

# **Warwick Emergency Services Commission**

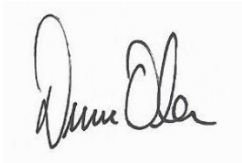


**2015 – 2019**

**Incident Statistics**

This past October was my five-year anniversary with Warwick Emergency Services Commission. This also put me in the position to have five full years of data available in which to provide some statistical analysis. The following statistics include information relating to 2019 statistics, as well as 5-year charts and graphs, to show trends and models.

This information will be used to monitor our progress, or possibly, decline. Our future decisions need to be based upon factual data that helps support it. Tracking the trends will help us better predict the future as best as we can. We can't refuse to acknowledge the information we receive on an annual basis. I'm amazed at the consistency that is shown in many of the following charts and graphs during the past five years. This helps confirm that this data is valuable to our future decision making, since it is not varying to any extreme.

A handwritten signature in black ink, appearing to read 'Duane Ober', is centered within a light gray rectangular box.

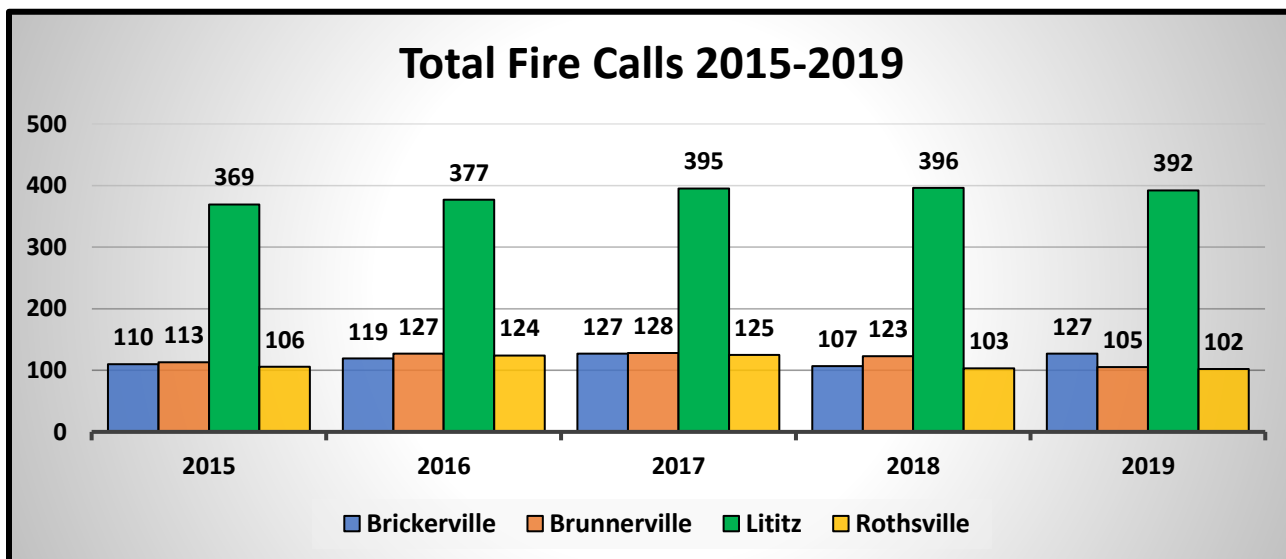
**Duane Ober, Fire Commissioner**

Warwick Emergency Services Commission

