



INFORMATIONAL MEMORANDUM

TO: Finance Council Committee

FROM: Vicky Carlsen, Finance Director
Jay Wittwer, Fire Chief

CC: Mayor Ekberg

DATE: July 17, 2019

SUBJECT: **Fire Budget Discussion – Service Levels**
Updated after July 22, 2019 Finance Committee Meeting

ISSUE

Review current and historical Fire Department budget, staffing, and service levels to determine a sustainable model which meets the City's financial and policy goals.

BACKGROUND

As mentioned above, the City is reviewing current and historical information on the fire department. This information is being presented to determine policy direction regarding appropriate budget and service levels.

This memo will focus on fire department minimum and current service levels, excluding the Fire Marshal's Office. Service levels for the Fire Marshal's Office will be discussed in a separate memo.

DISCUSSION

A policy decision on the table for discussion is related to service levels and will help guide the discussion on appropriate budget for the fire department.

Minimum Service Levels

While Article XI, Section 11 of the Washington State Constitution provides for general police powers for counties, cities, and towns, but there is not a specific statute that provides that cities must provide fire protection services. However, as a practical matter, a city should provide some measure of fire protection. There are several ways in which a city could provide fire protection services:

- Maintain a fire department run by the city's own personnel
- Contract with another city, fire protection district, or regional fire authority for fire protection services
- Annex directly to a fire protection district or regional fire authority with voter approval
- Form a fire district coextensive with the city or town with voter approval
- Establish a regional fire authority with voter approval

While no specific state law requires a city to provide fire protection services, RCW does specify that the legislature does intend for cities to set standards for addressing the reporting and accountability of career fire departments and to specify performance measures applicable to response time objectives.

Setting Service Levels and Performance Objectives

Washington State law (Revised Code of Washington) explicitly states that cities are to set their own services levels and that state law does not limit each city's authority to do so. The Revised Code of Washington (RCW) acknowledges three entities for the "organization and deployment of resources for fire departments".

1. International City/County Management Association (ICMA)
2. International Association of Fire Chiefs (IAFC)
3. National Fire Protection Association (NFPA)

By formally recognizing these organizations within RCW 35A.92, the State acknowledges their research and findings as a resource for cities to set policy regarding the organization, number, and expected response times for a career fire department. However, adopting the service levels recommended by those organizations is voluntary, since RCW 35A.92.010 explicitly states that *"this chapter [RCW 35A.92] does not, and is not intended to, in anyway modify or limit the authority of cities and towns to set levels of service."* There is no relevant case law addressing RCW 35A.92, but the City could rely on the language therein to defend itself should it be faced with claims targeting the City's chosen level of service.

State law also requires a city and/or fire department to publish an annual report which includes the department's standards, their performance against those standards, and several other metrics (outlined below).

Cities are to Set Their Own Performance and Service Level Objectives

RCW Section 35A.92 states that every city shall maintain a written statement or policy that establishes the following:

1. The existence of a fire department
2. The services that the fire department is required to provide
3. The basic organization structure of the fire department
4. The expected number of fire department employees
5. The functions that the fire department employees are expected to perform

This written statement must also include service delivery and response time objectives for each of the following major service components, if appropriate:

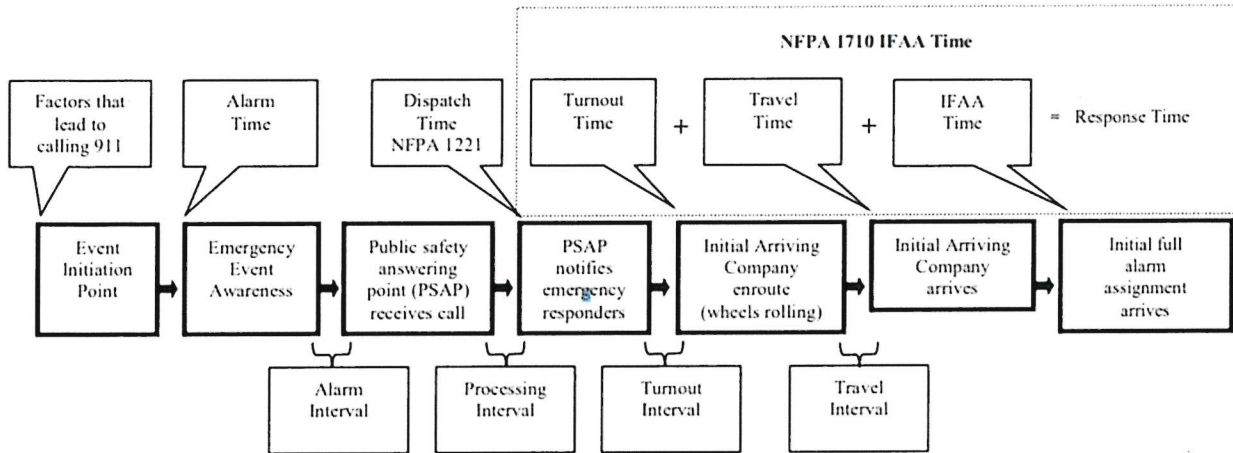
1. Fire suppression
2. Emergency medical services
3. Special operations
4. Aircraft rescue and firefighting
5. Marine rescue and firefighting
6. Wildland firefighting

In 2005, legislation was enacted that requires each city establish their own response time objectives for the following measurements and states that the city shall establish a performance objective for the achievement of each of these measurements:

1. Turnout time
2. Response time for the first arriving engine company and for the deployment of a full first alarm assignment at a fire suppression incident
3. Response time for the arrival of a unit with first responder or higher-level capability at an emergency medical incident

The graphic below displays the different segments of the total response time; from the factors that lead to calling 911 to when initial assigned apparatus arrive at the scene.

Cascade of Events



State law also states that each city shall issue an annual written report that evaluates the level of service and deployment delivery and response time objectives. The evaluations shall be on data relating to:

1. Level of service
2. Deployment
3. Achievement of each response time objective for each geographic area within the City.

