

*Fire Protection District Operations and
Future Fiscal Needs Study*

for the

Bristol Kendall Fire Protection District



Yorkville, IL

Submitted by



April 2018



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Executive Summary

The Bristol Kendall Fire Protection District Board of Trustees contracted with McGrath Consulting Group, Inc. to complete this study and to develop this report covering the Fire Protection District Operations and Future Fiscal Needs. The purpose of the study was to review:

- Current District fire and EMS operations
- Current staffing model used to staff the fire stations and the challenges
- Review current District resources as well as future needs
- Review current District funding
- Review current and future District challenges
- Define the future opportunities and vision of the District in terms of services, staffing, and resources
- Review future funding needs and options

The consultants found a fire protection district that provides excellent services, and which appears to be very much respected in the community. The Board of Trustees and the District Administration have done an excellent job providing fire and EMS services to the citizens of the District. The operations of the District appear to be excellent based on the current staffing model of using full-time contract employees and part-time District employees. One of the challenges confirmed by the consultants is that full-time contract employees are leaving for other full-time employment opportunities that provide a pension, usually with the State of Illinois Firefighters Pension System. The other benefit that the full-time employees leave for other full-time employment opportunities is to have long term duty disability insurance, which is not available with the full-time contract service. The other challenge for staffing relates to the part-time employees, which are becoming more difficult to recruit and to retain for the District.

The District has done an excellent job of using their budget funds and the consultants would state that they are very conservative in their spending. The District fire stations are all relatively new and they are maintained very well. District vehicles and apparatus are not all new, but they are also all very well maintained. The District has done an excellent job of maintaining their fleet of vehicles and replacing vehicles and apparatus when necessary. Due to the fact that they are very conservative, the District does not need to borrow to purchase new vehicles or apparatus.

The District does not have a strategic plan, but the District Administration does have a vision for future District operations and they understand the opportunities this vision will present to the District.

The District is facing many challenges that will require them to make some important decisions regarding funding needs. A primary challenge will be the staffing model that will be used in the future as the District will need to decide if they maintain the current staffing model, will they need to change the staffing model, and what are the funding options to pay for the staffing model that will be chosen. Another challenge will be future funding needs that at some point in time may require going to the citizens of the District with a request for a referendum and asking for the support of the taxpayers in approving the referendum. At the current time, the District does have some time to gather the information and data needed for any funding changes. The District will need to educate the citizens about the information contained in this report.

This final report allows the District to provide a document to the citizens of the District to educate them about the District operations, staffing, resources, challenges, current funding, and future funding needs. As discussed in the report, the District does have challenges that will need to be addressed in the very near future.

In reviewing the final draft report with the District Administration, the Consultants were informed that Public Safety Services, Inc., the company that provides the full-time contract employees, was merging with Paramedic Services of Illinois, Inc., another company that provides full-time contract employees. The District Administration felt that this merger should not affect the District in terms of their full-time contract employees and in fact, these employees may be provided with an improved benefit package. In addition, the Consultants were informed that the District Board of Trustees appeared to have made a selection of the new District Fire Chief, but the final decision was not official at that time.

In summary, the Bristol Kendal Fire Protection District is a very well operated organization that will be facing numerous challenges in the near future, as well as the immediate future. This report identifies the challenges and possible solutions to those challenges in order to allow the District to continue to provide quality fire and EMS services to the citizens of the District.

Introduction

The Bristol Kendall Fire Protection District Board of Trustees commissioned McGrath Consulting Group, Inc. to conduct this study. The study is a comprehensive assessment of the Bristol Kendall Fire Protection District operations and a fiscal study report. The final report includes a review of the fire district services and operations, fire district resources, current fire district staffing model and challenges of the fire district, future fire district opportunities and vision, current fire district funding, and future funding needs. The final report is a complete assessment/plan to address current and future opportunities, while addressing the need to ensure fire/EMS services are provided to the citizens of the Fire Protection District in the most cost-effective and efficient manner.

The consultants interviewed the Bristol Kendall Fire Protection District Fire Chief, Deputy Chief, Assistant Chiefs, and Battalion Chief. In addition, the consultants met with the Bristol Kendall Fire Protection District Board members prior to starting the study.

Everyone who was interviewed was very professional and spoke well of the quality of the fire and EMS services provided by the Bristol Kendall Fire Protection District. Several concerns or perspectives were brought to the attention of the consultants during the interviews regarding areas where improvements could be implemented.

The concerns expressed by the Bristol Kendall Fire Protection District were primarily related to the issue of the funding of the fire district into the future and still being able to provide quality fire and EMS protection services. Associated with the issue of fire district funding are the issues of contracting for fire/EMS personnel who are not employees of the fire district, which are discussed in greater detail in this study.

All of the Bristol Kendall Fire Protection District Chief Officers expressed the support for the use of contract fire/EMS employees that has served the fire district very well over the years, but as time changes the challenges in using this staffing model have changed and become more difficult to manage.

Community Information

The Bristol Kendall Fire Protection District serves an area of approximately 80 square miles and is in the center of Kendall County, Illinois. The Fire District is located about 50 miles West Southwest of the City of Chicago. The Fire District is located mainly within the Townships of Bristol and Kendall in Kendall County. The Bristol Kendall Fire Protection District includes the United City of Yorkville, the Village of Bristol, and a small portion of the Village of Montgomery. The Bristol Kendall Fire Protection District includes postal addresses in the City of Yorkville, Plano, Newark, and Montgomery.

The population protected by the Bristol Kendall Fire Protection District is approximately 31,739, according to figures from the 2010 United States Census. According to the 2010 United States Census, Bristol Township had a population of about 24,000 (adjusted for the portion of the Township not in the Fire Protection District), and Kendall Township had a population of 7,739. The 2010 census also indicated that there were approximately 11,600 housing units in the Fire district in 2010.

It is estimated by the Bristol Kendall Fire Protection District the 80 square miles of area protected by the District includes about fifty (50) square miles of rural area, which is mostly agricultural area; an area of twenty-five (25) square miles of suburban residential occupancies, and an area of about five (5) square miles of light manufacturing/industrial occupancies.

The consultants were informed that most residents work outside of the area, but there is not an influx of workers into the fire district on a daily basis.

Bristol Kendall Fire Protection District - Overview

Fire District History

The history of the original fire department serving the rural area of the current fire district goes back almost 100 years with the first call on record being on January 27, 1922. On March 17, 1936 the rural area excluding the City of Yorkville became the Bristol Kendall Fire Protection District. The Bristol Kendall Fire Protection District is one of the oldest fire protection districts in the State of Illinois.

In May of 1946, the City of Yorkville voted to join the Bristol Kendall Fire Protection District and the members of the old Yorkville Fire Department became members of the Bristol Kendall Fire Protection

District. In the early years of the Bristol Kendall Fire Protection District there was no ambulance service within the fire district. At some point, the Larson Funeral Home formed the Larson Ambulance Service and provided first aid and transportation to the local hospital. In the early 1970's, several members of the fire district completed the Emergency Medical Technician course and assisted the Larson Ambulance Service in providing ambulance services.

In 1981, the Fire District requested the residents of the fire district to pass a referendum to support a fire district-based EMS service. For many years, the EMS service operated very closely with the fire district, but as a separate organization. In June 2000, the two organizations combined into one organization.

For many years the members of the Bristol Kendall Fire Protection District were all volunteers and as the fire district grew the members were paid a few dollars per call to cover their expenses that they incurred responding to calls.

In June 1992, the first six (6) full-time members for the Bristol Kendall Fire Protection District were hired through Public Safety Services, Inc., a contract service. As call volume increased, additional full-time members for the Fire District were added using the contract service, which is still the full-time employee staffing method used by the District.

In 2005, part-time members were added to provide day time staffing from 7 am to 7 pm as the call volume continued to increase for the Fire District. Since 1992, additional full-time members were added to the Bristol Kendall Fire Protection District through the contract service with Public Safety Services, Inc. and the District currently contracts with PSSI to provide thirty-three full-time employees to the District.

Fire District Overview

The Bristol Kendall Fire Protection District is a full-time staffed Fire Protection District that provides fire protection and emergency medical services to the District and the citizens of the communities the District protects.

The current Fire Chief, Michael Hitzemann has been in the position as the leader of the District since 1987. Chief Hitzemann is planning on retiring in mid-2018, and the Bristol Kendall Fire Protection District Board of Trustees are in the process of selecting a new Fire Chief.

The Bristol Kendall Fire Protection District is staffed by three (3) full-time District employees, thirty-three (33) contract Public Safety Services, Inc. employees, and about 40-45 part-time District employees. The District operates out of three fire stations with a normal minimum staffing of fifteen (15) personnel on duty 24 hours daily/365 days a year. The District minimum staffing can be reduced to thirteen (13) personnel, but this minimum does greatly affect the District's ability to have an adequate number of on duty personnel to respond from all three (3) fire stations to emergency calls. With fifteen (15) personnel on duty, the District daily staffs three (3) fire engines and three ambulances with all emergency vehicles having the ability to respond with advanced life support (paramedic level) services. Each of the three (3) Engines are staffed with three (3) personnel and the ambulances are staffed with a minimum of two (2) personnel. All ambulances have at least one Emergency Medical Technician – Basic and at least one Emergency Medical Technician - Paramedic Level for a minimum of two (2) personnel on the ambulance. On any given day, when the minimum staffing drops to thirteen (13) personnel, the result is that Station #3 becomes a jump company. The term jump company means the three (3) members on duty at Station #3 ride the Engine for fire calls and ride the ambulance for EMS calls.

The Bristol Kendall Fire Protection District, in addition to responding to fire and emergency medical calls, provides emergency response capabilities for rope rescue, high angle rescue, trench rescue, swift water rescue, and confined space. Any emergency response for hazardous materials incidents would result in a request from the MABAS system.

The entire Kendall County Government complex is located within the Fire District including the Kendall County Sheriff's Department, County Courthouse, County Correctional Facility, County Health Department, and the County Highway Department. A dual track – main line railroad line passes through the Fire District on the northern part and the line carries both passenger and freight traffic.

The largest outdoor water park in Illinois is in the Fire District and is open from Memorial Day to Labor Day. This water park is expected to double in size in the next two years.

Also, located in the Fire District is Wrigley Manufacturing Company, which produces gum, mints and other candies. This company is a subsidiary of the candy maker Mars, and the facility in Yorkville completed a \$50 million expansion in 2016. The expansion will most likely result in additional jobs at this facility.

Fire District Mission Statement

The mission of the Bristol Kendall Fire Protection District is to provide emergency response to fires, medical emergencies, explosions, hazardous material emergencies and other emergencies that may arise within the Bristol Kendall Fire Protection District, Kendall County, Illinois, and/or surrounding areas. It will also promote Fire Prevention, Public Education, Safety Awareness and Goodwill in the community.

Fire Protection Districts

The Bristol Kendall Fire Protection District is organized under Illinois State Statute 70 ILCS 705, which is known as the Illinois Fire Protection District Act. This Act established, among other operating requirements, the rules for the duties and responsibilities the Fire Protection District Board of Trustees. The Board of Trustees may levy and collect other taxes for corporate purposes and payment of all District obligations including for the purposes of building, repairing and improving fire stations located within the District, for all pension plans or annuities for members, for purchasing land or sites for fire stations, for purchasing firefighting equipment and apparatus for emergencies involving hazardous materials, and for providing training for District members. The Board may levy taxes annually in excess of current requirements for other purposes of the District but they are subject to the tax rate limitations adopted by the citizens of the District.

All taxes levied must be levied by an Ordinance adopted by the Bristol Kendall Fire Protection District Board of Trustees. The Bristol Kendall Fire Protection District has a tax levy limited rate of 0.75922 currently, which was approved by the citizens of the Bristol Kendall Fire Protection District in the past. On an annual basis the Board of Trustees adopts an Annual Budget and Appropriation Ordinance. The Ordinance establishes the District fiscal year to be the 1st day of May to the 30th day of April. The ordinance establishes the amount of funds to be levied for the budget year and in the case of the Bristol Kendall Fire Protection District, the tax levy for the May 1, 2017 to April 30, 2018 was Five Million, Six Hundred Eighty-Two Thousand, One Hundred Seventy-Five Dollars and Ninety-Two Cents (\$5,682,175.92).

Bristol Kendal Fire Protection District Board of Trustees

The corporate authority of the Bristol Kendall Fire Protection District is the Board of Trustees which governs the Fire District. The Board of Trustees have the power to supervise, control, regulate, and manage the Fire District. The Board of Trustees has the authority to make and enforce all necessary ordinances and rules and regulations for the proper management and conduct the business of the Board for carrying into effect the objects for which the District was formed. The powers of the Board are subject to the provisions of the statutes of the State of Illinois and the ordinances of the Bristol Kendall Fire Protection District.

The Board of Trustees consist of five (5) members who are appointed for three (3) year terms, commencing on the first Monday in May of the year in which they are appointed. The Board of Trustees has one Board member that serves as President, one Board member that serves as Secretary, and one Board member that serves as Treasurer.

The Board President presides at all meetings and shall perform the duties imposed upon the President by law or by action of the Board of Trustees and shall have a vote on all matters before the Board of Trustees.

The Board Secretary is responsible for ensuring all resolutions, ordinances, reports, communications, and any other papers presented to or acted on by the Board are filed and preserved. In addition, the Secretary performs all duties imposed upon the Secretary by law or by action of the Board of Trustees.

The Secretary and President are required to sign, and be witnesses to, resolutions and ordinances adopted by the Board, all contracts entered into by the Board, and all minutes of the Board meetings.

The Treasurer serves as the custodian of District funds and is responsible for monitoring all District accounts and overseeing payment of all District bills. The Treasurer is responsible for the preparation of District financial reports for each regular Board meeting.

The Board of Trustees assign the administration and operations of the Fire District to the District Fire Chief, who also serves as the Chief Administrator of the Fire District. The written policies of the Board serve as a guide to the District Fire Chief in the administration of the District.

The Board of Trustees may only act in a properly convened Board meeting, and no Trustee has the authority to act for the Board of Trustees or under the title of their Board position unless specifically authorized by statute or by the Board.

Three (3) Trustees of the Board shall constitute a quorum to conduct business of the Fire District.

Board of Trustees Investment Policy

The Board of Trustees have adopted an Investment Policy for the Fire District. The Fire District is a public taxing body whose purpose is providing fire protection, fire prevention, rescue, and emergency medical services to persons within the boundaries of the District. The purpose of the Investment Policy is to provide guidelines for the prudent investment of the funds of the Fire District.

Management of the investment program is the responsibility of the Board of Trustees of the District. The Board has established written procedures and investment guidelines for the operation of the investment program.

The objectives of the District investment program are:

- **Safety** – All investments shall be undertaken in a manner that seeks to ensure the preservation of capital.
- **Liquidity** – The investment portfolio shall remain sufficiently liquid to enable the Board to pay all necessary obligations, both immediate and long term, and to meet all operating requirements, which may be reasonably anticipated.
- **Return on Investment** – Assets shall be invested to achieve attractive rates of return. Following the prudent person standard for preservation of capital, assets will be invested to achieve the highest possible rate of return, consistent with the plan's tolerance for risk, as determined by the District Board in its role as a fiduciary.

Fire District Leadership

The consultants have very little doubt that the Fire Chief and other Chief Officers are very dedicated to the Bristol Kendall Fire Protection District and they are focused on providing quality fire protection and emergency medical services to the Fire District. For the time they contribute to the fire District, they should be commended for their dedication and service. The same dedication can be seen from the

members of the Bristol Kendall Fire Protection District Board of Trustees. The payment they receive for their service to the District is very small in comparison to the responsibilities they have as District Board members and to the service they provide to the community.

The District leadership includes the Fire Chief and Assistant Fire Chief, who are both full-time employees of the District. The District also employs a part-time Deputy Chief, who has been a member of the Fire District for about forty-eight (48) years and a part-time Assistant Fire Chief who has the responsibilities of the Fire District Training Officer.

In addition, the District has two full-time employees of Public Safety Services, Inc. that are in Chief Officer positions with the District and both work a forty (40) hour schedule. One of the positions serves at the rank of Battalion Chief and has the primary responsibility as the District Emergency Medical Services Coordinator. The second full-time employee of Public Safety Services, Inc. serves at the rank of a Battalion Chief and has the primary responsibility as the District Fire Marshal.

From the observations made by the consultants of the Fire District Administration and Operations, it is obvious the District has many positive characteristics of an excellent fire and EMS service organization. The District has an excellent fleet of fire and EMS vehicles. The three fire stations are all relatively newer and are in excellent condition, the District has no debt, and are very conservative in their budget spending. This is the result of excellent leadership by the District Chief Officers and the District Board of Trustees and when the consultants met with them it was apparent they are all concerned about the future of the District in terms of being able to meet the needs of the community and to do so in a fiscally responsible manner.

Fire District Administrative Policies and Procedures

The Bristol Kendall Fire Protection District has invested a great deal of time and effort into developing District Policies and Procedures. The District has a very complete set of policies that cover numerous areas such as those listed in the following table, which are samples of the many policies the District has developed.

Table 1: Sample District Policies & Procedures

BKFPD – Sample District Policies & Procedures		
Organization	Administration	Employee performance
Higher	Promotions	Staffing
Uniforms	Incident	Code of Conduct
Safety	Fire & EMS	Personal Safety
Apparatus	Apparatus	Equipment Care
Equipment	Backing	Personnel

District Services and Operations

Emergency Activities

At the beginning of the study, the consultants requested a list of data and information. The amount of data received from the Bristol Kendall Fire Protection District was very surprising as the consultants don't usually receive this response for our data requests.

What Constitutes Good Emergency Activities Data?

The use of data is essential for any fire chief. Often, the discussion revolves around what constitutes good data. The IAFC defines good data as data that meets three components:

- **Good Data is Relevant** – you are collecting information on the things that matter, like response times and number of calls for service.
- **Good Data is Accurate** – your processes for data collection must be consistent and trustworthy.
- **Good Data is Reliable** – a measurement from one company is equivalent to the same measurement from another company. You don't have to "adjust your data to accommodate known distortions".

(Source: International Association of Fire Chiefs: Weathering the Economic Storm, December 2008)

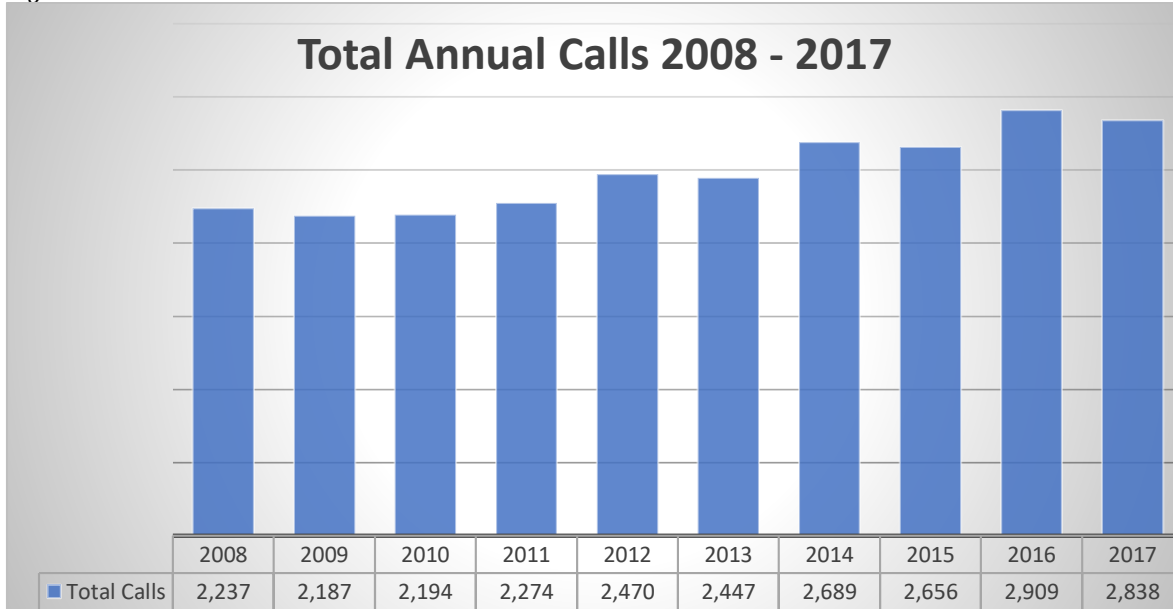
Emergency Activity Data

As mentioned previously, the Bristol Kendall Fire Protection District has done an excellent job recording data for all emergency activities and they should be commended for their efforts.

Total Calls

The following figure reflects the number of total emergency calls for the Bristol Kendall Fire Protection District on an annual basis for the years 2008 through 2017:

Figure 1: District Total Annual Calls 2008 – 2017

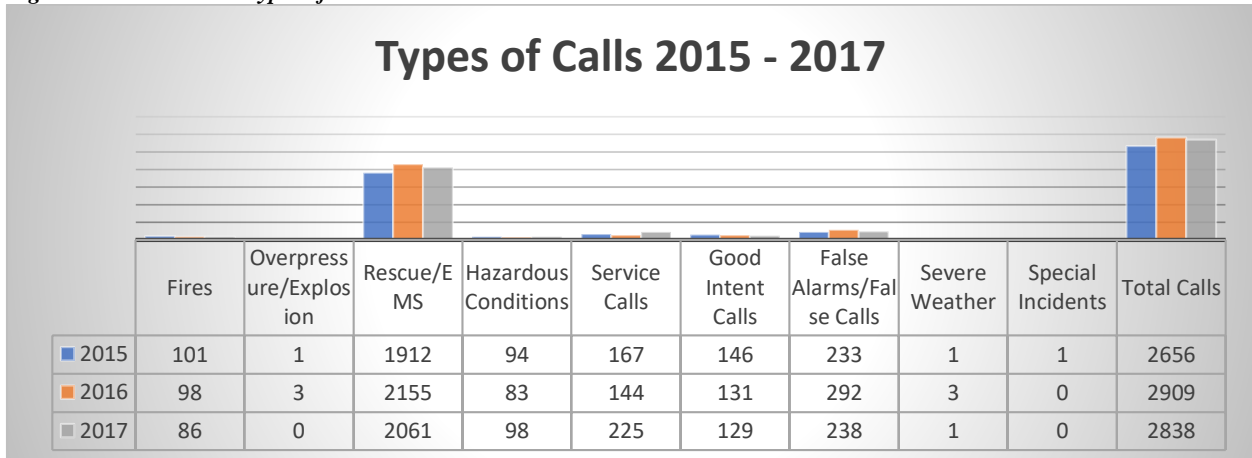


The total number of emergency calls on an annual basis was very steady with changes annually from 2008 to 2017. In that time, the total increase was about a total increase of 26.86 percent over the ten (10) year period. In recent years the increase has been significant, in 2014 the total calls increased from 2447 in 2013 to 2689 in 2014, which was an increase of about 9.88%. The increase from 2015 to 2016 increased from 2656 to 2909 or an increase of about 9.52%. There was a slight decrease of about 2.5% in total calls from 2016 to 2017 from 2909 to 2838 calls.

Calls by Type

The following figure reflects the types of calls the Bristol Kendall Fire Protection District responded to on an annual basis for the years 2015 – 2017:

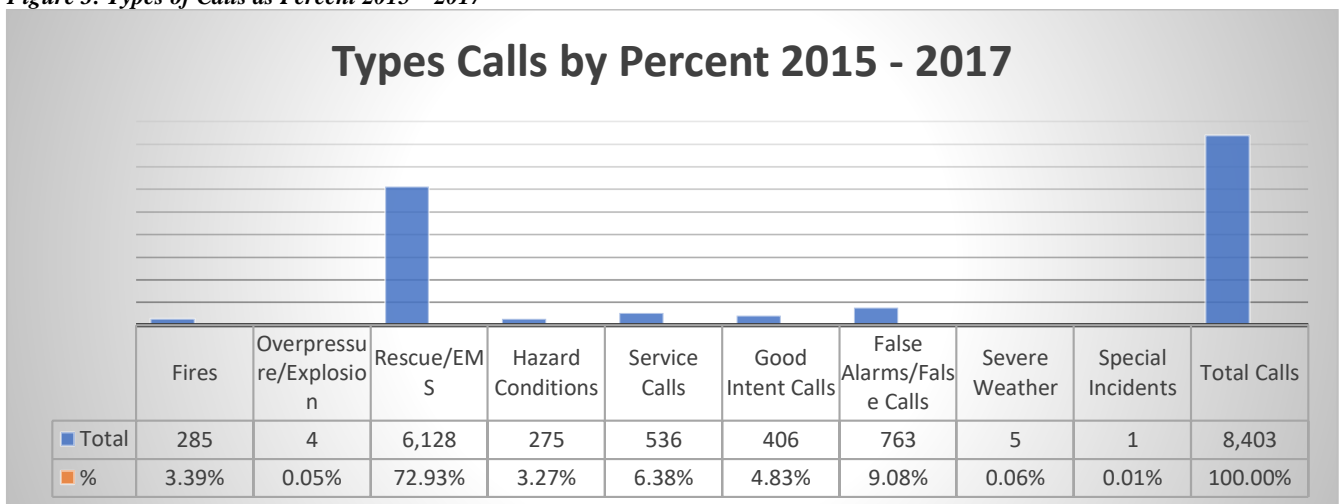
Figure 2: District Total Types of Calls 2015 – 2017



Total Calls by Percent

The following figure reflects the types of Calls as a percentage annually for the years 2015 – 2017:

Figure 3: Types of Calls as Percent 2015 – 2017



The table below illustrates the nine fundamental categories collected from the National Fire Incident Reporting System (NFIRS) reports and compares national and Midwest statistics to the Bristol Kendall Fire Protection District percentage of calls by category. The Bristol Kendall Fire Protection District's figure is an average for the three-year period from 2015 to 2017; whereas the national and Midwest percentages are only from 2014 (most recent published) data figures:

Table 2: National Fire Incident Reporting System (NFIRS) Calls by Type

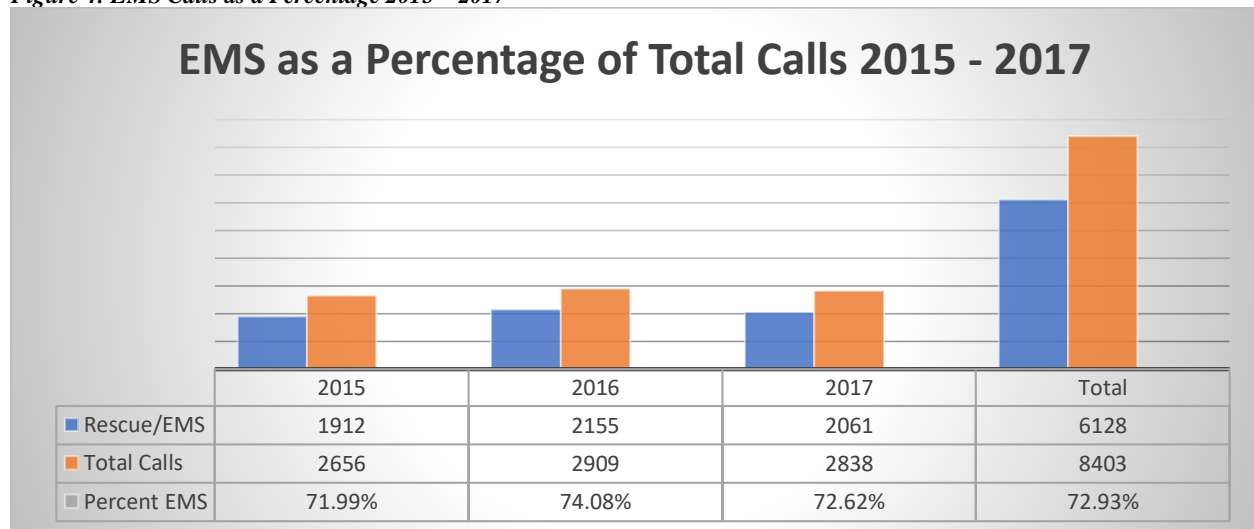
National Fire Incident Reporting System (NFIRS) Calls by Type			
Nature of Call	National	Midwest Region	BKFPD
Explosion/Overheat	0.2%	0.2%	0.05%
False Alarm/ False Calls	8.7%	9.3%	9.08%
Fires	4.7%	5.7%	3.39%
Good Intent Call	10.5%	8.7%	4.83%
Hazardous Condition	3.7%	4.4%	3.27%
Rescue/EMS	64.1%	63.7%	72.93%
Service Call	7.1%	7.5%	6.38%
Severe Weather	0.1%	0.2%	0.06%
Special Incident	0.7%	0.4%	0.01%

The above table reflects the fact that the Bristol Kendall Fire Protection District exceeds the National and Midwest region in the following call categories: False Alarms/False Calls and Rescue/EMS. The fact that 9.08 % of the Bristol Kendall Fire Protection District calls are for false alarms/false calls is an issue that may be able to be addressed by public education and/or focusing on which businesses or occupancies are having the false alarms/false calls. Rescue/EMS calls are higher than the National and Midwest numbers, but the consultants often see percentages for at or above 80 % for Rescue/EMS calls. Again, the national and Midwest percentages are from 2014 and calls have changed for numerous fire and EMS agencies in this brief time.

EMS Calls as a Percent of Total Calls

The following figure reflects EMS calls as a percentage annually for the years 2015 – 2017:

Figure 4: EMS Calls as a Percentage 2015 – 2017



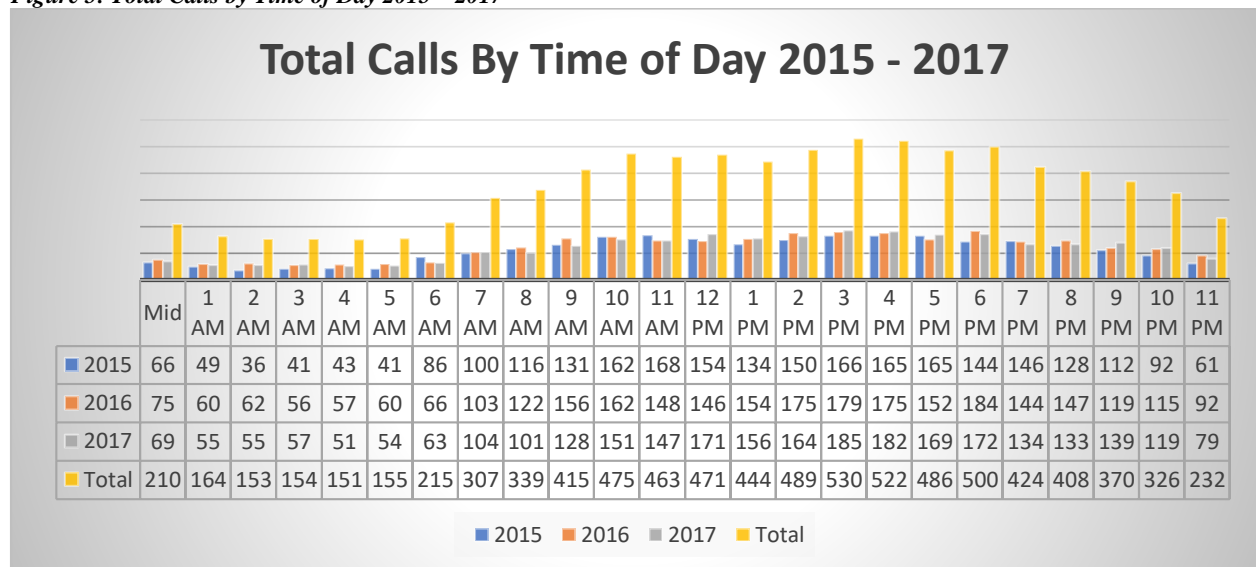
Over the three-year period, EMS calls accounted for 72.93% percent of the total calls responded to by the Bristol Kendall Fire Protection District. This percentage is significantly higher than the national EMS call responses being an average of 64.1% or the Midwest EMS call average of 63.7% of calls being EMS.

Calls by Time of Day

Fire departments often experience an increase in call volume during certain periods of the day. Many times, the increase in call volume is due to automobile accidents or other activities in the community that increase the needs for fire and EMS services.

In many fire departments, the volume of calls follows a pattern of increasing in the early morning hours around 7 a.m. and remaining constant until the numbers start to diminish in the hours just after midnight. The following figure reflects the calls by the time of day for 2015 – 2017:

Figure 5: Total Calls by Time of Day 2015 – 2017



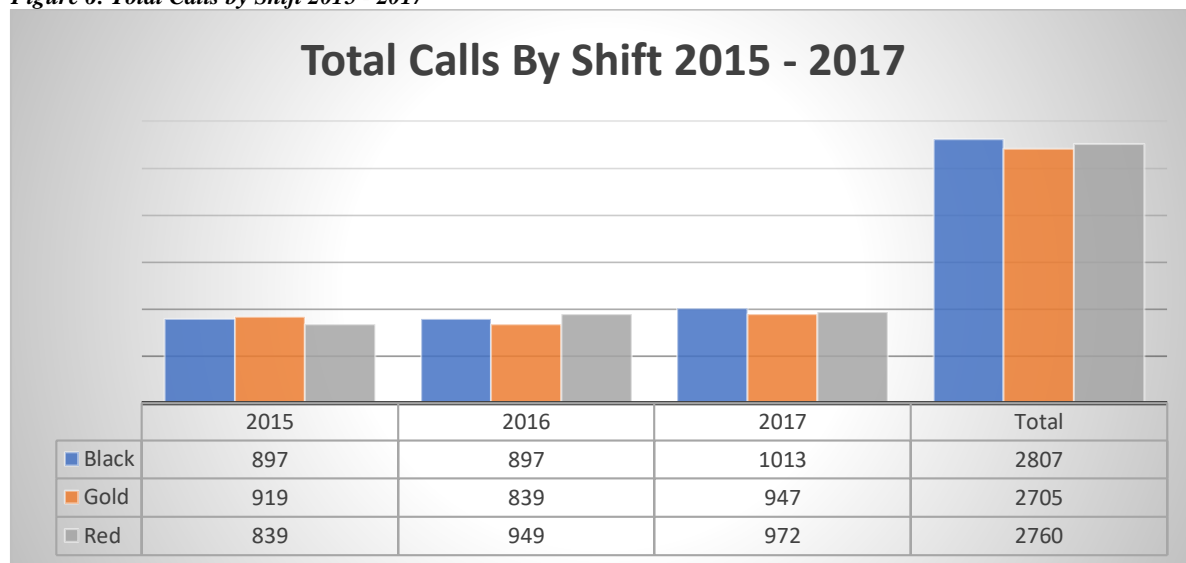
The above figure indicates the Bristol Kendall Fire Protection District data regarding calls by the time of day are consistent with what is found in most fire departments. The fewest number of calls happen between 11 p.m. and 6 a.m. The problem is that this is the period in which many fire deaths occur in private residences when the occupants are sleeping. The young and old are usually in the most danger because they are not always able to escape and protect themselves.