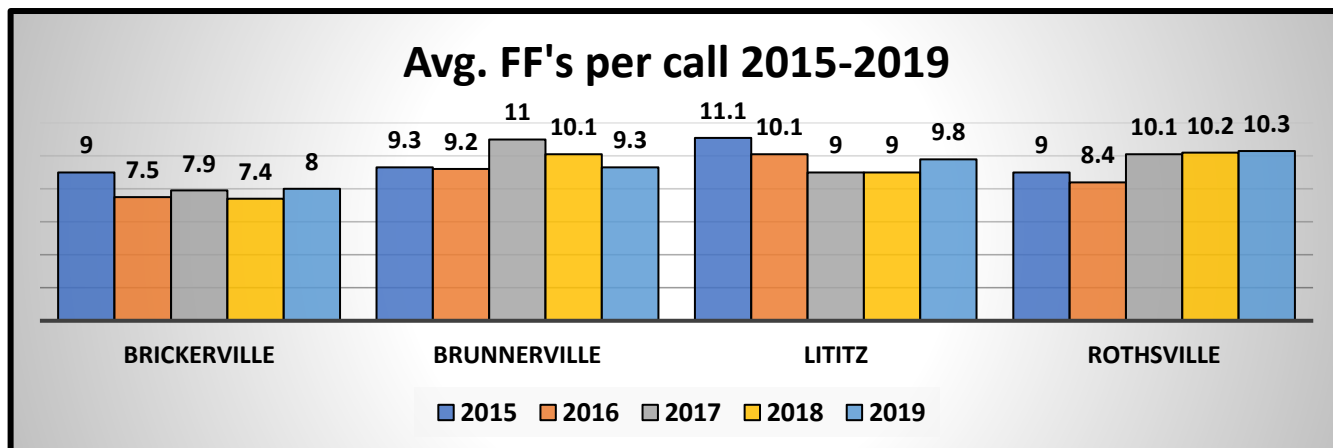
April 2020

## Annual Incident Totals

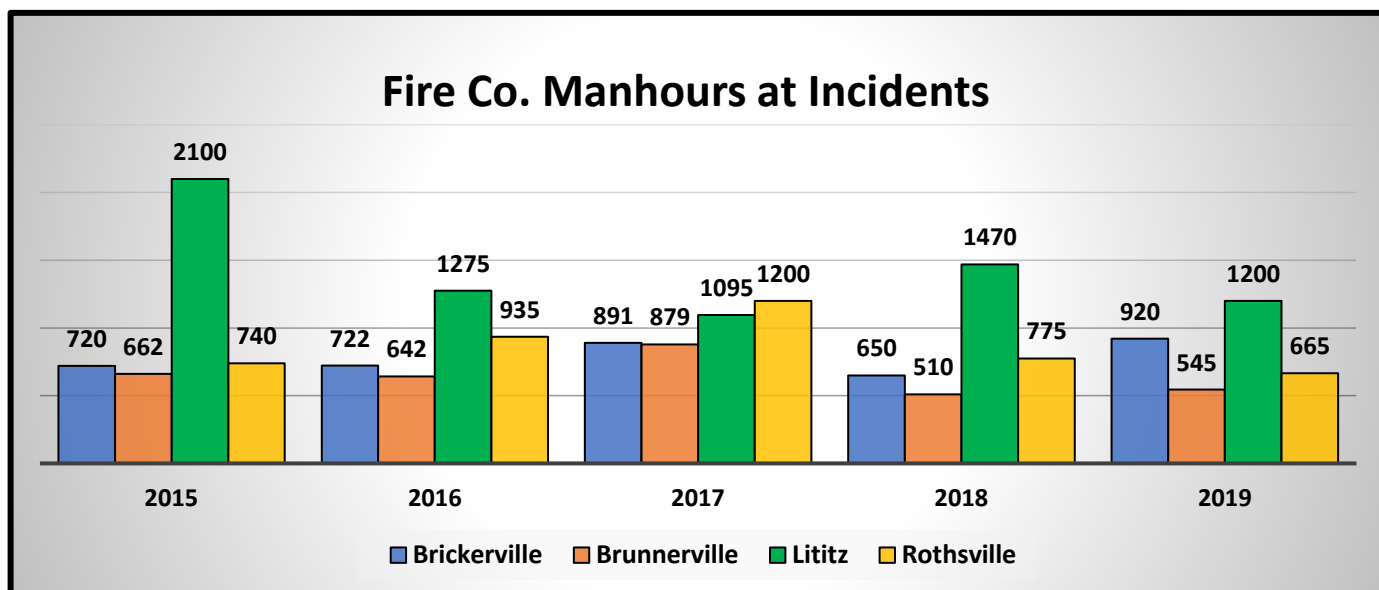
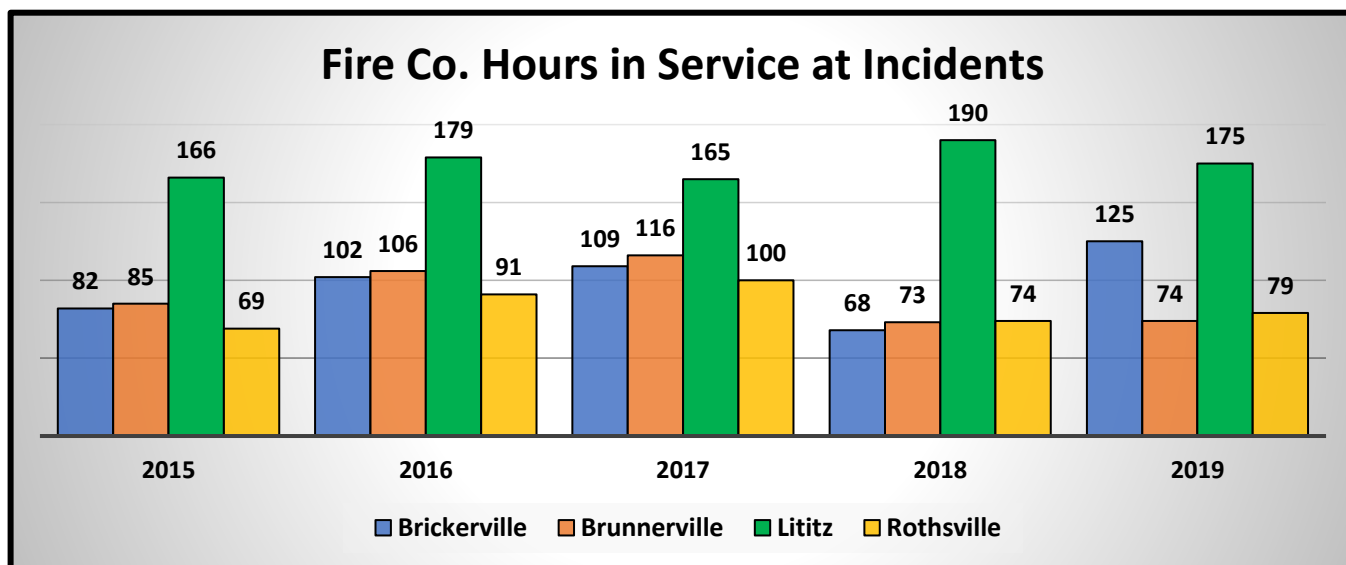
The following chart shows the annual incident totals for the four fire companies. You will see by the chart, that the annual incident statistics have been consistent for the past five years. However, 2019 resulted in fewer responses for all fire companies except Brickerville, however, very minimal change.



The following chart shows the average number of firefighters who respond to each call for each fire company. This chart does not detail qualification or skill level of the firefighter – it just shows the average number of firefighters who responded to each call. “Firefighter” in this case refers to firefighters, drivers, junior firefighters and chief officers. Brunnerville Fire Company showed a slight decrease in number of responders, while the other three all showed a slight increase. However, there is a lot of information that can be used to justify the increase or decrease in staffing levels; such as type of call, time of day, need for staffing, members who moved away, etc. The variation, in the grand scheme of things, is minor – no fire company showed an extreme increase or decrease in staffing levels.