The annual report shall also define the geographic area and circumstances whenever the standards were not met and explain the predictable consequences of any deficiencies and address steps necessary for compliance.

Full copies of the applicable RCWs have been included in an attachment to this memo.

Current Service Levels Provided by Tukwila Fire Department

When service levels provide by the fire department are discussed, the discussion is normally centered around fire and EMS calls. However, there are other types of calls the fire department provides services for. The chart below summaries the number of calls, by type over the last few years.

City of Tukwila Service Area										
	Rescue & Medical Svc	Fire	Good Intent	False Alarm	Hazardous Condition (no fire)	Public Assistance	Other	Severe Weather/ Natural Disaster	Total	
2014	3491	380	398	609	101	137	29	1	5146	
2015	3747	379	539	605	97	148	37	3	5555	
2016	4057	317	475	631	118	123	28	3	5752	
2017	4083	299	469	713	106	145	32	4	5851	
2018	4045	313	487	606	86	145	35	0	5717	

In late 2017, the reporting system was changed for EMS calls from Fire RMS to ESO for EMS calls. In Fire RMS, response time stopped when the unit arrived on scene. On scene means arriving at the site, not the patient. With ESO, response time stops when the crew arrives at the side of the patient. Because of the change in systems and the change in when the response time is completed, EMS call response times are only provided through 2017. A new dataset for comparison purposes will start with 2018.

Because EMS and fire calls account for 75% of the call volume, the discussion on response times will be focused on these two calls types.

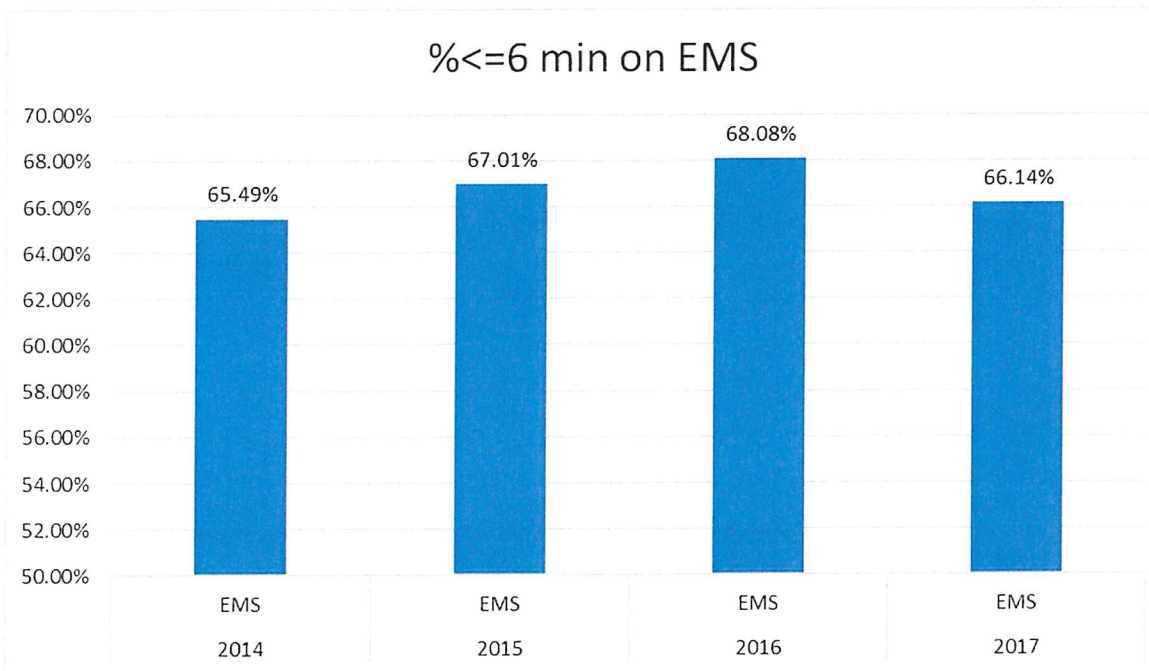
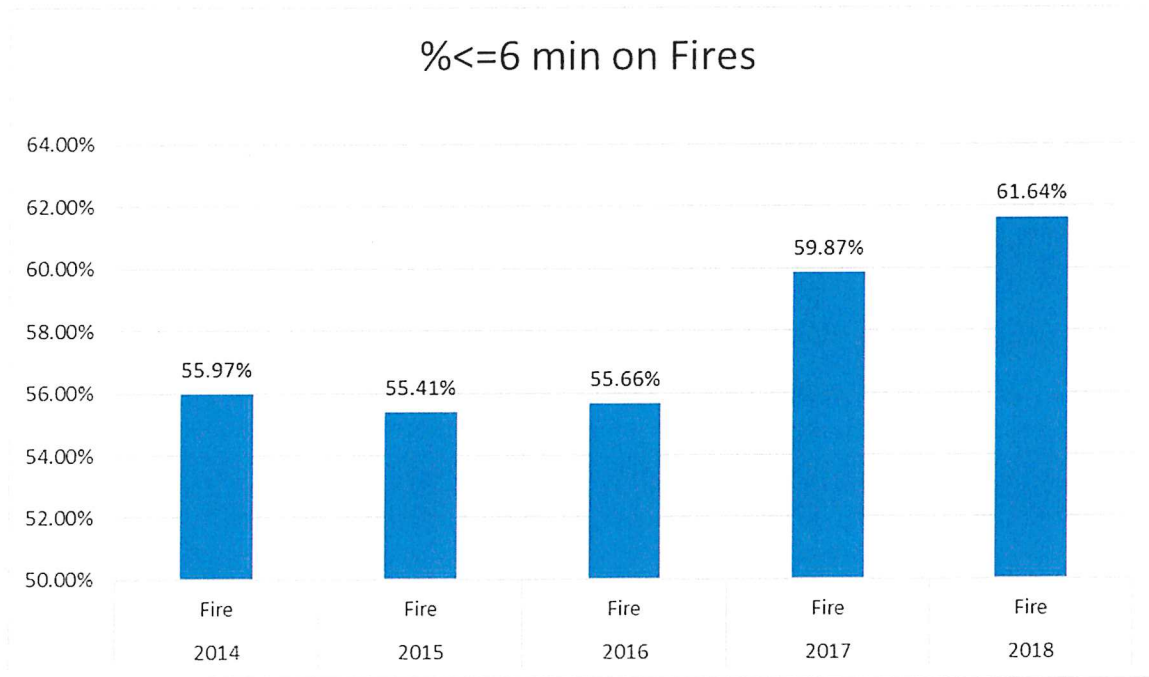
From 2014 through 2018, average response times for fire calls has been 5 minutes and 57 seconds. Average response times for EMS calls, 2014 – 2017, has been slightly less at 5 minutes and 40 seconds. The following tables show average response times by type of incident, by year.