Calls by Shift

In analyzing the data about the number of calls by shift, the data may be used for quality control purposes and if one shift's number of calls are greater or less than another shift, than fire district leadership can use that information to make the necessary changes to the use of resources. Often if one shift has a greater or lesser number of calls than another shift(s), it is usually just an unusual circumstance and in most situations the number of calls by shift are normally very similar in the total calls per shift.

The following figure illustrates the fact that over the three-year period, the total calls for each shift is within 100 calls total. The figure reflects that for the three years, one shift has a higher number than the other two shifts each year.

Figure 6: Total Calls by Shift 2015 - 2017

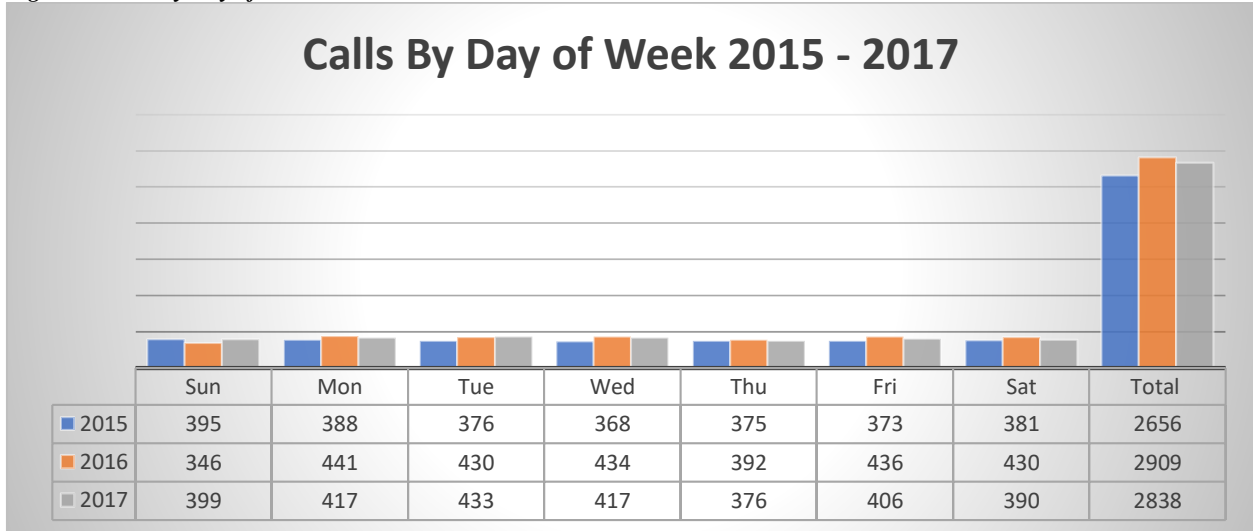


Calls by Day of Week

One examines day of the week and time of day to determine if there is a need to consider adding staffing during certain time periods.

The following figure reflects the number of calls by the day of the week for the 2015 – 2017 years:

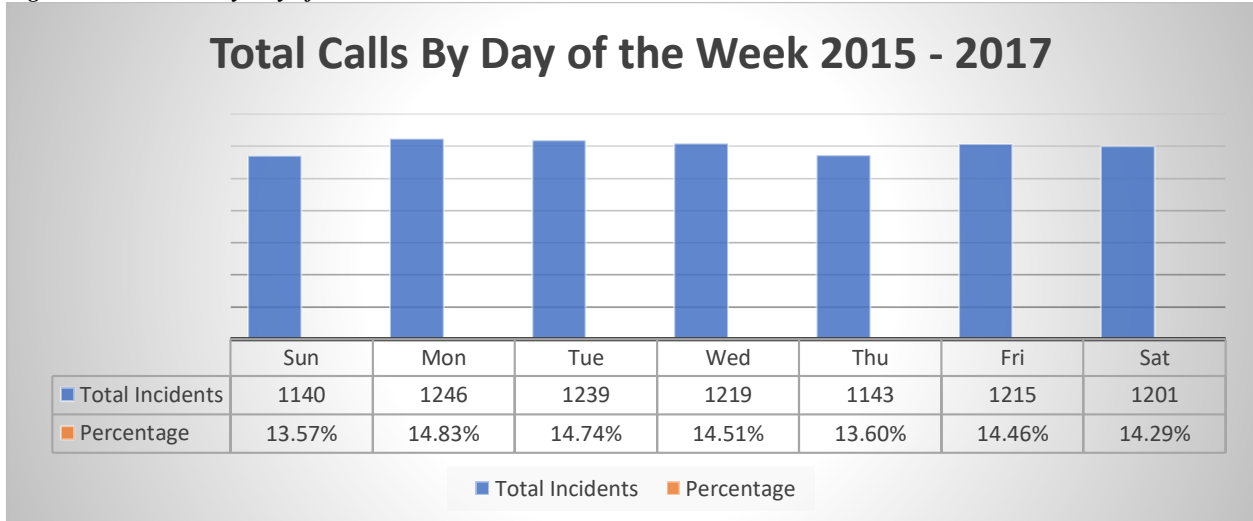
Figure 7: Calls by Day of Week 2014 – 2016



Total Calls by Day of Week

The following table reflects the percentage of the total calls by the day of the week for the years of 2015 – 2017:

Figure 8: Total Calls by Day of Week 2014 – 2016



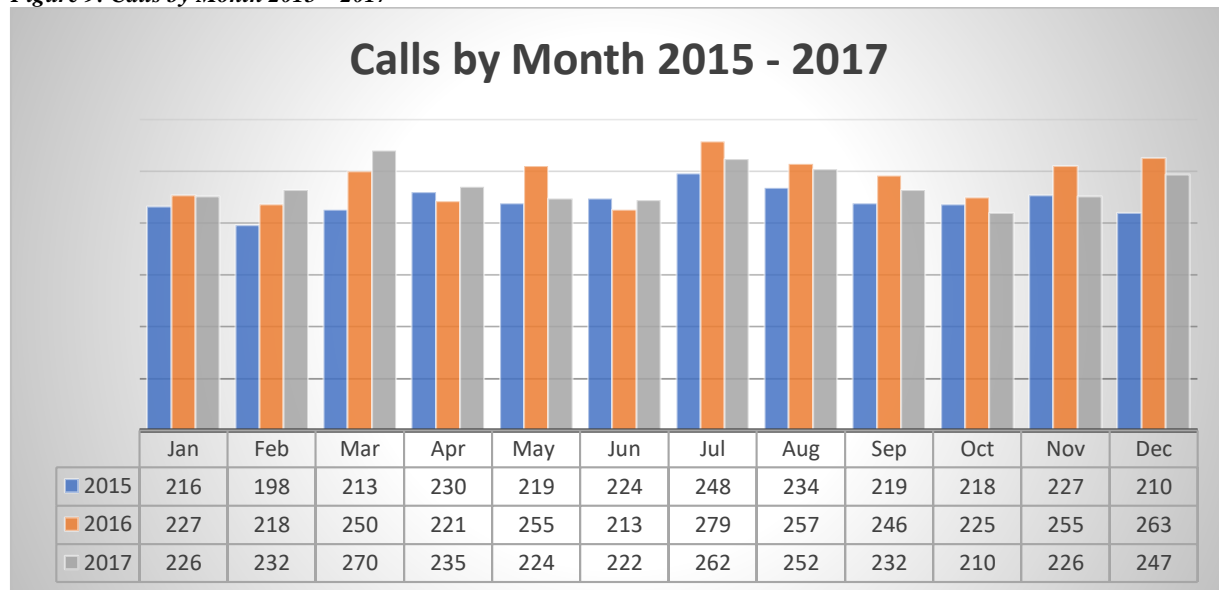
As shown in the above figure, the average number of emergency calls are consistent throughout the week for the three-year period with the highest average of calls being on Monday and Tuesday.

Calls by Month

Traditionally, most fire departments are busier in the summer months than in the winter due to individuals engaging in more outdoor activities. In addition, summer weather and storms sometimes result in an increase of the number of emergency calls during this period.

The fire department provided data reflecting the average number of calls by month for the three-year period of 2015 through 2017 as illustrated in the figure below:

Figure 9: Calls by Month 2015 – 2017

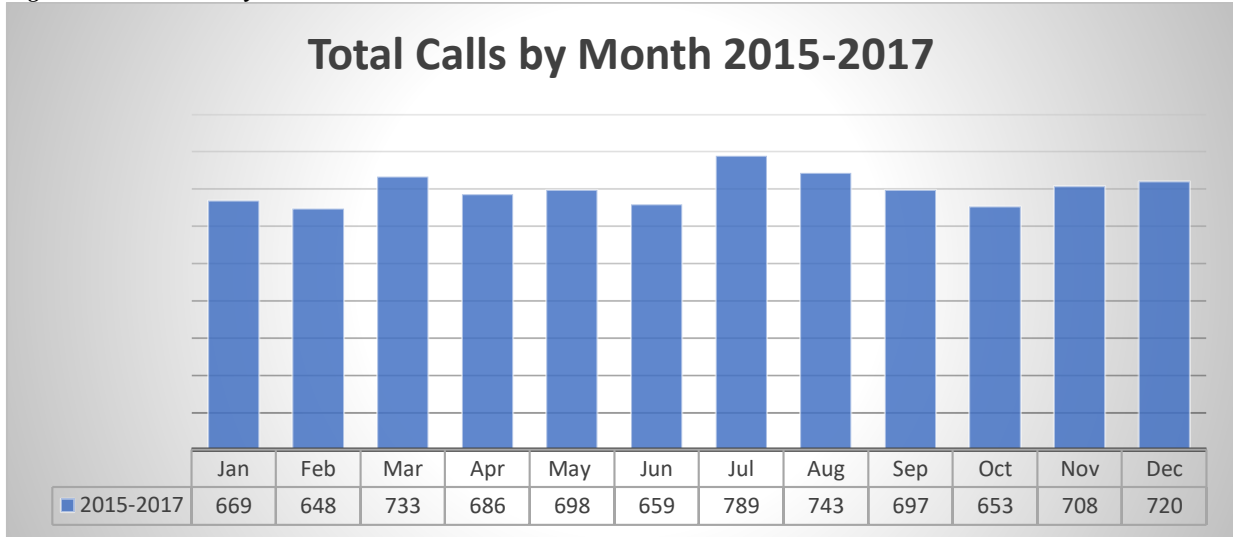


The data indicates that the number of calls per month is distributed evenly, with a few exceptions. In 2016, the number of calls monthly during the months of May through September with the exception of June increased significantly.

Total Calls by Month

The fire department provided data reflecting the average number of total calls by month for the three-year period of 2015 through 2017 as illustrated in the figure below:

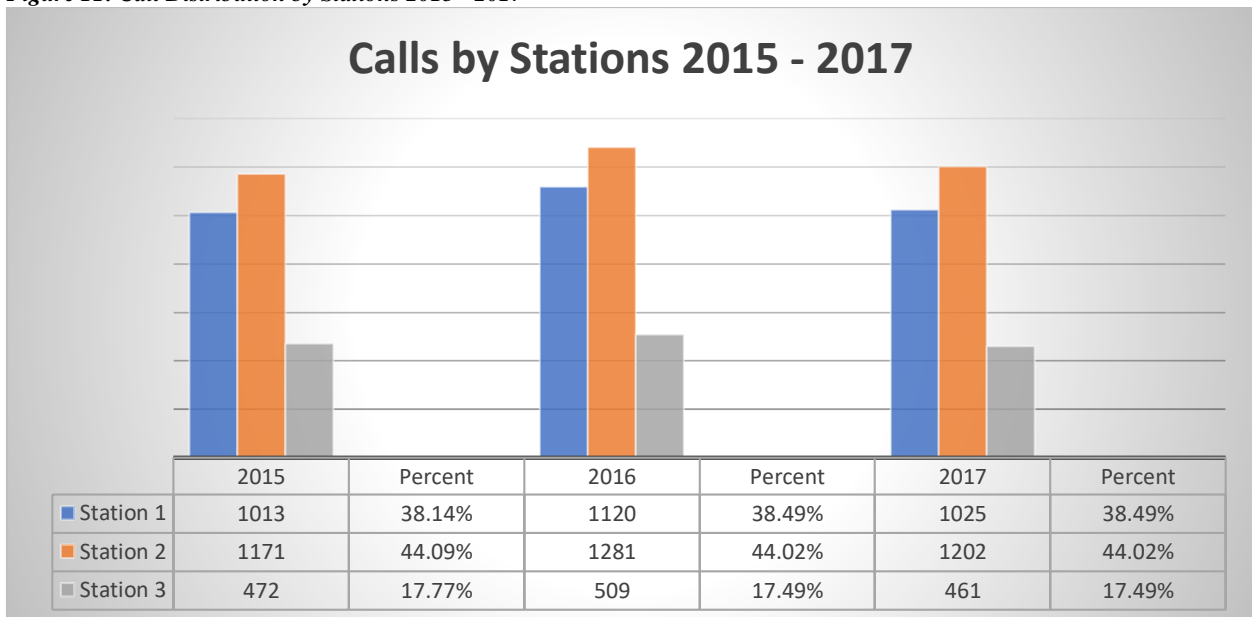
Figure 10: Total Calls by Month 2015 - 2017



Calls by Station 2014 - 2016

The Bristol Kendall Fire Protection District does maintain data on the number of calls on a monthly and annual basis for each of the three fire stations. The following table reflects the number and percentage of calls for each fire station district for the years 2015 – 2017.

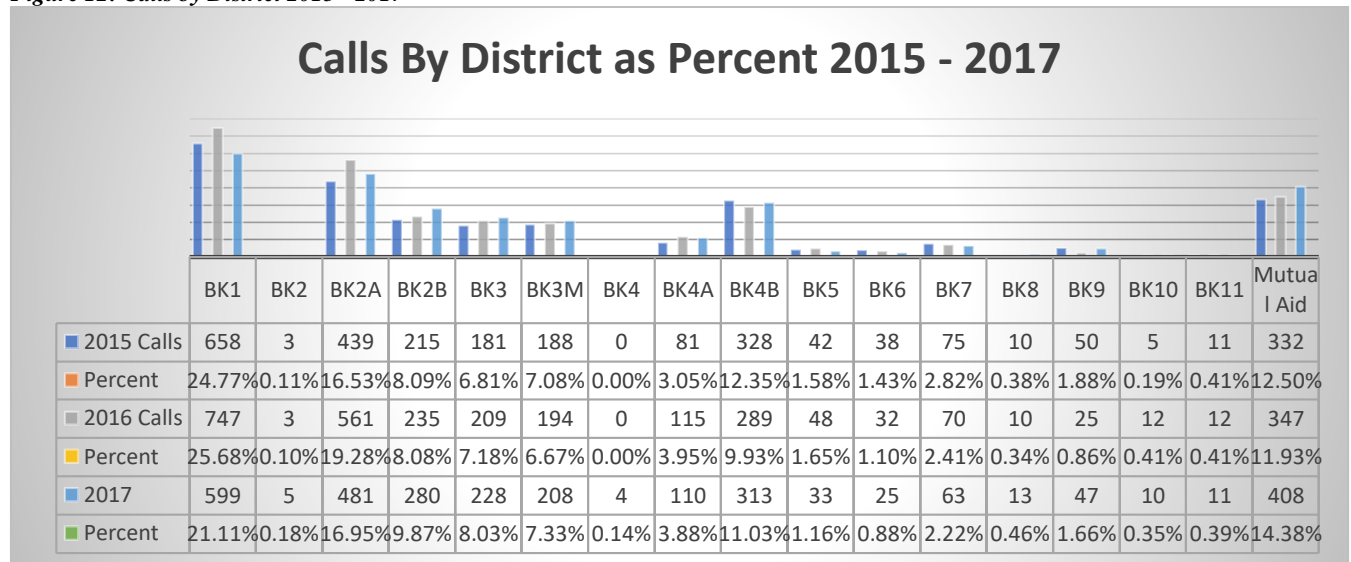
Figure 11: Call Distribution by Stations 2015 - 2017



Calls by Still District

The Bristol Kendall Fire Protection District does collect data on the location of the emergency calls within the District. The Bristol Kendall Fire Protection District tracks the location of calls by assigning them to 16 different still districts and by mutual aid. The following figure illustrates the locations of emergency calls within the district for the period of 2015 – 2017. A map with the location of the still districts is located in the Appendix of this report.

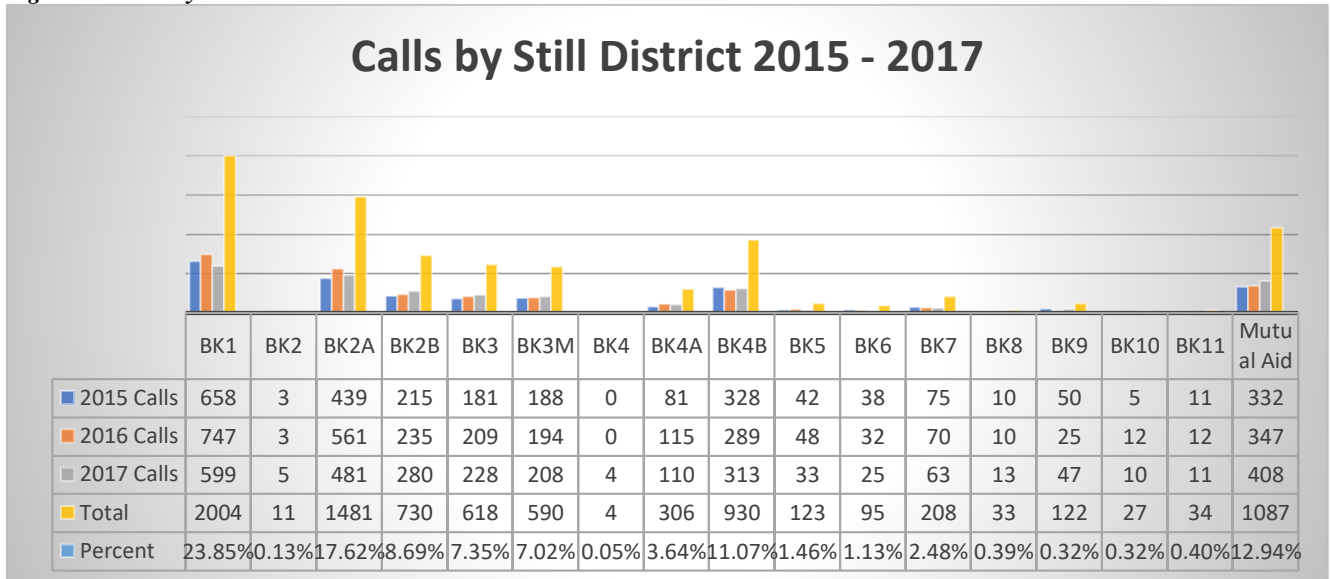
Figure 12: Calls by District 2015 - 2017



From the above figure, the data reflects that three (3) still districts account for 53.77% of the total calls for the three-year period. The three (3) districts are BK1, BK2A, and BK4B. These three (3) districts are in the center of the Bristol Kendall Fire Protection District. The four (4) most southern still districts include districts BK6, BK8, BK 10, and BK 11 and account for 2.46% of the total emergency calls over the three-year period. The location and number of calls as well as the percentage of total calls within each still district is important data. This information allows the Bristol Kendall Fire Protection District to plan for future changes in responses to emergency calls as well as planning for additional resources. This information certainly is important in planning for fire station and vehicle locations to meet the changing needs of the district.

The following figure illustrates the calls by still district on an annual basis and by percentage for the years 2015 – 2017.

Figure 13: Calls by Still District as Percent 2015 - 2017



Simultaneous/Overlapping Calls

Simultaneous/overlapping Calls is a term utilized which refers to times when the department is handling an emergency situation and another unrelated emergency incident occurs requiring immediate fire department response. Depending on the record management system utilized by a department, these calls might be called simultaneous, overlapping, or back-to-back calls.

The significance of the amount and frequency of simultaneous calls can result in increased response times or greater usage of mutual aid. There is no consensus in the industry as to an exact number when simultaneous/overlapping calls require additional resources. Fire departments do not have the ability to “stack calls” as do police agencies who routinely prioritize calls and dispatch accordingly. With few exceptions, when 9-1-1 requests the fire department it is for an emergency – at least in the opinion of the caller.

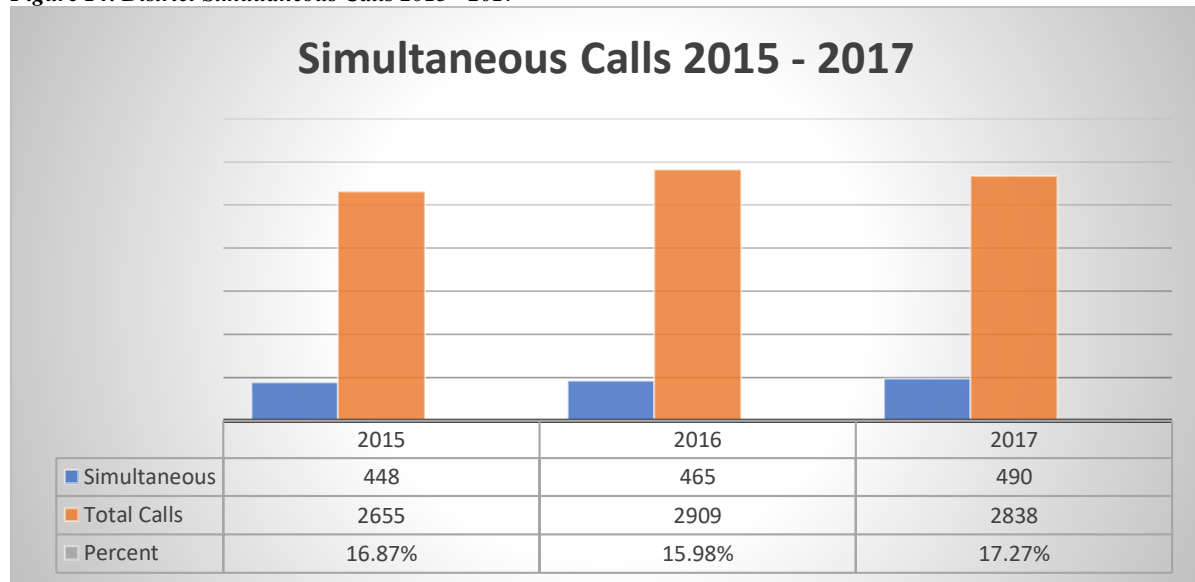
If every piece of fire or EMS apparatus were available at its assigned location every time a call for service was received, the department’s reliability would be 100%. If, however, a call is received for a particular station/unit, but that station/unit is already committed to another incident, be it fire or EMS, and the next closest unit must respond from a different station or source; the substitute company may exceed the maximum prescribed response time.

As the number of emergency calls per day increases, the probability increases that the primary unit needed for response is already committed and a backup or substitute unit will need to be dispatched. Although there are no national standards that indicate when simultaneous/overlapping calls require additional on-duty personnel the consultants' experience indicates that when simultaneous/overlapping calls reach 15% to 20% serious consideration to additional on-duty personnel is recommended.

Bristol Kendall FPD Simultaneous/Overlapping Data

The following table reflects the number of simultaneous/overlapping calls the Bristol Kendall Fire Protection District experienced over the three-year period from 2015 – 2017:

Figure 14: District Simultaneous Calls 2015 - 2017



The number of simultaneous calls for each of the three years has been between 15% and 17%, which is an indicator that the Bristol Kendall Fire Protection District should monitor on an annual basis in order to plan for additional resources necessary to handle the additional call volume.

Mutual Aid/Automatic Aid/MABAS

The philosophical concept of mutual aid is to offer assistance to a fire department upon request of the host department. The sole purpose is to give or receive assistance when all available resources, equipment or personnel, are depleted—and then on a limited basis. Automatic aid differs from mutual aid in that it is a

predetermined agreement with another department to respond automatically when the host department receives an alarm at a given location or area.

The Bristol Kendall Fire Protection District has mutual aid agreements in place with numerous surrounding Fire Protection Districts and Fire departments for equipment and manpower to both be received and provided. These mutual aid agreements were established through the State of Illinois MABAS System.

The Bristol Kendall Fire Protection District does participate in the State of Illinois Mutual Aid Box Alarm System (MABAS) and the District has signed agreements with the Illinois Mutual Aid Box Alarm System (MABAS).

Mutual Aid Box Alarm System (MABAS)

The Bristol Kendall Fire Protection District has responded on mutual aid calls during the past three (3) years. The following table indicates the number of times each year the Bristol Kendall Fire Protection District provided mutual aid and the departments to which it was provided during the years 2015 – 2017.

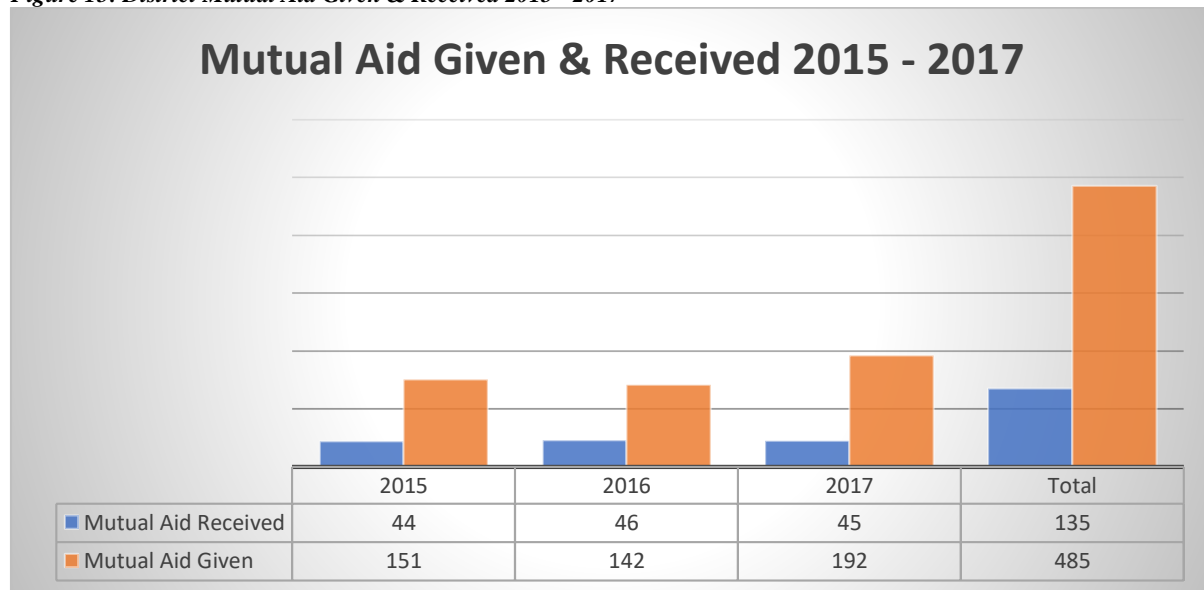
Table 3: District Mutual Aid/MABAS Given and Received 2015 - 2017 By Agency

Mutual Aid/MABAS Calls 2015 – 2017 By Agency						
	2015		2016		2017	
FD	Received	Given	Received	Given	Received	Given
Aurora Fire Department	0	0	0	0	1	0
Aurora Township	0	0	1	0	2	0
Big Rock	0	0	2	1	1	1
Coal City	0	0	0	1	0	0
Countryside	0	0	0	0	0	1
Hinckley	0	0	0	0	0	1
Kirkland Community FPD	0	1	0	0	0	0
Lisbon Seward FPD #1	1	2	3	6	2	1
Lisbon Seward FPD #2	2	16	1	18	2	11
Little Rock Fox FPD	35	84	25	67	24	67
Minooka FPD	0	0	0	2	0	1

Mutual Aid/MABAS Calls 2015 – 2017 By Agency						
	2015		2016		2017	
FD	Received	Given	Received	Given	Received	Given
Montgomery Countryside	2	1	4	0	5	1
Morris FPD	0	0	0	2	1	2
Naplate	0	0	0	0	0	1
Newark FPD	2	18	4	20	2	84
Plainfield FPD	2	2	2	2	4	4
Sandwich Community FPD	0	24	4	20	1	16
Somonauk FPD	0	2	0	0	0	0
Troy FPD	0	1	0	3	0	1
Total	44	151	46	142	45	192

The following figure reflects the number of time mutual was given or received in the years 2015-2017.

Figure 15: District Mutual Aid Given & Received 2015 - 2017

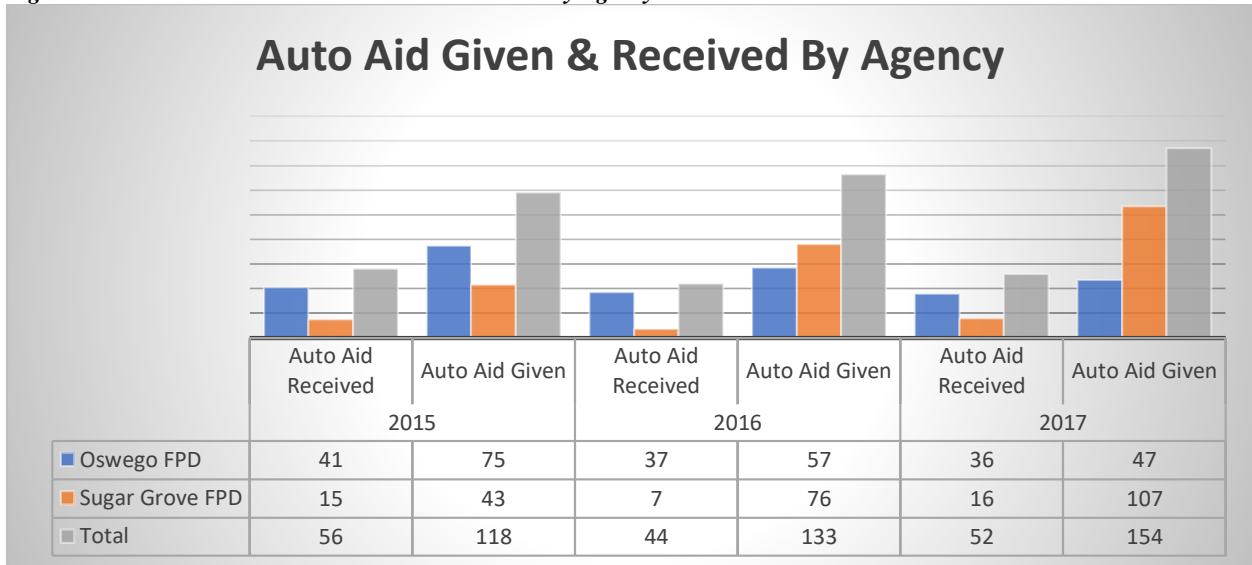


Automatic Aid System

It is critical to remember that the benefits of automatic aid are two-fold. By providing automatic aid, you can then expect to receive automatic aid when needed. The Bristol Kendall Fire Protection District has automatic aid agreements with two fire protection districts, which include the Oswego Fire Protection

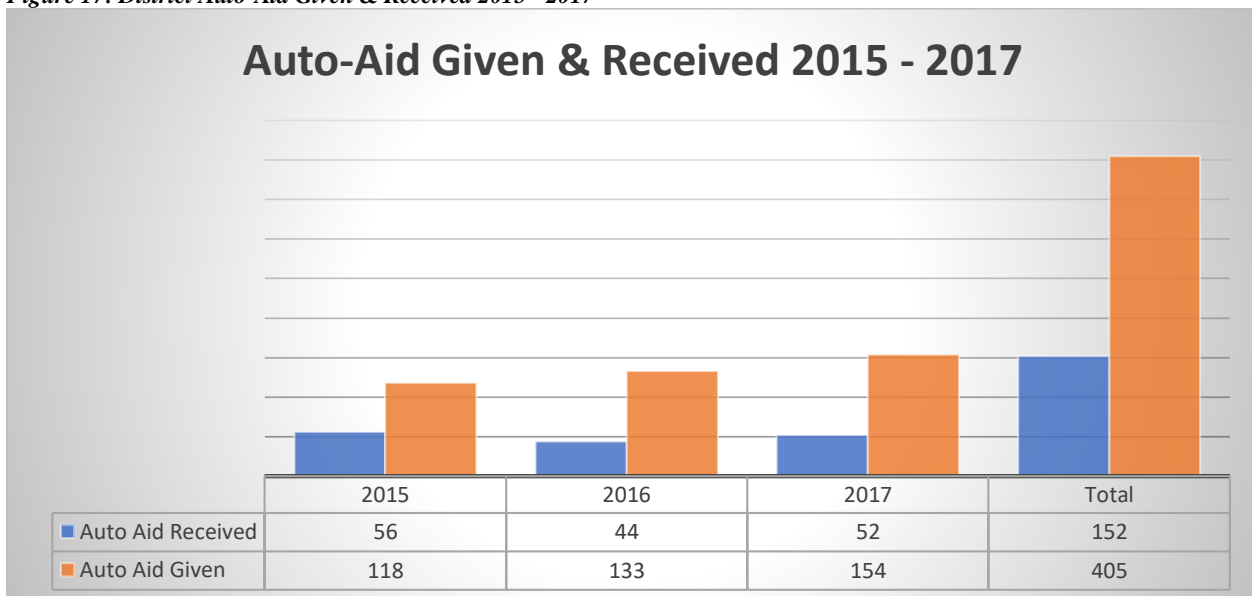
District and the Sugar Grove Fire Protection District. The following table reflects the number of times the Bristol Kendall Fire Protection District has given and received automatic aid for the years 2015 – 2017:

Figure 16: District Automatic Aid Given and Received By Agency 2015- 2017



The following figure reflects the number of time automatic aid was given and received in the years 2015-2017.

Figure 17: District Auto-Aid Given & Received 2015 - 2017



Response Times

Response time is perhaps the most critical component in determination of the resources needed and the deployment of those resources. From the public's perspective, response time begins when they become aware of the emergency and the call to 9-1-1 is placed. However, there is some uncertainty in the National Fire Incident Recording System (NFIRS) definition, which is vague and subjective as to when response times actually begins. Some fire departments record response time from the time they are made aware of the emergency until the time they arrive at the scene; while other fire departments record response times from the time the dispatcher receives the call until the first emergency unit arrives at the scene. Under the NFPA standards, there would be a one-minute difference in data depending on how the fire department records response times. The Bristol Kendall Fire Protection District considers response time from time of the fire department receives the call until the first unit arrives on the scene – this recording method aligns with the majority of departments.

