Pompano Beach Fire Rescue

FY 2023-27 Strategic Plan

A MORE INTEGRATED SYSTEM

POMPANO BEACH FIRE RESCUE
FY 2023-27 Strategic Plan

*Each year Pompano Beach Fire Rescue updates its strategic plan, presenting its analysis of latest events and trends impacting fire-rescue operations and beach safety. This **2023-27 Strategic Plan** is the latest in the series.*

PBFR'S CULTURE

Our mission - **to provide care with respect, integrity and compassion -** is self-evident when you work in this fire department. By becoming a part of this experience, you have the opportunity to take part in a culture that you will directly help to shape for generations to come through your interaction with hundreds of co-workers, over 110,000 Pompano Beach residents, and collaborators across a spectrum of partner agencies in the region.

STRATEGY

A more integrated system

STRATEGIC GOAL

Performance and fiscal sustainability

OPERATING DIVISIONS

- Administration
- Operations
- Logistics
- Ocean Rescue
- Prevention
- Training
- EMS

***Civility, inclusion, leadership, and partnership** represent our guiding principles, the foundation of how we approach our work and decision-making. We strive to live up to these values every day whether we are working with each other, collaborating with partner agencies or serving the public.*

Civility. Studies show that incivility negatively affects labor productivity, commitment to work, and patient safety. Whether we're helping a patient, rescuing a beachgoer, or performing a fire inspection, our job is to serve – and to do it not just competently but also kindly without rancor. Committing to civility is not a submissive pact; it's the simplest way to DO GOOD, to maintain professional relationships, confront fanaticism, and temper cynicism.

If you work here
- *You make decisions without being mean and condescending to others.*
- *You intervene if someone is being marginalized, defamed, humiliated, or unfairly attacked.*
- *You listen attentively, speak your mind, and treat others respectfully.*
- *You don't work in Pompano Beach to be blindly loyal to anyone.*
- *You do your job in a way consistent with our core principles and always in the best interest of the customer.*
- *Be Well, Be Good and Do Good!*

Inclusion – Diversity, it has been said, is good for the soul. Diversity of background, thought, beliefs, and ideas have always been an engine for progress. Real diversity results from listening, from interchange of ideas, exchange of thoughts – not from the promotion of a single belief.

Pompano Beach attracts people from across the nation and the rest of the world, making it a city of many cultures, languages, and religions, the majority of whom are non-White. Our neighborhoods form the pattern of a cultural mosaic, a mixture of cultural landscape. The fire department's ability to operate effectively and to serve all our residents depends also on the diversity of our workforce.

At 252 strong, we are small enough for everyone to get to know everyone, but big enough to feel isolated from each other during a pandemic or other catastrophe. Cultivating an atmosphere that encourages interaction and openness is fundamental and must be a priority to everyone who works here.

An inclusive approach to decision making nurtures creativity and an innovative spirit, as it brings different perspectives to bear. PBFR is a place where everyone can convey their whole selves to work. As long as you are respectful to others' beliefs, lifestyles, family composition and education level, you will feel valued here.

If you work here
- *You celebrate the multitude of cultures, religions, beliefs, voices and people we are privileged to work with and serve.*
- *You recognize that humans have biases - that we are prone to jumping to the wrong conclusion about ourselves and about others.*
- *You take steps to grow past your biases and detrimental attitude.*
- *You make your peers feel welcome around you.*

Leadership – We want people across the department to take responsibility for living our mission. Our success rests in part on our collective ability to allocate funds responsibly; to attract and retain high-performing talents who will celebrate the diversity of our community.

In living our mission, we don't just help people deal with unpleasant events. Here, we lead by creating opportunities for professional growth so employees can earn a sense of accomplishment. We want this esteem to spill over during community outreach across the city. We hope to be a source of inspiration for boys and girls thinking about a career in the public sector beyond high school. We create social capital by contributing to community well-being in general.