As noted in the table, average response time for fire calls declined in 2017 and again in 2018. However, response times for EMS calls increased slightly in 2017.

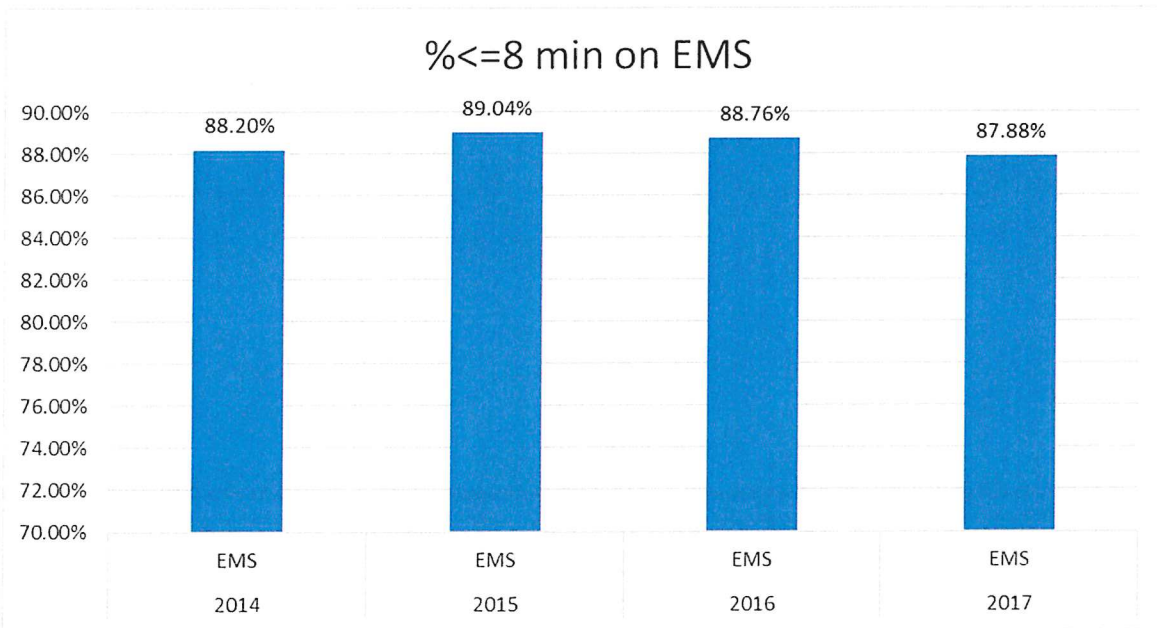
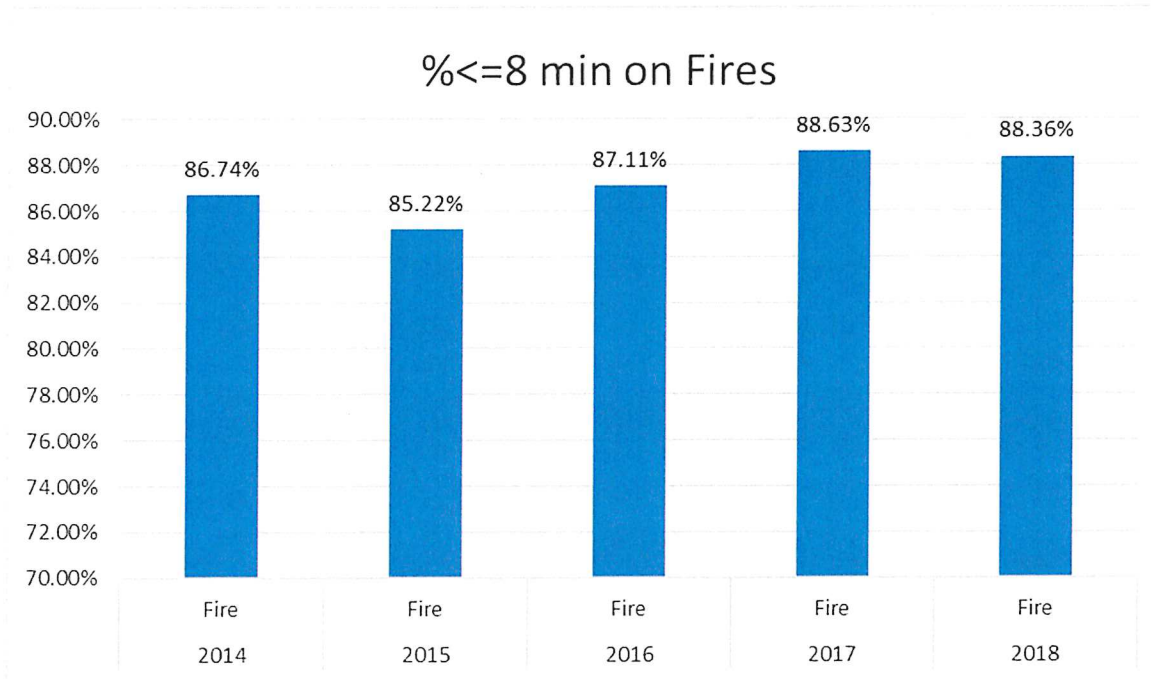
Year	Fire	EMS
2014	0:05:54	0:05:36
2015	0:05:57	0:05:56
2016	0:06:06	0:05:29
2017	0:05:55	0:05:40
2018	0:05:51	-
Avg. for all years	0:05:57	0:05:40

While the average response time for both fire and EMS calls is less than 6 minutes for the 5-year period analyzed, not all calls have a response time of less than 6 minutes. Another way to look at the data is to look at what percentage of call response time is less than a specific standard.