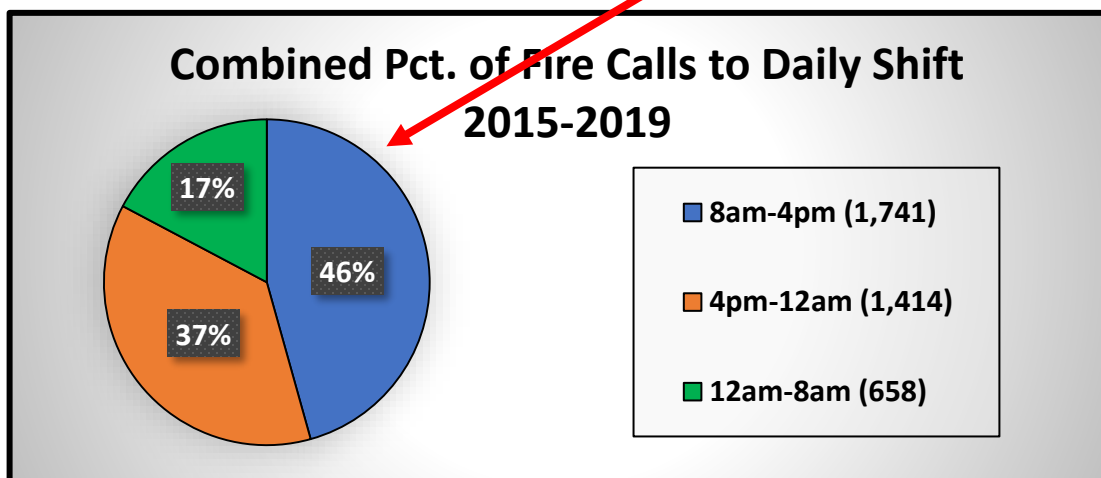
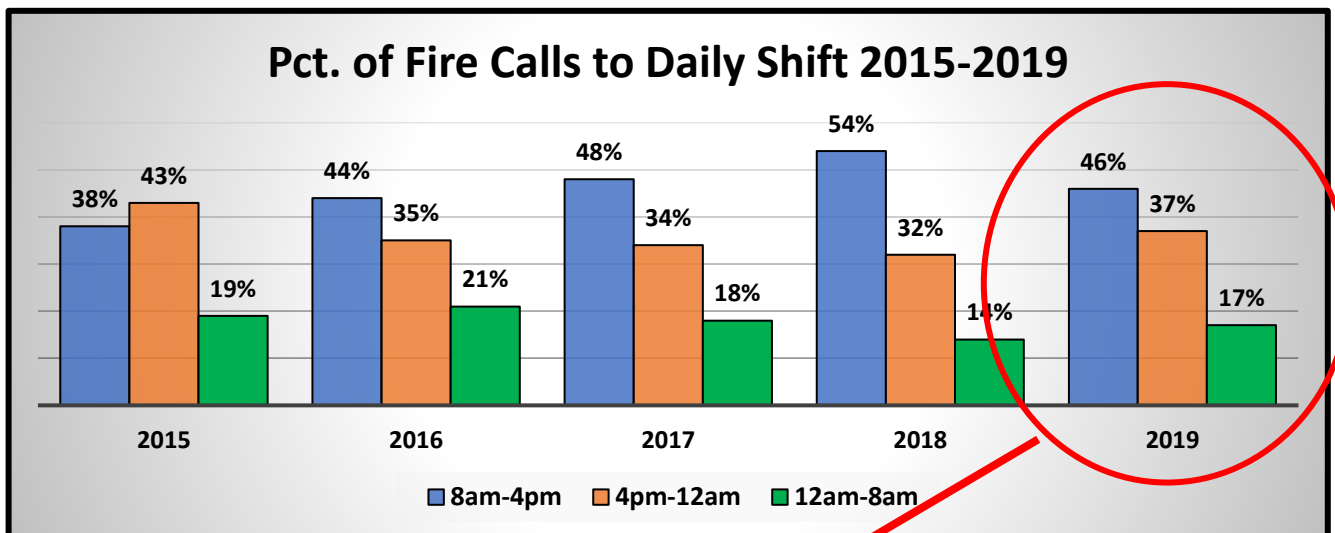


The charts on this page relate to the total number of hours in service at the incidents and the total man-hours in service by each fire company at the incidents. As described above with the call volume, the total hours in service and man-hours were comparable to previous years, except Brickerville, who had a few longer incidents, creating more hours in service and manhours. (Man-hours is calculated by the total time in service at each incident by each member for the entire year.)



## Incident Times

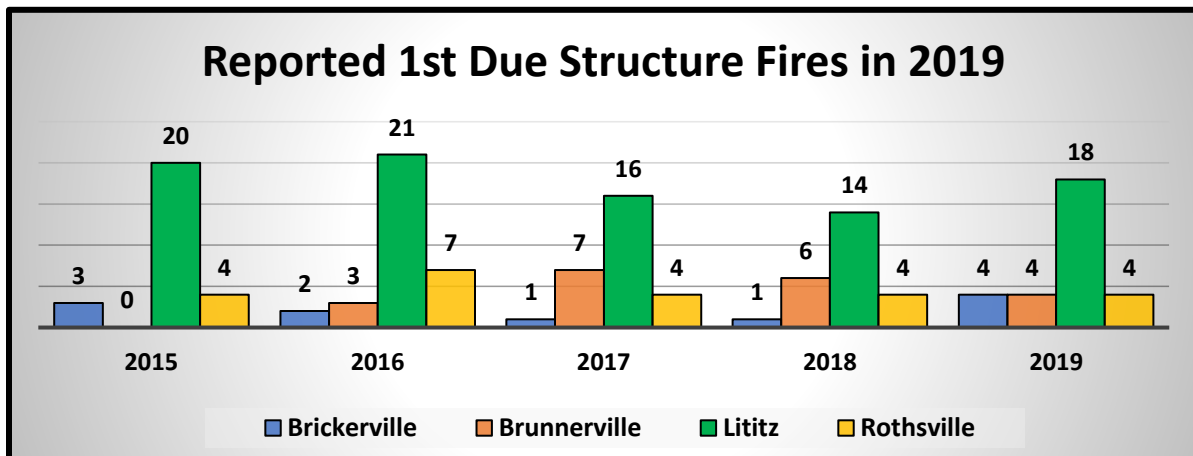
These charts show the time of day for the incidents over the past five years, broken down by the typical “shift” of a worker – day shift (8am-4pm), evening shift (4pm-12am), and overnight (12am-8am). The purpose for these charts is to show the typical time of day that the incidents are occurring. Most volunteer fire companies struggle during the daytime hours (8am-4pm) for staffing, because it is common that a lot of the volunteers work in another community or aren’t available to respond to calls during the day. Each fire company would be at risk of having no response during the daytime hours if it wasn’t for the generosity of local businesses who allow employees to leave work to respond to the fire calls. The consistency of this data through the years is interesting – the average of the past five years is exactly equal to the 2019 figures.