Anyone who has personally experienced a fire or medical emergency knows the agony of waiting for the emergency responders where literally seconds seem like minutes. Anyone who has ever responded to those calls knows the feeling of moving as quickly and as safety as possible; where minutes seem like seconds. Both those seeking the emergency services and those providing those services want the same thing – rapid response times; hence, where should fire resources be placed to meet these expectations? The answer to that question becomes a philosophical statement of quality of life by those that govern the community/district through sound decisions, taking into account risk management within the confines of fiscal capability. The bottom line is that the Bristol Kendall Fire Protection District would fall under the NFPA 1720 standards 4.3.2 Staffing & Respond Time outlined in the “National Standard” section of this report.

When examining response times, it is essential that all parties are talking about the same response time components. When a fire department states they must be able to reach the emergency in four minutes, they are only referring to the travel time and are excluding notification and turnout times.

Response Time Components

The actual measurement of response time must be a total system understanding of all components of response time, including:

1. **Detection Time:** The time it takes to detect the emergency incident and dial 9-1-1.
2. **Notification Time:** The time from when the call is received by dispatch to the time the department is notified.
3. **Turnout Time:** The time it takes personnel to prepare and leave quarters after notification.
4. **Travel Time:** The time the first fire apparatus leaves the station to the time it reports on the scene.
5. **Mitigation Time:** The time the first apparatus arrives at the scene to the time when actual extinguishing/treatment efforts begin.

District Response Times

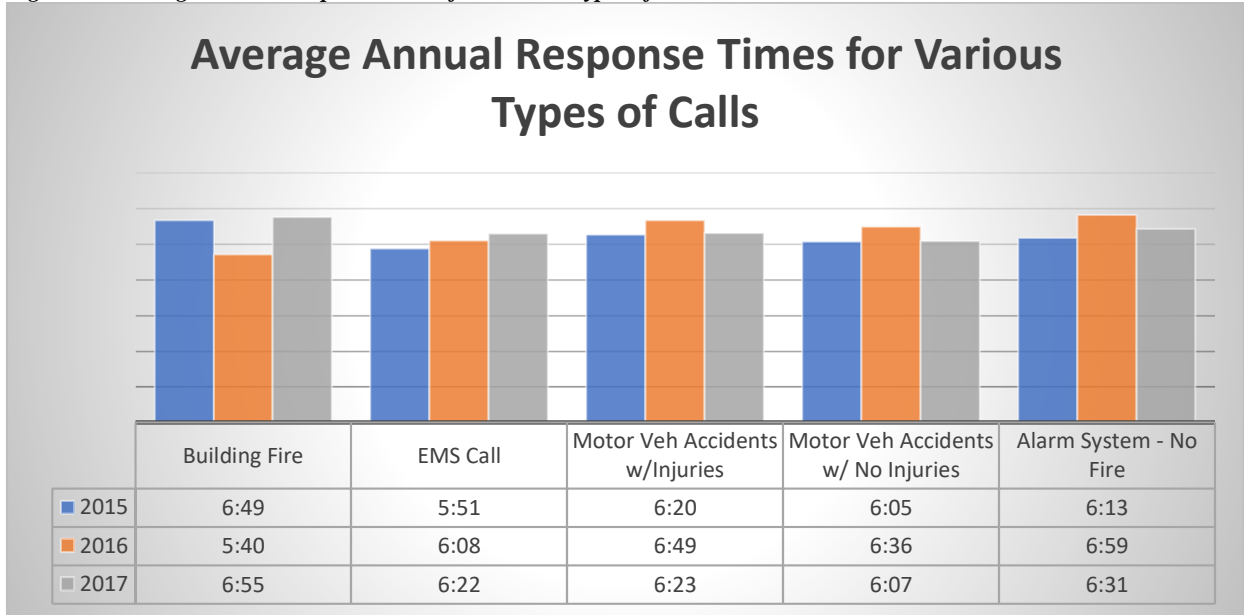
The consultants were provided with limited information from KenCom Public Safety Dispatch Center regarding times for the Bristol Kendall Fire Protection District. There was no information regarding detection or notification times.

The District does record the date and time of all alarms as well as the date and arrival times of the first responding emergency vehicles to the scene of an emergency. These times are recorded in the Firehouse Software used to record all emergency calls and their National Fire Incident Reporting System (NFIRS) reports. The date provided to the consultants included the alarm date and time and the arrival date and time. The difference between the two times is the response time from the time of the alarm to the time of arrival on the scene. It does include the turnout time, which is the time it takes for personnel to prepare and to leave quarters.

The following figure illustrates the response time to various types of calls listed for the years 2015 to 2017. It does not include all the calls responded to each year as the records are recorded by the types of calls responded to according to the NFIRS reporting system.

The figure illustrates the five categories with the largest number of annual responses and it indicates the average response time for those type of calls.

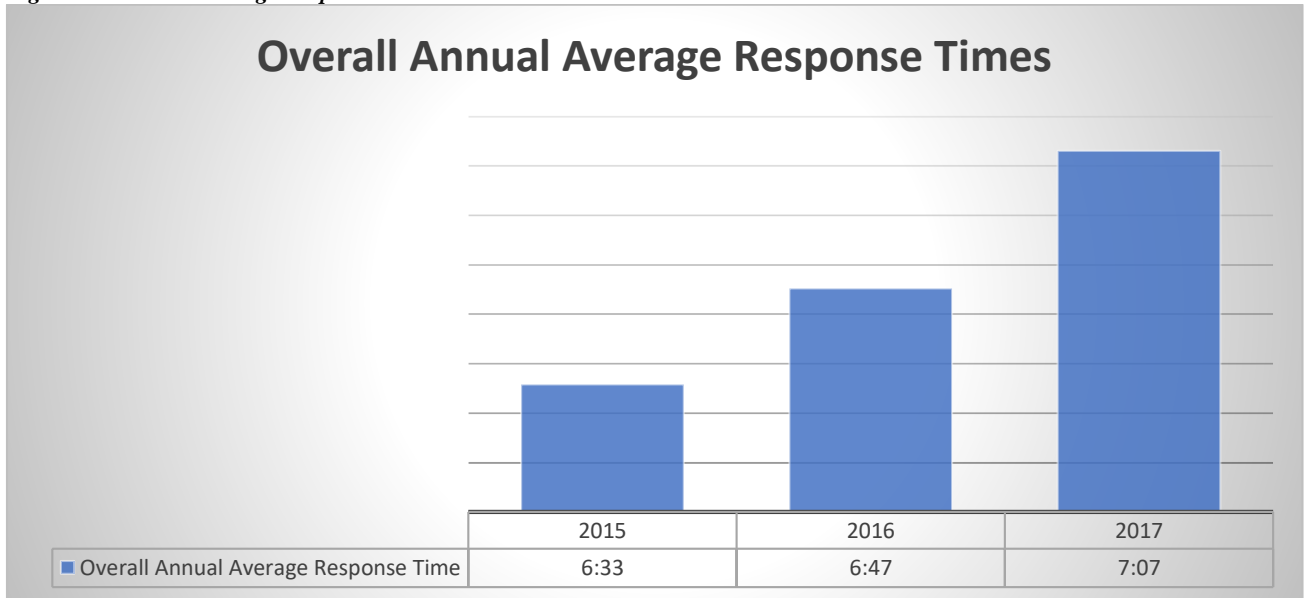
Figure 18: Average Annual Response Times for Various Types of Calls



In the above figure, all times are relatively similar, but one needs to carefully evaluate the data. An example in 2017, the average response time for calls for building fires was 6 minutes 55 seconds, but when analyzing the data there was only 13 calls for building fires in 2017 and of the 13 calls three calls with the longest response were between the hours of 11pm and 4am when firefighters on duty are in bed and it takes longer to respond as they must get out of bed, dress quickly, and get to their vehicles to put on their firefighting equipment before leaving the station. So, with 13 calls and 3 of them being longer because they occurred when firefighters were sleeping, it does affect the average response times.

The following figure reflects the annual average response times for all emergency calls for the years 2015 – 2017:

Figure 19: Overall Average Response Times 2015 - 2017



The above figure illustrates the total overall annual average response times. The times have been rather stable, and one needs to remember these times include turnout time and travel time. In the three-year period, the times have increased by 34 seconds, which could be the result of many factors including time of day the calls occurred, traffic conditions, weather, new growth in the community. The standard for turnout time for EMS calls is 60 seconds and for fire calls it is 80 seconds, so if one subtracted a minute to a minute and a half from the average response times the times would be very good.

District Current Staffing Model and Challenges

Full Time District Staffing

The Bristol Kendall Fire Protection District operates with three full-time employees of the District. The Fire Chief, the Assistant Fire Chief, and the Maintenance Mechanic. All three of these members work a forty (40) hour work week. The Assistant Chief serves as the Fire District Operations Chief. During the week the Assistant Chief and Fire Chief are both available to respond to emergency calls.

In the evening and on weekends, either the Assistant Chief or the Fire Chief serve as the Duty Chief and are available to respond to emergency calls off duty. In some situations, the Assistant Chief of Training may serve as the Duty Chief. The Battalion Assistant Chief of Training and the Battalion Chief Fire Marshal are also available to respond to emergency calls when they are on duty or near the District.

The Fire Chief and Assistant Chief are both assigned a Fire District vehicle, so they can respond to emergencies from home in the evenings and on weekends. The District Mechanic is assigned a District vehicle when he is on duty to go to Fire Station 3 and to conduct his maintenance duties.

District Full-time Employees Pension and Benefits

All three District employees receive health, sick, accident and disability insurance as an employee benefit, but their pension systems are different. The Fire Chief is not in the State of Illinois Suburban and Downstate Pension Fund as he was grandfathered prior to the requirement of the Fire District employees being required to be enrolled in the Downstate Pension Fund. The Fire Chief receives an annual accumulated benefits payment in lieu of being in the pension system. Once the current Fire Chief retires, the new Fire Chief will be required to participate in the State of Illinois Suburban and Downstate Firefighter Pension Fund and the District will be required to pay the employers contribution to the Pension System.

The Assistant Chief is the only full-time employee of the District that is enrolled as a participant in the State of Illinois Suburban and Downstate Pension Fund. The Assistant Chief is required to contribute 9.445% of his salary to the pension system and the District contributes between 18-20% of his salary to the pension system. The employer contribution varies by pension fund, but normally ranges between the eighteen (18) and twenty (20) percent range. Members that belong to the Firefighters pension system do not contribute to the Social Security System, except for the Medicare portion.

Even though the Bristol Kendall Fire Protection District only has one employee in the state Firefighter pension system, there is a local Pension Board that meets on a regular basis to manage the pension funds. The local Pension Board is comprised of three members of the Fire District.

Information from the State of Illinois Department of Insurance Public Pension Division 2017 Biennial Report for the years 2015 – 2016 indicates that the Illinois Suburban and Downstate Firefighter Pension Fund had actuarial value of assets of \$5,672,270,895 and actuarial value of liabilities of \$9,925,166,558. The assets compared to the liabilities indicated that the Firefighter Pension fund is only funded at 57.15 percent.

This same State of Illinois Report indicated that the Bristol Kendall Firefighters Pension Fund as of April 30, 2016 had assets of \$403,171 and liabilities of \$398,370. The Bristol Kendall Firefighters Pension Fund was funded at the rate of 101.21 percent.

The third full-time employee of the Bristol Kendall Fire Protection District is the maintenance mechanic who is not in the State of Illinois Suburban and Downstate Pension Fund. The mechanic is in the Illinois Municipal Retirement Fund (IMRF) because he is not a firefighter. The employee contribution rate for the IMRF is 4.5% of their salary. The State of Illinois report on pensions reported that in 2016 the IMRF had actuarial value of assets of \$43,226,897,654 and actuarial value of liabilities of actuarial value of \$47,812,210,529. The assets compared to the liabilities indicated that the IMRF is funded at 90.41 percent.

Contract Employee Staffing

Contract Officers and Administration

The Bristol Kendall Fire Protection District contracts with Public Safety Services, Inc. for one Battalion Chief position who serves as the EMS Coordinator and the liaison between the Bristol Kendall Fire Protection District and Public Safety Services, Inc. The District also contracts with Public Safety Services, Inc. for one Battalion Chief who serves as the Fire Marshall for the District. The District contracts with Public Safety Services, Inc. for one full-time Administrative Assistant who serves as the Administrative Assistant for the District. The position has the responsibility of performing many different administrative duties and responsibilities including record keeping, filing, correspondence, accounts payable and other administrative duties as assigned by the District.

Contract for Firefighter/Paramedic Staffing Services

The Bristol Kendall Fire Protection District contracts with Public Safety Services, Inc. (PSSI), for personnel to perform firefighting and paramedic duties on a full-time basis for the District. Public Safety Services, Inc. is an Illinois Corporation based out of Rosemont, Illinois. The Bristol Kendall Fire Protection District has had a contract with Public Safety Services, Inc. since 1992 to provide full-time staffing to the District. The current contract agreement between the District and Public Safety Services, Inc. was effective June 15, 2014 and by amendments the contract agreement now ends on June 14, 2020.

The agreement requires that Public Safety Services, Inc. shall provide at least thirty (30) full time personnel to the District with one or more certifications as State of Illinois Licensed EMT-B (Basic) or EMT-P (Paramedic) or State of Illinois Certified Firefighter II. The District may accept personnel with not having one or more of the required credentials, but then PSSI and the District work together cooperatively for the personnel to obtain the credentials as scheduling and academy availability permits. The personnel are required to perform paramedic and firefighting duties for the District with a work schedule of twenty-four (24) hours on duty followed by forty-eight (48) hours off duty. At least nine (9) firefighters shall be on duty at all times during the term of the agreement. In the event of illnesses, vacation or other vacancy caused by the absence of regular assigned personnel, the Public Safety Services, Inc. shall be responsible to make available qualified replacement personnel at their expense.

In addition to the thirty (30) firefighters, PSSI, under the terms of the agreement, also provides one supervisor who has the title and rank of Battalion Chief. This Battalion Chief functions as a liaison between PSSI and the District and serves as the District EMS Coordinator. The agreement also requires PSSI to provide one code inspector/code enforcement officer, who serves as the Fire Marshal for the District. The agreement also requires PSSI to staff one employee to perform clerical duties for the District on a full-time schedule.

The firefighters under the agreement with Public Safety Services, Inc. operate under the direction of and are scheduled by the District. The firefighters have as their primary duties and responsibilities to provide advance life support pre-hospital medical care, fire--suppression and rescue duties to persons within the District and shall respond to any calls for emergency service.

Other duties performed by the firefighters include:

- Completing written reports pertaining to statistics and performance monitoring
- Conduct quality assurance programs
- Provide a get-well-card program
- Provide routine maintenance checks of the District stations, ambulances and fire equipment
- Provide demonstrations of the ambulance and firefighting equipment
- Instruct CPR and first-aid classes
- Provide blood pressure screening services
- Provide EMT refresher and continuing education training

- Assist in fire suppression and other fire department duties as directed

Public Safety Services, Inc. is responsible for the continuing education of the PSSI employees as designated or mandated by the Southern Fox Valley Emergency Medical Services System of Mobile Intensive Care or other regulating system, the Illinois Department of Public Health, or the State of Illinois. Education and training shall be at the expense of PSSI and shall not cause on-duty firefighters to be absent from regularly assigned duties.

Under this agreement, the firefighters are employees of PSSI and not of the District. PSSI shall pay all firefighter salaries, benefits, taxes, and other employment obligations. PSSI has the sole obligation to provide the firefighters with health insurance coverage, to make payments that may be due under the Workers Compensation Act, and to meet all other obligations an employer may have under local, state, or federal laws.

The PSSI Battalion Chief who serves as the EMS Coordinator duties shall include:

- Assisting the Bristol Kendall Fire Chief in the efficient operations of the total EMS program
- Meet on a regular basis with the Officers and Fire Chief to develop and maintain continuity of the EMS program
- To advise the Fire Chief of any changes or needs which may affect the EMS program and shall further advise the Fire Chief of existing or potential conflicts between hospital staff and department personnel
- To fulfill any additional duties and assignments as directed by the Fire Chief

The District Fire Chief or designee has the right to interview each PSSI firefighter candidate prior to an assignment to full-time service with the District. A resume of each candidate must be provided by PSSI to the District and all PSSI firefighters are required to meet the physical requirements established by the District and at the expense of the District. The District does have the right to reject or terminate any firefighter from service with the District for just cause or for reasons of incompatibility. The contractual agreement requires that PSSI shall give priority in hiring local personnel.

The agreement requires that PSSI provide a comprehensive professional liability insurance as well as manufacturers and general liability insurance with a minimum policy limits of at least \$1,000,000 per

occurrence for each PSSI firefighter employee. An umbrella policy must be maintained with limits of at least \$5,000,000 with the District named as an additional insured.

The District is responsible for providing the PSSI firefighters with uniforms and all firefighter personal protective equipment. The District is responsible for providing all equipment necessary to the operation of the Mobile Intensive Care unit provided by the District and for all motor vehicle liability insurance coverage for all District owned vehicles.

The contractual agreement states the District may terminate the agreement if PSSI fails to perform provisions, terms and conditions of the agreement after the District has notified PSSI of the need to remedy the non-performance provisions within a reasonable time by giving PSSI ninety (90) days written notice.

Effective January 1, 2007, Public Safety Services, Inc., by the contractual agreement, was required to establish and administer the Public Safety Services, Inc. Retirement Plan and Trust for PSSI employees assigned to work for the District. The employer contribution amounts are determined at the beginning of each calendar year for each employee's previous year of service. PSSI will make the employer contributions at the beginning of each year and will provide the District with a report of such employer contributions made. The District will reimburse PSSI for the employer contribution expense as soon as practical after receipt of the Contribution Report, which is usually within the first two months of the new year.

The agreement states that if the District should require additional firefighter/paramedic non-supervisory personnel in addition to the personnel previously described in the agreement can be added may be added at an additional cost, per full-time position of \$78,000 annually.

The current cost of the contractual agreement between PSSI and the District for the period of June 15, 2017 to June 14, 2018 is for the sum of \$3,389,292.83. For the next period of June 15, 2018 to June 14, 2019, the annual cost will be \$3,561,403.40. For the final year of the current agreement the period of June 15, 2019 to June 14, 2020, the annual costs will be \$3,747,874.00.

Part Time District Staffing

The Bristol Kendall Fire Protection District does employ between forty (40) and forty-five (45) part-time firefighters, which many of them are Certified as Emergency Medical Technician – Basic Level or Advanced Life Support – Paramedic Level. The part-time staff are used to supplement the daily staffing of the three (3) fire stations to maintain a daily minimum staffing level.

Some of the part-time district personnel are full-time firefighters with the District, but are employees of Public Safety Services, Inc. when they work full-time. The District also employs part-time firefighters that are full-time employees of other fire departments in the area. One of the problems recently is that surrounding full-time departments are not allowing their full-time personnel to work for another fire department part-time or even as a volunteer. This concept is not new as the fire departments that employ personnel full-time are concerned about their employees being injured when working for another fire department. The issue becomes difficult for Fire Protection Districts like Bristol Kendall because they rely on part-time personnel to supplement their full-time staff and when part-time employees are difficult to recruit and hire, it creates problems for staffing the District fire stations on a daily basis.

The District Deputy Chief and Assistant Chief of Training are both part-time employees of the District. The Deputy Chief is primarily responsible for administrative duties such as quartermaster with responsibility for firefighter protective equipment and fire district personnel uniforms, assisting with accounts payable for the District, works on budget and tax documents, handles workers compensation records and reports, handles all building bid documents, handles special projects for the Fire Chief, serves as the clerk for the District Board of Trustees, develops agendas for Board of Trustees meetings, and attends all District Board meetings. The Deputy Chief has been a member of the Bristol Kendall Fire Protection District for forty-eight (48) years. The Deputy Chief does not respond to emergency calls and serves the District primarily in an administrative Chief Officer role.

The Assistant Chief of Training is responsible for all aspects of fire training and education for all District employees both full-time and part-time. The Assistant Chief develops the training plans and schedules the fire training. In addition, the Assistant Chief is responsible for tracking all training and recording the training that has been completed in District records. The Assistant Chief of Training also works part-time on the Red Shift during the evening shift hours.

Hiring Process

Full-time contract employees are hired by Public Safety Services, Inc. (PSSI) with the requirement that they have completed the State of Illinois Basic Operations Firefighter (BOF) Course and have a Paramedic License. Their primary responsibility is to be a Paramedic. The new employees are required to have successfully passed a physical examination and a background check. When they start work with the District they are assigned to a Paramedic Ambulance, but they are assigned to a Lieutenant that works with them to complete the District firefighting task book. The task book is basically getting signed off by the Lieutenant, stating that the new employee can perform the skills required of a firefighter. The task book clearly defines the skills required to perform many of the tasks of a District firefighter. Once the new employee has been signed off by the Lieutenant that they can perform all the skills in the task book, then they can be released to perform firefighting duties as a District employee.

Part-time Bristol Kendall Fire Protection District employees are required to:

- Be at least 21 years of age
- Be in good physical condition and mental health and able to perform strenuous manual labor
- Be of good moral character and not had any serious criminal activity
- Be able to work at least 48 hours per month
- Possess a valid non-CDL class B driver's license
- Be a high school graduate or equivalent
- Certificate as an Illinois Firefighter Level 2 or Basic Operations Firefighter
- Have a valid Illinois license as an EMT-Basic or Paramedic

There are some additional requirements, but the above requirements are the major requirements.

Part-time employees are required to submit an application to become an employee of the District.

The State of Illinois Basic Operations Firefighter (BOF) Course is a minimum of 180 hours and includes the following topics and/or requirements:

- Fire Service Vehicle Operator Course Completion
- Certification Requirements for Hazardous Materials Operations
- Certification Requirements for Technical Rescue Awareness
- Required CPR/First Aid
- NIMS 100 & 700
- "Courage to Be Safe" Course Completion

- Successfully pass a written examination
- Successfully pass a practical examination

An applicant may have an equivalent course to the BOF Course. The equivalent course may be for an applicant that completed a basic firefighting course prior to the Basic Operations Firefighting Course being offered. Most likely, an applicant that needs an equivalent course has been in the fire service for a period of time and may even be a full-time firefighter with a different fire district or department.

New part-time employees sign an employment agreement with the Bristol Kendall Fire Protection District whereby they agree to maintain employment with the District for at least two years from the date of appointment. The purpose of this is due to the high costs of training and equipping new part-time employees. If the employee leaves employment with the District prior to the two years they may be required to reimburse the District for the cost of equipment, uniforms, background check and physical.

The amount they would be required to pay back would be based on the amount of time they were employed by the District prior to leaving. Part-time employees that left for medical reasons or military leave could be excused from having to repay the District.

District Interns

The Bristol Kendall Fire Protection District does have six (6) cadets that work with the District as interns to learn about the fire and EMS service. Some of the interns are high school students between the age of sixteen (16) and nineteen (19) years old. In their junior year of high school, they attend the Indian Valley Vocational Center in Sandwich, Illinois and are enrolled in the Illinois Basic Operations Firefighter (BOF) course and is part of the Fire Science program.

In their senior year of high school, the interns attend the Indian Valley Vocational Center and are enrolled in the Emergency Medical Technician Basic (EMT-B) course. This course at the Vocational Center is only for high school seniors. Upon successful completion of the EMT-B course and 18 years of age, the students are eligible to take the Illinois State licensure exam or the National Registry of EMT certification exam.

For students out of high school, they can apply to become a Cadet with the Bristol Kendall Fire Protection District and attend Waubensee Community College in Sugar Grove, Illinois. At the college, they can enroll in the Illinois Basic Operations Firefighter (BOF) course and the Emergency Medical Technician Basic (EMT-B) course. Upon successful completion of the EMT-B course and 18 years of age, the students are eligible to take the Illinois State licensure exam or the National Registry of EMT certification exam.

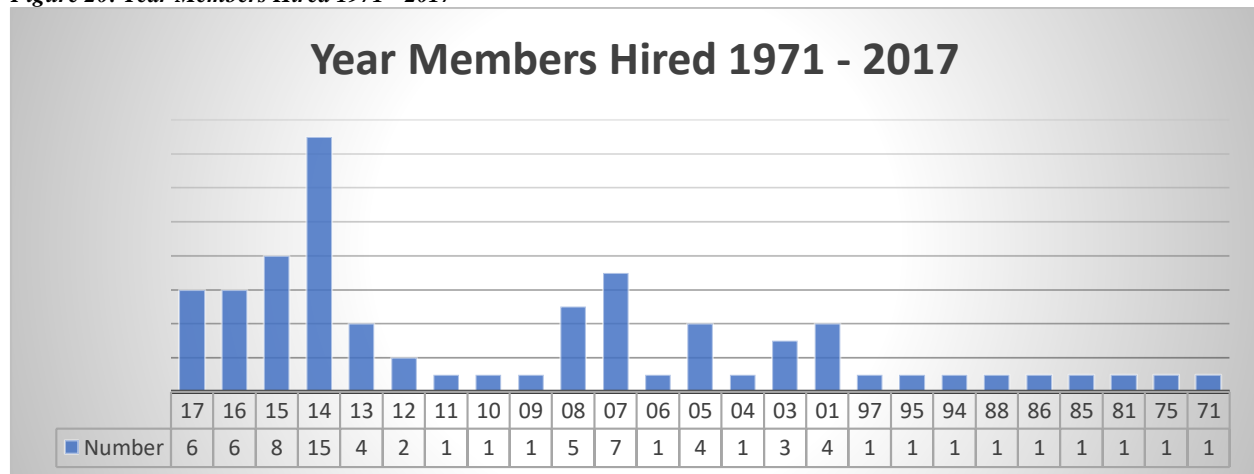
The District does require the District Fire Cadets to attend training twice monthly while they are in the Cadet Training Program. After the cadets have completed their Basic Operations Firefighter (BOF) course and have obtained their Emergency Medical Technician Basic (EMT-B) license and have served as a Cadet for at least between 1.5 and 2 years on the Bristol Kendall Fire Protection District, they can apply to become a part-time firefighter with the District.

This is an excellent program for the Bristol Kendall Fire Protection District to be involved with and to support. It certainly benefits the young participants in the Cadet Program by allowing them an opportunity to experience the Fire and EMS service and it is a benefit to the District as it provides them with an opportunity to develop new and possible future firefighters and EMT's for the District.

Members Years of Service

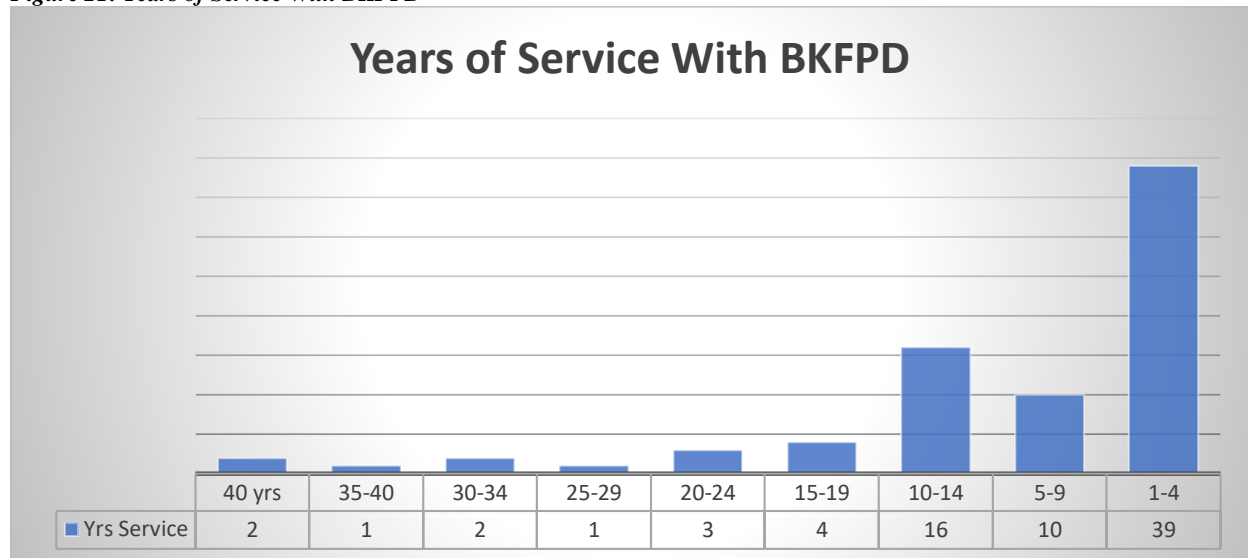
The following figure illustrates the number of personnel including District full-time members, full-time PSSI contract members and District part-time members hired in the years listed from 1971 to 2017.

Figure 20: Year Members Hired 1971 - 2017



The following figure illustrates the years of service all District full-time and part-time employees and PSSI contract service employees have with the BKFPD. Of the total seventy-eight personnel employed by the District, thirty-nine (39) or fifty (50) percent have less than five years of service. Members with less than ten (10) years of service total forty-nine (49) or almost 63 percent of the total number of members. One of the problems with significant turnover both on the part-time District employees and PSSI contract employees is a lack of years of service and/or experience in the fire and EMS service.

Figure 21: Years of Service With BKFPD



District Personnel – EMS License Level

The District has thirty-seven (37) members that are certified at the Firefighter/Emergency Medical Technician - Paramedic Level and nineteen (19) members that are certified as Firefighter/Emergency Medical Technician – Basic Level. The total number of Paramedics and Emergency Medical Technicians – Basic Level that work for the District fluctuates on a regular basis as members leave employment with the District for various reasons.

Daily Minimum Staffing

The full-time contract employees of PSSI work 24-hours on duty followed by 48-hours off duty. Basically, the full-time personnel work a 24-hour shift once every three days for the Bristol Kendall Fire Protection District. Their duty schedule works out to be an average of 56-hours of work every week.

The daily minimum staffing of personnel on duty for the District is established at fifteen (15) personnel. This is the minimum amount of personnel required to be on duty 24 hours a day/365 days a year. This is the amount of personnel required to staff the emergency response vehicles located at the three-fire stations and to be able to respond to emergency calls and operate safely.

By contract, PSSI has ten (10) full-time personnel assigned to each 24-hour shift and PSSI is required to have a minimum of nine (9) full-time personnel on duty every day. This allows one full-time contract personnel to be off on any given day for vacation, sick leave, family medical leave, etc. If staffing drops below nine (9) full-time personnel on duty, then PSSI is required to hire a full-time employee back at overtime to maintain nine (9) full-time personnel on duty.

The remaining six members on duty each 24-hour shift are part-time District employees. Each of the six (6) part time positions filled each day by either a part-time District employee working a 24-hour shift or two (2) part-time District employees working 12-hour shifts each. Some of the part-time District employees are also full-time employees with PSSI, but when they work part-time they are employees of the District and receive the part-time salary rate of pay.

The minimum daily staffing of 15 personnel is used to staff the following vehicles:

- Station #1** - Fire Engine – (1) Lieutenant, (1) Engineer (Driver), (1) Firefighter
Ambulance (2) Firefighter/Paramedics
- Station #2** - Fire Engine – (1) Lieutenant, (1) Engineer (Driver), (1) Firefighter
Ambulance (2) Firefighter/Paramedics
- Station #3** - Fire Engine – (1) Lieutenant, (1) Engineer (Driver), (1) Firefighter
Ambulance (2) Firefighter/Paramedics

On a daily basis the District staffs three (3) Fire Engines and (3) Ambulances. The Lieutenants are Company Officers and are in charge of the Engine Company. The nine (9) Lieutenants are all full-time contract employees with PSSI and all except one Lieutenant are paramedics. All of the personnel that staff the ambulances are paramedics and are full-time contract employees with PSSI.

The six part-time District employees that staff the 24-hour shifts are used to staff the three (3) Fire Engines daily to fill the three positions on each Engine with the Lieutenant. The part-time employees are used as the Engineer or Driver and the firefighter on each Engine. On most 24-hour shifts of the six (6) part-time District employees, three (3) are used to fill the position of Engineer and three (3) are used to fill the firefighter position on the Engine.

Although the use of contracting with PSSI for full-time employees has worked very well for over twenty-five (25) years, there are issues associated with having contract employees instead of District employees staffing the stations 24-hours a day/365 days a year.

One major issue that has started to develop over the past few years is that the full-time contract employees are starting to leave the employment of PSSI. This means they no longer work in the District fire stations under the PSSI contract. The major reason full-time contract employees are leaving is because they are obtaining employment with full-time career fire departments where they receive full-time fire departments benefits including being enrolled in the State of Illinois Firefighter Pension System.

Another significant reason for the full-time contract employees leaving for other employment is that working for PSSI, they are not covered by any type of duty disability program that firefighters working as full-time employees for fire department that are in the State pension system have as a benefit.

The full-time contract employees are covered by worker's compensation when working for the District stations, but the coverage is not long term. When they leave to seek full-time employment with a Fire District or Department and they are covered by duty disability, which means if while on duty they experience an on-duty injury that doesn't allow them to return to full duty, they may apply for what is known as a duty disability retirement pension.

The contract employees that are leaving are looking for more long-term stability in their careers with full-time employment with a Fire District/Department that offers a decent wage with benefits including a pension and disability benefits to protect themselves and their families long term. The salaries they receive from PSSI are competitive, but the benefits are not available to make it a long-term employment situation. Several area fire departments are hiring full-time employees as many of their older employees

are reaching retirement age and are retiring. This creates even more challenges for the District since there are more full-time positions available with neighboring communities.

The issue of full-time contract employees leaving for other employment creates multiple challenges for the District including:

- Loss of experienced full-time personnel working for the District that know the operations, hazards, and the community.
- Having to train new full-time contract employees about the District operations, community, equipment, apparatus, and response procedures. The training has costs connected to the outcomes.
- New full-time contract employees are usually new to the area and not familiar with the District response area and hazards.
- It usually takes one to two years for a new paramedic to reach a skill level that allows them to perform the duties of a paramedic safely with good decision-making skills.

As mentioned earlier in this report, the District has 45-50 part-time members and they are used to supplement the full-time contract employees working 24-hour shifts. Some of the part-time employees of the District are also full-time contract employees with PSSI.

The part-time District employee's sign-up to work with one of the three duty shifts on either a twelve (12) hour or twenty-four (24) hour shift basis. It is common for the part-time members to work on just one of the three 24-hour shifts the District has designated as black, red or gold shifts. Again, the three shifts work 24-hours on-duty followed by 48-hours off duty.

The fact that some of the part-time employee's sign-up ahead of time for shift work, is important as it benefits both the District and the part-time employees. On any given day, the District needs to fill at least six (6) positions staffing the fire stations for twenty-four (24) hours. As mentioned earlier, some of the part-time employees will work twelve (12) hour shifts and some will work the entire twenty-four (24) hour shift. With the part-time employees signing up to work the shifts ahead of schedule, it allows the District to make sure they have adequate staffing on any given day. For the part-time employees, it provides them with a work schedule ahead of time and in some situations, they may work somewhere else either full-time or part-time and they can sign-up to work based on their other employment. As stated earlier, some of the part-time employees with the District are employed as full-time contract employees with PSSI and by scheduling their part-time work hours ahead of time they know when they are available.