The following charts provide summary information on percentage of response times that are less than or equal to 6 minutes. Charts are provided for both fire responses and emergency medical responses from 2014 through 2018. As the chart for fire calls indicates, the number of fire responses within 6 minutes has been increasing. However, the number of EMS calls with response times within the 6 minutes has declined a bit.



By measuring response times within an 8-minute window, significantly more fire and EMS calls are within an 8-minute time frame. The following charts demonstrate that more than 80% of all fire and EMS calls have response times of 8 or less minutes.



At a future meeting, comparison data on response times to other fire jurisdictions will be presented.

Public Duty Doctrine

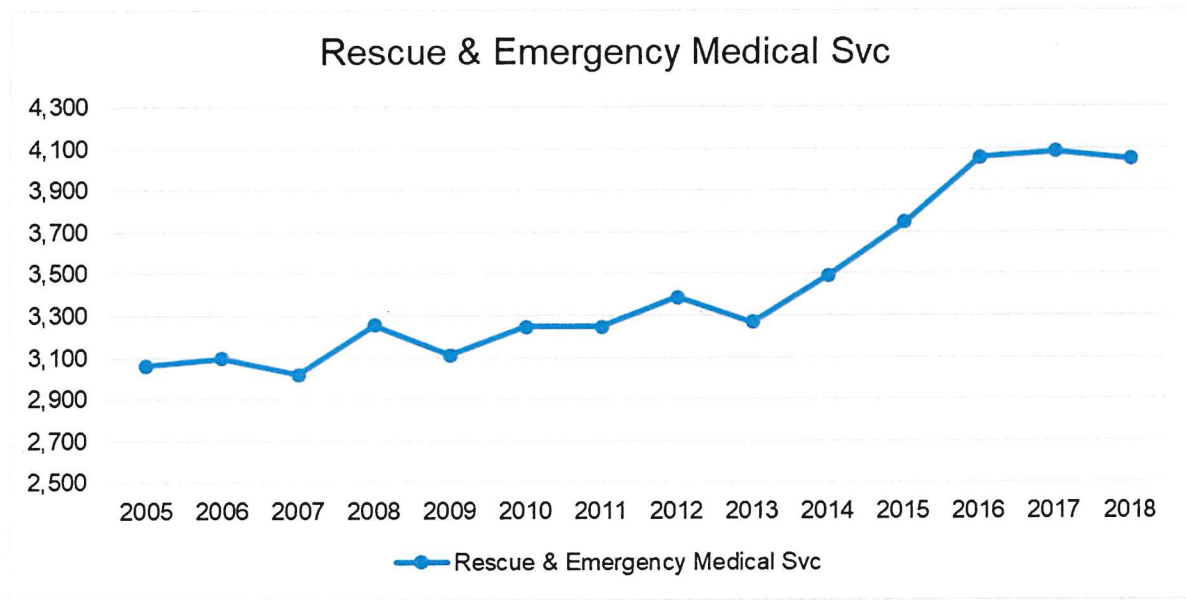
Under the public duty doctrine, when a city's duty is owed to the public at large (such as general fire suppression and inspection duties), an individual who is injured by an alleged breach of that duty has no valid claim against the City or its officer or employees. There are certain exceptions to the public duty doctrine, such as in cases where a special relationship is created (such as when an officer or employee makes direct assurances to a member of the public under circumstances where the person justifiably relies on those assurances); or when an officer or employee, such as a building official, knows about an inherently dangerous condition, has a duty to correct it (i.e. law says that the City "shall" correct the condition), and fails to perform that duty. Taylor v. Stevens County, 111 Wn.2d 159, 171-72, 759 P.2d 447 (1988). In general, however, governmental entity will not be liable to a private party for failure to perform duties that that are owed solely to the general public (a duty to all is a duty to no one).

New and Updated Information for August 12, 2019

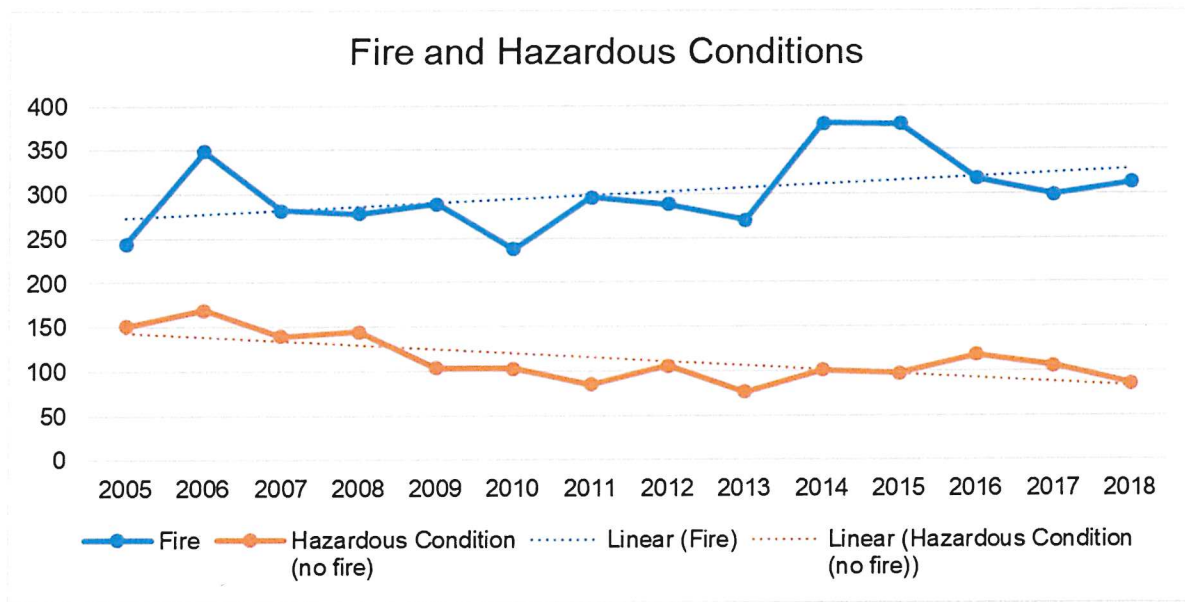
At the July 22, 2019 Finance Committee meeting, staff was asked to provide service level information going back as far as 2005. The following chart show number of calls, broken out by type, from 2005 through 2018. The chart is followed by graphical representation of the different types of calls over the same time period.