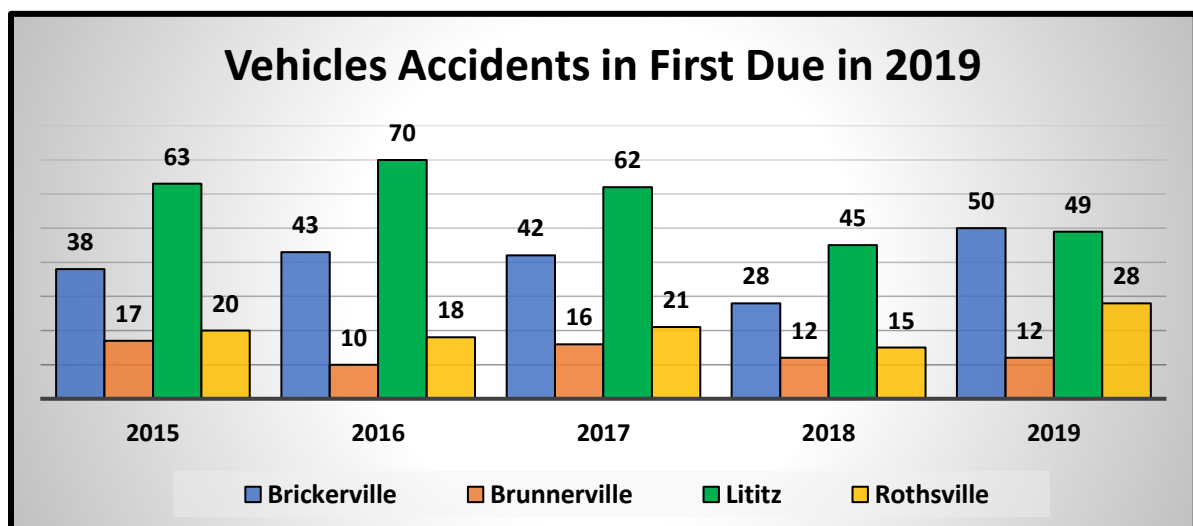
## Types of Incidents

The fire companies respond to a variety of incidents throughout the year, both in their own primary response area, and to mutual aid requests. Every fire company has their own “first due”, where they decide the appropriate level of response for incidents, most of which are handled by only the home fire company. For incidents with a larger potential of danger to life or property, mutual aid is dispatched automatically as well. For example, reported house fires normally dispatch additional pumpers, ladder truck(s) or tankers, based on the location.

To take a look at the most common type of incidents and how the numbers add up, I have tallied the results of two type of incidents – reported structure fires (such as houses, commercial buildings, barns, etc.) and vehicle accidents. There are many other types of incidents that the fire companies respond to, such as medical assists, investigations, car fires, brush fires, etc., but these are the top two types of calls that have the most impact on the fire companies’ resources and staffing.

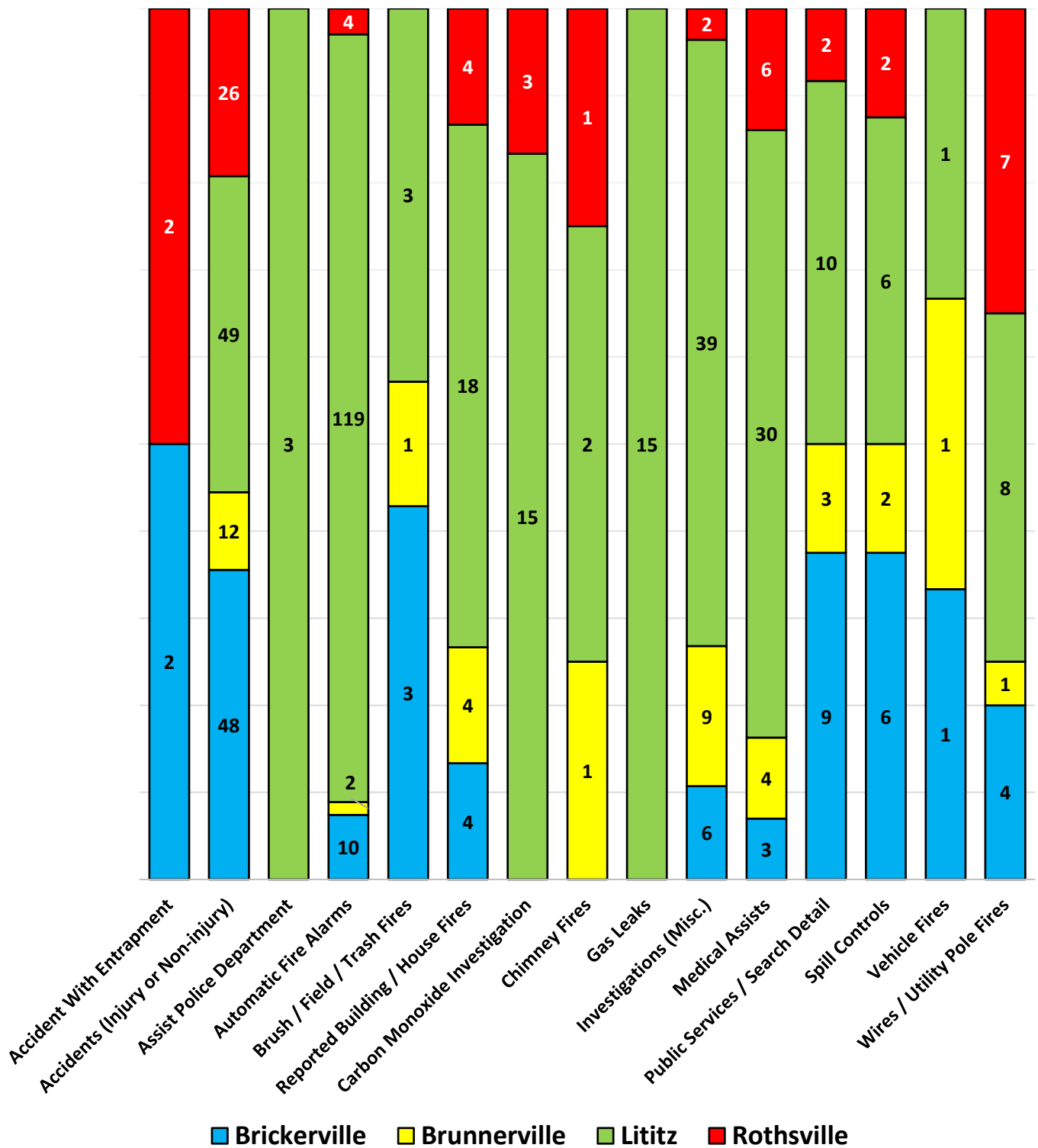


\*\* Dispatched as a building or dwelling fire (possibly not an actual fire)