There are a couple of problems with the part-time staffing model used by the District. There are occasions when the full-time contract employee's sign-up to work part-time, but then someone who is a full-time contract employee may call in sick and the staffing for the full-time drops below the minimum of nine (9) full-time contract employees on duty, then PSSI calls back one of their full-time employees to work overtime. If the person they call back to work full-time was scheduled to work part-time, then the District must quickly find another person to work the part-time hours and at the last minute that can be a challenge finding someone who is available to fill the 24-hour duty shift.

Another District problem is the amount of time and issues associated with staffing these six (6) part-time positions for 24-hours on a daily basis. It has become a problem for the District with filling six (6) 24-hour positions on a daily basis using part-time District personnel working either 24-hour or 12-hour shifts. The problems with staffing, using part-time personnel, is that recruiting part-time staff is challenging as many people work full-time somewhere else. In some instances, the part-time employees may work full-time with another fire district/department. In some instances, the full-time departments in the area are changing their work rules and are not allowing their full-time employees to work part-time in with other fire districts or departments. The most likely reason for this is if the full-time working part-time is injured when working part-time it could affect the full-time employee's position at their full-time fire district or department.

Additional Personnel Costs

Pension

The contract employees do not have a pension system like firefighters in full-time career fire departments who participate in the State of Illinois Downstate Firefighters Pension Fund. The Chief informed the consultants that the District went to PSSI a few years ago and offered to fund a 401 K program for the contract employees. After a year of service, the contract employees can participate in the 401 K program funded by the District. The District contributes 3.25% of the contract employee's salary on an annual basis and the employees do not contribute to this plan. The plan increases by 0.25% per year with no cost to the employee, who are not allowed to contribute. PSSI does not contribute to the plan either. PSSI does have their own 401 K plan for the contract employees.

Part-time District employees do have an option to participate in a 401 K plan offered by the District. The part-time employees can contribute up to the maximum amount allowed by the Federal and State governments of their salary and the District will match up to four (4) percent contribution.

Tuition Reimbursement

The Bristol Kendall Fire Protection District does have a tuition reimbursement policy with the purpose to encourage members to obtain better qualifications for their current duties and to prepare for assuming greater responsibility including promotion and advancement within the District. Tuition reimbursement is available to employees who have completed at least one year of service to the District and are in good standing. The District has a process for members to apply for tuition reimbursement, but a course must have the purpose of improving the ability of the employee to perform their current duties or to increase their ability to assume broader responsibilities within the realm of public safety.

The members are able to use a total of \$500.00 annually towards training outside of the District. The \$500.00 can be used for one class or for multiple classes. The members also receive \$1,200 annually for training from the State of Illinois Foreign Fire Insurance Board.

In addition to tuition reimbursement, the District does support other education/training as outlined in District policies. The policy divides them by Level I through Level V, and the support by the District varies as indicated below:

Level I – Education/training determined to be a minimum job requirement for an employee. Class Examples include: Basic Operations Firefighter, Fire Service Vehicle Operator, Technical Rescue Awareness, Hazardous Materials First Responder – Operations, and Emergency Medical Technician-Basic. Once approved, the students are considered sponsored by the District, and the District will reimburse/fund all course costs and books. The member must obtain a minimum grade of “C” and obtain the state certification if applicable.

Level II – Education/training determined by the District to be beneficial to the employee’s job performance, but not required for effective performance. Class Example include: Emergency Medical Technician – Paramedic.

Once approved the students are considered sponsored by the District, and the District will reimburse 50% course costs and 100% for books after the employee has passed the Paramedic State Exam and certified in the Southern Fox Valley EMS System.

Level III – Education/training required by the District for effective job performance. Class Examples include: Technical Rescue Operations and higher, Water Rescue, and Fire Investigation.

Once approved, the students are considered sponsored by the District, the time spent in class required to complete the training will be compensated and course costs will be paid by the District. The member must obtain a minimum grade of “C” and obtain the state certification if applicable. The employee is not required to use any accrued leave time to attend the classes.

Level IV – Education/training the District determines to be applicable to the employee’s job. The Level IV education funding/reimbursement covers any classes for the following positions: Fire Marshal, Fire Prevention Bureau, Public Education, Vehicle Maintenance, and Administrative Staff. Any absence to attend the class will be covered by the District and the employee is not required to use any accrued leave time to attend the classes.

Level V – Education/training the District determines to be applicable to the employee’s job, but not required and not directly beneficial to job performance. The Level V education reimbursement covers any other Fire & EMS classes or seminars, and general education classes needed for an Associate’s or Bachelor’s in the Fire/EMS/Public Safety Degree field. When applicable, the employee is expected to pass the class with a minimum grade of “C” and must obtain a certificate of completion and state certification if applicable prior to reimbursement. Employee is required to obtain shift work coverage or will be required to use any accrued leave time to attend.

Personal Protective Equipment (PPE) and Uniforms

The Bristol Kendall Fire Protection District provides personal protective equipment (PPE) for all district personnel. The cost to equip each firefighter can easily be \$4,000 per member as the PPE includes firefighting coats, pants, hoods, boots, gloves, and helmets.

The Bristol Kendall Fire Protection District provides duty and dress uniforms to all full-time and part-time personnel. The uniforms are provided through what is commonly called a quartermaster program, which means the District provides the uniforms initially and replaces the uniforms as necessary. All full-time members of the District receive three (3) sets of duty uniforms and all part-time members receive two (2) sets of duty uniforms. All full-time members are provided with a District Dress Uniform, which cost between \$800 and \$900 per member. All part-time members are provided with a full-Dress Uniform

after one (1) year of service with the District. Members of the District do not receive a uniform allowance, but rather their uniforms are replaced as needed by the District at no cost to the members.

Other Fire Department Operations and Activities

Fire District Dispatch Operations

The Bristol Kendall Fire Protection District uses the KenCom Public Safety Dispatch Center located in Yorkville, Illinois. KenCom Public Safety Dispatch is an Emergency 9-1-1 Public Safety Answering Point (Emergency 9-1-1 Dispatch Center) serving the Kendall County Sheriff's Office, the Police Departments of the Village of Oswego, United City of Yorkville, the Village of Montgomery, and City of Plano, and the Fire Protection Districts of Oswego, Bristol Kendall, Little Rock Fox, Newark, Lisbon Seward, Montgomery Countryside, Aurora Township and Sandwich.

KenCom answers 9-1-1 Emergency telephone calls and provides police, fire and emergency medical dispatching services for the agencies listed above. KenCom was formed as a county-wide 9-1-1 system in 1992 and is presently located in the Kendall County Public Safety Center in Yorkville, Illinois.

The Bristol Kendall Fire Protection District paid about \$23,673 for the most recent year of services from KenCom. Normal staffing in the dispatch center ranges between four (4) and five (5) personnel on duty. There is normally one dedicated call taker assigned to each shift, but other dispatchers are responsible for any overflow calls. All dispatch staff are cross-trained for police dispatch, fire and EMS dispatch, and call taking.

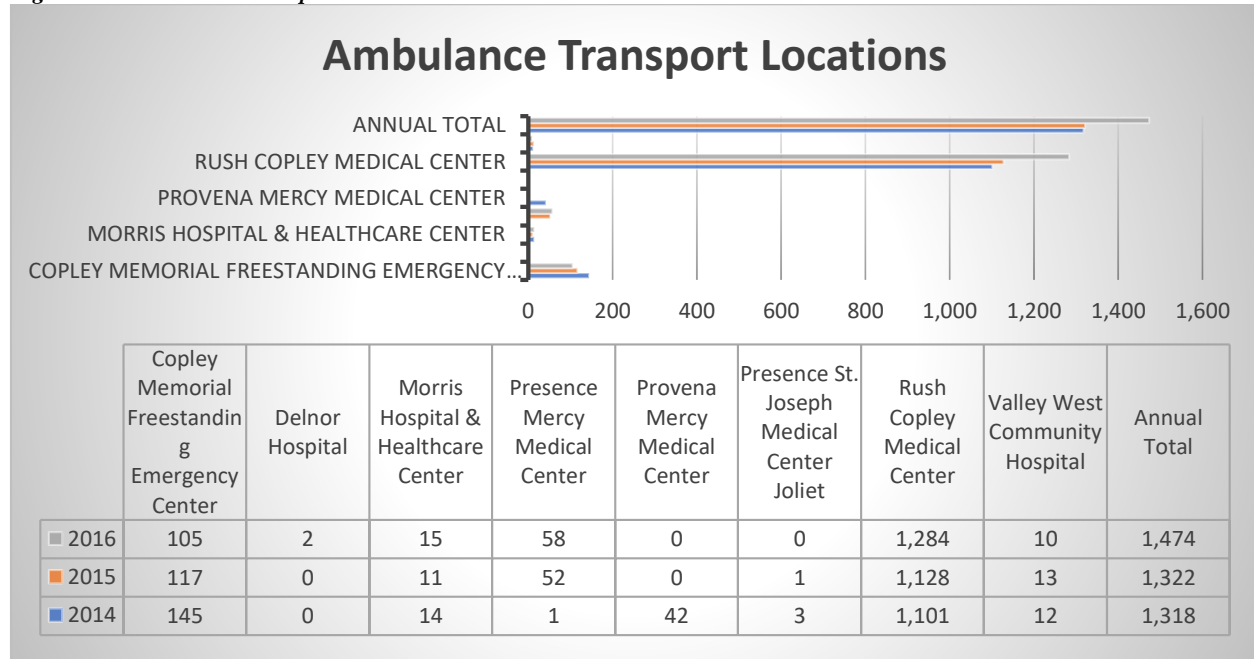
EMS Medical Director and Transport Facilities

The Bristol Kendall Fire Protection District Medical Director is located at Northwestern-Delnor Hospital in Geneva, Illinois. The Bristol Kendall Fire Protection District does have involvement with the Medical Director and the resource hospital for many purposes including:

- Continuing education meetings
- Provider Council meetings
- Assistance with Paramedic courses
- EMS Protocol review
- EMS and Paramedic classes throughout the year
- Quality improvement and EMS call reviews

The following is a breakdown of where the Bristol Kendall Fire Protection District has transported patients for the past years of 2014 – 2016:

Figure 22: Ambulance Transport Locations 2014 - 2016:



The majority of patients transported by the Bristol Kendall Fire Protection District are transported to Rush Copley Medical Center which is located in Aurora, Illinois. The above figure indicates that for the years 2014 – 2016 between 83% and 87% of all patients transported by the Bristol Kendall Fire Protection District were transported to the to Rush Copley Medical Center in Aurora.

Technical Rescue Team Services

The Bristol Kendall Fire Protection District does provide Tech Rescue Services in the following disciplines: rope rescue, confined space rescue, trench rescue, swift water rescue and high angle rescue. Many District members are trained and certified in the various rescue specialties. The District does provide hazardous materials response at the operations level, but they rely on a hazardous materials team through MABAS for responses requiring a higher level of training and protection.

The District has about fourteen (14) members certified at various levels of rope rescue and rigging, twelve (12) members certified at trench rescue technician level, eight (8) members certified at trench rescue

operations level, fourteen (14) members certified at various levels of structural collapse rescue, and eight (8) members certified at various levels of confined space rescue.

The various levels of certifications for the technical rescue team reflects a significant amount of time and dedication on behalf of the District members to achieve this amount of specialized training. In addition to the initial certification training, there is a requirement to maintain ongoing training in the various rescue disciplines in order to maintain their skills.

The District does have a swift water rescue team and eleven (11) members have various levels of certification for this discipline.

The District does have a Fire Investigation Team, which is separate from the Technical Rescue Team. A number of members of the District have had specialized fire investigation training.

Fire District Computers

The District has a complete computer system with the organization and they contract with a computer company to maintain the system. The KenCom Public Safety Dispatch Center is updating the Computer Aided Dispatch (CAD) system this year and the Bristol Kendall Fire Protection District budgeted \$43,500 to pay the costs of a records management system, which is a onetime cost. Almost all the District vehicles have mobile data terminals (MDT's) installed allowing them to have information from the Computer Aided Dispatch (CAD) in their vehicles while responding to calls. The Chief did inform the consultants that many of the MDT's need to be replaced, but the District has been waiting until the new records management system was installed and adequate funds could be budgeted.

Fire District Prevention & Inspection

The Bristol Kendall Fire Protection District has a Fire Marshal that is responsible for the Fire Prevention and Inspection Program. The Fire Marshal is a contract position from Public Safety Services, Inc. who is a forty (40) hour a week employee. The current Fire Marshal has been with the District for seven (7) years in the position with PSSI. Up to this point, the Fire Marshall has conducted most of the fire inspections within the District, but in the near future District on-duty personnel in their EMS and Fire Companies will start conducting fire inspection on smaller business occupancies and apartments.

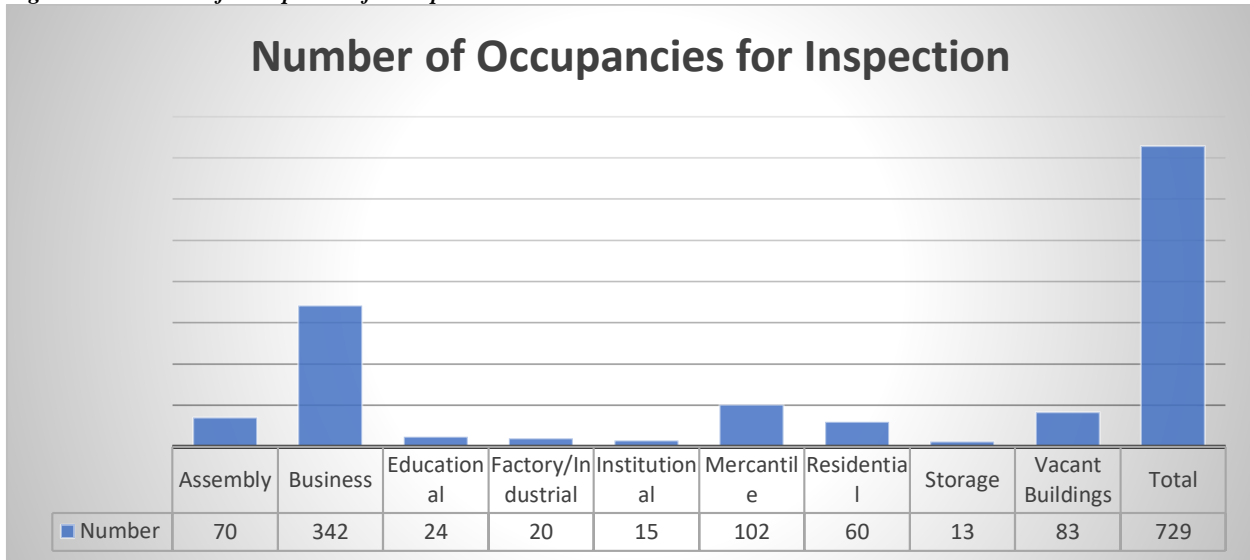
The Fire Marshal is also responsible for review of construction plans for new and existing occupancies for compliance with fire and building codes including assisting architects, engineers and contractors in meeting code requirements. He is also responsible for conducting inspections and tests of fire suppression systems and for the review and inspection of underground tank installations.

The Fire Marshal investigates the cause, origin and circumstances of fire incidents occurring in the District, collects evidence, interviews witnesses, and prepares fire investigation reports. The responsibility of fire safety education programs is another duty of the Fire Marshal.

The District enforces the 2009 International Fire Code, the 2000 edition of the Life Safety Code, various Yorkville and Bristol Kendall local Ordinances, and Kendall County Ordinances. The ability of the Bristol Kendall Fire Protection District to have the power to enforce local fire building codes is through an Intergovernmental Agreement between the Bristol Kendall Fire Protection District and the United City of Yorkville. The Intergovernmental Agreement states that the District shall also perform plan review services and inspection services at no cost to the City of Yorkville. The agreement establishes fees for fire inspections, plan reviews, various fire permits, and all the funds collected are for the benefit of the District.

In addition to conducting fire inspections within the District, the Fire Marshal is responsible for inspecting Kendall County buildings and the Kendall County Fairgrounds. He is responsible for plan review and inspecting of all new construction, inspecting all schools and churches, and carnival rides. The District has about 729 occupancies that they are responsible for inspecting as shown in the following figure:

Figure 23: Number of Occupancies for Inspection



As indicated in the above figure, Business Occupancies and Mercantile Occupancies account for the largest number of occupancies inspected within the District.

The following table reflects the annual number of fire inspections, reinspections, investigations, plan reviews, tests, and other activities performed on an annual basis by the Fire Marshall and the District for the years 2014 – 2016. The information shown indicates the fact that the Fire Marshal is very occupied with his duties and responsibilities and it is easy to understand why small businesses and apartments are going to start being inspected by the duty crews.

Table 4: Annual Fire Inspection & Prevention Activities 2014 - 2016

<i>Annual Fire Inspection & Prevention Activities 2014 - 2016</i>				
Activity	2014	2015	2016	Total 2014 - 2016
Inspections	556	501	531	1,588
Re-Inspections	332	245	297	874
Alarm Invest	29	22	38	89
Outside Agency	216	196	187	599
Fire Alarm Plans	14	6	14	34
Sprinkler Plans	8	4	3	15
Fire Alarm Test	25	21	20	66
Hydro Test	25	9	8	42
Sprinkler Inspect	17	1	2	20

<i>Annual Fire Inspection & Prevention Activities 2014 - 2016</i>				
Activity	2014	2015	2016	Total 2014 - 2016
Site Inspect	33	24	35	92
Emergency Form Updates	44	32	40	116
Pre-Plans	2	0	226	228
Occupant Loads	2	2	0	4
Consultations	35	6	8	49
System Malfunctions	16	5	3	24
Fire Investigations	6	10	8	24
Classes Attended	15	13	13	41
Knox Box Key Update	27	55	27	109
Ansul Puff Test	8	3	0	11
Ansul Plan Review	3	1	1	5
C.O. Inspections	22	17	29	68
Disconnect Inspect	1	4	5	10
School Inspections	12	13	10	35
Smoke/Light Test	1	0	0	1
Fire Drills	9	20	17	46
New Know Box	0	12	13	25
Carnival Ride Inspection	0	12	29	41
Food Vendor Inspection	0	10	19	29
CPR Classes	0	2	3	5
Open House	0	1	1	2
Fire Pump Test	0	0	3	3
Tent Inspections	0	0	9	9

Public Fire Safety Education

The Bristol Kendall Fire Protection District does have an active Public Fire Safety Education program.

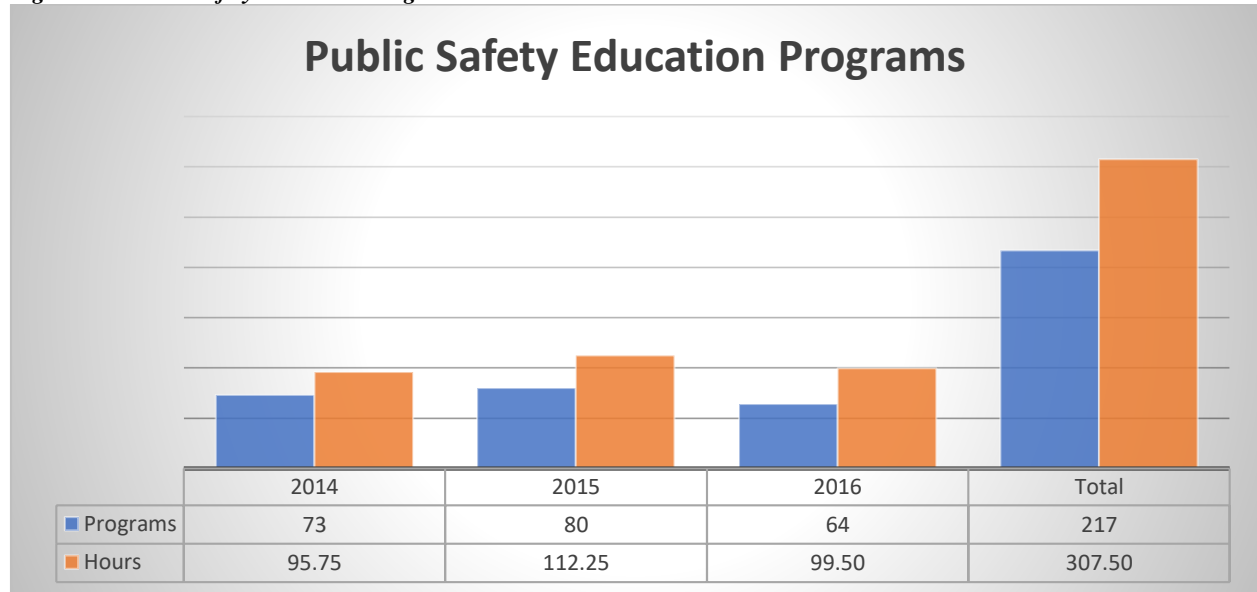
The types of fire safety education programs they conduct include:

- Birthday Parties
- Block Parties
- Career Talks
- Cub Scout/Girl Scout/Boy Scout
- EMS Stand-By
- Farm Safety
- Fire Prevention Day

- Homecoming Parade
- Safety Town
- School Public Education

The following figure illustrates the number of Public Safety Education Programs and the number of hours spent conducting the programs for the years 2014 – 2016.

Figure 24: Public Safety Education Programs 2014 - 2016



National Standards

There lacks consensus as to what the term “standard” means. Many in the fire service view the term “standard” as a mandatory requirement and believe that all resources must be provided to meet that standard. Others view the term “standard” as a benchmark by which to judge against. The consultants define the term “standard” as a level of quality accepted as a norm or by which actual attainments are judged. The majority of standards discussed in this section fall into that category; however, those which are mandatory will be identified.

The consultants will discuss the most common fire and EMS industry standards that are helpful in determining the level of emergency services needed for the citizens and visitors of the Bristol Kendall Fire Protection District. It is important to repeat that, although referred to as “standards,” only a few are mandatory. However, they may have the effect of a double-edged sword; the fire department is not

required to meet them, but if a serious incident occurs (for example, the death of a firefighter), the Fire District and the District Board of Trustees will be judged against these standards by a host of investigating agencies. Therefore, it is advantageous for everyone in a decision-making position to be familiar with these standards and base their decisions pertaining to resources and the deployment of those resources on knowledge of current industry standards.

National Fire Protection Association (NFPA)

The National Fire Protection Association (NFPA) is an organization recognized by the fire service for standards and codes. NFPA codes and standards are widely utilized as they are developed using an open, consensus-based process. All NFPA codes and standards are developed and periodically reviewed by more than 5,000 volunteer committee members with a wide range of professional expertise. These volunteers serve on more than 200 technical committees and are overseen by the NFPA board of directors, which also appoints a 13-person standards council to administer the standard-making activities and regulations.

In 1999, two separate standards were created and later adopted by the NFPA. The two standards are **NFPA 1710** (Organization and Development of Fire Suppression, Emergency Medical Operations, and Special Operations to the Public by **Career** Fire Departments), and **NFPA 1720** (Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by **Volunteer** Fire Departments, 2014 Edition®).

The determination of whether a fire/EMS organization falls under the standards of NFPA 1710 or 1720 has changed with the new 2010 edition of NFPA 1720. The new definition of a volunteer (paid-on-call) department is:

Volunteer Fire Department – a fire department having volunteer emergency service personnel comprising of 85 percent or greater of its department membership.

The Bristol Kendall Fire Protection District would fall under NFPA 1720. NFPA 1720 is very comprehensive, and those that govern and lead the fire department should be familiar with the components of this document. What should be of special interest to the Bristol Kendall Fire Protection District is Chapter 4 of NFPA 1720:

Chapter 4: Organization, Operation, and Deployment

- 4.1 Fire Suppression Organization
- 4.2 Community Risk Management
- 4.3 Staffing and Deployment
- 4.4 Reporting Requirements
- 4.5 Fire Suppression Operations
- 4.6 Initial Fire Fighting Operations
- 4.7 Sustained Fire Fighting Operations
- 4.8 Intercommunity Organization
- 4.9 Emergency Medical Services (EMS)
- 4.10 Special Operations

In addition, there is the need for an annual self-evaluation and a quadrennial report from the fire department.

4.4.3 Quadrennial Report. The fire department shall provide the Authority Having Jurisdiction (AHJ) with a written report on a quadrennial basis which shall be based on the annual evaluation required by (4.4.3.1).

4.4.3.1. The quadrennial report shall define demand zones and/or circumstances in which the requirements of this standard are not being met.

4.4.2 (Annual Evaluation). Per 4.4.3.2, this report shall explain the predictable consequences of identified deficiencies and address the steps within a fire district plan necessary to achieve compliance.

It is important to reemphasize that NFPA standards are just that, “standards,” and not mandatory by law for a municipality or fire company to meet. However, once an incident occurs, the department will be judged on its performance as compared with the NFPA standards. It is not recommended that any department intentionally disregard these NFPA standards but should work to meet them.

Occupational Safety and Health Administration (OSHA)

OSHA states that “once fire fighters begin the interior attack on an interior structural fire, the atmosphere is assumed to be “Immediately Dangerous to Life or Health” (IDLH) and section (g) (4) of OSHA’s

Respiratory Protection Standard, 29, CFR 1910.134 [two-in/two-out] applies.” OSHA defines interior structural firefighting “as the physical activity of fire suppression, rescue, or both inside of buildings or enclosed structures which are involved in a fire situation beyond the incipient stage.” This rule is commonly referred to as the “two-in/two-out” rule, which is OSHA’s mandatory requirement for interior firefighting.

OSHA requires that all fire fighters engaged in interior structural firefighting must wear SCBAs. SCBAs must be NIOSH-certified, positive pressure, with a minimum duration of 30 minutes. [29 CFR 1910.156(f) (1) (ii)] and [29 CFR 1910.134(g) (4) (iii)]

OSHA requires that all workers engaged in interior structural firefighting operations beyond the incipient stage use SCBA and work in teams of two or more. [29 CFR 1910.134(g) (4) (I)] Fire fighters operating in the interior of the structure must operate in a buddy system and maintain voice or visual contact with one another at all times. This assists in assuring accountability within the team. [29 CFR 1910.134(g) (4) (I)]

OSHA requires that at least one team of two or more properly equipped and trained fire fighters are present outside the structure before any team(s) of fire fighters enters the structural fire. This requirement is intended to assure that the team outside the structure has the training, clothing, and equipment to protect them and, if necessary, safely and effectively rescue fire fighters inside the structure. For high-rise operations, the team(s) would be staged below the IDLH atmosphere. [29 CFR 1910.134(g) (3) (iii)] OSHA requires that one of the two outside person's functions is to account for and, if necessary, initiate a fire fighter rescue. Aside from this individual dedicated to tracking interior personnel, the other designated person(s) is permitted to take on other roles, such as incident commander in charge of the emergency incident, safety officer, or equipment operator. However, the other designated outside person(s) cannot be assigned tasks that are critical to the safety and health of any other employee working at the incident.

Any task that the outside fire fighter(s) performs while in standby rescue status must not interfere with the responsibility to account for those individuals in the hazard area. Any task, evolution, duty, or function being performed by the standby individual(s) must be such that the work can be abandoned, without placing any employee at additional risk, if rescue or other assistance is needed. [29 CFR 1910.134(g) (4)]

(Note 1)] Any entry into an interior structural fire beyond the incipient stage, regardless of the reason, must be made in teams of two or more individuals. [29 CFR 1910.134(g) (4) (I)].

Insurance Service Offices, Inc. (ISO) – Bristol Kendall Fire Protection District

The Insurance Services Office, Inc. (ISO) publishes and utilizes the Fire Suppression Rating Schedule (FSRS) to “review available public fire suppression facilities and to develop a Public Protection Classification (PPC) for insurance purposes.”

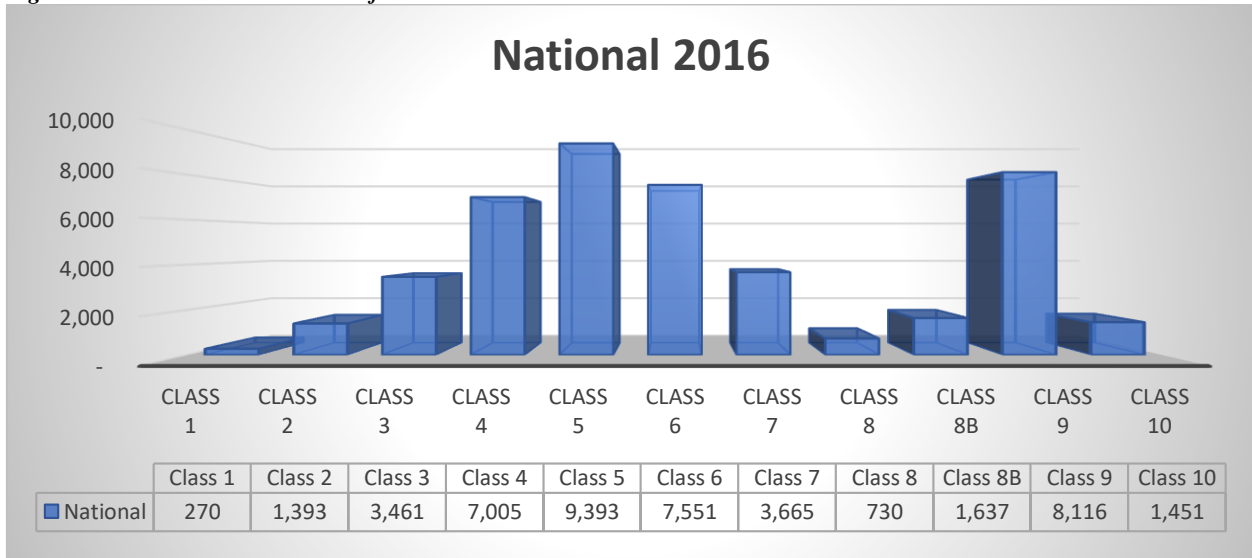
According to information provided to the consultants, the Bristol Kendall Fire Protection District has a PPC rating of Class 3/8B. Basically, the Class 3 rating applies to properties within five road miles of a fire station and within 1,000 feet of a fire hydrant. The Township rating of an 8B is lower due to the travel distances and other factors. The Fire District second class (Class 8B) applies to properties within five road miles of a fire station, but beyond 1,000 feet of a hydrant. A Class 1 rating is considered superior fire protection, while a Class 10 does not meet the ISO’s minimum criteria. Many insurance companies utilize this rating system to establish premium schedules for fire insurance. Communities with a lower rating can generally expect to have lower fire insurance premiums than those with higher ratings, thus creating an incentive for the communities’ investment in fire protection. However, most insurance rates are often driven by a competitive market between insurance companies, with ISO having little impact.

ISO attempts to reevaluate fire departments every 15 years. In 2016, 44,672 communities nationwide were classified by ISO. Of those departments, 9.98% (3,461) had a Class 3 rating. This class would include career departments, combination departments, paid-on-call departments, private corporations, and volunteer organizations.

The classification of the fire protection assigned to a community is based on three categories: fire department (50 percent of the total points), water supply (40 percent), and emergency communications (10 percent). The total points are compared to a chart with ten classes, each representing about 10 points, for a total of 100 points. Class 1 is the highest, and Class 10 is the lowest. Very few communities are Class 1 or 2, and rural communities are generally rated Class 9 or 10. Most urban cities are in the Class 2 – 4 categories, while most suburban communities fall into the Class 4 – 8 categories.

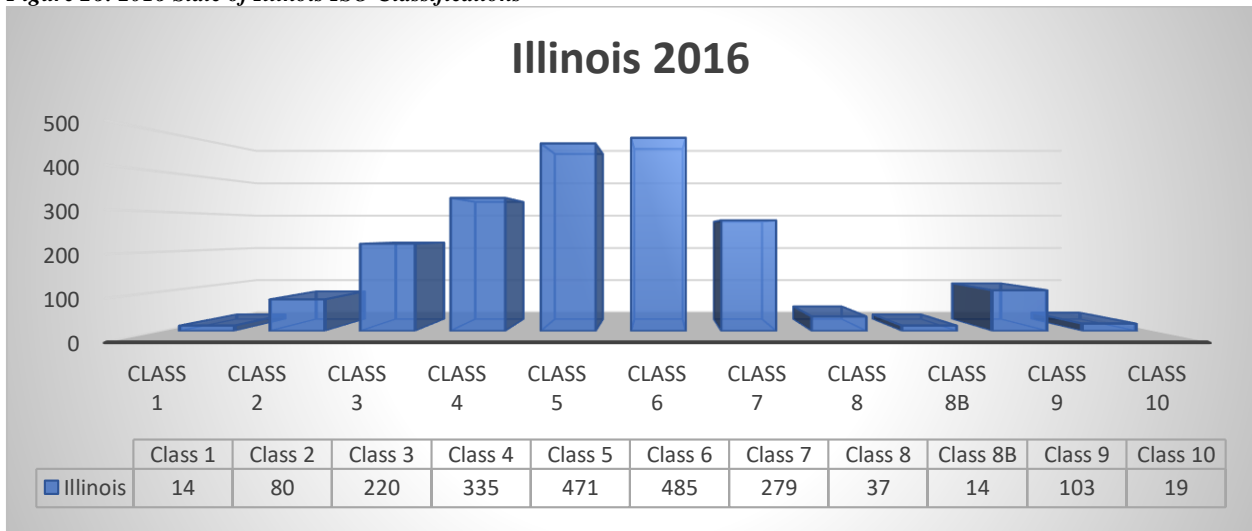
The figure below illustrates the classification category and number of departments in 2016 with the corresponding ISO class number on a national basis:

Figure 25: 2017 National ISO Classifications



In the state of Illinois, 2057 fire department ratings were classified by ISO in 2016 as illustrated below. Of these, 220 (10.69%) were rated as a Class 3, as is the Bristol Kendall Fire Protection District. For the second Bristol Kendall Fire Protection District ISO rating of Class 8B, in 2016 14 (0.68%) of the fire departments in Illinois had the 8B classification.

Figure 26: 2016 State of Illinois ISO Classifications



Paragraph 560 of the PPC schedule states, “The built-upon area of the city should have a first due engine company within 1½ miles and a ladder-service company within 2½ miles.” This distance is recognized by ISO as an acceptable level of fire protection. One can determine how long it takes for fire units to travel this distance to meet the ISO standard. Based on the 1½-mile distance standard, a community may determine its desired average travel time by plugging in the approximate vehicle speed of responding fire equipment. Given the topography, road system, and actual time and distance studies, it is reasonable to figure an average vehicle speed of 35 mph for the present apparatus. Therefore, it would take approximately 2½ minutes travel time to cover 1½ miles. Recently, ISO has utilized a time response developed by the RAND Corporation.