City of Tukwila Service Area										
	Rescue & Emergency Medical Svc	Fire	Good Intent	False Alarm	Hazardous Condition (no fire)	Public Assistance	Other	Severe Weather/ Natural Disaster	Total	
2005	3063	244	344	683	151	138	85	7	4715	
2006	3097	349	348	663	169	167	128	11	4932	
2007	3018	282	336	614	140	142	139	2	4673	
2008	3256	278	362	700	145	161	79	0	4981	
2009	3111	289	365	693	104	144	113	2	4821	
2010	3246	238	284	665	103	129	81	2	4748	
2011	3245	296	223	632	85	113	56	1	4651	
2012	3386	288	340	551	106	118	56	1	4846	
2013	3267	270	393	610	76	132	51	0	4799	
2014	3491	380	398	609	101	137	29	1	5146	
2015	3747	379	539	605	97	148	37	3	5555	
2016	4057	317	475	631	118	123	28	3	5752	
2017	4083	299	469	713	106	145	32	4	5851	
2018	4045	313	487	606	86	145	35	0	5717	

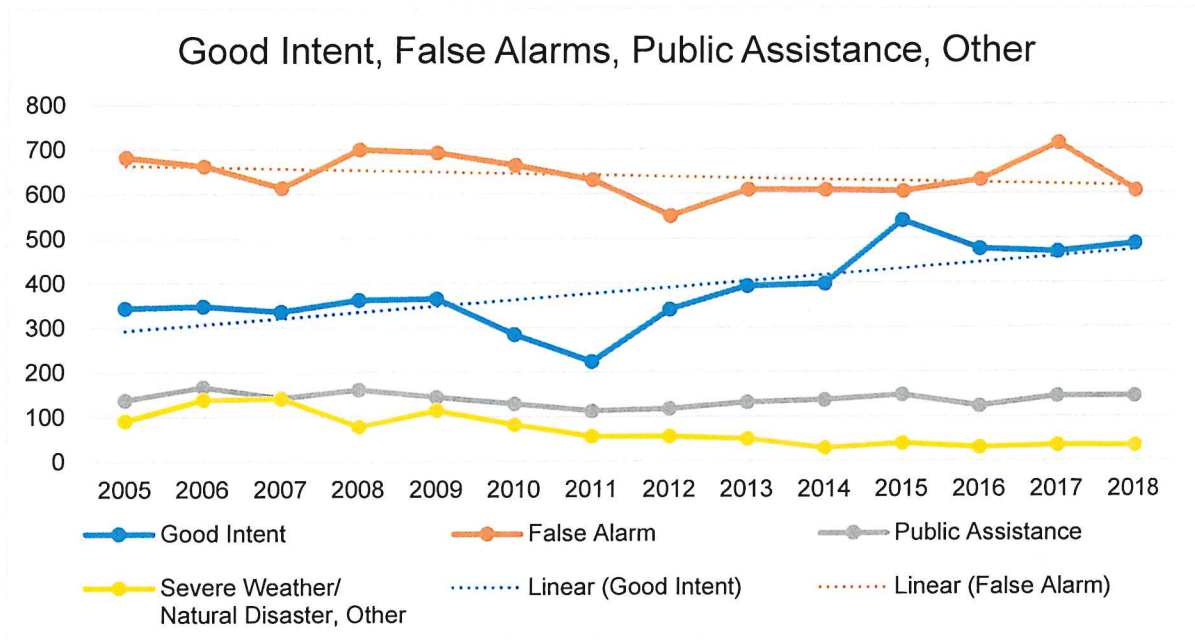
The first graph demonstrates that calls for emergency medical services has been increasing over time. From 2005 through 2013, the increase was fairly gradual. However, 2014 through 2016 shows a significant increase each year, then leveling off after 2016.



Calls for fire do show a slight trend upwards while calls for hazardous conditions are trending slightly lower over time.



The final chart graphically displays the change over time for non-emergencies. While the number of false alarms is trending down slightly, the total number of false alarm responses still averages around 13% of total call volume. Calls classified as good intent are trending upwards over time. Someone thinks there is an emergency and does the right thing by calling 911 but when crews arrive, there is no emergency. An example of this type of call would be a report of smoke but turns out to not be a fire. Public assistance calls differ from good intent in that a person does not have an emergency but calls 911 for assistance. Crews have been dispatched to shut off water and pump out excess water when a resident experiences a plumbing problem.