\*\* Accidents that fire company was dispatched to in their own fire district

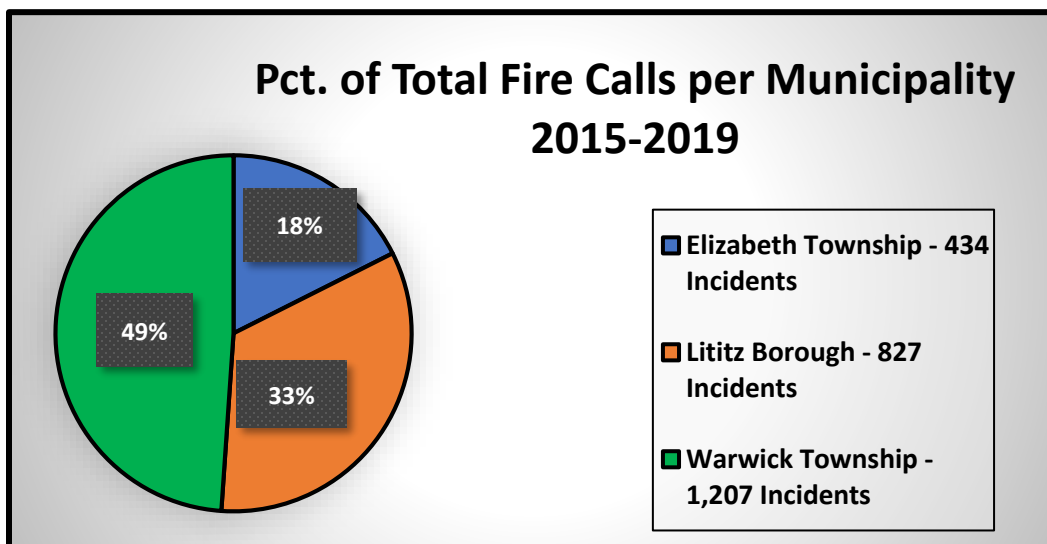
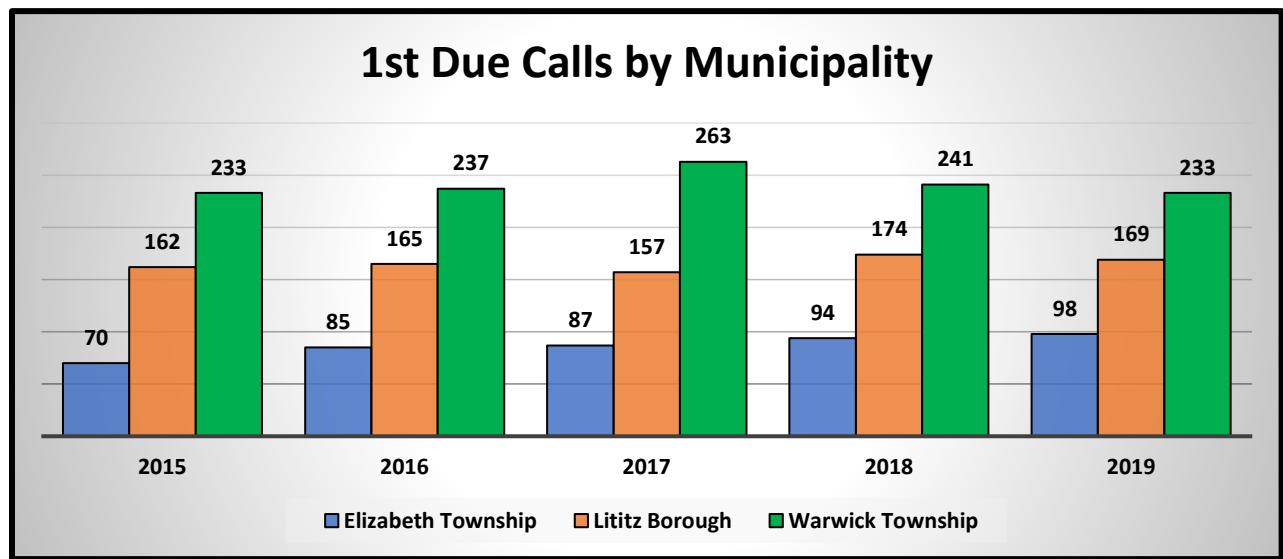
## FIRST-DUE INCIDENT TYPES IN 2019 - FIRE COMPANIES



## Fire Calls by Municipality

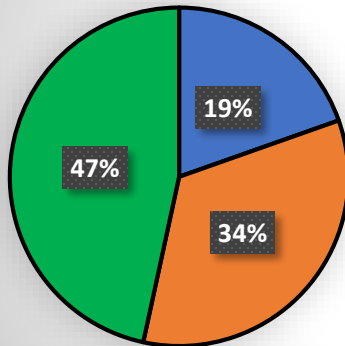
These charts refer to the call volume of the fire companies in each of the three municipalities in WESC. These only count the first-due call; mutual aid assistance is not counted in order to avoid duplication of statistics. Once again, the consistency in the call ratio per year is incredible; despite the many reasons for the dispatch of the fire companies for incidents, the numbers remain consistent through the years. (I was able to get the information from Penryn Fire Company for their first-due responses in Elizabeth Township for 2019, as well as the previous four years.)

To place it into perspective for the funding of the WESC budget, Warwick Township funds 52%, Lititz Borough funds 29% and Elizabeth Township funds 19%, which was determined based upon population numbers, not call volume.



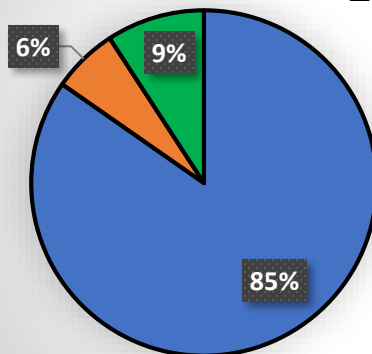


### Total Pct. of Fire Calls by Municipality in 2019



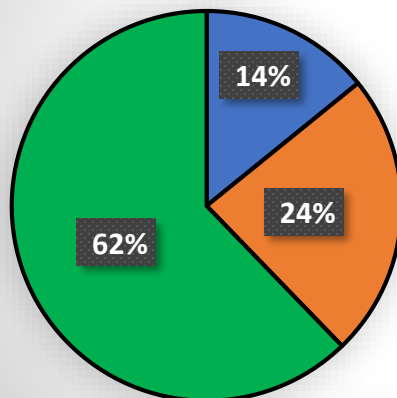
- Elizabeth Township (98 Incidents)
- Lititz Borough (169 Incidents)
- Warwick Township (233 Incidents)

### First Due Fire Calls in Elizabeth Twp. in 2019



- Brickerville (83)
- Brunnerville (6)
- Penryn (9)

### First Due Fire Calls in Warwick Township in 2019



- Brunnerville (33 calls)
- Rothsville (55 calls)
- Lititz (145 calls)

## **Standards of Coverage**

In 2014, a Standard of Coverage was adopted by WESC to show the expectation of the response capabilities of the local fire companies. The Standards are designed around “Emergency Calls” – structure fires, vehicle accidents, etc.; calls that have potential lives or property at risk. The Standards are also used to measure only the first due calls of each fire company, not mutual aid responses (which could have a much greater response time).