RAND conducted extensive studies of fire department response times. They concluded that the average speed for a fire apparatus responding with emergency lights and siren is 35 mph. That speed considers average terrain, average traffic, weather, and slowing down for intersections. Considering the average speed and the time required for an apparatus to accelerate from a stop to the travel speed, RAND developed the following equation for calculating the travel time:

Formula: $T = 0.65 + 1.7D$

T = time in minutes to the nearest 1/10 of a minute

0.65 = a vehicle-acceleration constant for the first 0.5 mile traveled

1.7 = a vehicle-speed constant validated for response distances ranging from 0.5 miles to 8.0 miles

D = distance

The FSRs also indicates that when the water flow requirement is less than 2,000 gallons per minute (GPM) and the area is primarily residential, it is generally acceptable to have the first due engine company as far as two miles away. Given an average speed of 35 mph, it would take approximately 3½ minutes to travel two miles. Obviously, higher or lower average vehicle speeds will impact the distance covered and the travel time.

The value of the ISO rating to a community continues to be questionable as a determining factor in a community's level of fire protection. The ISO purpose is to determine a fire insurance classification, which may or may not be used by insurance companies in the calculation of property insurance premiums for an area. The ISO survey is not a complete assessment of a community's fire protection program, defenses, or performance. The ISO does not rate the quality of the fire prevention program, built-in fire suppression systems, fire loss and property saved, or the actual competence and performance of the fire suppression personnel and operations; no life safety or property loss prevention is recommended by ISO.

The ISO only rates those pieces of the fire protection program they feel are important to assign insurance rates. There is limited value in attempting to assess a fire department by solely utilizing the community's ISO rating; rather, the Commission on Fire Accreditation International (CFAI) accreditation process far exceeds any other type of instrument in measuring a service provider.

Center for Public Safety Excellence

A better evaluation tool exists today. The International Association of Fire Chiefs (IAFC) has developed a program that measures the quality and performance of a particular fire service agency and will award national accreditation to those departments that pass the stringent criteria. The Center for Public Safety Excellence (CPSE), the umbrella organization, utilizes a process known as the Commission on Fire Accreditation International (CFAI). It specifies more than 250 performance indicators, including 70+ core competencies against which a fire agency can measure itself.

The CFAI is a structured process for documenting the levels of fire safety, fire prevention, fire safety education, and fire suppression services currently provided, and for determining the future level of service the department should provide. The accreditation process asks the community to determine and document whether its fire protection services are appropriate, adequate, and effective.

The advantage to the CFAI accreditation program lies in the process itself. The department must examine every aspect of its existence and determine the most cost-effective means of providing service. This program requires a time commitment and effort on the part of the fire administration. If at some future point the department wishes to seek accreditation, it is recommended that a single individual be assigned full-time for the completion of this project.

Although the consultants do not recommend that the Bristol Kendall Fire Protection District begin the accreditation process, it is suggested that the administration look at the performance indicators or benchmarks set up for the evaluation process to use a guide while developing policies and procedures for the Bristol Kendall Fire Protection District.

District Training

Firefighter Training Requirements

Full-Time Contract Employees

All new full-time contract employees are required to have the Paramedic Certification and Licensure from the State of Illinois prior to being hired. In addition, they are required to have completed the State of Illinois Basic Operations Firefighter (BOF) course. In some situations, they may be hired full-time prior to completing the entire BOF course if they only have a few classes to complete.

The Basic Operations Firefighters Course requires the following items to be completed successfully:

- Course Completion – 180 hours
- Written and Practical examinations
- Fire Service Vehicle Operator Course Completion
- Certification Requirements for Hazardous Materials Operations Level
- Certification for Technical Rescue Awareness
- Required CPR/Basic First Aid
- National Incident Management System (NIMS) 100 and 70 Courses
- “Courage To be Safe” Course

Once hired as a full-time employee by PSSI, they start work at the District and are required to participate in physical training and driving the ambulance. Each new full-time contract employee is provided with a task book outlining all the duties as a full-time firefighter/paramedic with the District. The on-duty contract Lieutenant then works with the new employee to go through the task book to assure the employee is trained and able to complete the skills in the task book. After demonstrating their ability to perform all the tasks, the employee can be assigned to firefighting duties.

Part-Time District Employees

New part-time District employees are required to have completed the Basic Operations Firefighter (BOF) or the equivalent from older State of Illinois Firefighter Training Courses that may have been the training requirement prior to the Basic Operations Firefighter (BOF) requirement. New part-time District employees must have Emergency Medical Technician Basic Level but are preferred to have their Paramedic licenses when they are hired as District employees. Once employed as a part-time District employee, the members do have many opportunities to complete additional fire and EMS training.

Usually part-time District employee are hired as a group and as a group they are required to attend a one-day orientation session at the District. At the orientation session, the new part-time employees complete their paperwork, receive or are fitted for their personal protective equipment (PPE), complete their FIT testing for wearing self-contained breathing apparatus (SCBA), complete a short SCBA course, and spend time becoming familiar with the Engine, Truck, and Ladder training. The new part-time employees are also provided with a District Firefighter Task book and they are given sixty (60) days to get signed off by a Lieutenant on all the skills contained in the task book.

As mentioned earlier, many of the District part-time employees are employed full-time as contract employees through PSSI, but the fact that they are full-time with PSSI and are part-time with the District qualifies them as having two different employers even though they are working for the District in both scenarios.

Some part-time District employees that are hired may already be employed as full-time employees or are full-time contract employees with PSSI and therefore they usually exceed the initial training requirement of other newly hired part-time employees. Like other part-time employees, once they are hired they are encouraged to attend additional training and educational offerings and often are supported by the District financially.

District Training Levels

There are numerous levels of fire and EMS certification courses offered in the State of Illinois. All of the employees, both full-time and part-time, are certified as either Paramedics or Emergency Medical Technician – Basic levels.

The level of training certifications in the fire service that has been achieved by members of the District are significant and the records of such training is maintained by the District.

The following table reflects some of the significant levels of fire training certifications that have been achieved by the members of the District and the list is a sample of only the major levels:

Table 5: District Fire Service Certification Levels

<i>Fire Service Certification Levels Achieved</i>	
Certification Level	Number of District Personnel Certified
Basic Operations Firefighter	45
Firefighter II	52
Firefighter III	21
Fire Apparatus Engineer	25
Hazardous Materials Operations	58
Hazardous Materials Technician A	8
Hazardous Materials Technician B	5
Fire Officer I	12
Fire Officer II	7
Fire Instructor I	29
Fire Instructor II	13
Fire Investigator	8
Rescue Specialist – Confined Space	6
Trench Operations	12
Trench Technician	9
Structural Collapse Operations	7
Structural Collapse Technician	7
Swiftwater	6

The amount of training and certification levels achieved by the members of the District is significant, but the above table does not account for all the certification levels that have been obtained. It appears the District certainly supports training and it provides opportunities for members to improve their education and training levels.

The District does a significant amount of training and documents the training on each member's training records by the name of the course or training attended, the number of classes attended, the number of hours spent at each class and a total number of classes and hours of training by each member.

The following table reflects the total number of classes all the members attended, and the number of hours spent training at all of the classes during the years indicated. Some classes were as little as 30 minutes in length and some were as long as 40-hours in length.

Table 6: Total Training Classes & Hours of Training 2014-2016

Annual Training Classes and Hours of Training			
	2014	2015	2016
Total Classes	12,859	14,299	13,558
Total Hours	17,836	18,779	15,981

District Resources

Facilities

Fire Stations

The Bristol Kendall Fire Protection District operates out of three fire stations. Fire Station #1 is located at 103 East Beaver Street, Yorkville, IL. Fire Station #1 was built in 1999 and is approximately 24,852 square feet on two floors and basement. The first floor is about 14,743 square feet, the basement is about 3,554 square feet, and the 2nd floor is about 6,555 square feet. The Bristol Kendall Fire Protection District Administration is in Station 1 on the 2nd floor. The Bristol Kendall Fire Protection District Board of Trustees meetings are at Fire Station 1. The following is a photo of District Fire Station #1.

District Fire Station #1

Figure 27: District Fire Station#1



The following is a photo of the rear-view District Fire Station #1

District Fire Station #1 – Rear View

Figure 28: District Fire Station #1 - Rear View



District Fire Station #2

Bristol Kendall Fire Protection District Fire Station #2 is located at 2010 McHugh Road, Yorkville, IL. The one-story station was built in 2005 and is approximately 14,640 square feet in size.

Figure 29: District Fire Station #2



District Fire Station #3

Bristol Kendall Fire Protection District Fire Station #3 is located at 4400 Rosewinkel Road, Yorkville, IL. The station was built in 2007 and is approximately 15,209 square feet in size

Figure 30: District Station #3



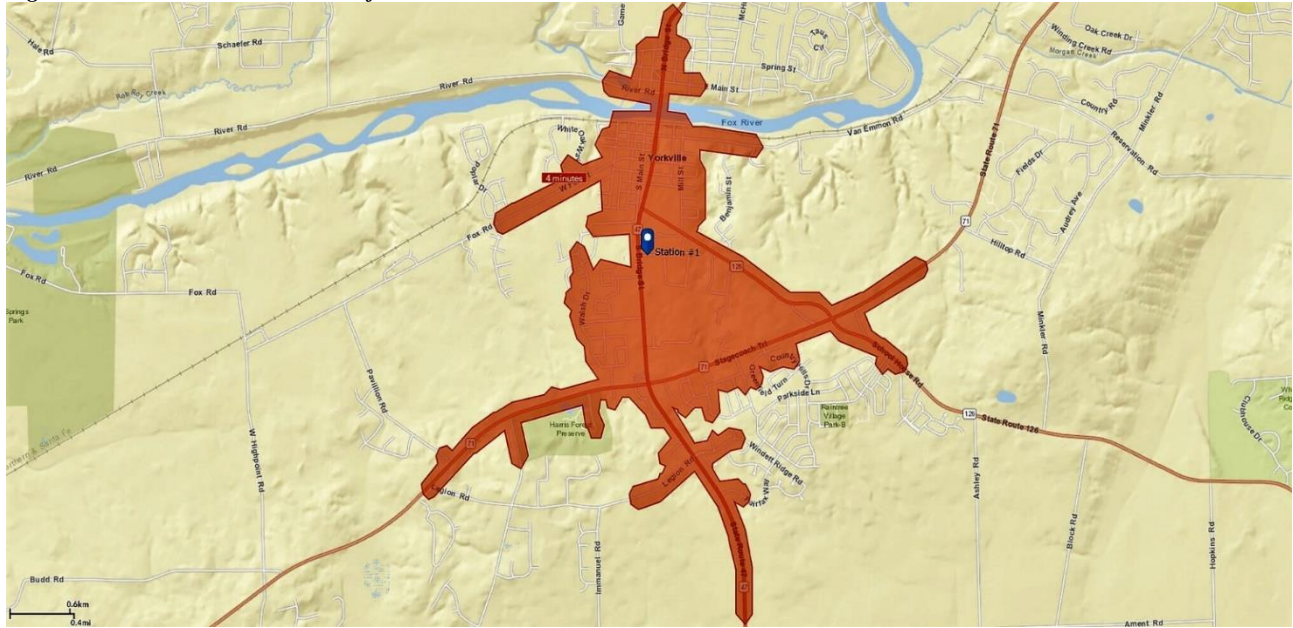
Response Time Mapping

The consultants utilized a GIS computerized mapping program that displays drive times from each of the current three fire stations located in the Bristol Kendall Fire Protection District. The maps illustrate the distance which emergency vehicles can reach with a drive time of four minutes under normal roadway conditions and traffic from the existing fire stations.

GIS Mapping Station #1

On the following map, the color area illustrates a four-minute drive time from District Fire Station #1

Figure 31: Four Minute Drive Time from Fire Station #1



GIS Mapping Station #2

On the following map the colored area illustrates a four-minute drive time from District Fire Station #2

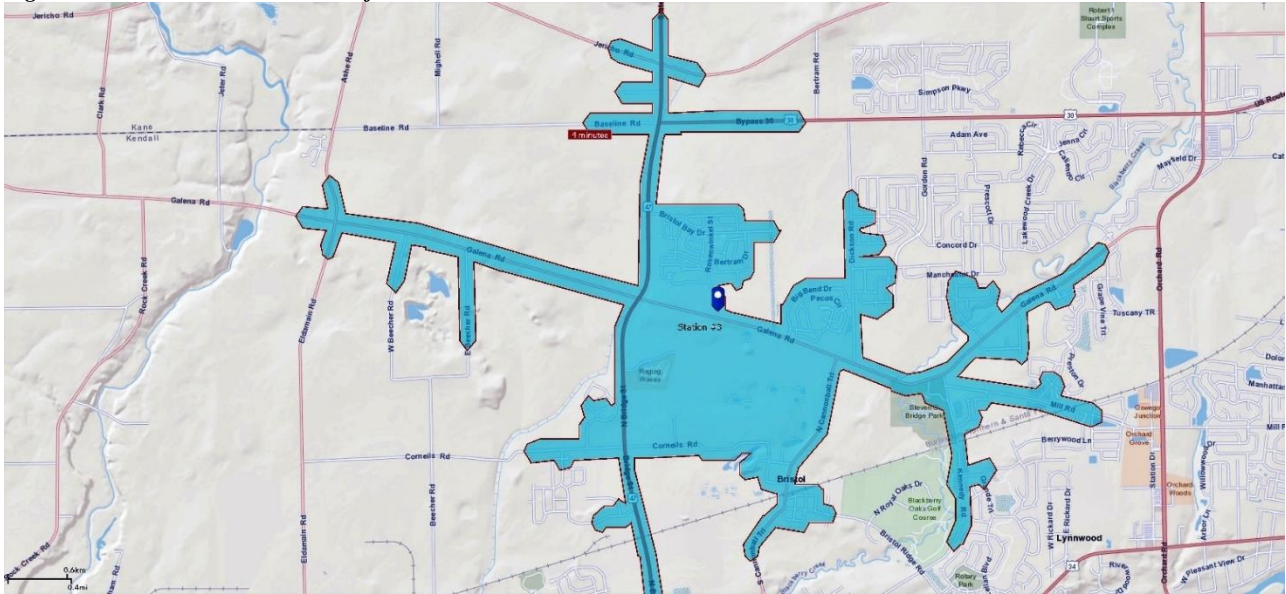
Figure 32: Four Minute Drive Time from Fire Station #2



GIS Mapping Station #3

On the following map the colored area illustrates a four-minute drive time from District Fire Station #3

Figure 33: Four Minute Drive Time from Fire Station #3



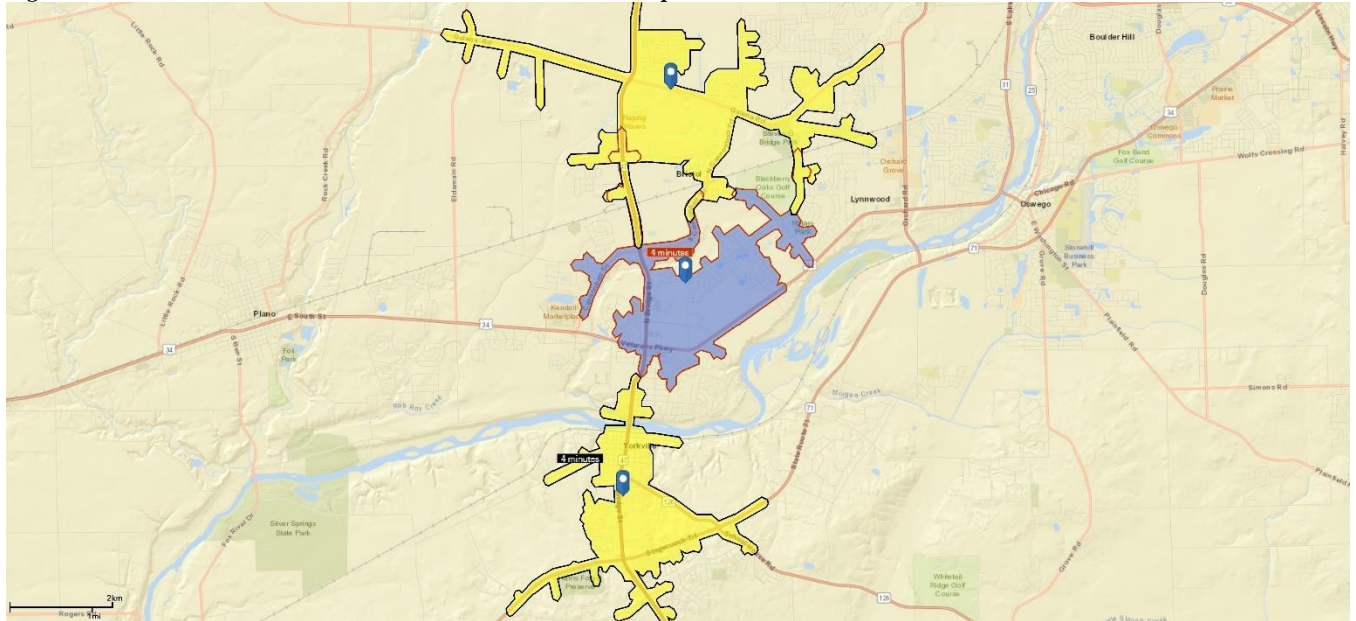
GIS Mapping Station #1, Station #2 and Station #3 Overlap

The following map illustrates there is very limited overlap of the areas of the Bristol Kendall Fire Protection District that can be reached in a four-minute drive time under normal road conditions from Fire Station #1, Fire Station #2 and Fire Station #3.

The lower yellow highlighted portion is the area Station #1 can reach in a four-minute response time. The blue highlighted portion is the area Station #2 can reach in a four-minute response time.

The top yellow highlighted area is the remainder of the area that Station #3 can reach in a four-minute response time. The limited overlap is between Fire Station #2 and Fire Station #3.

Figure 34: Bristol Kendall Fire Protection District Stations Overlap



Apparatus

The consulting team observed that the apparatus was kept in a clean and orderly manner during their site visits. Most of the apparatus appears to be in compliance with the 2009 edition of NFPA 1901 (Automotive Fire Apparatus) and carry the associated equipment recommended by ISO.

Fire apparatus, like all types of mechanical devices, has a finite life. How long that life may be depends on many factors, such as mileage, quality of the preventative maintenance program, quality of the driver training program, rule enforcement, quality of the original builder and components, availability of parts, and custom or commercial chassis, etc. Over the years, the NFPA has attempted to define life expectancy of apparatus with little success.

However, once again under the 2009 edition of NFPA 1901, a new Annex D Titled *Guidelines for First-Line and Reserve Fire Apparatus* was added which discusses apparatus built prior to 1991. Section D.1 discusses minimizing the risk of injuries to firefighters and improvement in safety features that have been instituted since that time. The guideline further states that new safety upgrades and innovations are not generally found in units built prior to 1991; therefore, this standard recommends that apparatus older than 1991 be placed into reserve status. This reserve status is only recommended if compliance to NFPA 1912,

Fire Apparatus Refurbishing, has been adhered to.

Remember that NFPA standards are not mandatory requirements a department must follow; rather, the important aspect of this new standard is that significant improvements involving apparatus technology with respect to overall firefighter safety are constantly underway, and should be a consideration in determining useful, safe life expectancy of older apparatus.

The Bristol Kendall Fire Protection District does an excellent job of maintaining the Fire District apparatus. The Fire District has a full-time mechanic to perform preventative maintenance and other service repairs. The department maintains maintenance records on all vehicles.

District Apparatus

The fire district has the following apparatus to provide fire protection to the communities served: four engine pumpers, one water tender, one 105-foot Aerial Ladder, one brush truck, five command vehicles, one water rescue squad vehicle, one heavy rescue squad, one technical rescue squad, one fleet maintenance vehicle, and four ambulances. All the vehicles are assigned to the Bristol Kendall Fire Protection District fire stations.

Table 7: Bristol Kendall Fire Protection District Apparatus Mileage

Apparatus	Type	Manufacturer	Year	Mileage	Pump	Tank
Car 101	Command	Ford Expedition	2013	18,875	NA	NA
Car 103	Command	Ford Expedition	2010	32,869	NA	NA
Car 105	Command	Ford Expedition	2009	64,125	NA	Na
Car 106	Command	Chevrolet Tahoe	2006	88,110	NA	NA
Car 151	Pickup Utility Vehicle	GMC	1997	65,8155	NA	NA
Car 156	Fleet Maintenance	Ford F550	2015	11,1138	NA	NA
Engine 121	Pumper	Pierce	2012	32,403	1,250	1,000
Engine 122	Pumper	Pierce	2012	45,480	1,250	1,000
Engine 123	Pumper	Pierce	2011	34,326	1,250	1,000
Engine 127	Pumper	KME	1998	54,831	1,500	1,000
Truck 181	Aerial Ladder (105 ft)	Pierce	2005	27,519	2,000	300
Tender 161	Water Tender	Pierce	2017	2,290	500	3,000
Brush 131	Brush Vehicle	Ford F550	2014	1,232	20 High Pressure	300

Apparatus	Type	Manufacturer	Year	Mileage	Pump	Tank
Squad 158	Water Rescue Vehicle	International - Excellence	2001	79,702	NA	NA
Squad 175	Heavy Rescue Vehicle	Pierce	2006	7,716	NA	NA
Squad 177	Tech Rescue Vehicle	International	2011	2,737	NA	NA
Medic 141	Ambulance	International - Excellence	2018	New	NA	NA
Medic 142	Ambulance	International - Excellence	2010	72,655	NA	NA
Medic 143	Ambulance	International - Excellence	2015	27,112	NA	NA
Medic 144	Ambulance	International - Excellence	2012	90,654	NA	NA

The District has done an excellent job of maintaining their fleet of apparatus up to date and in excellent condition. The amount of apparatus the District has is appropriate for the size of the District and for the call volume. It is apparent that the District has focused on purchasing new quality fire apparatus and at the same time have been conservative in the features of the apparatus they have purchased. The staff vehicles are not newer vehicles, but they are maintained very well.

Fire District Apparatus Photos

The following figures are the photos of the Bristol Kendall Fire Protection District apparatus:

Car 101 - 2013 Ford Expedition



Car 103 - 2010 Ford Expedition



Car 105 - 2009 Ford Expedition



Car 106 - 2006 Chevrolet Tahoe



Car 151 – 1997 GMC Pickup



Engine 121 – 2012 Pierce



Engine 122 – 2012 Pierce



Engine 123 – 2011 Pierce



Engine 127 – 1998 KME



Truck 181 – 2005 Pierce



Tender 161 – 2017 Pierce



Brush Truck 131 – 2014 Ford F550



Squad 158 – 2001 International & Boat



Squad 175 – 2006 Pierce



Squad 177 – 2011 International



Med 141 – 2018 International



Med 142 – 2010 International



Med 143 – 2015 International



Med 144 – 2012 International



Apparatus Inventory and Value

The Bristol Kendall Fire Protection District did provide the consultants with their vehicle inventory and value plan which is shown in the following table:

Table 8: Bristol Kendall Fire Protection District Apparatus Inventory and Value Plan

<i>Apparatus</i>	<i>Type</i>	<i>Year</i>	<i>Current Estimated Replacement Cost</i>
Car 101	Command	2013	\$45,000
Car 103	Command	2010	\$42,000
Car 105	Command	2009	\$40,000
Car 106	Command	2006	NA
Car 151	Utility Vehicle	1997	NA
Car 156	Fleet Maintenance	2015	\$150,000
Engine 121	Pumper	2012	\$550,000
Engine 122	Pumper	2012	\$550,000
Engine 123	Pumper	2011	\$550,000
Engine 127	Pumper	1998	\$550,000
Truck 181	Aerial Ladder	2005	\$1,000,000
Tender 161	Water Tender	2017	\$350,000
Brush 131	Brush Vehicle	2014	\$200,000
Squad 158	Water Rescue Vehicle	2001	NA
Squad 175	Heavy Rescue Vehicle	2006	\$750,000
Squad 177	Tech Rescue Vehicle	2011	\$250,000
Medic 141	Ambulance	2010	\$160,000
Medic 142	Ambulance	2010	\$160,000
Medic 143	Ambulance	2015	\$240,000
Medic 144	Ambulance	2012	\$240,000

In the above table, the District does not have a replacement date or cost to replace Car 106, Car 151, or Squad 158 as all of these vehicles are older vehicles that will be replaced in future years with front line vehicles that are being replaced with newer vehicles. An example would be Squad 158, which is an older ambulance. In the future if it is in need of being replaced, an ambulance that was being replaced with a new ambulance would be moved into rotation to become the new Squad 158. The District does remount

ambulances onto new chassis instead of purchasing new ambulances. This method of maintaining the fleet of ambulances by remounting the modular boxes on new chassis is very costs effective and by doing so the District probably saves \$50,000 to \$60,000 per ambulance that is remounted instead of being replaced with a new vehicle.

Sufficiency of Apparatus

Sufficiency of apparatus can be considered in two divergent ways: *amount* of apparatus and *capability* of apparatus. The consultants have observed fire departments that have an abundance of apparatus, often resulting in apparatus that is rarely, if at all, deployed, or apparatus that is unable to be staffed. In other instances, apparatus is under-equipped, lacking the tools required to perform the task on the emergency scene.

The following table illustrates the percentage of U.S. fire departments with the number of pumpers in their community based on population:

Table 9: Percentage of U.S. Fire Departments with Number of Pumpers

Population Protected	No Pumpers	1 Pumper	2 Pumpers	3-4 Pumpers	5 or More Pumpers
50,000 to 999,999	0.9%	2.0%	6.1%	33.3%	58.1%
25,000 to 49,999	0.9%	3.7%	20.8%	48.1%	26.4%
10,000 to 24,999	0.8%	8.0%	32.1%	49.3%	9.8%
5,000 to 9,999	1.3%	13.76%	44.2%	37.4%	3.4%
2,500 to 4,999	2.6%	23.7%	49.0%	23.7%	1.0%
Under 2,500	11.6%	43.1%	37.1%	8.0%	0.3%

The following table illustrates the percentage of U.S. fire departments with the number of aerial apparatus in their community based on population:

Table 10: Percentage of U.S. Fire Departments with Number of Aerial Apparatus

Population Protected	No Aerial Apparatus	1 Aerial Apparatus	2 Aerial Apparatus	3-4 Aerial Apparatus	5 or More Aerial Apparatus
50,000 to 999,999	30.7%	39.7%	22.6%	6.7%	0.2%
25,000 to 49,999	37.3%	49.3%	12.1%	1.2%	0.1%

<i>Population Protected</i>	<i>No Aerial Apparatus</i>	<i>1 Aerial Apparatus</i>	<i>2 Aerial Apparatus</i>	<i>3-4 Aerial Apparatus</i>	<i>5 or More Aerial Apparatus</i>
10,000 to 24,999	49.8%	46.5%	3.5%	0.1%	0.0%
5,000 to 9,999	73.8%	25.4%	0.7%	0.1%	0.0%
2,500 to 4,999	90.1%	9.5%	0.4%	0.0%	0.0%
Under 2,500	96.6%	3.2%	0.2%	0.0%	0.0%

Fire District Fiscal/Capital Budget and Funding

The Bristol Kendall Fire Protection District fiscal year begins on May 1st and ends on April 30th. The budget is developed by the Fire Chief and his staff officers and approved by the Board of Trustees who then adopt an Annual Budget and Appropriation Ordinance. This ordinance establishes the budget and the appropriations for the fiscal year.

The proposed budget and ordinance are made available for public inspection at least thirty (30) days prior to the Board of Trustees adopting the ordinance. The Board of Trustees are required to have a public hearing on the Budget and Appropriation with a notice of the public hearing being published in a newspaper within the District. After all the requirements for the publication and a public hearing have been met, the Board of Trustees approves the Annual Budget and Appropriation Ordinance.

The Bristol Kendall Fire Protection District Board of Trustees under Illinois State Law have the authority as a taxing district to establish a tax levy to fund the operating cost of the District.

Revenues

The revenues for the Bristol Kendall Fire Protection District budgets come from the following sources:

- Tax Levy
- State of Illinois Replacement Tax Allocation
- Response Fees
- Plan Review/Permit Fees
- Carry over funds from previous year
- Transfer from other budget accounts
- Ambulance Transport Fees

Each of the District budget revenue sources are explained in more detail below.

Tax Levy

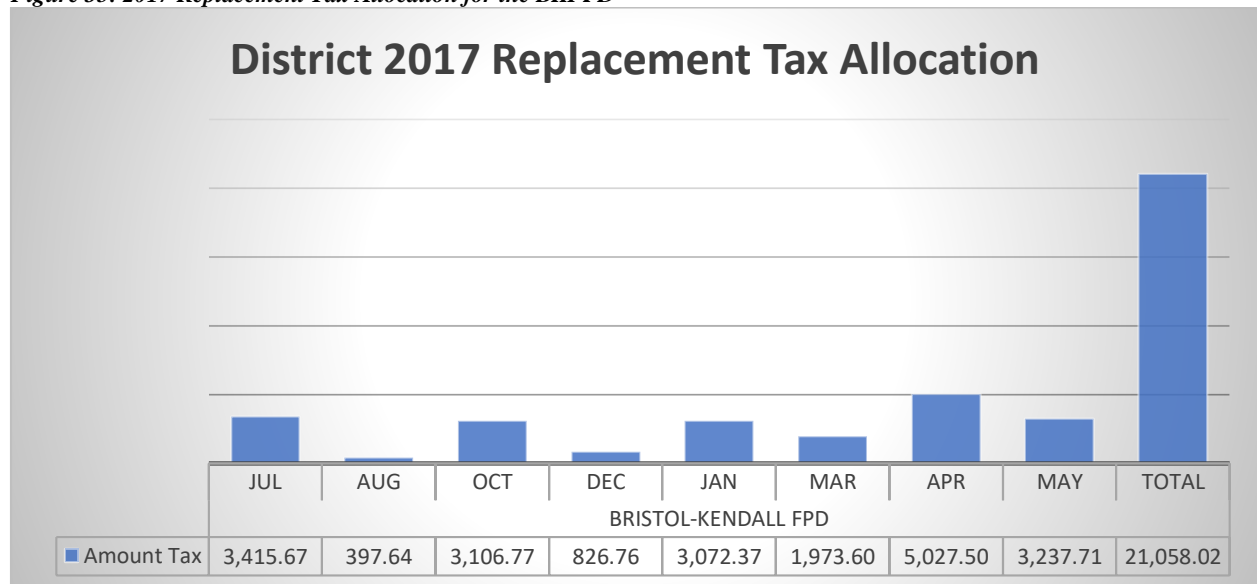
The primary funding source for the Bristol Kendall Fire Protection District is the tax levy based on the values of the property in the District. The Bristol Kendall Fire Protection District collects four different tax levies from residents of the District. The tax levies will be explained below under tax levies and rates.

State of Illinois Replacement Tax Allocation

Other sources of funding include the State of Illinois Replacement Tax Allocation, which are revenues collected by the State of Illinois and paid to local governments to replace money that was lost by local governments when their powers to impose personal property taxes on corporations, partnerships and other business entities were taken away by the State.

The following figure illustrates the amount of the State of Illinois Replacement Tax Allocation for 2017 monthly and the total for the budget year in 2017 that was provided to the Bristol Kendall Fire Protection District.

Figure 35: 2017 Replacement Tax Allocation for the BKFPD



The Bristol Kendall Fire Protection District divides the State of Illinois Replacement Tax Allocation revenue amount and allocates half of the revenue to the Fire Division budget and half to the Emergency Medical Service budget.

District Response and Permit Fees

Other sources of revenue for the Bristol Kendall Fire Protection District include response fees, which are fees for responding to various types of calls including hazardous material incidents, false alarms, and other similar types of incidents. The Bristol Kendall Fire Protection District also collects fees for plan review and fire permit fees. These fees are used to offset the cost of conducting the plan review, inspections, and testing of fire protection systems. The fees collected for response fees are a very small percentage of the revenue collected on an annual basis by the District. The amount collected for response fees and plan review/permit fees has totaled \$51,000.00 in the last three annual budgets so it is a very limited source of revenue for the District.

Carry Over Funds from Previous Years

In each of the District budget funds, except the Social Security and Medicare budget, the District does carry over funds from one budget year to the next budget year. The funds are unspent funds in the current budget year that are used to balance the new budget, but more importantly are necessary to provide operating funds for the first few months of the new budget year. The annual budget starts May 1st, but the District may not receive any actual tax levy revenue until sometime in July, and it is necessary for the District to have operating funds for the first two months or so of the new budget year. The operating funds are necessary to pay for operating costs such as salary and benefits, fire and EMS supplies, equipment and maintenance, building operating expenses, vehicle operating expenses and other costs. Without carryover funds, which are critical, the District would not be able to pay their expenses for the first couple of months each budget year.

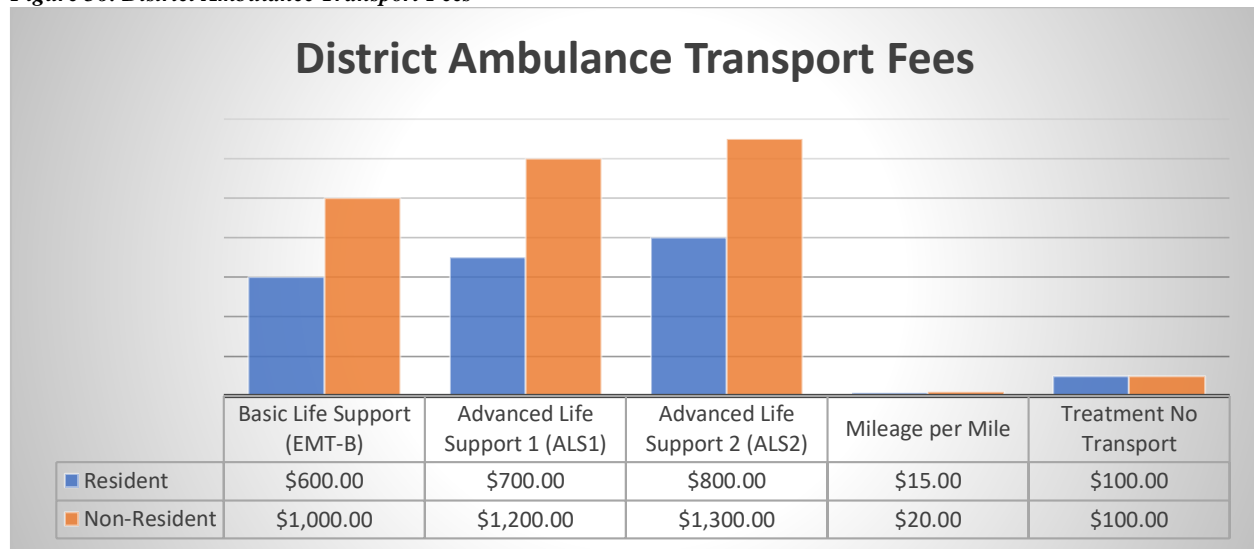
The District does not have a savings account or capital budget reserve fund, so the carryover funds are similar to a savings account. The amount of tax levy each year fluctuates based on a number of factors and one major factor is the amount of carryover funds available for the new budget.