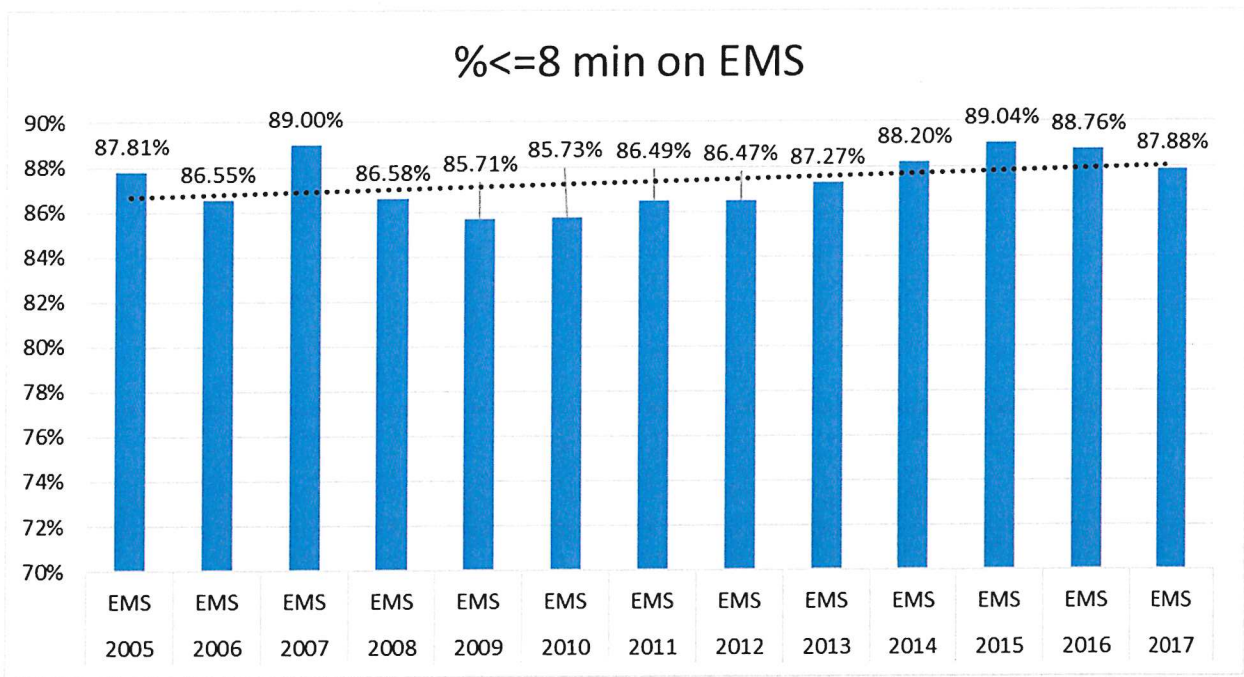
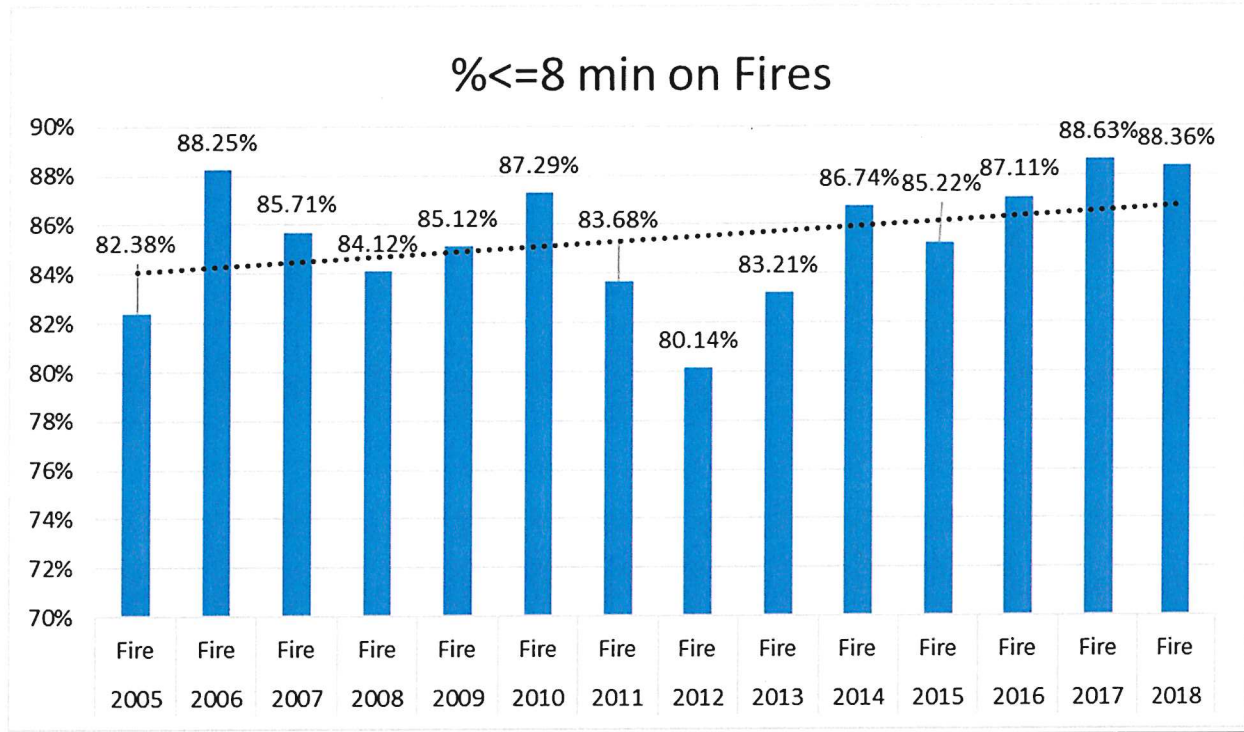
In addition to historical data on types of calls, the following table shows changes in average response time over the same time period.