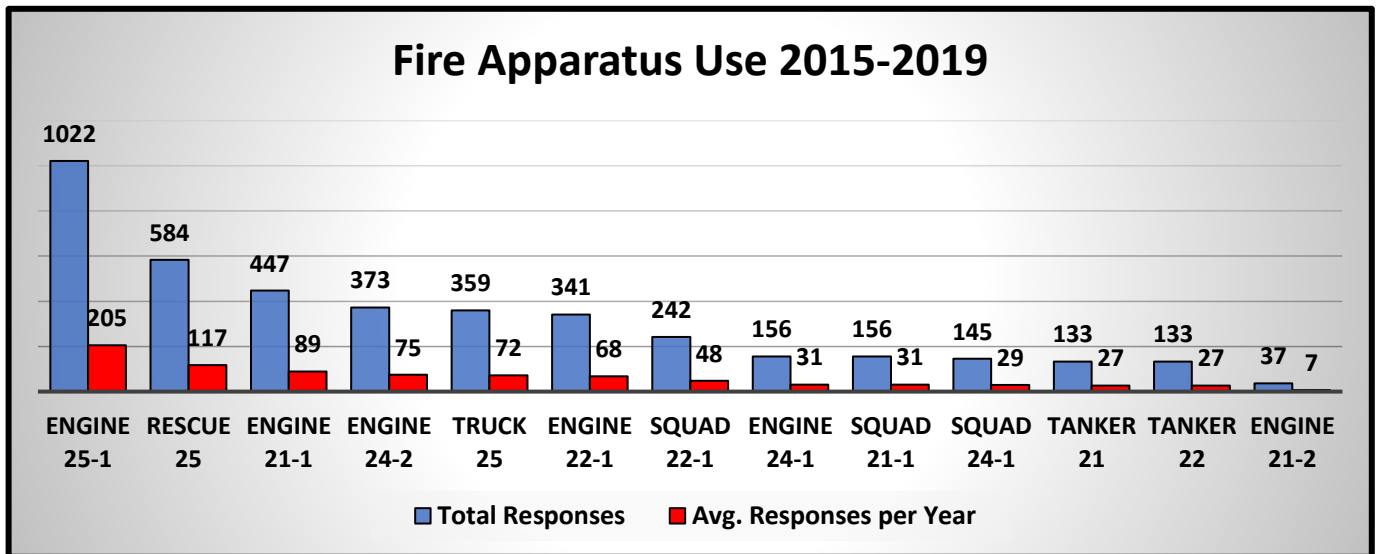
The following standards were adopted in 2014:

- In Elizabeth Township, the Standard is to be on location within fourteen (14) minutes from the time of dispatch with one (1) fire suppression vehicle and four (4) qualified firefighters 80% of the time.
  - Brickerville Fire Company had an average response time for ALL incidents in 2019 of 10.5 minutes.
- In Lititz Borough, the Standard shows that the Lititz Fire Company shall arrive on scene within 7 minutes of the dispatch of the call, with one suppression vehicle and a minimum of a driver and two suppression-level firefighters, 90% of the time.
- In Warwick Township, the Standard shows that the fire companies shall arrive on scene within 10 minutes of dispatch of the call, with one suppression vehicle and a minimum of a driver and two suppression-level firefighters, 90% of the time.
  - Lititz Fire Company had an average response time of 7.5 minutes for ALL calls in 2019 (in Lititz Borough and Warwick Township).
  - Brunnerville Fire Company had an average response time of 8 minutes for ALL calls in 2019 (in Warwick Township and Elizabeth Township).
  - Rothsville Volunteer Fire Company had an average response time of 8.5 minutes for ALL calls in 2019 (in Warwick Township and Ephrata Township).

Our fire reporting software has not yet shown effective in separating the emergency calls from non-emergency calls, and with first due vs. mutual aid, which municipality, etc. to truly calculate the specific response times without manually determining response times per each “emergency” incident. I believe the above response time totals show that our four fire companies are meeting the response time standard as adopted in 2014. This Standard is something that will be looked at more closely soon, to see how it can be improved.

## Apparatus Use

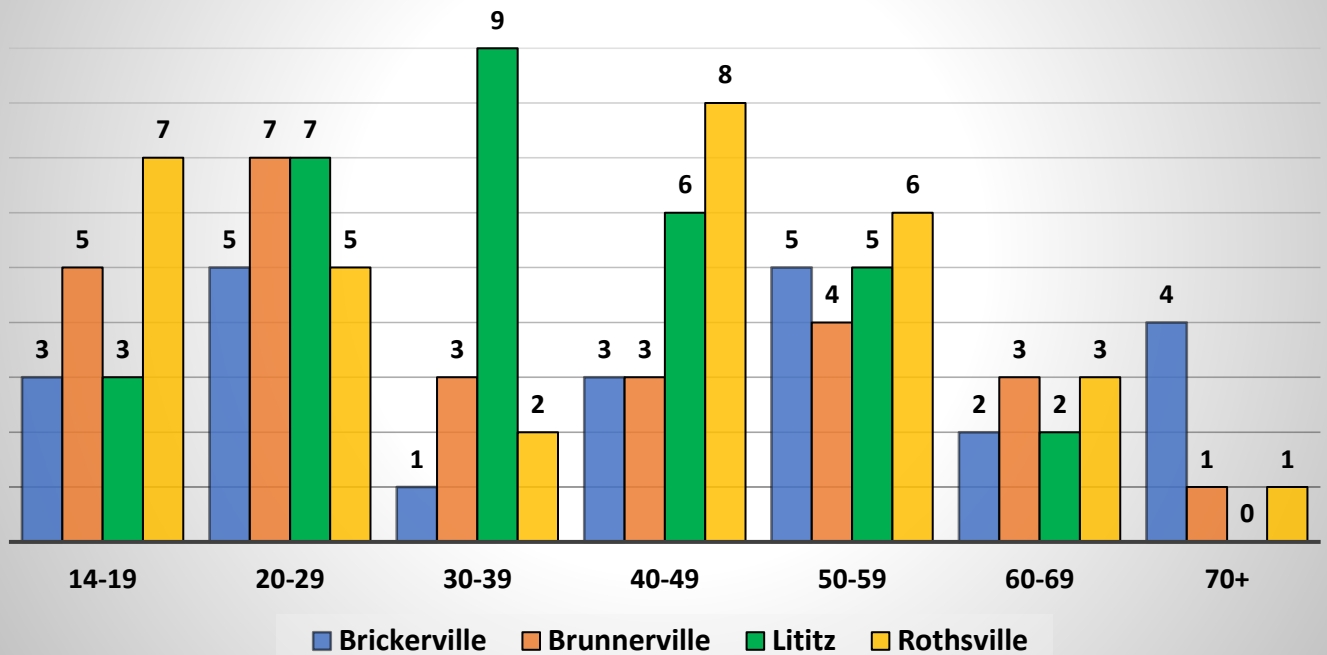
This chart shows the total number of responses by every fire apparatus from each company, minus the duty vehicles (fire chief's vehicles). This chart shows the total use over the past five years, as well as the average number of responses per year. Information from this chart can be used when considering replacement of apparatus.