Ambulance Transport Fees

On May 1, 2017, the Bristol Kendall Fire Protection District Board of Trustees approved an updated ordinance fixing the charges for life support emergency ambulance service provided by the District. The adoption of the new ordinance repealed a previous ordinance adopted in 2014 and basically updated the ambulance charges based on reasonable costs.

Section 22 of the Illinois Fire Protection District Act, Illinois Compiled Statutes 70 ILCS 705/22 authorizes the Board of Trustees of the District to fix, charge and collect fees for emergency ambulance service within or outside of the fire protection district not exceeding the reasonable cost of the service. The 2017 ordinance set the charges for ambulance service as shown in the following figure:

Figure 36: District Ambulance Transport Fees

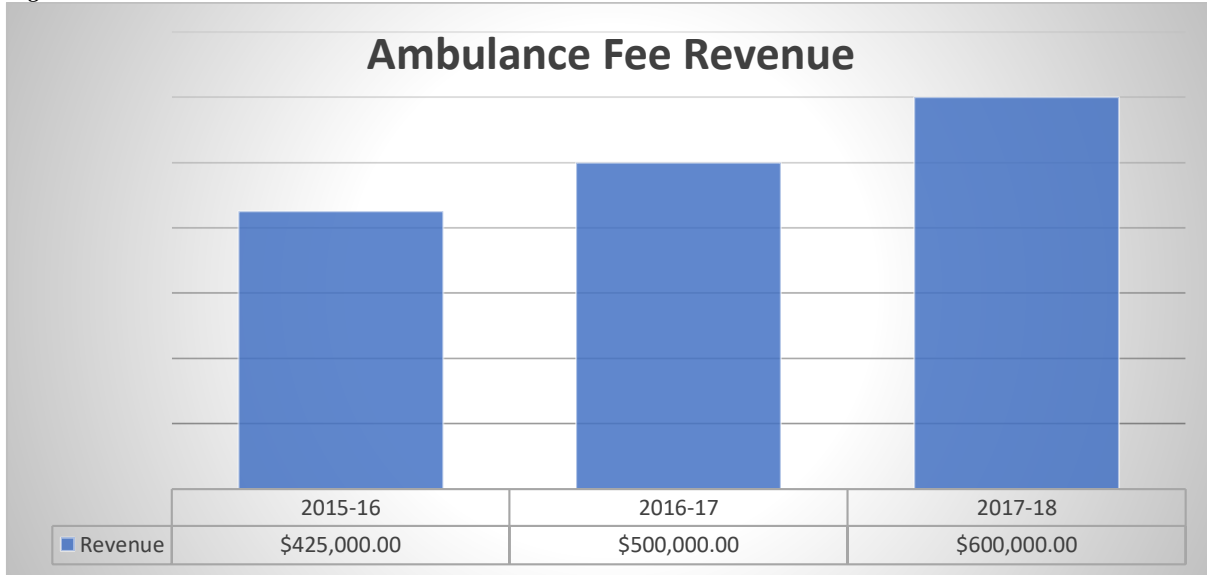


The above figure illustrates the ambulance transport fees for residents are substantially lower than the cost for non-residents as they should be. The fee for treatment without transport of the patient is \$100 for both residents and non-residents and in addition to the fee there could be a charge for the cost for supplies used.

The difference between ALS1 and ALS2 calls are basically the types of medications used and the fact the medications are administered to the patient by the paramedics.

The Bristol Kendall Fire Protection District does budget in their annual budget revenue from the ambulance service fee charges. The following figure indicates the amount of revenue budgeted in the last three (3) budget years for ambulance fees:

Figure 37: Ambulance Fee Revenue



The additional revenue for ambulance fees are used to offset the operating expenses for the Bristol Kendall Fire Protection District emergency medical services and ambulance transport costs.

Ambulance Billing Services

Prior to April 2016, the Bristol Kendall Fire Protection District handled the ambulance billing services within the District. In March 2016, the District signed an agreement with Public Safety Services, Inc. to handle all the ambulance billings services. The agreement was initially for a one-year term with automatic renewal on an annual basis. Both the District or Public Safety Services, Inc. can terminate the agreement without cause with a sixty (60) day notice. The District agrees to make payment of a service fee of five-percent (5%) to Public Safety Services, Inc. of all fees collected for ambulance fees. The five-percent (5%) service fee is a very good rate for the District to pay as the consultants have seen fees much higher and at times the fees can be above ten-percent (10%). The contracting out of the ambulance billing service is very common in the industry due to the fact that ambulance billing has become very specialized due to local, state and federal requirements.

Fire District Annual Budgets

The Bristol Kendall Fire Protection District annual budget year is May 1st to April 30th each year. The budget is divided into multiple budget funds and are for separate divisions or operational costs within the

District budget. Four of the five budget funds are supported by tax levies and the Operations budget is supported by budget transfer from the Fire Department and EMS budgets.

The District budget has the following budget funds:

- **Fire Department Fund** – This budget fund is for all firefighting operations within the District and is funded primarily by the tax levy.
- **Emergency Medical Service Fund** – This budget fund is for the expenses of all EMS Operations within the District and is funded primarily by the tax levy.
- **Insurance Fund** – This budget fund is for all expenses related to insurance costs, worker’s compensation, safety, and loss prevention. It is funded entirely by the tax levy.
- **Operations Fund** - This budget fund is for all expenses related to building operations, maintenance, repairs and utility costs. It is funded by budget transfer from the Fire Department Fund and from the EMS Fund.
- **Social Security & Medicare** – This budget fund is for all expenses for Social Security and Medicare payments for full-time District employees. It is funded entirely by the tax levy.

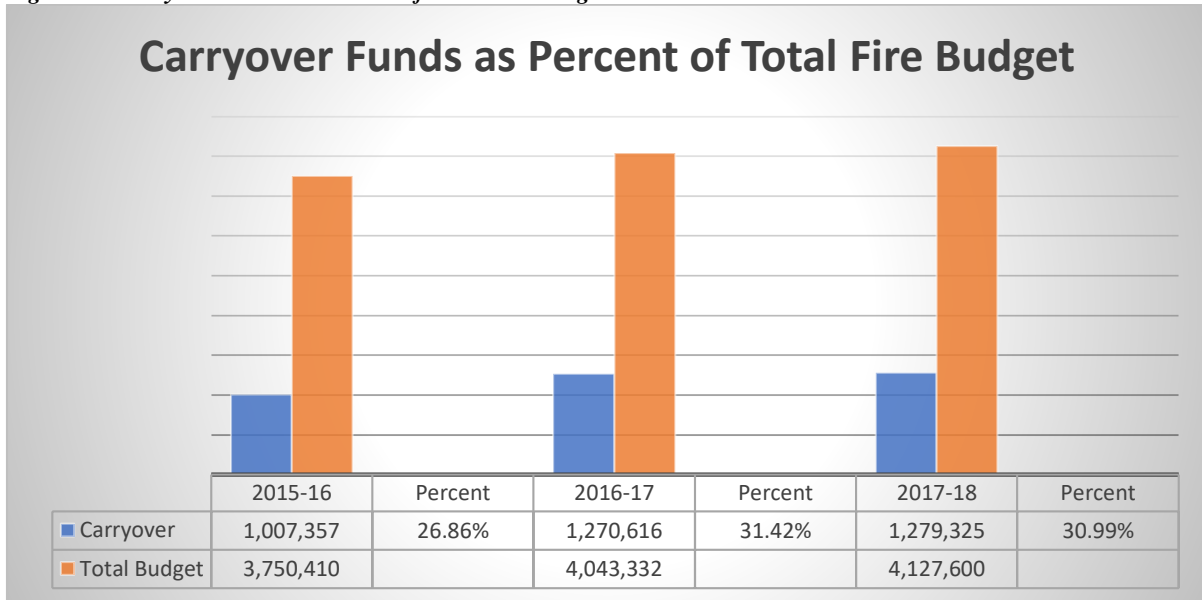
Fire Department Budget

The primary budget is the Fire Department budget also known as the Corporate Budget. The main source of revenue for this budget is the tax levy. As shown in the following table the tax levy has ranged from \$2,731,053.35 to \$2,799,775 for the three budget years listed. The tax levy increase in the three-year budget period was two and a half (2.5) percent increase which is very minimal. The amount of carryover funds ranged from \$1,007,357 to 1,279,325 over the same period. The reason for carryover funds being available can most likely be attributed to very conservative spending of funds.

The total amount of income for the three years ranged from \$3,750,410.56 to \$4,127,600, which over the three-year period was an increase of about \$377,190 or ten (10) percent. Since the increase of the tax levy was only about \$68,000, the remainder of the increase was about \$309,000, which again can be contributed to controlled spending by the District. It’s apparent that the District realizes the importance of having sufficient carryover funds to offset the amount of tax levy needed for the next year and to have operating funds for the beginning of the new budget year.

The following figure illustrates the amount of carryover funds for each of the last three years as a percentage of the total fire department budget:

Figure 38: Carryover Funds as Percent of Total Fire Budget



As the above figure indicates, the amount of carryover funds for each of the last three years, which was an average of 29.76% or about \$1,185,766 annually for the three-year period. Again, the carryover funds reduce the tax levy and provide operating funds for the beginning of the budget years until the District receives tax revenue.

The following table reflects the District Fire Department budget including income and operating expenses for the 2015-16 to 2017-18 budget years. Due to the fact the District does not have a surplus or reserve fund for operating or capital budget expenses, the District must balance their budget every year. As mentioned earlier, the District has no debt so they have done an excellent job at balancing the budget on an annual basis and still being able to fund capital expenses without borrowing funds.

The Fire Department budget shown in the following table reflects the income and expenses for the fire department services and the major portion of the budget is for compensation of the members. The compensation costs over the three-year period increased from \$1,934,740.03 to 2,078,328.75, which is about a 7.42 percent increase. The District has three full-time employees that include the Fire Chief, the Assistant Chief and the mechanic. All of their salaries and benefits are included in this budget fund. The benefits include insurance for all three employees and pension costs for the Assistant Chief and the mechanic. The Fire Chief is provided with an accumulated benefit package, which is included in this budget.

Also, included in this budget are some salary cost for a number of the contract employees provided by Public Safety Service, Inc. (PSSI). The following contract employee salaries are included in this budget including:

- Fire Marshal – Battalion Chief – Full-time - 100 percent
- Administrative Assistant – Full-time -50 percent
- Lieutenants – Full-time - Nine (9) – 50 percent
- Part-time District employees – 100 percent

In addition, some compensation is in this budget to pay members of the District that are involved with the Technical Rescue Team, Public Education, Fire Investigation, the Swift Water Rescue Team and the Rescue Task Force Instructor.

The other major expenses include costs of fire apparatus and equipment, and transfer of funds to the Operations budget, repairs to apparatus and equipment, fuel, education and conferences, and the annual cost to KenCom for dispatch services.

Other than salaries and benefits, the costs of fire apparatus and equipment is a major cost on an annual basis in the Fire Department budget accounting for expenses of \$1.16 million to \$1.36 million the last three budget years. Again, the District does an excellent job at maintaining their fleet of apparatus and this is accomplished without borrowing funds to purchase large fire apparatus and equipment.

The other major expenditure in the fire department budget is the transfer of funds to the Operations Budget, which has accounted for \$435,000 to \$266,000 annually for the last three budgets. These funds are used for all building operating costs and repairs. The funds are also used to complete major building upgrades such as driveways, roofs, sidewalks, HVAC systems, etc.

Table 11: District Corporate Budget 2015-16 to 2017-2018

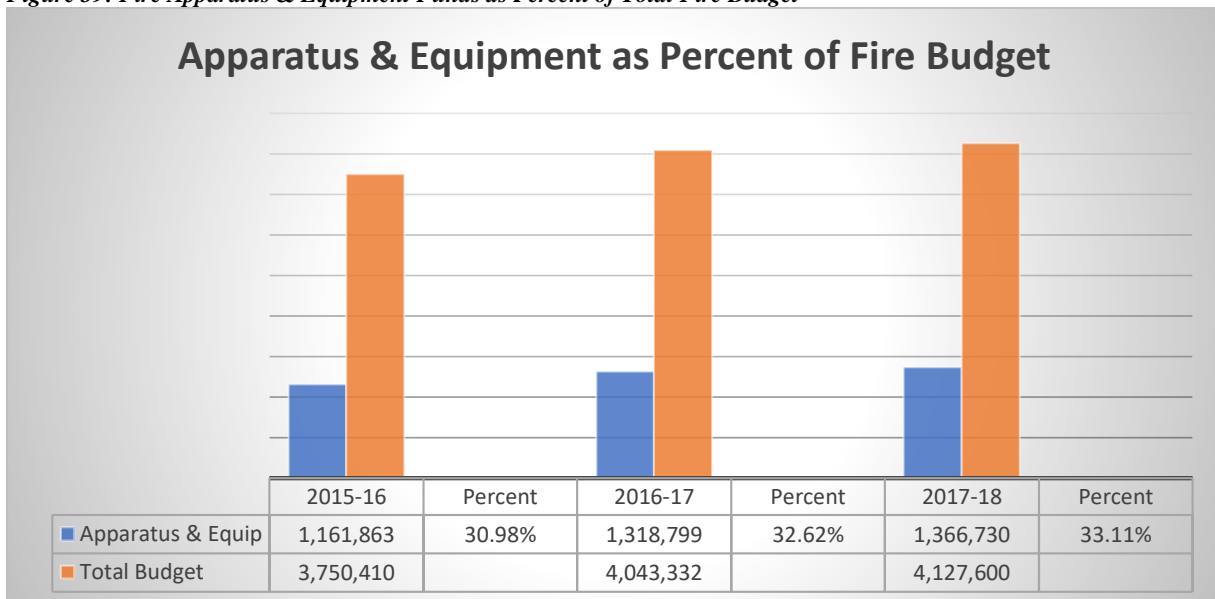
<i>District Corporate Budget</i>			
Income	2015-2016	2016 -2017	2017-2018
Tax Levy – Fire Protection	2,731,053.35	2,749,716.00	2,799,775.00
Replacement Tax Allocation	12,000	10,000.00	10,500.00

<i>District Corporate Budget</i>			
Income	2015-2016	2016 -2017	2017-2018
Carry-over Previous Year	1,007,357.21	1,270,616.29	1,279,325.00
Response Fees	0.00	10,000.00	35,000.00
Plan Review/Permit Fees	0.00	3,000.00	3,000.00
Total	3,750,410.56	4,043,332.29	4,127,600.00
Expenses: Personnel Services			
Compensation-Trustee & Clerk Member Compensations	5,625.00	5,625.00	5,625.00
Accumulated Benefits	0.00	3,269.23	3,432.69
Tech Rescue Team Compensation	8,000.00	8,100.00	8,580.00
Public Ed Compensation	6,100.00	7,000.00	6,000.00
Fire Invest Team Compensation	8,000.00	4,495.00	4,785.00
Swift Water Rescue Team Compensation	9,000.00	8,500.00	10,032.00
401K, IMRF, & Payroll Service	32,990.86	33,829.65	34,826.01
Pension Expenses	36,253.00	32,750.00	29,382.00
Health, Sickness, Accident & Disability	58,518.40	63,453.60	73,550.40
Rescue Task Force Instructor Comp	0.00	0.00	3,168.00
Expenses – Other			
Transfer to Operations & Other Funds	235,000.00	0.00	0.00
Legal & Accounting	2,000.00	1,900.00	1,900.00
Firefighting Supplies	17,500.00	20,000.00	20,000.00
Firefighting Apparatus & Equipment	1,161,863.28	1,318,799.06	1,366,730.15
Uniforms & Brass	20,000.00	22,000.00	22,000.00
Fire Numbers & Maps	1,000.00	1,000.00	1,250.00
Repair & Maint. Trucks & Equipment	80,000.00	75,000.00	75,000.00
Fuel – Vehicles	40,000.00	30,000.00	28,000.00

<i>District Corporate Budget</i>			
Income	2015-2016	2016 -2017	2017-2018
Transfer to Operations	200,000.00	245,000.00	266,375.00
Education, Conference & Travel Expenses	35,000.00	31,500.00	24,500.00
Public Ed Expenses	5,000.00	8,000.00	9,000.00
Fire Invest Expenses Non-Comp	8,000.00	5,000.00	5,000.00
Technical Rescue Team Expenses Non-	1,600.00	2,600.00	1,200.00
Swift Water Rescue Team Expenses Non-	8,720.00	6,008.00	9,235.00
Membership Appreciation Expenses	5,000.00	4,000.00	3,000.00
Rescue Task Force Expenses Non-Comp	0.00	0.00	3,000.00
Office Supplies, Dues, & Mobile Data Fees	7,500.00	8,700.00	8,700.00
KenCom Dispatching Fees	13,000.00	13,000.00	13,000.00
Contingency & Misc. Expenses	10,000.00	20,000.00	10,000.00
Total	3,750,410.56	4,043,332.29	4,127,600.00

The following figure illustrates the amount of funds budgeted each of the last three years for fire apparatus and equipment as a percentage of the total fire budget:

Figure 39: Fire Apparatus & Equipment Funds as Percent of Total Fire Budget



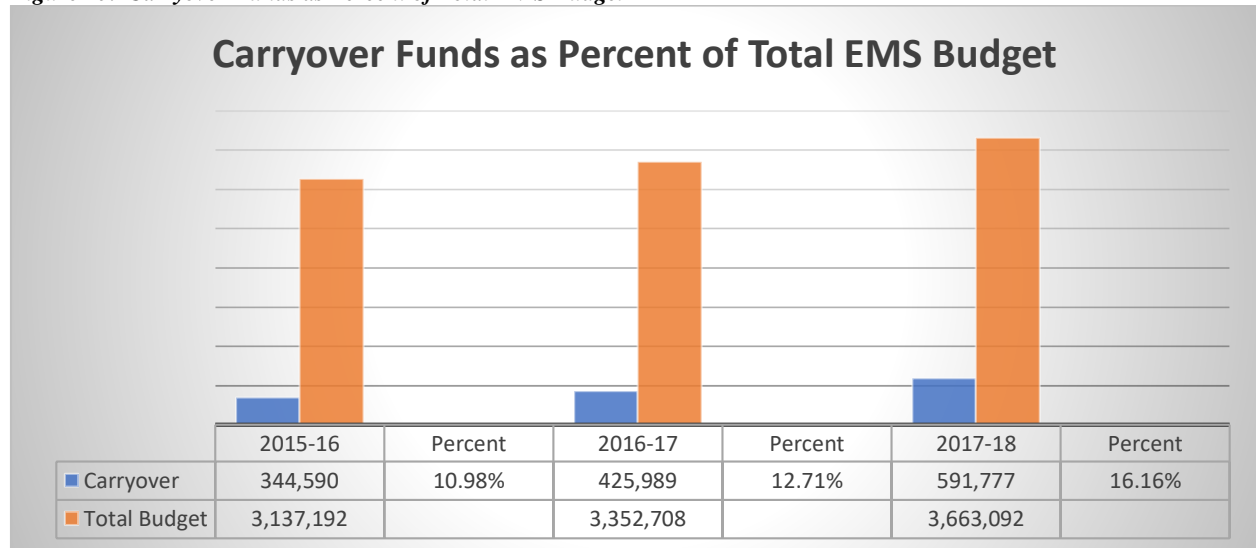
For the three budget years, the average amount of fire apparatus and equipment budgeted funds was \$1,282,464 or an average of about 32.27% of the total average annual fire budget.

Emergency Medical Service Budget

The second largest budget is the Emergency Medical Services Budget. The main source of revenue for this budget is also the tax levy. As shown in the following table, the tax levy has ranged from \$2,355,601.79 to \$2,460,814.85 for the three budget years listed. The tax levy increase in the three-year budget period was about a four and a half (4.5) percent increase which is very minimal. The amount of carryover funds ranged from \$344,590.31 to \$591,777.54 over the same period. Again, the reason for carryover funds being available can most likely be attributed to very conservative spending of funds. The total amount of income for the three years ranged from \$3,137,192.10 to \$3,663,092.39, which over the three-year period was an increase of about \$525,900 or about seventeen (17) percent. Since the increase of the tax levy was only about \$105,000, the remainder of the increase in income was about \$420,000, which again can be contributed to controlled spending by the District. It's apparent that the District realizes the importance of having sufficient carryover funds to offset the amount of tax levy needed for the next year and to have operating funds for the beginning of the new budget year.

The following figure illustrates the amount of carryover funds each of the last three years as a percentage of the total EMS budget:

Figure 40: Carryover Funds as Percent of Total EMS Budget



As the above figure indicates, the amount of carryover funds each of the last three years was an average of 13.28% for the three-year period. The amount of carryover funds for the EMS budget is much less than the carryover funds for the Fire Department budget. For the three budget years, the carryover funds for the Fire department budget averaged \$1,185,766 annually and for the EMS budget the average carryover over was \$454,118.67 annually. Again, the carryover funds reduce the tax levy and provide operating funds for the beginning of the budget years for operating expenses until the District receives tax revenue.

The Emergency Medical Services budget shown in the following table reflects the income and expenses for EMS services and the major portion of the budget is for compensation for paramedic salaries and expenses.

Paramedic salaries and expenses are the largest expenditure on an annual basis in the EMS budget accounting for expenses of \$2,255,730 to \$2,536,532.48 the last three budget years. This resulted in an increase of about 12.45% increase during the three-year period. This is not unusual, but in order to maintain quality paramedics on staff, even though they are employees of PSSI, it still requires that they be compensated properly in order to not have them leave for other employment opportunities.

Also, included in this budget are some salary cost for a number of the contract employees provided by Public Safety Service, Inc. (PSSI). The following contract employee salaries are included in this budget including:

- EMS Chief / PSSI Coordinator – Battalion Chief – Full-time - 100 percent
- Administrative Assistant – Full-time -50 percent
- Lieutenants – Full-time - Nine (9) – 50 percent
- Paramedics – Full-time – Twenty-One (21) – 100 percent

The other major expenses include costs for new equipment, transfer of funds to the Operations budget, repair and maintenance of vehicles and equipment, pension fund costs, fuel, medical supplies, education, and the annual cost to KenCom for dispatch services. In the 2015-16 budget, there was a budget of \$73,000 to pay for the services of the billing clerk and supplies. This expenditure was primarily for the costs of the District doing billing internally for the ambulance service, and these services have been contracted out to Public Safety Services, Inc.

The following table reflects the District EMS budget including income and operating expenses for the 2015-16 to 2017-18 budget years.

Table 12: District EMS Budget 2015-16 to 2017-2018

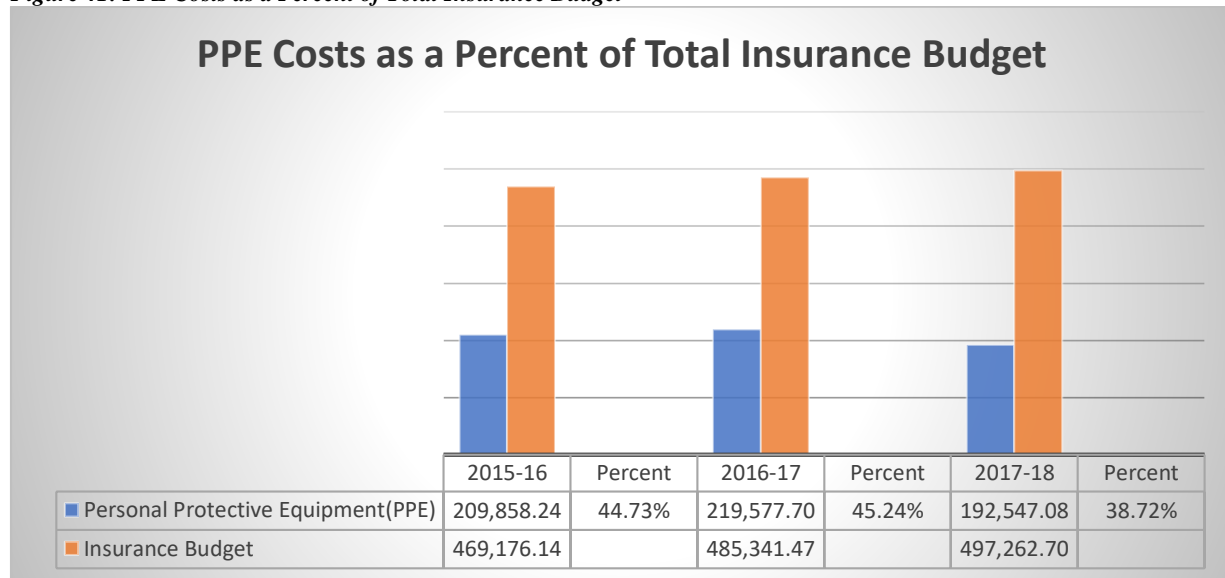
Income	2015-2016	2016 -2017	2017-2018
Ambulance Fees	425,000.00	500,000.00	600,000.00
Tax Levy EMS	2,355,601.79	2,416,719.00	2,460,814.85
Replacement Tax	12,000.00	10,000.00	10,500.00
Carry-over from	344,590.31	425,989.10	591,777.54
Total	3,137,192.10	3,352,708.10	3,663,092.39
Expenses			
Compensation –	5,625.00	5,625.00	5,625.00
Compensation –	167,000.00	170,000.00	166,846.31
Paramedic Salary &	2,255,730.00	2,406,858.72	2,536,532.48
Pension Fund Expenses	36,353.00	32,750.00	29,382.00
Medical Supplies	28,000.00	37,500.00	30,000.00
New Equipment	336,584.10	491,474.38	677,206.60
Repair & Maint. -	42,000.00	42,000.00	35,000.00
Fuel – Vehicles	38,000.00	30,000.00	25,000.00
Education Fund	15,000.00	12,000.00	12,000.00
Operations Account	100,000.00	85,000.00	106,500.00
Office Supplies, Dues	5,000.00	2,500.00	2,000.00
KenCom Dispatching	13,000.00	13,000.00	13,000.00
Legal & Accounting	2,000.00	4,000.00	4,000.00
Billing Clerk &	73,000.00	0.00	0.00
Contingency and Misc.	20,000.00	20,000.00	20,000.00
Total	3,137,192.10	3,352,708.10	3,663,092.39

District Insurance Budget

The District Insurance Budget is used to pay the costs of various types of insurance policies the District has in order to provide protection against various losses. This budget also funds various types of costs associated with District safety, including personal protective equipment and loss prevention. The main source of revenue for this budget is also the tax levy. As shown in the following table, the tax levy has ranged from \$300,347.59 to \$313,888.00 for the three budget years listed. The tax levy increase in the three-year budget period was about a four and a half (4.5) percent increase, which is very minimal. The amount of carryover funds ranged from \$168,828.55 to \$13,374.70 over the same period. Again, the reason for carryover funds being available can most likely be attributed to very conservative spending of funds. The total amount of income for the three years ranged from \$469,176.14 to \$497,262.70, which over the three-year period was an increase of about \$28,086 or about six (6) percent.

The District Insurance budget shown in the following table reflects the income and expenses for District insurance costs and safety programs and services and the major portion of the budget is for personal protective equipment, self-contained breathing apparatus, and other gear. The following figure illustrates the amount of funds spent on Personal Protective Equipment and Safety as a percentage of the total Insurance Budget for the last three budgets:

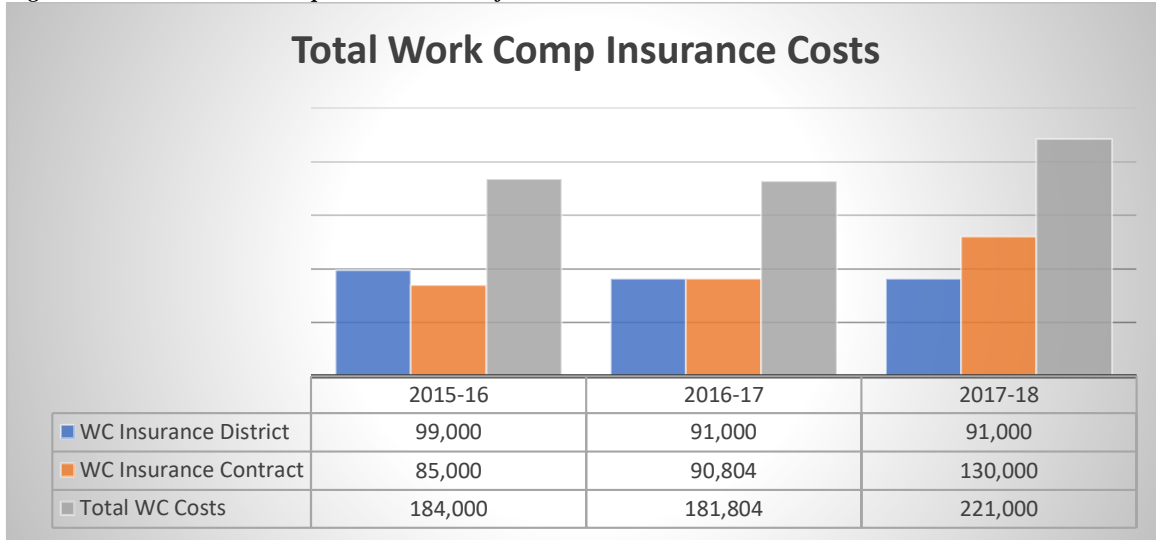
Figure 41: PPE Costs as a Percent of Total Insurance Budget



The other significant costs in the Insurance Budget is the cost for Worker’s Compensation Insurance for both District employees and contract employees.

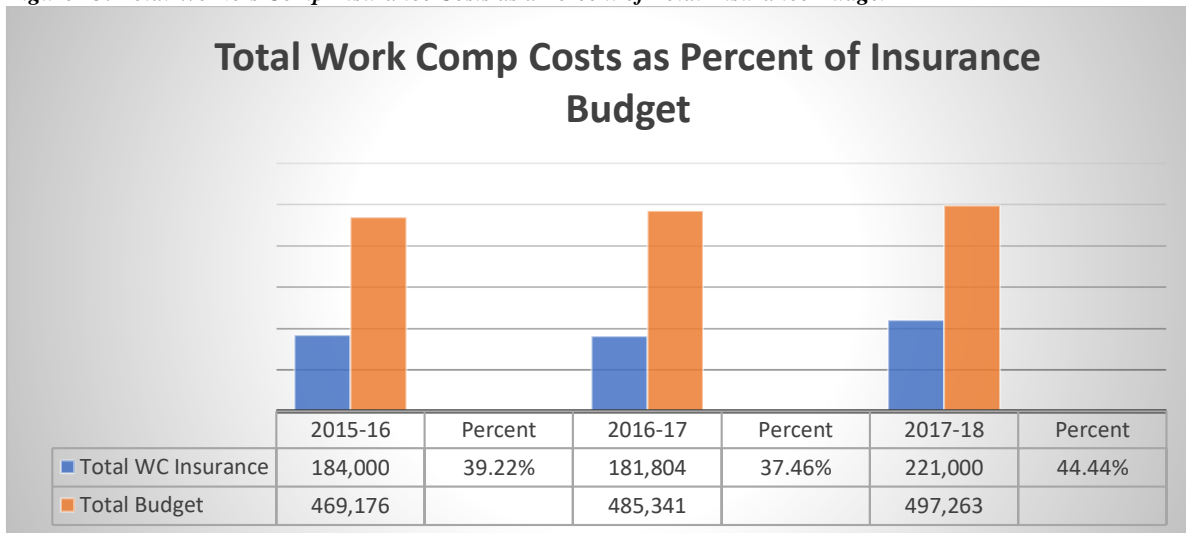
The following figure illustrates the total Workers Compensation costs for both District Employees and Contract employees for the last three budget years:

Figure 42: Total Workers Comp Insurance Costs for 2015-16 to 2017-2018



The following figure illustrates the total Workers Compensation costs for both District Employees and Contract employees as a percent of the total Insurance Budget for the last three budget years:

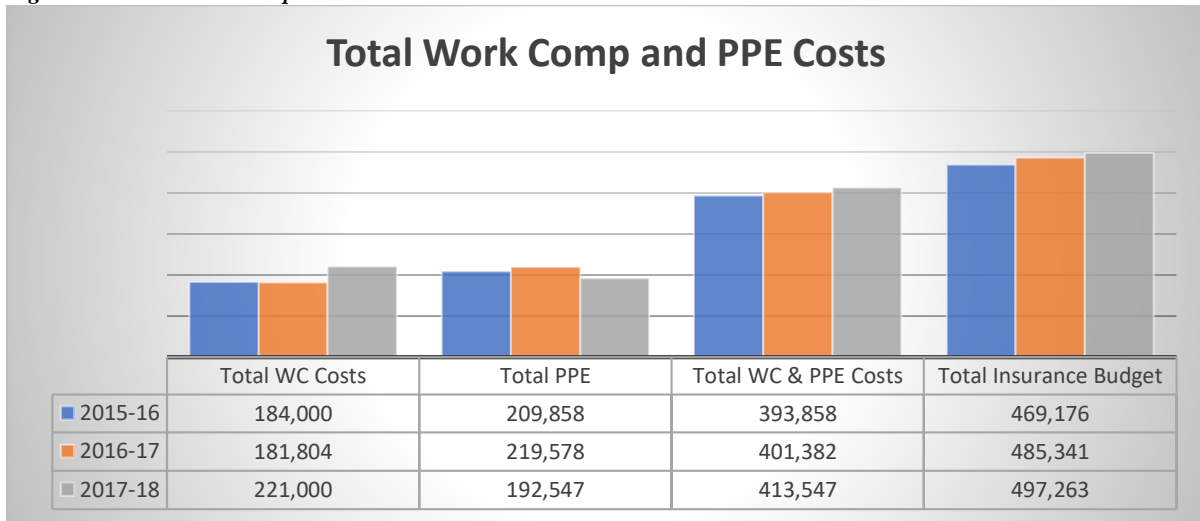
Figure 43: Total Workers Comp Insurance Costs as a Percent of Total Insurance Budget



The above figure indicates that the total costs of Workers Compensation insurance accounts for between 37.46% to 44.44% of the total insurance budget on annually.

