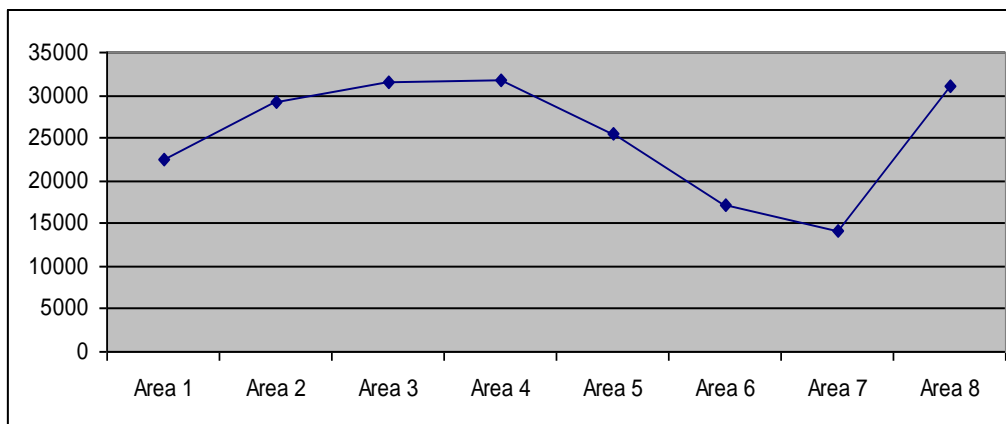
Story Behind the number of electrical permits received in this office in 2009?

The amount of electrical permits received (per statute) in this office has decrease from 2007 totals. Due to construction and building decline over the last year we are seeing a decline in the amount of permits coming through our office.

**Performance Measure #10:
Electrical Inspection's by area & miles traveled in 2009
Area Inspections**



Area Miles



Area 1- Park, Big Horn and Washakie

Area 2- Sheridan, Johnson, Crook and Weston

Area 3- Converse, Niobrara, Campbell (Wright), Goshen and Platte

Area 4- Laramie, Albany and Carbon

Area 5- Sublette, Sweetwater

Area 6- Lincoln and Uinta

Area 7- Fremont and Hot Springs

Area 8- Licensing inspector

The Department of Electrical Safety would like to measure the area of inspections. It is hard to predict the construction and growth Wyoming may experience in the next three years, but by tracking the miles and the amount of inspections in any one area, we can monitor what area needs help with code enforcement and inspections, if any. The 8th inspector is our licensing investigator who travels statewide to conduct license checks and issue warning notices. Please note that the license investigator also assists the Training Division with requested fire investigations. Based on the projected inspection growth, we are foreseeing the need to hire an additional inspector to assist in vacations and inspections. All the above areas are subject to change based upon the number of inspections & requests.

Department of Fire Prevention & Electrical Safety

Organizational Chart