If you work here
- You inspire others with your passion for life-long learning and your sense of curiosity.
- You are a reference for staying calm in the face of stressful situations, disaster or ambiguity.

Partnership - Everything of value we do requires others' collaboration. Without the support of tax payers, we would not be able to respond to 30,000 emergency incidents; we rely on the federal government, (FEMA), the state and other agencies for support and cooperation during storm recoveries and the pandemic; we strengthen community ties and open communication lines between the department and community establishments. Indeed "nothing we do, however virtuous, can be accomplished alone …". We will continue to foster opportunities for interaction in as many places as possible to enable greater participation in community life.

If you work here
- *Your success here is partly a function of your colleagues' talent and dedication.*
- *Your efforts add more value when you seek feedback.*
- *You serve on steering committees and participate in community events.*

GOALS	PERFORMANCE MEASURES	TARGETS
Budgeting	- *Inflation rate* - *Unemployment rate* - City tax base *(Taxable value trends)* - Median household income *(Simple 5-year moving average)* - Personnel cost *(As a share of the budget)* - Cost per capita *(Simple 5-year moving average)*	Operating budget growth rate not to exceed Pompano's median household income growth rate
NIMS training	- NIMS Training Compliance Report *EOC Staff Category* - NIMS Training Compliance Report *ERT Category* - NIMS Training Compliance Report *All Employees Category*	No less than 93% EOC staff No less than 85% of ERT staff No less than 25% from previous year on an annual basis for all employees meeting minimum NIMS training requirements
Fire suppression	- Initial arriving suppression unit - Effective response force (ERF) arriving	Within 5 minutes 30 seconds Within 10 minutes 30 seconds
Bunker gear cleaning	- Bunker gear expenditure report	Expenditure not to exceed $27,000
Beach safety	- Annual drowning incidents - Return of spontaneous circulation (ROSC) rate	
Firefighter development	- Daily evaluation feedback for probationary freighters - Monthly performance objective testing through Target Solutions	
Fire academy		Fully credentialed fire academy 12/22 Core administrative staff in place 12/22 Pompano Beach High School Program in place 8/23
Cardiac care delivery	- Rate of national discharge - Return of spontaneous circulation (ROSC) rate	Above national average Above national average

Pompano Beach Vision, 2036

By 2036, POMPANO BEACH is a superior place to live, visit and locate or expand a business along the Atlantic Coast of South Florida.

POMPANO BEACH is distinguished by:
Our Safe Community
Our Sense of Place and Family
Our Distinctive Architecture
Our Award-Winning, Beach and Beachfront
Our Range of Leisure, Entertainment, Arts and Cultural Amenities
Our Vibrant Activity Districts throughout the City – e.g., Downtown, Innovation, Beach, Isle, Cultural
Our Strong, Diverse Economic Sectors with Ample Employment Opportunities
Our Destination for Regional, National and International Guests
Our Location
Our Reputation for Sustainable, Resilient and Technology Advanced Development and Redevelopment
Our Stable, Redeveloping Neighborhoods with a Range of Housing Options,
Our Diverse Cultures and Inclusive Community
Our Resilient Community

POMPANO BEACH 2036 is a city of great places with even greater opportunities and offers residents and visitors Florida's Warmest Welcome!

Contents

Introduction

In 2022, through five rounds of all-day sessions, the Pompano Beach Fire Rescue's planning team met to update the organization's strategic plan. As in previous years, our aim was to assess risks and envisage ways to improve readiness while ensuring alignment with the city's strategic goals.