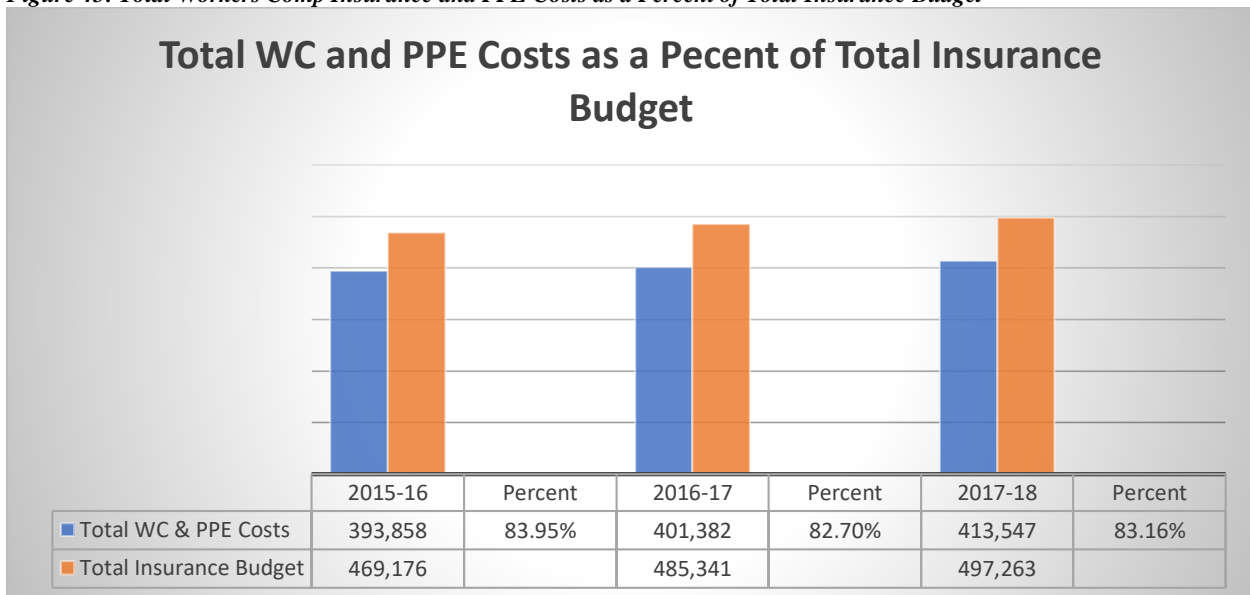
The following figure illustrates the total worker’s compensation and PPE costs on an annual basis for the last three budget years:

Figure 44: Total Work Comp and PPE Costs on an Annual Basis



The following figure illustrates the total worker’s compensation and PPE costs as a percentage of the total Insurance Budget on an annual basis for the last three budget years:

Figure 45: Total Workers Comp Insurance and PPE Costs as a Percent of Total Insurance Budget



The above figure indicates that worker’s compensation insurance and PPE costs account for about 82-83% of the total annual insurance budget.

The following table reflects the District Insurance budget including income and operating expenses for the 2015-16 to 2017-18 budget years.

Table 13: District Insurance Fund Budget 2015-16 to 2017-2018

<i>District Insurance Fund</i>			
Income	2015-2016	2016 -2017	2017-2018
Tax Levy	300,347.59	308,195.00	313,888.00
Carry Over from Previous	168,828.55	177,146.77	183,374.70
Total	469,176.14	485,341.47	497,262.70
Expenses			
Property Insurance	10,045.00	9,766.46	10,000.00
General Liability Insurance	6,600.00	7,045.00	8,350.00
Vehicle Insurance	16,556.00	16,717.93	16,500.00
Liability Umbrella Insurance	6,500.00	7,932.03	8,900.00
Portable Equipment Insurance	1,800.00	1,724.22	1,700.00
Mgt. Liability & Fidelity Bond	6,500.00	9,791.18	10,200.00
Workmen’s Comp Insurance	99,000.00	91,000.00	91,000.00
Personal Protective Equip,	209,858.24	219,677.70	192,547.08
Training Officer Compensation	8,354.59	8,772.32	9,035.50
Loss Prevention Officer	6,962.31	7,310.43	7,530.12
Contract Workmen’s Comp&	85,000.00	90,804.00	130,000.00
Legal & Accounting	2,000.00	1,800.00	1,500.00
Safety Materials and Programs	5,000.00	8,000.00	5,000.00
Contingency	5,000.00	5,000.00	5,000.00

<i>District Insurance Fund</i>			
Income	2015-2016	2016 -2017	2017-2018
Total	469,176.14	485,341.47	497,262.70

Operations Budget

The Operations Budget is used to pay the operating costs for all of the facilities as well as the costs for repairs and improvements. This budget also funds various types of operating costs including utilities, repair and maintenance, fuel, cleaning supplies, office and computer supplies, employee tests and vaccinations, and special projects, which are usually larger building projects.

In the 2017-2018 budget, there was a onetime cost of \$43,500 for the District's share of upgrading the KenCom Dispatching Service Computer Aided Dispatch (CAD) system. The main source of revenue for this budget are budget transfers from the Fire Department Budget, the EMS Budget, the Building Fund, and carryover funds. The funds transferred from the other budgets have been relatively stable each year with the majority of the funds coming from the Fire Department budget and the EMS budget. The Building Funds are Impact fees paid for development to offset the cost of the District operations.

The total Operations Budget has ranged from \$375,121.34 in 2015-2016 to \$475,757.57 in the 2017-2018 budget. It appears the range of about a \$100,000 difference in the three years is the result of funds budgeted for Repairs and Maintenance and funds budgeted for Special Projects. Again, these funds are used primarily for special building projects such as driveways, major paint work, new flooring, etc.

Table 14: District Operations Fund Budget 2015-16 to 2017-2018

<i>District Operations Fund</i>			
Income	2015-2016	2016 -2017	2017-2018
Transfer from Fire	235,000.00	245,000.00	266,375.00
Transfer from EMS	100,000.00	85,000.00	106,500.00
Transfer from Building	40,000.00	75,000.00	75,000.00
Carry Over from	121.34	38,523.91	24,882.57
Total	375,121.34	443,523.91	472,757.57

<i>District Operations Fund</i>			
Expenses			
Electric	42,000.00	42,000.00	42,000.00
Natural Gas	20,000.00	18,000.00	18,000.00
Sewer & Water	4,000.00	4,600.00	6,000.00
Telephone/Internet	30,000.00	30,000.00	30,000.00
Repair & Maintenance	152,221.34	78,523.91	80,000.00
Fuel – Generators	1,500.00	1,500.00	1,500.00
Cleaning Supplies	17,500.00	18,625.00	18,625.00
Office Supplies,	9,000.00	8,000.00	6,000.00
Copy/Fax/Postage	7,500.00	7,000.00	6,000.00
Computer, Software.	0.00	36,375.00	36,375.00
Computer Repairs &	50,000.00	50,000.00	45,000.00
Legal & Accounting	7,400.00	7,400.00	7,000.00
Employee Test,	32,000.00	34,000.00	34,000.00
Miscellaneous	2,000.00	2,000.00	12,257.57
Special Projects	0.00	105,500.00	80,000.00
New County Wide Fire	0.00	0.00	43,500.00
Total	375,121.34	443,523.91	466,257.57

The consultants did not see anything in the Operations Budget that was unordinary, as the budget is used to pay operating expenses for the three fire stations, supply other operating supplies and equipment, and to fund special projects to maintain the facilities.

Social Security & Medicare Budget

The Social Security and Medicare Budget is used strictly to pay the costs of Social Security and Medicare. The District is only responsible for the Social Security and Medicare payments for District employees that are full time and not in the State of Illinois Pension system and for part time employees.

Public Safety Services, Inc. are responsible for the social security and Medicare payments for all contract employees employed by PSSI. This budget also funds various types of costs associated with District safety including personal protective equipment and loss prevention. The main source of revenue for this budget is also the tax levy. As shown in the following table the tax levy has ranged from \$102,960.71 to \$107,698.07 for the three budget years listed. The tax levy increase in the three-year budget period was about 4.6 percent increase which is very minimal. The amount of funding required for Social Security and Medicare payments each year only increase due to any pay increases or increase hours worked by the part time District employees. The District did have carryover funds in the 2016-2017 budget to help with the revenue for this budget.

Table 15: District Social Security & Medicare Budget 2015-16 to 2017-2018

District Social Security & Medicare Budget			
Income	2015-2016	2016 -2017	2017-2018
Tax Levy	102,960.71	105,702.00	107,698.07
Carry Over from	0.00	19,097.98	0.00
Total	102,960.71	124,799.98	107,698.07
Expenses			
Social Security &	98,252.06	100,111.34	104,232.16
Contingency	4,708.65	24,688.64	3,465.91
Total	102,960.71	124,799.98	107,698.07

Fire District Tax Levies and Rates

Kendall County Equalized Assessed Valuation

The 2017 Equalized Assessed Valuation (EAV) for Kendall County is shown in the following table. The property type with the largest amount of EAV in the county is residential property which has a total EAV of \$606,805,470 of value. The value of the residential properties is about 80.8 percent of the total EAV for Kendall County. The next largest valued property type for EAV is commercial properties, which have an EAV of \$94,266,778 or about 12.5 percent of the total EAV for Kendall County.

Table 16: 2017 Kendall County Equalized Assessed Valuation

<i>2017 Tax Computation – Kendall County – Bristol Kendall Fire Protection District</i>		
Property Type	Total EAV	Rate Setting EAV
Farm	32,815,624	32,815,112
Residential	606,805,470	606,665,301
Commercial	94,266,778	91,915,448
Industrial	15,703,123	12,703,123
Mineral	0	0
State Railroad	1,324,023	1,324,023
Local Railroad	0	0
County Total	750,915,018	748,423,007
Total + Overlap	750,915,018	748,423,007

The Total EAV is the total valuation in the County minus all exemptions and the rate setting EAV is the Total EAV minus the Tax Incremental Financing (TIF) increments in the County.

In Kendall County, the Equalized Assessed Valuation (EAV) of a property is determined by the Township Assessor and is equal to one-third of the property’s fair market value, less any exemption(s) received by the property owner. As an example, a residential property with a fair market value of \$250,000 as determined by the township assessor, would have an Equalized Assessed Valuation (EAV) of \$83,333.33. If a homestead exemption of \$6,000 was available to the property owner, the EAV would be reduced to \$77,333.33. Assuming a Bristol Kendall Fire Protection District tax rate of 0.76922 per \$100 of EAV, the amount of property tax due for the District would be \$632.68 annually.

Bristol Kendall Fire Protection District Tax Levy Rates

As mentioned earlier in this report, Bristol Kendall Fire Protection District primary source of revenue is from the tax levy, which is used to fund four different District budgets. Each budget has a specific use and a levy rate that is in two situations unlimited and in two situations has a maximum tax levy rate. The four tax levies and their specific uses are as follows:

- The Corporate Tax levy is used for the Fire Department Budget and the maximum tax levy rate is 0.4000. The actual rate used by the District is 0.39409

- The Liability Insurance is used for the District insurances, protective safety equipment and loss prevention activities. There is no maximum tax levy rate for Liability Insurance, but actual tax levy rate of the District is 0.04194.
- The Social Security and Medicare tax levy is specifically for the payment of Social Security and Medicare payments, which are based on wages earned. There is no maximum tax levy rate for Social Security and Medicare, but the actual tax levy rate of the District is 0.01439.
- The Ambulance Tax Levy is used to pay for the Emergency Medical Services and the maximum tax levy rate is 0.4000. The actual rate used by the District is 0.33332

The following table reflects the maximum tax levy rates and the actual rates for the various

Table 17: Bristol Kendall Fire Protection District Tax Levy Rates

<i>Fund Name</i>	<i>Maximum Rate</i>	<i>Actual Rate</i>	<i>Limited Rate</i>
Corporate	0.4000	0.37925	0.37409
Liability Insurance	0.0000	0.04251	0.04194
Social Security & Medicare	0.0000	0.01458	0.01439
Ambulance	0.4000	0.33332	0.32880
Totals		0.76922	0.75922

The Limited Rate shown in the above table is calculated for each taxing district by the county clerk in order to implement the PTELL tax limitations rules. The sum of a district's rates extended for those funds subject to the PTELL limitations cannot exceed this limiting rate. The county clerk compares the sum of these rates to the limiting rates and if the sum exceeds the limiting rate, the rates are reduced proportionately. As you can see in the above table, the actual tax levy rates were reduced by calculating a limited tax levy rate based on the requirements of PTELL.

All four tax levies for the Bristol Kendall Fire Protection District total a final tax rate of 0.75922 for the budget year.

Property Tax Extension Limitation Law

The Property Tax Extension Limitation Law (PTELL) is a State of Illinois law that was designed to limit the increases in property tax extensions (total tax billed) for non-home rule taxing districts. The law is sometimes referred to as a law to implement “tax caps”, but the PTELL does not cap either individual property tax bills or individual property tax assessments. The PTELL allows a taxing district to receive a limited inflationary tax extension on existing property, plus an additional amount of new taxes for new construction.

PTELL limits the growth of revenues to taxing districts when property values and assessments are increasing faster than the rate of inflation. If a taxing district determines that it needs to collect additional tax dollars than allowed by PTELL, then the district can request that the voters approve an increase by a referendum.

The increases in property tax extensions allowed by PTELL are limited to the less of five (5) percent or the increase in the national Consumer Price Increase (CPI) for the year preceding the levy year. The limitation can be increased for a taxing body with voter approval.

Fire District Debt Service

As mentioned earlier in this report, the Bristol Kendall Fire Protection District has no outstanding loans for capital equipment or any operating expenses. The District has zero debt and the District leadership, and the Board of Trustees should be commended for their hard work and efforts in achieving zero debt.

Fire District Grants

The Bristol Kendall Fire Protection District has applied for grants from the Assistance to Firefighters Grant (AFG) program, but they have not been successful in having a grant approved. The District does plan on applying for an AFGF grant in the next grant cycle to purchase new self-contained breathing apparatus (SCBA) and they do plan on modifying the grant request based on feedback they have received from other successful grant recipients.

District Challenges – Current and Future

Every fire and EMS organization has challenges, both current and future, that affect their operations. Often the challenges are related to the need to provide fire and EMS services to either a growing community or a changing community at a higher level required to protect the citizens of the community in an ever-changing environment.

Often the changes are related to a growing population, new area added to the protection district, changing demographics such as an aging population and new families with children, new transportation routes, increased traffic and traffic congestion, new commercial and business development, increased housing units both single family and multi-family, and basically a constantly changing community.

The changes described above may require additional expensive apparatus, the need for additional fire stations, the need for additional training and equipment to be prepared to handle new types of emergencies, and the changes usually result in the need for additional personnel. All the additional resources require additional money and new funding is very limited in most communities.

The Bristol Kendall Fire Protection District is no exception as over the years the communities that are protected in the District have changed substantially. The District started as a Volunteer Fire District staffed by only volunteers, the District then added EMS services to their operation, then started to staff the District using full-time contract employees to staff the stations and eventually added part-time employees to staff all three fire stations.

Over the years, the District started with one fire station and then eventually added two additional fire stations based on the growth and need to maintain response times that were adequate to provide protection to the citizens of the District. Additional fire apparatus and EMS ambulances have been added to the fleet as needs changed. As the community grew and the demographics changed, the District trained members on Technical Rescue Team Services and now provide high angle rescue, confined space rescue, trench rescue, and swiftwater. All these Technical Rescue Specialties require special training and skills, special equipment and a vehicle to transport the equipment and personnel to an emergency.

During the past years, the District has had many challenges that they have met by making good decisions by considering what was in the best interests for the District, the citizens they served and what was fiscally responsible. The District has done an exceptional job of providing quality Fire and EMS services

at a cost that was affordable and responsible. By carefully planning and evaluating the needs for additional resources, the District has provided adequate staffing using both full-time contract employees and part-time District employees.

The fact is the District still has some significant current challenges and will certainly have additional challenges in the future.

District Challenges

District Board Trustees

One of the major challenges that the Bristol Kendall Fire Protection District will face in the future will be a potential turnover in the Board of Trustees. The Board of Trustees are comprised of five members including a President, Secretary, Treasurer and two additional members of which are all over sixty (60) years of age. The Board of Trustees leadership has guided the District, but the likelihood of one or more of Trustees leaving the Board of Trustees in the next few years is probably going to be a reality.

Some of the Trustees have been members of the Board for many years and they have a great deal of experience and knowledge about the District operations and budget. Losing even one Board member with the experience and knowledge they have as a long-term Trustee will be a loss, but the chances of losing more than one Trustee in the next few years is a real possibility. The loss of more than one Trustee in the next few years will be a challenge for the District as it may take some time before a new Trustee(s) will gain the knowledge and experience to make good decisions to continue the excellent operations and services provided by the District.

New Trustee Board members may have an entirely different philosophy about the services being provided by the District, how the services should be provided, who should provide the services and how much money should be spent to provide the services to the community and the District.

New Trustee Board members may even have a different philosophy about how the District should staff the fire stations by using full-time contract employees or full-time District employees, which will create major challenges.

When current Trustees leave the Board of Trustees, who they are replaced with will have a very strong effect on the District as to how it will move forward in meeting the many challenges that it will face in terms of the many issues identified in this report.

New District Fire Chief

The current Fire Chief, Michael Hitzemann, has been Fire Chief of the Bristol Kendall Fire Protection District for over thirty (30) years and his leadership has had a great deal of positive effect on the District. Chief Hitzemann has provided the leadership along with the Board of Trustees for the Bristol Kendall Fire Protection District to provide quality fire and EMS services to the citizens of the District.

Chief Hitzemann announced his retirement, which will be effective in the next few months, and the District Board of Trustees has been working on selecting a new District Fire Chief that will provide the leadership for the District into the future. Since Chief Hitzemann has been Fire Chief for over thirty (30) years, this will be the first time that the Board of Trustees has gone through the process of selecting a new Fire Chief.

The selection of a new District Fire Chief by the District Board will be one of the most important decisions they will make as members of the District Board. Their decision will result in the selection of a new Fire Chief that may provide the leadership to the District for the next twenty (20) to thirty (30) years and selecting the right person will be critical.

The new Fire Chief will need to be educated, knowledgeable, professional, a great communicator, a planner and organizer with leadership skills necessary to meet the many challenges facing the District now and into the future.

With the selection of a new District Fire Chief, many members will be affected with mixed feelings, not only about the person selected, but also about the future of the Fire District. The members will have concerns about what changes may be implemented in the District operations and how any changes will affect them as either full-time or part-time employees. Full-time contract employees will be concerned about where the new Fire Chief will continue contracting with PSSI for employees or if the new Fire Chief will go in another direction and want to hire full-time District employees and perhaps they would not have full-time employment. Part-time District employees will have the same concern, will the new

Fire Chief want to go in the direction of just using full-time District or contract employees and no longer use part-time employees.

Depending on who is selected as the new Fire Chief, current District Chief Officers, both full-time and part-time, may decide that they no longer want to be part of the Fire District and may leave as an employee. This would be a loss of experienced Chief Officers with a substantial amount of experience and knowledge about the District operations. Every Chief Officer or any employee can be replaced if they leave the employment of the District, but it takes time to train the replacement, especially for Chief Officers and this could create some challenges for the District.

Part-Time Chief Officers

The District has two part-time District employees that are Chief Officers. One is the Deputy Chief who has been a member of the District for more than forty-five (45) years and the other is the Assistant Chief, who is the District Training Officer and who has been a member of the District for over thirty (30) years. Both Chief Officers are very dedicated and have spent many years working for the District. Both are paid an annual stipend for their duties and responsibilities, but they certainly put in more than part-time hours to complete all their responsibilities. With over thirty (30) full-time contract employees and over forty (40) part-time employees, just planning, conducting, and tracking all the fire training for this number of employees is a significant responsibility.

As stated earlier, the Deputy Chief has been with the District for over forty-five (45) years and he has a wide range of duties that he performs and most likely he spends more hours working than just a part-time employee. The consultant was given the impression that when the Fire Chief retires in the next few months, that the Deputy Chief may retire at the same time or soon after.

The challenge for the District is that there are two part-time Chief Officers that have dedicated years to the District performing important duties and have probably worked many hours beyond a part-time position. If either of them leaves the District, will the District be able to replace them with another part-time employee and if so does anyone else employed by the District now have the experience and ability to work part-time hours.

The other challenge is how much longer can both positions remain as part-time employee positions? If either of the positions need to be converted to full-time positions, could they be contract positions or would they need to be full-time District employees? Both positions are critical for the District operations and the question would be could the two part-time positions be converted into one full-time position?

Fire Marshal

The Fire Marshal is a full-time contract employee of PSSI who has worked for the District for over seven (7) years and was previously a Fire Chief in a suburb of Chicago prior to retiring from that position.

Again, here is another employee in a critical position within the District that may be approaching the end of his career in the next few years. The Fire Marshal has a great deal of responsibility with fire inspections, public education, and fire investigations.

The District has at least two challenges with the Fire Marshal position, the first being how much longer can the need to provide additional resources to conduct fire inspections be delayed as there is a limit to the amount of work one person can perform in fire inspections and still be able to produce quality services. If resources or time is not available for the Fire Marshal to conduct follow-up inspections of fire code violations, the result could be an increase in emergency responses within the District.

The second challenge with the Fire Marshal position is that when the current Fire Marshal decides to leave the District, how will the District fill the position? Will the District continue to contract with PSSI for a Fire Marshal or will the District decide to hire their own full-time Fire Marshal as an employee of the District?

Hiring for Part Time District Positions

The challenge of hiring personnel as part-time employees is a problem that the District has been facing for some time and it is a problem that is common for many fire districts/departments throughout the United States. To be hired as a part-time District employee requires that the individual be committed to making time available to attending numerous fire and EMS courses, but once they are trained many of them must make a commitment to work either twelve (12) or twenty-four (24) hour shifts in the fire station. Since it is a part-time position, the individual most likely will have a full-time employment somewhere else already. This means anytime spent on training or working shifts in the fire station will be added to the hours they are working somewhere else. The problem is not everyone is able to make a time

commitment in their personal life. Sometimes they may make the initial commitment and then realize they can't maintain the pace and then they leave the District as an employee.

The District does have interns which does produce some good candidates for part-time positions as employees with the District. As mentioned earlier, in the past some part-time employees have been associated with full-time career fire departments and have become part-time employees of the District. Now many full-time career fire departments are not allowing their employees to work on another fire department even as a part-time employee as they have concerns about their employees being injured and the worker's compensation issues that could become an issue. All these factors are affecting the number of individuals available to become part-time employees for the District and this is another challenge that must be addressed.

Filling Part Time Positions on Shift

One of the current challenges for the District is filling the six (6) part-time positions that are used to staff the three fire stations on a daily basis. It is very time consuming, filling six (6) positions daily requires 180 positions per month; additionally, each position requires an individual to work a twenty-four (24) hour shift. If members are not available to work the entire twenty-four (24) hour shift, then the shift may need to be filled by two part-time members working twelve (12) hour shifts. The potential is there for each of the six (6) positions being filled daily by members only able to work twelve (12) hour shifts, then the six positions could require twelve (12) different members working to fill the six (6) positions. If that happened for an entire month it would require about 360 different twelve (12) hour shifts.

Another challenge with filling the part-time positions on a daily basis is that some of the full-time contract employees who are employed by PSSI also work part-time for the District. At times a full-time employee may be scheduled to work part-time, but then get called to work overtime as a contract employee due to another full-time employee being off for some reason. When this happens, it can leave the District at the minute scrambling to find someone to fill the now vacant part-time position.

Continuity of Service

One of the challenges of using the full-time contract employees and part-time District employees is that daily the crews that are working together may not always be very consistent. The full-time contract employees are usually the same every third day, but they may not always be working with the same part-

time employees as their schedules may change on a regular basis. This can create problems with a lack of continuity between crews working together on a regular schedule. The crews that work together in most cases will have improved teamwork and emergency scene capabilities as they are familiar with each other and respond together on emergency calls on a regular basis.

In most career fire departments or fire districts, personnel are assigned to shifts based on a number of factors including seniority, skill levels, experience, calmness under emergency conditions, and their teamwork abilities. When using part-time employees to fill on duty staffing, the ability to assign personnel based on the above factors is not always possible. This all creates a situation that can be somewhat difficult but can be overcome, but it does create challenges for the District.

Loss of District Members

Another challenge in recent years the District has experienced is the loss of both full-time contract employees and part-time District employees. One of the major reasons for the loss of these members is they leave for full-time career positions with other fire districts or fire departments. A primary reason for their leaving is that with full-time employment with a career department they receive duty disability benefits and are enrolled in the State of Illinois Firefighter pension system. Although the annual salary for the full-time contract employees is somewhat comparable to a full-time career firefighter, they do not have duty disability coverage insurance and they are not enrolled in the State of Illinois Firefighter pension system.

Staffing

The District has a challenge staffing the three (3) fire stations daily as already discussed. The staffing challenge can be contributed to the issue of using contract employees as full-time staff and for using part-time District employees to supplement the daily full-time staffing. The real challenge for the District is to balance the staffing needs using both full-time contract employees and part-time District employees and to maintain adequate staffing within the ability of the District's budget to fund the costs.

Pension and Duty Disability Benefits

The only District employee that participates in the State of Illinois Firefighter pension system is the Assistant Fire Chief. No other employees of the District participate in the State of Illinois pension system or do they receive duty disability benefits. The fact that the majority of employees are not in the State

pension plan and do not receive duty disability benefits is a challenge for a number of reasons. The cost to the District for the State of Illinois Firefighter pension system benefits would be about 18-20% of the salary of a full-time employee and the duty disability benefit would be part of the pension benefit. If a full-time firefighter were to be injured while performing their full-time duties they would be covered by worker's compensation insurance benefits, but if they were injured to the point where they could no longer perform the duties of a firefighter they may be eligible for the duty disability benefits. The duty disability benefit would allow them to retire with a duty disability pension based on the fact they could not be employed as a firefighter.

The current full-time contract employees do receive some 401 K funds through PSSI, which is funded by the District and they also receive a pension from PSSI. The current part-time District employees also receive some 401k matching funds from the District, but it is very limited with a four (4) percent match. Both groups of employees are covered by worker's compensation insurance and in the event of an on-duty injury they will receive worker's compensation payments for a period of time. The issue is if they were injured while performing their duties and the injury was serious enough that they could not return to be a firefighter they would not receive any long-term duty disability coverage or pension.

The issue becomes a recruiting and retention problem for the full-time contract employees and for the part-time employees as well. The full-time employees may leave the employment of PSSI, and go to a career department to get the better benefits such as the pension and duty disability benefits. The part-time District employees may still become a District employee in order to receive the fire and EMS training and to gain the experience, but once they become eligible to apply for employment with a career department, they will apply for a full-time position with a career department in order to have a more stable future.

Likelihood of a Union with Full-Time Staff

With the current staffing model of full-time contract employees and part-time District employees, the District does not have a group of employees that are organized by a labor union. In the future, if the District decides to transition to a full-time District employee mode of staffing, the result will most likely include the fact that the full-time District employees would join a union. There would be many benefits to the full-time employees and to the District to have a union, but there are also some challenges that would come with a full-time staffing model in which members belonged to a union.

The challenges would include the possibility of higher salaries and benefits, labor agreement language that may affect the management and operations of the District, changes in promotional practices, staffing requirements and a host of other labor agreement subjects. There is no doubt that if the District had full-time employees instead of full-time contract employee's, there would be many benefits, but there would also be challenges for the District to address.

Fire Prevention & Public Education

The fact that the Fire Marshal is a one-person operation and conducts fire inspections for over 740 businesses, new construction, conducts inspection and testing of all new fire protection systems, and conducts fire investigations with limited assistance has to be a challenge now and certainly for the future. At some point in time, the District will need to perhaps provide additional personnel to the fire inspection and public education areas in order to maintain fire code compliance and to continue to educate the community about fire safety issues.

Fire Apparatus Replacement

The District has done an excellent job at vehicle replacement, but in the future replacing vehicles may become more of a challenge as prices will increase due to inflation and especially if the District has a vision to hire any full-time employees.

The following table reflects the inventory of fire apparatus vehicles with the replacement years and costs based on current replacement costs provided by the District. The estimated costs to replace all of the fire apparatus vehicles is \$4.9 million dollars and over a twenty (20) year period this would be at least \$245,000 annually. Again, the estimated costs are replacement costs in 2018 and would need to be adjusted for inflation. For instance, an aerial ladder in 2018 would probably cost between \$900,000 and \$1,000,000, so in 2025 an aerial ladder may cost \$1.3 million dollars. A pumper in 2018 would probably cost about \$550,000, so by 2031 a pumper may cost as much as \$850,000. For the purpose of this study, we have used the numbers provided by the District, but in any case, the fact is the costs in future years will be much higher than current replacement costs. So, in reality the total fire apparatus replacement costs over the next 15-20 years could easily be 40-50% higher than the \$4.9 million dollars.

Table 18: Fire Apparatus 20 Year Costs at Current Replacement Costs

Type	Year Replacement	Costs
Fleet Maintenance	2034	\$150,000
Pumper	2031	\$550,000
Pumper	2031	\$550,000
Pumper	2031	\$550,000
Pumper	2031	\$550,000
Aerial Ladder	2025	\$1,000,000
Water Tender	2037	\$350,000
Brush Vehicle	2034	\$200,000
Heavy Rescue	2026	\$750,000
Tech Rescue	2031	\$250,000
	Total	\$4,900,000
20 Year Replacement Schedule	Annual Costs	\$245,000

The following table reflects the replacement costs of the fire apparatus over the next 15-20 years with estimated vehicle costs based on inflation estimates. The current fire apparatus replacements cost of \$4.9 million dollars with inflation jump to an estimate of \$6,930,000, which would require over twenty (20) years of an annual expense of \$346,500 for fire apparatus replacement. This would be an increase of about forty-one (41) percent over the current replacement value annual expense.

Table 19: Fire Apparatus 20 Year Costs at Future Estimated Costs

Type	Year Replacement	Costs
Fleet Maintenance	2034	\$250,000
Pumper	2031	\$850,000
Pumper	2031	\$850,000
Pumper	2031	\$850,000
Pumper	2031	\$850,000
Aerial Ladder	2025	\$1,300,000
Water Tender	2037	\$550,000
Brush Vehicle	2034	\$300,000
Heavy Rescue	2026	\$780,000
Tech Rescue	2031	\$350,000
	Total	\$6,930,000
20 Year Replacement Schedule	Annual Costs	\$346,500

The following table reflects the inventory of fire command vehicles and ambulances with the replacement years and costs based on current replacement costs provided by the District. The estimated costs to replace all of these vehicles is \$1.087 million dollars and over an eight (8) year period this would be at

least \$135,875 annually. The Command vehicles may last more than eight (8) years, but we have included them in the table below. Again, the estimated costs are replacement costs in 2018 and would need to be adjusted for inflation.

Table 20: Fire Command Vehicles and Ambulances 10-12 Year Costs at Current Costs

<i>Type</i>	<i>Year Replacement</i>	<i>Costs</i>
Command	2029	\$45,000
Command	2030	\$45,000
Command	2032	\$45,000
Ambulance	2018	\$240,000
Ambulance	2020	\$240,000
Ambulance	2023	\$240,000
Ambulance	2026	\$240,000
	Total	\$1,087,000
8 Year Replacement Schedule	Annual Costs	\$135,875

The following table reflects the replacement costs of the fire command vehicles and ambulances over the next eight (8) years with estimated vehicle costs based on inflation estimates. The current fire command vehicles and ambulances replacements cost of \$1.087 million dollars with inflation jump to an estimate of \$1.28 million, which would require over eight (8) years of annual expense of \$160,000 for fire command vehicles and ambulance replacement. This would be an increase of about 17.75 percent over the current replacement value annual expense.

Table 21: Fire Command Vehicles and Ambulances 10-12 Year Costs at Future Estimated Costs

<i>Type</i>	<i>Year Replacement</i>	<i>Costs</i>
Command	2029	\$65,000
Command	2030	\$65,000
Command	2032	\$65,000
Ambulance	2018	\$240,000
Ambulance	2020	\$260,000
Ambulance	2021	\$275,000
Ambulance	2022	\$310,000
	Total	\$1,280,000
8 Year Replacement Schedule	Annual Costs	\$160,000

The total annual replacement expense for vehicles would be about \$506,500, which is an increase of about a thirty-three (33) percent increase over the annual expense based on the current replacement costs.

In summary, the District needs to have a vehicle replacement expense of about \$506,500 on an annual basis in order to maintain their current fleet of vehicles in the future. Currently, the District budgets for vehicle replacement in the annual budget and any funds left over after a vehicle purchase are carried over to the next annual budget year.

Operating Expenses at the Beginning of Each Year

The District does need to have funds available on an annual basis to pay for operating costs in the beginning months of the fiscal year. Without the carryover funds the District could not pay the operating expenses such as payroll, fuel, utilities, medical supplies and other critical needs to function.

They have not had any problems with having adequate carryover funds, but in the future, it could become a challenge depending on what direction the District takes in staffing and other District operations.

District Future Opportunities and Vision

Community Growth

In 2016, the United City of Yorkville updated its Comprehensive Plan through a collaborative process within the community. The Comprehensive Plan, known as “The Yorkville Plan”, is a document that outlines policies and strategies to address issues affecting the community related to infrastructure, capital improvements, community design, downtown development, housing and neighborhoods, parks and open spaces, transportation, historic resources, and community sustainability and resiliency. The goal of the Comprehensive Plan is to provide a complete vision for the United City of Yorkville and it is considered as the official document to assist with the guidance of the City’s future.

The Comprehensive Plan Key Planning Strategies include:

- Revitalization of the Downtown Yorkville area with the projection of attracting additional business to the Downtown area.
- The projection that Yorkville will experience more modest, incremental residential and commercial growth.
- Diversifying the housing mix as the majority of housing in Yorkville is currently single-family homes mostly priced between \$200,000 and \$300,000. The plan suggests that townhomes, duplexes, and apartments are housing that could be encouraged for future housing needs, including senior and affordable housing.
- Managing corridor land use along the four main transportation routes within the City.

- Enhance the parks and open space system.
- Build on the current transportation network including revising the bike path plan.
- Participate in the planning process to determine the feasibility of a Metra commuter station in the City.
- Maintain the community infrastructure including the water and sanitary system.
- Address future annexation issues such as the need to assure that subdivisions in areas that are expected to be annexed to the City meet the City subdivision design standards.

All aspects of the Comprehensive Plan indicate that the United City of Yorkville will continue to experience growth in both population and in housing, commercial and business occupancies. Along with that growth will come increased need for fire and EMS services provided by the Bristol Kendall Fire Protection District. It will be critical that the Bristol Kendall Fire Protection District be involved with the implementation of all aspects of the Comprehensive Plan in order to fully understand the Bristol Kendall Fire Protection District needs in being able to meet any future demands for service.