## **Age of Volunteer Firefighters**

The chart on the next page shows the age range of the volunteer firefighters at each fire station. Recruitment and retention of the volunteers is critical to the sustainability of the volunteer fire service. The goal is to always gain more new members than we lose each year. This is a constant battle: the tug-of-war with the volunteers between the fire company (community service), and family time, careers, other hobbies, age, physical ability, etc. As much as bringing new members into the fire company is important, it is more critical to keep the trained and experienced members within our ranks. The physical endurance and skills that are required of a firefighter is reason to maintain a "youthful" roster. The ideal age range of the volunteer fire service is early 20's into their 40's. The biggest concern in this age range is this is where most begin families, find a new career that might not allow extra time for volunteering, or they move away for a variety of reasons. Older members are valuable because of their experience and leadership, but as they age, their physical ability to be a "firefighter" decreases, so many become drivers or help in other ways (such as fire police), or unfortunately, retire, feeling that they served "long enough". The younger generation (under 20's) is also important because they are starting their journey in the fire service, but don't always have the training required or experience under their belts yet. For all these reasons, it is very important to do our best to retain as many as we can, while recruiting new members and getting them trained and engaged as soon as possible.

## Number of Firefighters in each Age Group as of 12/31/2019



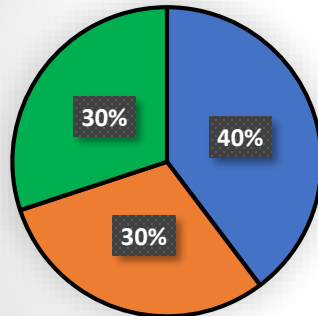
The average age of the volunteers at each station are:

- Brickerville: 45 years old
- Brunnerville: 37 years old
- Lititz: 38 years old
- Rothsville: 39 years old

## Statistics of the WESC Ambulance Agencies

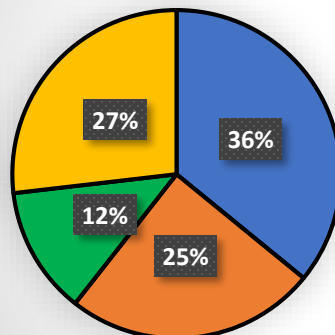
The following charts show the locations of the incidents for our three local ambulances in 2019.

### Warwick Ambulance Call Location in 2019



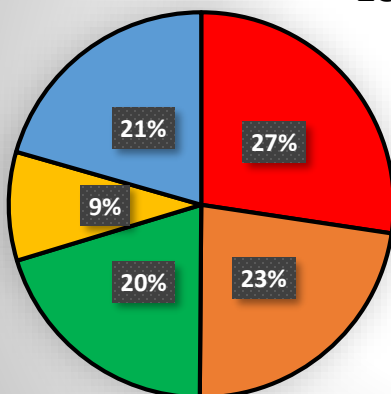
- Warwick Twp. (1,388)
- Lititz Borough (1,056)
- Other (1,051)

### Rothsville Ambulance Call Location in 2019



- Warwick Township (317)
- West Earl Township (218)
- Lititz Borough (111)
- Other (237)

### Northwest EMS Brickerville Ambulance Call Location in 2019

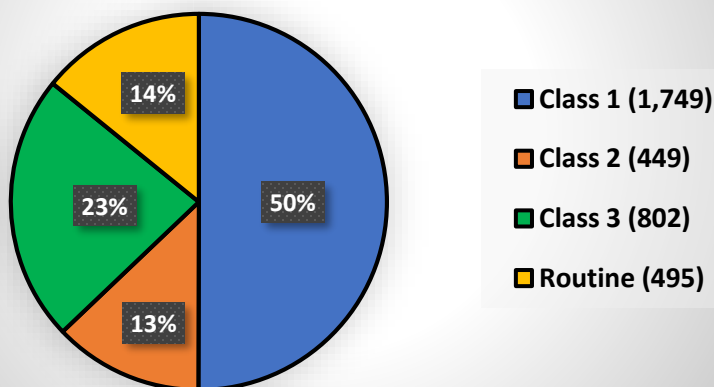


- Clay Township (225)
- Elizabeth Township (187)
- Penn Township (166)
- Lebanon County (75)
- Other (169)

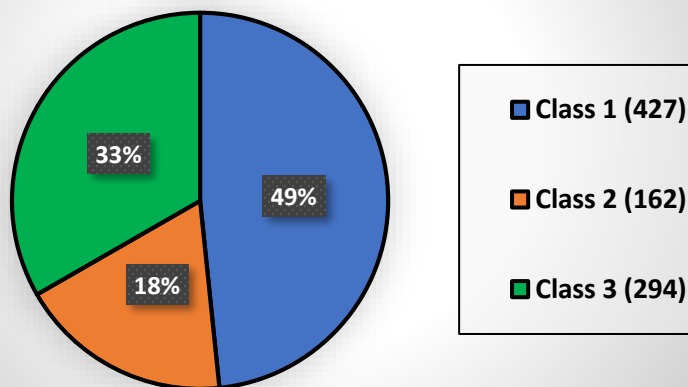
## Class Response by Ambulances in 2019

The following charts show the Class response of Warwick and Rothsville ambulances. A Class 1 response is one with the highest severity of injury or illness and requires a Paramedic to respond in addition to the EMT's. A Class 2 response still have a severity of illness or injury that requires an emergency response (lights and siren) to the patient. A Class 3 response is the lowest level of severity, and it handled by a non-emergency response (with the flow of traffic). This data was not available from NWEMS for 2019 incidents.