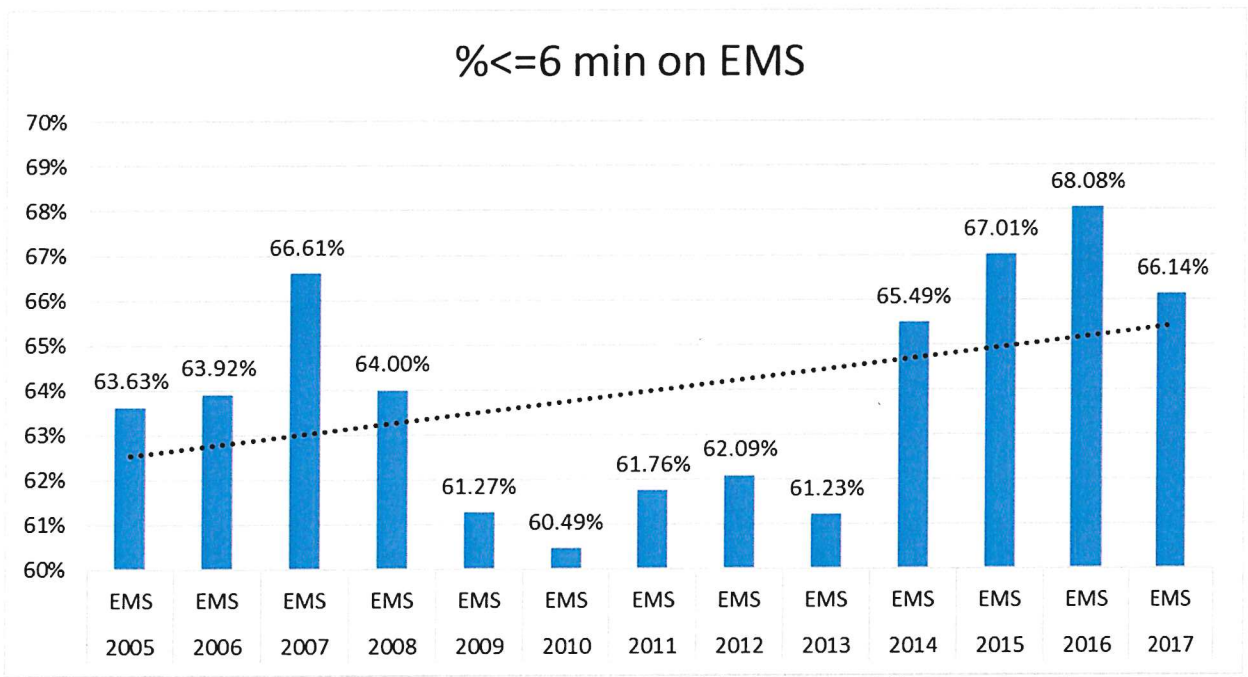
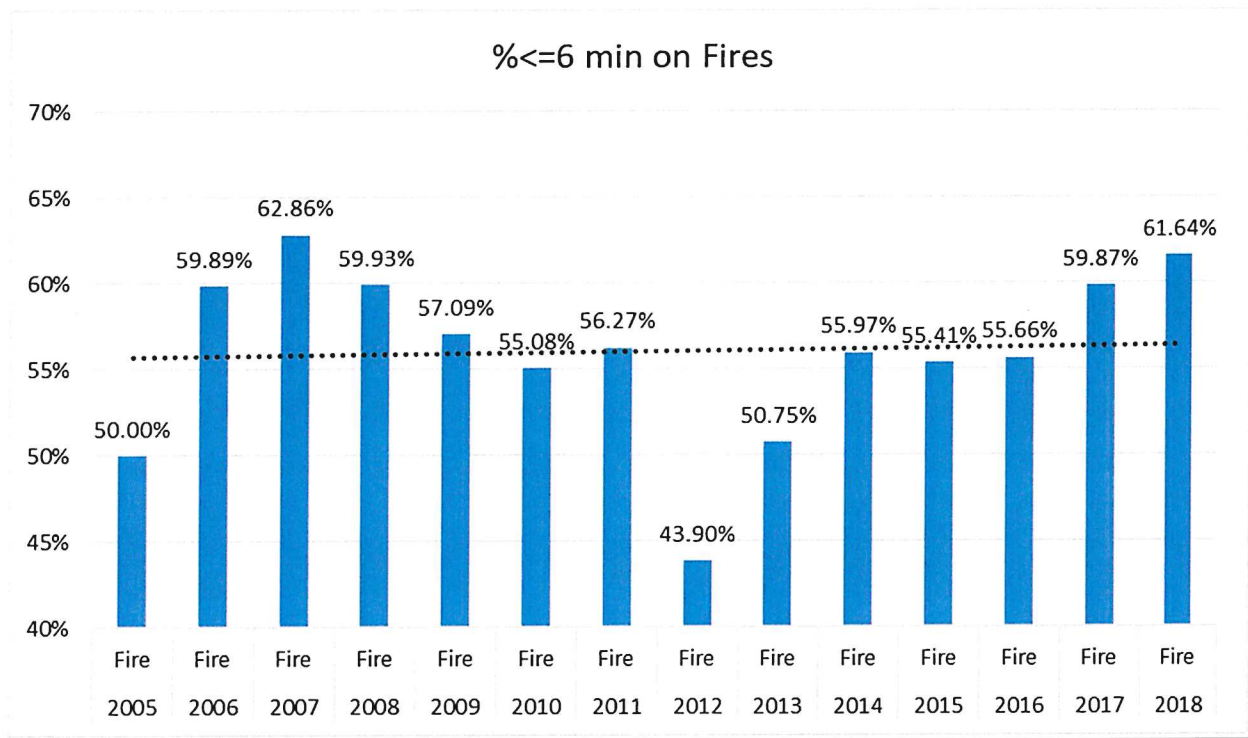
Year	Fire	EMS
2005	0:06:17	0:05:33
2006	0:05:45	0:05:44
2007	0:05:50	0:05:32
2008	0:05:54	0:05:43
2009	0:06:03	0:05:46
2010	0:06:10	0:06:04
2011	0:06:16	0:05:46
2012	0:06:15	0:05:44
2013	0:06:22	0:05:45
2014	0:05:54	0:05:36
2015	0:05:57	0:05:56
2016	0:06:06	0:05:29
2017	0:05:55	0:05:40
2018	0:05:51	-
Avg. for all years	0:06:03	0:05:43

While the average response time for both fire and EMS calls is less than 6 minutes for the period analyzed, not all calls have a response time of less than 6 minutes. Another way to look at the data is to look at what percentage of call response time is less than a specific standard.