Future Fire Stations

During the study, the consultants were informed that the District had previously been planning for the need for an additional fire station on the northwest side of the District, but the plans never moved forward due to a number of reasons. The primary reason was that projected growth in that area of the District never materialized. At this time, the Bristol Kendall Fire Protection District does not need an additional fire station, but the need could change in the future depending on a number of factors including population growth, growth of housing units, increase in traffic and transportation routes, increase in the number of emergency responses in the area, and increases in response times by current emergency resources.

Providing Fire & EMS Service Needs

One of the challenges the Bristol Kendall Fire Protection District will need to address in the future will be how to continue to provide quality fire and EMS service to the District. As the community experiences growth in population and economic development, it will bring an increase in the need for the services provided by the District.

The challenge for the District will be meeting the financial needs to provide expanded and/or new fire and EMS services required with a limited ability to raise revenue for the District. Growth in the community

could require additional resources for the District including personnel, vehicles, equipment, fire stations, and expansion of the Technical Rescue Team services.

Stable Workforce for the District

When the consultants met with the District leadership, all of them expressed their appreciation for how well the current staffing model using full-time contract employees with part-time District employees has served the District very well for many years.

Currently they are very concerned about problems associated with the issues that have developed over the recent years using this staffing model. The issues with the current staffing model were discussed in previous sections of this report. The District leadership realize that the District needs to start planning on what staffing model should be used in the future and how to fund any changes in the current staffing model. The concept of changing the District staffing model is a major challenge for many reasons with the primary reason related to how to fund any changes that will be acceptable to the taxpayers of the District.

The challenge to the District leadership is to develop a stable workforce for the District in which employees will not only want to be employed by the District but will also want to stay employed with the District for a long-term career in the fire and EMS service.

The District leadership realizes that the change to a new staffing model may not occur in the immediate future, but with the development of a plan for change and a vision for a staffing model that will better serve the District, the change can be made in phases.

Future Funding Needs and Options

Funding Needs

The primary concern about future funding deals with the cost of full-time staffing including salaries and benefits. The current salaries paid to the full-time contract employees are comparable to what is being paid to employees of surrounding career fire districts/departments. The major difference for the District will be the need to pay for the State of Illinois Firefighter Pension fund enrollment for all full-time

District employees. Currently, the estimated cost for pension contribution is about eighteen (18) percent of the salaries paid to the employees.

The second funding concern would be related to fire department vehicles or apparatus. Many of the vehicles are very expensive and have an extended life of sometimes up to as many as twenty (20) years for the larger fire apparatus. The District has been very fortunate in being able to purchase the fire apparatus and other vehicles without borrowing funds to pay for the vehicles. If the District transforms to staffing with full-time employees, the available funding for purchasing vehicles may be affected. It will be important for the District to have a solid vehicle replacement and funding plan in place to maintain the fleet of fire district vehicles.

Cost of Full-Time Staffing

The cost of full-time staffing for the Bristol Kendall Fire Protection District would increase from the current staffing model costs and this would be due primarily to the increase in benefits. The major increase would be the cost of the pension system enrollment and health insurance.

Full-Time Staffing, Costs, and Pension

The District Fire Chief did provide the consultants with information that he developed to calculate the costs of the implementation of full-time employees to replace the current contract full-time employees of PSSI. The Chief's proposed plan, including converting the current two part-time District employees that serve as the Deputy Chief and the Assistant Chief of Training to one full-time employee of the District. In addition, the Chief's proposed plan would convert all thirty-three (33) contract employees of PSSI to full-time District employees. This includes the twenty-one (21) firefighter/paramedics and the nine (9) Lieutenants that work full-time at the District on one of the three twenty-four (24) hour shifts.

The proposal would also be to convert the Fire Marshal, the EMS Coordinator and the Administrative Assistant who are all full-time contract employees of PSSI to full-time District employees. The total number of sworn full-time employees of the District would be thirty-five (35) and the total numbers of full-time civilian employees would be three (3) including the mechanic, administrative assistant, and a human resources position.

Currently, the District has three (3) full-time employees, thirty-three (33) full-time contract employees, and 40-50 part-time District employees. Under the proposed full-time staffing model, the District would have thirty-eight (38) full-time District employees and an adequate number of part-time District employees to staff six (6) part-time positions daily in the fire stations to supplement the full-time employees. The District would no longer use contract employees to staff their fire stations.

The consultants used the salary numbers provided by the Fire Chief as shown in the table below, which reflects the new full-time Deputy Chief position as well as the other positions listed above. The following table reflects the estimated cost of transitioning to a full-time and part-time staffing model with all District employees. If the District decide to transition to a full-time and part-time staffing model using all District employees, the ideal transition would be to make the transition all at once if feasible.

There certainly is a possibility of transitioning to this staffing model in phases such as Phase One being transitioning the Deputy Chief and the Training Officer. Phase Two could transition the Fire Marshal and EMS-Paramedic Coordinator. Phase Three could include transitioning the nine (9) Lieutenants and the Administrative Assistant, and Phase Four could be transitioning the twenty-one (21) firefighter/paramedics to full time District employees.

The following table reflects the proposed budget of transitioning to a full-time and part-time staffing model with all District employees. The table reflects the costs of salaries and benefits for both sworn and civilian District employees.

The pension for the full-time employees is based on a contribution rate of eighteen (18) percent of salaries for sworn staff in the State of Illinois Firefighters Pension System and 11.29 percent contribution rate for the civilian employees in the Illinois Municipal Retirement Fund. The proposed budget would continue a four (4) percent matching contribution rate for matching 401K funds. The health insurance costs are budgeted at a rate of seventy-five (75) percent cost of an insurance premium of \$1,800 monthly. This would be the share of the premium paid for by the District and the remainder would be paid by the employee.

The budget contains the funding to pay for six (6) part-time District employees to supplement the daily full-time staffing in the fire stations at the rate of \$16.50 per hour.

Table 22: Full-Time District Personnel Proposed Budget – Starting May 2018

Full-Time District Personnel Proposed Budget – Starting May 2018			
Number	Position	Cost Per Person	Total Costs
1	Fire Chief	\$150,000.00	\$150,000.00
1	Deputy Chief	\$135,000.00	\$135,000.00
1	Assistant Chief	\$120,000.00	\$120,000.00
1	Paramedic Coordinator	\$98,000.00	\$98,000.00
1	Fire Marshal	\$98,000.00	\$98,000.00
9	Lieutenants	\$75,000.00	\$675,000.00
21	Firefighter/Paramedics	\$60,000.00	\$1,200,000.00
	Overtime		\$100,000.00
		Total	\$2,636,000.00
Civilian Personnel			
21	Part-time Firefighter/Paramedics @	\$49,764.00	\$1,045,044.00
1	Administrative Assistant	\$58,000.00	\$58,000.00
1	Mechanic	\$82,400.00	\$82,400.000
1	Human Resources	\$45,000.00	\$45,000.00
5	Trustees Compensation	\$2,250.00	\$11,250.00
		Total	\$1,241,694.00
64	Total Employee Positions on Payroll		
	Benefits		Costs
	Health Insurance 75% of \$1,800		\$615,600.00
	Pension (Sworn @ 18%)		\$474,480.00
	Pension (IMRF) Illinois Municipal		\$20,931.66
	401 K District Match 4%		\$155,107.76
	Payroll Taxes Medicare – Sworn		\$38,222.00
	Payroll Taxes – SS – Civilian		\$94,989.59
	Workers Compensation 2017 –		\$262,900.16
	Workers Compensation Auto Repair		\$2,418.44
	Workers Compensation Clerical		\$129.10
		Grand Total for All	\$5,542,472.72

The following proposed budget for the full-time staffing model contains revenue from a Rescue Tax Levy which would be set at a rate of 0.10 and would require a referendum approved by the taxpayers of the Bristol Kendall Fire Protection District. The idea of a Rescue Tax Levy will be discussed in a future section of this report. None of the proposed full-time staffing budgets indicate the use of carryover funds at least for the first proposed 2018-2019 budget. The following figure reflects the proposed Corporate

Budget for a full-time staffing model with revenue from a Rescue Tax Levy. It is anticipated that a Rescue Tax Levy of 0.10 will produce revenue of about \$754,913 the first year.

Table 23: Proposed Full-Time Staffing Corporate Budget 2018-19

Proposed Full-Time Staffing Corporate Budget 2018-2019	
Income	2018-2019
Tax Levy – Fire Protection	2,837,180.00
Replacement Tax Allocation	10,000.00
Carry-over Previous Year	0.00
Rescue Tax Levy	754,913.00
Response Fees	20,000
Plan Review/Permit Fees	3,000.00
Total Income	3,625,093.00
Expenses: Personnel Services	
Member Compensations	2,646,901.74
Tech Rescue Team Compensation	8,100.00
Public Ed Compensation	7,000.00
Fire Invest Team Compensation	4,495.00
Swift Water Rescue Team	8,500.00
Payroll Service	8,000.00
Supplement to SS/Medicare	24,146.83
Supplement to Insurance Fund	2,045.75
Pension Expenses (Non-Payroll	10,000.00
Expenses – Other	
Transfer to Operations & Other Funds	254,000.00
Legal & Accounting	1,900.00
Firefighting Supplies	20,000.00
New Apparatus & Equipment	359,195.71
Uniforms & Brass	22,000.00
Personal Protective Equipment	60,000.00
Repair & Maint. Vehicles & Equipment	75,000.00
Fuel – Vehicles	28,000.00
Fire Invest Expenses	2,000.00
Fire Numbers and Maps	1,000.00
Education, Conference & Travel	24,500.00
Office Supplies, Dues, & Mobile Data	8,700.00
KenCom Dispatching Fees	12,000.00
Public Education (Non-Compensation)	10,000.00
Fire Invest Expenses (Non-Comp)	5,000.00
Technical Rescue Team Expenses Non-	2,600.00

Proposed Full-Time Staffing Corporate Budget 2018-2019	
Swift Water Rescue Team Expenses	6,08.00
Membership Appreciation Expenses	4,000.00
Contingency & Misc. Expenses	10,000.00
Total Expenses	3,625,093.00

The following table reflects the Proposed full-time staffing EMS Budget for 2018-2019:

Table 24: Proposed Full-Time Staffing EMS Budget 2018-19

Proposed Full-Time Staffing EMS Budget 2018-2019	
Income	2018-2019
Tax Levy – EMS Purposes	2,493,592.00
Ambulance Fees	500,000.00
State of Illinois Replacement Tax	10,000.00
Total Income	3,003,592.00
Expenses	
Personnel Compensations	2,496,906.71
Pension Expenses (Non-Payroll)	10,000.00
Medical Supplies	30,000.00
New Equipment	273,685.29
Repair & Maintenance – Vehicles &	35,000.00
Fuel – Vehicles	25,000.00
Education Fund	10,000.00
Operations Account Transfer	85,000.00
Office Supplies, Dues & Mobile Data	2,000.00
Legal & Accounting	4,000.00
KenCom Dispatching Fees	12,000.00
Contingency & Miscellaneous	20,000.00
Total Expenses	3,003,592.00

The following table reflects the Proposed full-time staffing Insurance Budget for 2018-2019. The budget does include a small amount of revenue from the Corporate Fund:

Table 25: Proposed Full-Time Staffing Insurance Budget 2018-19

Proposed Full-Time Insurance Fund Budget 2018-2019	
Income	2018-2019
Tax Levy – Insurance Purposes	317,998.00
Supplement to Insurance from	2,045.75

<i>Proposed Full-Time Insurance Fund Budget 2018-2019</i>	
Total Income	320,043.75
Expenses	
Property Insurance	9,766.46
General Liability & Crime Insurance	7,045.20
Vehicle Insurance	16,717.93
Liability Umbrella Insurance	7,932.03
Portable Equipment Insurance	1,724.22
Management Liability Insurance &	9,791.18
Personal Protective Equipment, SCBA,	0.00
Legal & Accounting	1,619.03
Safety Materials and Programs	0.00
Contingency & Miscellaneous	0.00
Total Expenses	320,043.75

The following table reflects the Proposed full-time staffing Social Security and Medicare Budget for 2018-2019. The budget does include a small amount of revenue from the Corporate Fund:

Table 26: Proposed Full-Time Staffing Social Security & Medicare Budget 2018-19

<i>Proposed Full-Time Social Security & Medicare Budget 2018-2019</i>	
Income	2018-2019
Tax Levy – Social Security & Medicare	109,064.76
Supplement to Insurance from	24,146.83
Total Income	133,211.59
Expenses	
Social Security & Medicare	133,211.59
Total Expenses	133,211.59

Using the above budget to provide a projection of what a full-time staffing model would cost and the amount of revenue that could be expected for a Rescue Tax Levy. It would not be possible to implement this transition in the 2018-2019 budget year, but with the revenue and expenses adjusted for years in the future the projection of costs could be calculated relatively easily.

Future Vehicle Purchases

In another section the calculations were completed on what the estimated cost of fire apparatus and other vehicles will cost in the future with annual expenses for the purchases. As mentioned earlier, the District currently purchases new fire apparatus and other vehicles by budgeting for them in the annual budgets.

The development of a capital improvement plan for District vehicles including type of vehicles to purchase, years the vehicles will be purchased, a cost projection based on an estimated inflation numbers, and a budgeting plan to determine how the vehicles will be funded would be an excellent financial planning tool. In the future, with the transition to a full-time staffing model and paying for large vehicle purchases out of the annual budget may be a challenge.

With careful planning the challenge can be addressed, but it may require the need to borrow funds for large vehicle purchases or even considering the idea of using a lease/purchase funding for large vehicles. There are many companies that can provide the funds for lease purchase using different length of lease terms and in which the District will still own the vehicles at the end of the lease.

Funding Options

The District has very few options to increase their revenue as the Corporate Tax Levy and the Ambulance Tax Levy are both set at a maximum of 0.40 by the State of Illinois. Revenue increases may be generated with the development of additional tax base within the District and it is anticipated there will be growth in the future. The new growth in property values will generate some additional revenue for the Fire District in future years.

Possible Levy Referendums

The passing of a referendum can be very difficult to accomplish, but it can be achieved. The Bristol Kendall Fire Protection District would probably want to consider requesting the taxpayers of the District to approve one of the two possible referendums. The first possible referendum would be a Rescue Tax Levy, which has a rate limit of 0.10. The second possible tax referendum would be a Pension Referendum that would be used to pay the pension costs of any full-time District firefighter/paramedics.

Prior to the District considering making a request for either referendum, the District needs to develop a plan to educate the taxpayers and the community about the Bristol Kendall Fire Protection District. The education process needs to answer the following questions:

- How is the Bristol Kendall Fire Protection District organized?
- What services does the District offer?
- How are services provided?
- How are the District fire stations staffed?
- What are the current and future challenges for the District?
- How is the District funded and how are those funds used in a responsible manner?
- Why is approval for a referendum required?
- What will the funds from a referendum be used to accomplish?
- What problems will the funds from a referendum solve?
- Are there any other solutions to the problems other than a referendum?
- What data and information does the District have available and how will the District provide it to the taxpayers in an effective manner?

Rescue Levy Referendum

A referendum on the Rescue Tax Levy, if approved by the taxpayers of the District, would be set at a rate of 0.10 as allowed by the State of Illinois. The District Fire Chief did use a proposed Rescue Tax Levy to develop a draft budget for the full-time staffing model budget as discussed previously. The Fire Chief projected that a Rescue Tax Levy would provide an additional \$754,913.00 in revenue for the District to help offset costs.

The Fire Chief did project how much a property tax bill would increase if a Rescue Tax Levy were to be approved by the taxpayers of the District. The following table reflects the property tax increases on the property values listed based on the 2015 tax rates and the 2015 tax bill for the Fire District:

Table 27: Tax Impact of Rescue Tax to Property Tax Bills

<i>Tax Impact of Rescue Tax to Property Tax Bills</i>							
Property Market Value	Net Taxable	2015 Tax Rate	New Tax Rate	2015 District	Proposed District Tax	Net Change	Percent Increase
\$200,000	\$66,000	0.8077	0.9077	\$533.08	\$599.08	\$66.00	8.90%
\$250,000	\$82,500	0.8077	0.9077	\$666.35	\$748.85	\$82.50	8.90%
\$300,000	\$99,000	0.8077	0.9077	\$799.62	\$898.62	\$99.00	8.90%

\$350,000	\$115,500	0.8077	0.9077	\$932.89	\$1,048.39	\$115.50	8.90%
\$400,000	\$132,000	0.8077	0.9077	\$1,066.16	\$1,198.16	\$132.00	8.90%
\$450,000	\$148,500	0.8077	0.9077	\$1,199.43	\$1,347.93	\$148.50	8.90%
\$500,000	\$165,000	0.8077	0.9077	\$1,332.71	\$1,497.71	\$165.00	8.90%

As discussed earlier, the net taxable value of a property is 1/3 of the market value. The impact of the Rescue Tax Levy on a property with a market value of \$200,000 would be about \$66.00 on an annual tax bill or about \$5.50 increase monthly. A home with a market value of \$300,000 would have a tax increase of about \$99.00 annually or \$8.25 increase monthly. A home with a market value of \$400,000 would have a tax increase of \$132.00 annually or \$11.00 monthly. A home with a market value of \$500,000 would have a tax increase of \$165.00 annually or \$13.75 monthly.

When one looks at the breakdown of the annual or monthly increase of a tax bill because of a Rescue Tax Levy, the increase seems reasonable, but the District will still need to be prepared with data and information and have spent some time educating the taxpayers of the need and benefits of the Rescue Tax Levy to gain their support for the approval of a referendum.

Pension Levy Referendum

The idea of gaining the support of the District taxpayers to approve a referendum for a Firefighters Pension Tax Levy may be more of a challenge for many reasons. The Firefighters Pension Tax Levy rate does not have a rate limit according to the rules of the State of Illinois. Gaining support for a referendum on the Firefighters Pension Tax Levy will be difficult due to the fact most municipalities that have employees in this pension system are increasing their property taxes to meet obligations of having the pension system ninety (90) percent funded according to the rules of the State of Illinois. Many municipalities in the suburban Chicago area had to increase their property taxes in late 2017 to pay the additional costs for Police and Firefighter pensions. The problems of increasing the property taxes due to police and fire pensions was highly publicized in the news media. The problems associated with the pension system for Police and Firefighters have been caused by a multitude of responsible parties and the major problem is there does not seem to be an easy solution to the pension problem in the State of Illinois.

In fact, in some cases the courts in Illinois have ordered municipalities to raise their property taxes to pay for the pension costs.

Perhaps with a lot of education of the District taxpayers, along with sufficient data and information, the idea of obtaining approval for a referendum for a Firefighters Pension Tax Levy may be possible. The District certainly has some preparation work to complete before they can bring the idea forward to the taxpayers. A well thought out plan to obtain approval for a referendum will be necessary, but it will require substantial preparation and education of the needs to the public.

Short and Medium-Term Strategies

The Bristol Kendall Fire Protection District is a very well organized and operational fire and EMS organization that has an excellent history of providing quality services. In order to meet the challenges of the future for the District, a number of short and medium-term strategies are being recommended that will provide the District with a plan of how to move forward into the future.

Data Collection

Continue to expand on the type and amount of data being collected. With the new CAD system and records management system this will be an opportunity to focus on data that will provide reports that will allow the District to provide the information and data to the taxpayers to assist them in understanding the current services, challenges, and future needs including funding. The data collection is primarily about justifying how the District operates and is funded now and in the future. Without accurate data to justify the future needs of the District, support from the citizens and taxpayers of the District will be lacking.

The Yorkville Project

The District should make a concentrated effort to not only learn more about the Yorkville Project, but the District should make an effort to participate in the on-going discussions about the future plans of Yorkville. With the District being able to participate in the discussions about the future of the community, the District will have a better understanding of what services will be required. By participating in the discussions and meetings the District will be able to share with the community stakeholders the vision of

the District in meeting the community needs for services and the resources that may be required and that need to be part of the planning. If the stakeholders of the Yorkville Project are discussing the development of numerous subdivisions and multi-family developments and the District is not part of the discussion, no one will understand the effects the development will have on the District or the resources that may be required to serve the new development.

District Strategic Plan

The Bristol Kendall Fire Protection District Board of Trustees should focus on developing a Strategic Plan for the District. The Strategic Plan should be developed with string input from the full-time contract employees as well as the part-time District employees. A well-defined Strategic Plan will provide a roadmap as to where the District wants to go in the future. The Strategic Plan will provide the vision for the services that will be provided, how the services will be delivered, the plan will discuss the challenges that need to be addressed and will allow the District to develop goals and objectives for achieving the vision of the District.

When developing the Strategic Plan, the District Board of Trustees should invite community leaders to participate in the development of the plan. Community leaders should include government officials, school officials, members and leaders of community organizations that can have an effect on the outcomes of the plan.

Developing a strategic plan can be a massive undertaking when an organization has never had a strategic plan in the past. It is recommended that the District Board look within the community to see if help can be obtained from local community and business organizations such as financial organizations, local colleges, and school administrations in developing a plan. Developing a strategic plan is not as difficult as it may seem, especially if there is an experienced person helping to lead the development.

Without a strategic plan, many organizations seem to just go around in circles because they really aren't sure who they are, what they do, where they are going, or how they are going to get there. A strategic plan answers all of those questions and usually places the entire organization on the same pathway to success. Having a strategic plan will make the chances of having a referendum successfully approved.

The transition of the two part-time District Chief Officers, the Deputy Chief and Training Officer, into one full-time District Chief Officer employee will have many benefits for the District. First and foremost, with the possibility of the retirement of the Deputy Chief in the near future who has served in this position for many years as a part-time employee will be difficult to replace. It would probably be extremely difficult to find another qualified candidate that could fill the position on a part-time basis. In addition, the idea of having a part-time Training Officer with the number of members on the District Fire Department being between 70 and 80 members, the ability of a part-time training officer to complete all of the duties on a part-time basis has to be very difficult to accomplish.

By combining the two part-time positions with one full-time position should allow the duties of each position to be performed much better. With another full-time Chief Officer available it will help with a Chief Officer being available to respond to emergencies. Currently, the Assistant Chief and Chief respond to fires and off duty they somewhat take turns at being on standby, but with a third Chief Officer it will help provide some relief.

With an additional third full-time Chief officer being available it will provide a number of full-time member to help achieve some of the strategies being discussed in this and the next section.

The funding to pay for an additional full-time Chief Officer should be available with the current budget process, but it will result in less carry-over funds being available each year.

Community Organizations

It is important that members of the Bristol Kendall Fire Protection District become involved with the community organizations that may be active in the District. Organizations such as Rotary, Kiwanis, and other business associations that all provide opportunities for the District representatives to share the story of the Bristol Kendall Fire Protection District with the community. District members could either become members of these organizations or as a minimum attend their meetings on a regular basis to share news about the District. The community involvement by the District is all about building support for what the District does currently and what they will do in the future.

Public Safety Services, Inc. Relationship

The Bristol Kendall Fire Protection District should consider approaching PSSI to discuss the issue of the turn-over of some full-time contract staff for the District. The discussion should be open and honest in regard to where the District may need to transition to full-time staff employed by the District and not being contract employees any longer. This open and honest discussion could lead to potential ideas as to how to make improvements to the current staffing model that will help improve the retention issue for full-time contract employees.

District Employee Partnership

The District should establish within the Department a relationship with all the employees, both full-time and part-time, to allow them to provide input into how the District can improve their operations and how to solve the issue of full-time and part-time staffing retention. They may very well have some answers to difficult questions if allowed to provide feedback. One way of developing this relationship can be one-on-one meetings, station meetings, and shift meetings with the employees. Sometimes meetings without an agenda can lead to information about issues that need to be addressed and which often can be solved fairly easy. The purpose of the meetings can be multiple reasons such as improving communications, allowing the members to provide input, learning about issues, building trust, solving problems, and sharing the District vision for the future.

District Communications

Almost every organization can improve their communications both internally and externally. The District does have a web site, but the information contained on the web site is very limited. The information is usually limited for a very good reason primarily due to time constraints, lack of knowledge about social media, and not sure of what information should be posted. The District has had a Facebook page for several years and has over 1200 followers. The District would benefit greatly if the District had a presence on the web site, Twitter and other social media delivery methods.

What better way to communicate to the citizens and taxpayers of the District news about the District such as who is the District, what does the District do, how is the District staffed, what employment opportunities are available, where are the stations located, public education events, budget and budget issues. It could be a very effective method of sharing the vision of the District.

If given the opportunity, the District probably has a number of members that are fairly tech savvy and if given the opportunity would take care of the social media for the District. It would be an excellent opportunity for the members to get involved and for the District to get information and data out to the public and taxpayers.

Referendums

Currently, the consultants believe the District wants an independent assessment of the information and plan to move forward with attempting to gain taxpayer approval for the passage of a referendum. As discussed earlier in this report, the District did provide good data for the study, but the data for the study is not the same as the data that would be required to help educate the taxpayers about the need to approve a referendum.

The District does need to spend some time in preparing the data and information that will be required to justify the passing of a referendum. They will need to have the information discussed earlier such as who are we, what do we do, what resources do we have, who provides the services, what challenges do we have, what is our vision, how are we funded now, what's our vision, and what will it cost to achieve the vision? It is all about being able to completely justify what you are doing and where are the funds being spent now plus what services do you need to provide in the future, what resources are needed, and what are the options for funding that vision.

Long-Term Strategies

Fire Apparatus Replacement Plan

Once the District replaces the 1998 KME Engine, which is planned to be replaced soon, the District should not have any problems with their current fleet of vehicles. As discussed earlier, the District has done an excellent job at replacing vehicles and without any debt or borrowing being required.

The District does have a need to develop a vehicle replacement plan that has as a minimum the type of vehicle, the year it should be replaced, the estimated replacement cost for when it will be purchased, and then a complete plan for how the vehicles will be purchased. The issue will be can the funds for vehicles continue to come out of the annual budget or will they need to be financed in the future. There certainly is

the opportunity to investigate the idea of lease purchasing fire vehicles. It is very common and a very attractive way of purchasing vehicles and paying for them over whatever time period is chosen.

District Staffing Model

The idea of the Bristol Kendall Fire Protection District transitioning to a full-time and part-time District employee staffing model is the vision of the District. The District could move to transition to all full-time staff in one Phase or as addressed earlier the District could transition to full-time staff in phases. The consultants are listing it as a long-term strategy, but the reality is that if the District was able to develop a strong plan on how to market the referendum and if the District was able to put together the data and information to justify the need for a full-time staffing model and the funding needs the District could attempt getting a referendum passed in the next two years. The referendum they should pursue passage of would be the Rescue Tax Levy Referendum.

Rescue Tax Levy

The idea of obtaining taxpayer approval of a referendum for a Rescue Tax Levy is a very realistic goal as the amount of additional property tax that would be paid to support this referendum is minimal. In a previous section we discussed the effect of the Rescue Tax Levy on a property owner and for a home with a market value of \$200,000 the additional tax paid by the property owner would be \$66.00 annually, and for a home with a market value the homeowner would pay \$99.00 annually in additional property tax. Again, the tax rate for a Rescue Tax Levy is established by the State of Illinois and is set at a rate of 0.10.

Pension Tax Levy

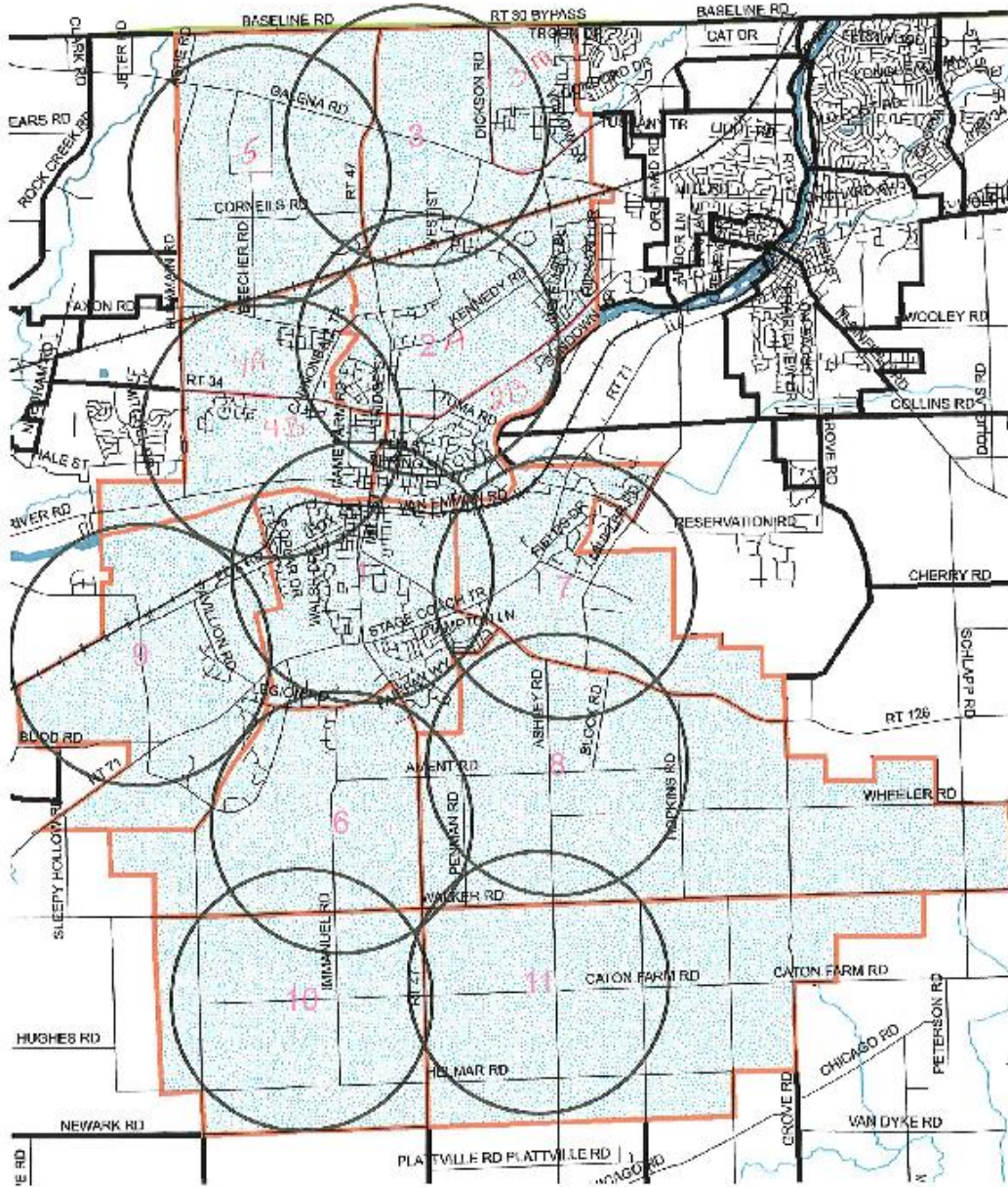
The idea of obtaining taxpayer approval for a referendum on the Pension Tax Levy may be difficult based on the history of the funding problems with Police and Fire Pensions in the State of Illinois. There are many reasons as to why it would be difficult to pass including the fact there is no limit on what the tax rate for Pension Tax Levy can be.

If the District can develop the justification for the Pension Tax Levy, if the economy improves, and if the Illinois State Legislature made some changes to the State of Illinois pension system rules then getting a referendum approved may not be a problem.

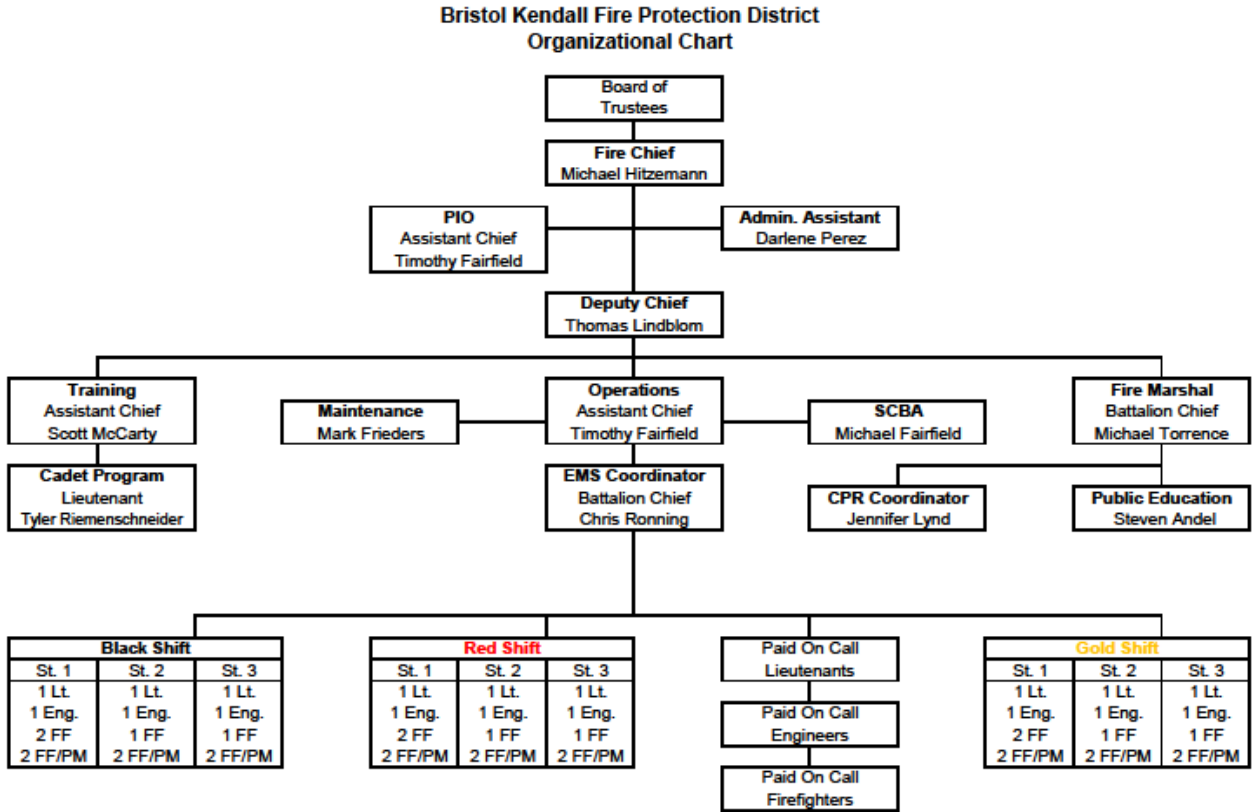
Appendix

Attachment 1 – District Response Still Districts

Bristol Kendall Still Districts



Attachment 2 – District Organization Chart



Updated: 8/1/2017