### Warwick Ambulance Class Response in 2019

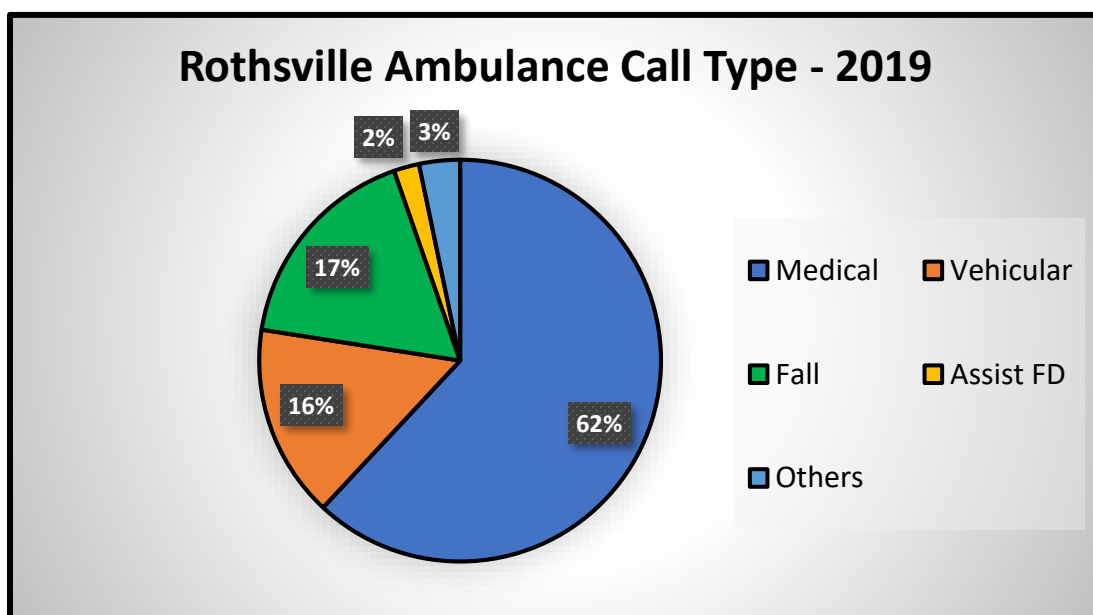
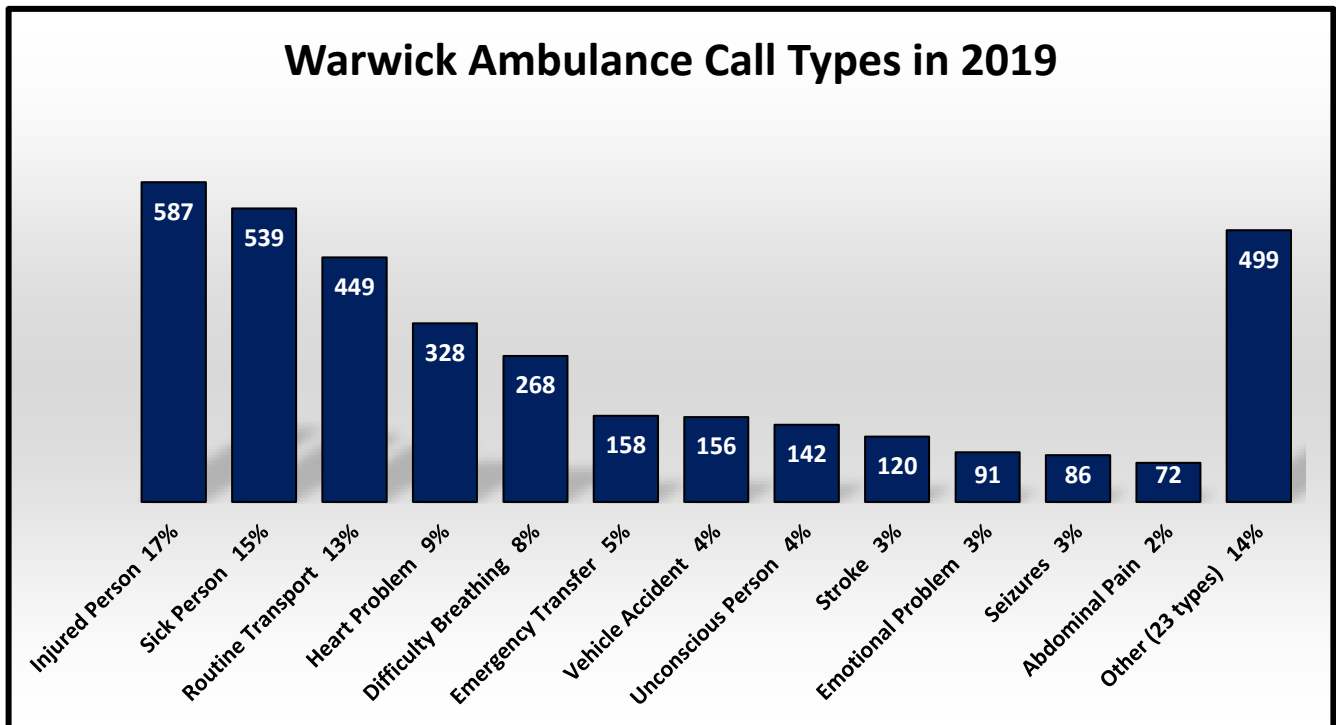


### Rothsville Ambulance Class Response in 2019



## Types of Ambulance Calls in 2019

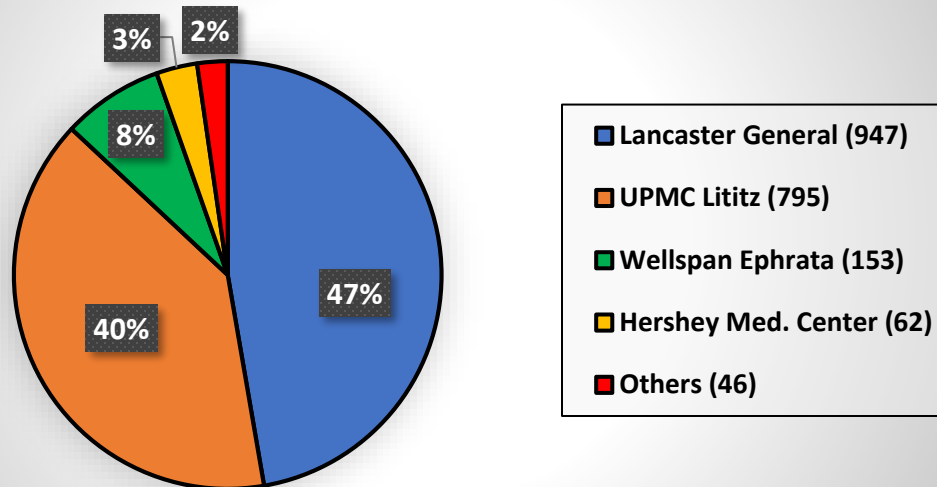
The next two figures show the call volume for Warwick and Rothsville ambulances in 2019. Warwick Ambulance breaks their incident type into more specific categories, which is the reason for the greater number of categories. (This data was not available from NWEMS in 2019).



## Transporting of Patients to Medical Facilities in 2019

These two pie charts show the location that Warwick and Rothsville ambulances transported their patients to in 2019. Some destinations are by patient choice, sometimes it is a decision by the ambulance crew based upon the symptoms and conditions present in the patient, or services provided at the medical facility. (This data was not available from NWEMS in 2019).

### Warwick Ambulance Patient Destination - 2019



### Rothsville Ambulance Patient Destination - 2019