The following charts provide summary information on percentage of response times that are less than or equal to six minutes and less than or equal to eight minutes for the same time period. Charts are provided for both fire responses and emergency medical responses. In all four charts,

the number of calls within the time period specified is trending up, demonstrating that response times are improving over time.





RECOMMENDATION

For information only

ATTACHMENTS

Revised Code of Washington (RCW) 35A.92 Fire Departments – Performance Measures:

Attachment A: RCW 35A.92.010: Intent

Attachment B: RCW 35A.92.020: Definitions

Attachment C: RCW 35A.92.030: Policy Statement – Service Delivery Objectives

Attachment D: RCW 35A.92.040: Annual Evaluations – Annual Report

Attachment A: RCW 35A.92.010: Intent

RCW 35A.92.010

Intent.

The legislature intends for code cities to set standards for addressing the reporting and accountability of substantially career fire departments, and to specify performance measures applicable to response time objectives for certain major services. The legislature acknowledges the efforts of the international city/county management association, the international association of fire chiefs, and the national fire protection association for the organization and deployment of resources for fire departments. The arrival of first responders with automatic external defibrillator capability before the onset of brain death, and the arrival of adequate fire suppression resources before flash-over is a critical event during the mitigation of an emergency, and is in the public's best interest. For these reasons, this chapter contains performance measures, comparable to that research, relating to the organization and deployment of fire suppression operations, emergency medical operations, and special operations by substantially career fire departments. This chapter does not, and is not intended to, in any way modify or limit the authority of code cities to set levels of service.

[2005 c 376 § 201.]

Attachment B: RCW 35A.92.020: Definitions

RCW 35A.92.020

Definitions.

The definitions in this section apply throughout this chapter unless the context clearly requires otherwise.

(1) "Advanced life support" means functional provision of advanced airway management, including intubation, advanced cardiac monitoring, manual defibrillation, establishment and maintenance of intravenous access, and drug therapy.

(2) "Aircraft rescue and firefighting" means the firefighting actions taken to rescue persons and to control or extinguish fire involving or adjacent to aircraft on the ground.

(3) "Brain death" as defined by the American heart association means the irreversible death of brain cells that begins four to six minutes after cardiac arrest.

(4) "Code city" means a code city that provides fire protection services, which may include firefighting actions, emergency medical services, and other special operations, in a specified geographic area.

(5) "Fire department" means a code city fire department responsible for firefighting actions, emergency medical services, and other special operations in a specified geographic area. The department must be a substantially career fire department, and not a substantially volunteer fire department.

(6) "Fire suppression" means the activities involved in controlling and extinguishing fires.

(7) "First responder" means provision of initial assessment and basic first-aid intervention, including cardiac pulmonary resuscitation and automatic external defibrillator capability.

(8) "Flash-over" as defined by national institute of standards and technology means when all combustibles in a room burst into flame and the fire spreads rapidly.

(9) "Marine rescue and firefighting" means the firefighting actions taken to prevent, control, or extinguish fire involved in or adjacent to a marine vessel and the rescue actions for occupants using normal and emergency routes for egress.

(10) "Response time" means the time immediately following the turnout time that begins when units are en route to the emergency incident and ends when units arrive at the scene.

(11) "Special operations" means those emergency incidents to which the fire department responds that require specific and advanced training and specialized tools and equipment.

(12) "Turnout time" means the time beginning when units receive notification of the emergency to the beginning point of response time.

[2005 c 376 § 202.]

Attachment C: RCW 35A.92.030: Policy Statement – Service Delivery Objectives

RCW 35A.92.030

Policy statement—Service delivery objectives.

(1) Every code city shall maintain a written statement or policy that establishes the following:

- (a) The existence of a fire department;
- (b) Services that the fire department is required to provide;
- (c) The basic organizational structure of the fire department;
- (d) The expected number of fire department employees; and
- (e) Functions that fire department employees are expected to perform.

(2) Every code city shall include service delivery objectives in the written statement or policy required under subsection (1) of this section. These objectives shall include specific response time objectives for the following major service components, if appropriate:

- (a) Fire suppression;
- (b) Emergency medical services;
- (c) Special operations;
- (d) Aircraft rescue and firefighting;
- (e) Marine rescue and firefighting; and
- (f) Wildland firefighting.

(3) Every code city, in order to measure the ability to arrive and begin mitigation operations before the critical events of brain death or flash-over, shall establish time objectives for the following measurements:

- (a) Turnout time;
- (b) Response time for the arrival of the first arriving engine company at a fire suppression incident and response time for the deployment of a full first alarm assignment at a fire suppression incident;
- (c) Response time for the arrival of a unit with first responder or higher level capability at an emergency medical incident; and
- (d) Response time for the arrival of an advanced life support unit at an emergency medical incident, where this service is provided by the fire department.

(4) Every code city shall also establish a performance objective of not less than ninety percent for the achievement of each response time objective established under subsection (3) of this section.

[2005 c 376 § 203.]

Attachment D: RCW 35A.92.040: Annual Evaluations – Annual Report

RCW 35A.92.040

Annual evaluations—Annual report.

(1) Every code city shall evaluate its level of service and deployment delivery and response time objectives on an annual basis. The evaluations shall be based on data relating to level of service, deployment, and the achievement of each response time objective in each geographic area within the code city's jurisdiction.

(2) Beginning in 2007, every code city shall issue an annual written report which shall be based on the annual evaluations required by subsection (1) of this section.

(a) The annual report shall define the geographic areas and circumstances in which the requirements of this standard are not being met.

(b) The annual report shall explain the predictable consequences of any deficiencies and address the steps that are necessary to achieve compliance.

[2005 c 376 § 204.]