This time, the planning team used a non-conventional SWOT approach which consisted of examining environmental conditions two years into a pandemic that caused the shortest economic recession in recorded history. In 2020, the United States arguably experienced 1918, 1929, and 1968 in a single year.[1]

To gauge what Pompano Beach should expect in the post-pandemic era, our planning team used its collective knowledge base to convert the uncertainties associated with perceived threats to Pompano Beach Fire Rescue into manageable risks. The team spotlighted six trends that the fire department needs to monitor over the next few years to provide early warning of the threats that certain risks pose to the city as we strive for fiscal sustainability. They are:

1. **Growth:** Has Pompano Beach entered an era of "peak emergency calls" with occasional spikes?[2]
2. **Strength:** Has Pompano Beach emerged from COVID-19 with new resilience?[3]
3. **The economy:** Will the United States be in a recession in 2023?[4]
4. **Raison d'etre:** What is the fire department's purpose?[5]
5. **Operational effectiveness:** How will this fire department remain relevant and competent into the future?"[6]
6. **Sustainability:** How will this fire department remain (or become) economically sound into the future?[7]

In the last two decades, the number of calls for emergency response in Pompano Beach increased 3% a year, averaging 60 calls a day in the 2000s and 71 in the 2010s. When measured on a population basis however, the rate averaged 237 calls per 1000 population in the 2000s as compared to 245 in the 2010s – equivalent to an annual growth rate of 1 percent. This means, when adjusted for population, since 2000, the demand for fire-EMS response in Pompano Beach has increased at a decreasing rate. Should this "flattening" be seen as a transitory episode, or instead a *signal* that Pompano Beach is about to enter an era of "peak emergency calls"?

Forecasting – How to improve judgment remains an unresolved problem everywhere. Though closely related, good judgment and forecasting are not really the same. Good judgment starts with asking the right questions: "Is Pompano Beach entering peak emergency calls"? The next step consists of forecasting: "During fiscal year 2023, what will be the level of call volume per 1000 population in Pompano Beach?"

Good decision-making depends not only on having the good judgment to ask the right question but also the ability to accurately predict future events, or (in this case) the trajectory of call volume in the city.[8] Unfortunately, decision-makers of all stripes are poor forecasters.

The good news is, recent advances in behavioral economics, which incorporates insights from psychology, are teaching humans how to improve decision making through cognitive bias mitigation. By using forecasting as a means to quantitatively measure judgment, a growing number of government agencies (e.g., IARPA, an arm of the Office of the Director of National Intelligence) and private-sector firms around the world have been able to improve accuracy in forecasting by turning to superforecasters: teams of individuals who are called upon to answer well-calibrated questions about events in the news. Why? Because groups comprising people with limited expert

knowledge have been proven to do much better at predicting future events than individuals acting alone - or better than the collective judgment of experts in any field.[9] These superforecasters are people who pay attention to global trends and who are well aware of the dangers of cognitive bias.[10] This approach was incorporated into our planning development process.[11]

From October 2021 to February 2022, the planning team was polled on a range of timely and relevant topics. The members were asked a total of twenty-five "challenge questions" designed to test their forecasting prowess. They were not given training on how to be good forecasters – simply an opportunity to reflect on key themes: call volume, inflation, climate, Covid-19, crime, budgeting, to name a few. By entering a value between 0 and 100, they were asked to assess the probability of an event within a specific period. Each person was not only given the opportunity to respond to each of the statements, but also the option to comment freely on the topic in question.

Value-Chain Analysis – In addition to forecasting, other challenges emerged from group discussions, representing matters of concern to the fire department particularly at the operational level. Given that the topics overlapped and influenced one another, a focus of the team was to explore how the fire department's *unique* activities directly relate to achieving operational effectiveness or to adding value.[12]

To help accomplish our mission, we identified eight goals worth pursuing, prioritizing revenue, cost optimization, and personnel development. Each of the goals was derived from a value-chain analysis, a sequence of primary and secondary activities that must be completed in an effort to deliver a value proposition to a stakeholder.[13] Each sub-activity and its drivers were analyzed in an effort to look for ways to reduce service cost and/or increase value for stakeholders.[14] In short, these value-chain analyses were performed for the

purpose of helping us better understand how the fire department configures the activities involved in delivering its service within the following programs:

- Budgeting, p. 43
- NIMS training, p. 46
- Fire Suppression, p. 50
- Bunger gear management, p. 54
- Beach safety, p. 57
- Firefighter training, p. 61
- Fire academy development, p. 64
- Cardiac care delivery, p. 68

At the conclusion of the process, the plan was submitted to the city manager and the Pompano Beach City Commission for approval.

THE MANAGEMENT TEAM

PBFR accomplishes its mission through a myriad of programs and initiatives that cover a wide spectrum of activities intended to help keep city residents and visitors safe. Seven divisions (Administration, Operations, Logistics, Fire Prevention, Training, Ocean Rescue, and EMS) administer PBFR's programs.

Two hundred fifty-two full-time employees (plus a dozen part-time personnel) have been tasked with making decisions to deliver safer care and smarter code enforcement practices every day. Eight of whom make up the management team. The fire chief is ultimately the person responsible to ensure PBFR's mission is carried out. He is the principal advisor to the city manager in all matters related to fire-EMS and beach safety.

Our mission can cannot be achieved by working alone; collaborations are critical to achieve our goals. The fire department works closely with others – e.g., residents, city departments, sister agencies, community leaders and the business community – to seek solutions and foster relationships across the city.

Table 1. **Pompano Beach Fire Rescue, Management Team**

Management Staff (Sworn)			Management Staff (Civilian)		
Fire Chief: C. Brocato	▨	▧	Admin. Services Manager: J. Lafalaise	▨	▧
Assistant Chief: M. Hohl	▨	▧	Emergency Manager: K. Spill-Cristiano	▨	▧
Assistant Chief: S. Hudson	▨	▧	Logistics Manager: G. Pratt	▨	▧
Assistant Chief: M. Whitton	▨	▧			
Training Commander: D. Desmond	▨	▧			
Fire Marshal: P. McGinnis	▨				

Tenure		> 20 years
		10 – 20 years
		< 10 years
Education		Advanced degree
		Bachelor's degree
		Associate degree
		No degree

The Progress Curve

PBFR has been on a journey of change for twenty years. Substantial progress has been made since the release of the 9/11 Commission Report on the challenges faced by first responders[15] and in fulfilling many of the goals associated with the 2000 DMG/Maximus Management Study.[16] An overriding theme of the study was that Pompano Beach was "informally managed…" and that the department needed to formalize management of its operations. A critical step was taken in 2001 with the development of our first strategic plan in response to the study. A total of nine strategic plan documents have since been released.

Despite three recessions, Pompano Beach Fire Rescue has experienced no layoffs in three decades.[17] Our emergency response operation has expanded from two to a three-person rescue model across the city since 2004.

Growth, coupled with annexation, has resulted in further expansion of the service. Five fire stations and eight lifeguard towers have built/rebuilt. More constructions projects are scheduled for completion in 2022 and 2023. We have gone from five fire stations in 2000 to seven in 2023, from one- to a two-battalion chief system in 2014, and from a small scale two-person support function to a full-service Logistics Division.[18] In 2009, we experienced a change in service scope by merging fire-EMS with ocean rescue.

Our workforce composition has become more diverse.[19] For the first time in two decades, two officers were promoted from the ranks to Fire Administration in 2020 and 2021 respectively.

During Covid-19, the department experienced no interruptions to its logistics operations in spite of the limited availability of fast-moving medical supplies and PPE.

Improved readiness was confirmed in 2016 when the department achieved the best ISO rating possible, followed by CFAI and CASS accreditation in 2019 and 2020.[20]

Key Trend # 1 *Fire and EMS are supported by four main revenue sources: the general fund (accounting for 26% of the total), the fire assessment fee (46%), the EMS property tax (15%), and the EMS transport fee (8%). Grant funding, fire code inspection fee and other sources account for the remaining 5%.*

Chart 1: **$48 Million Revenue (excluding ocean rescue)**
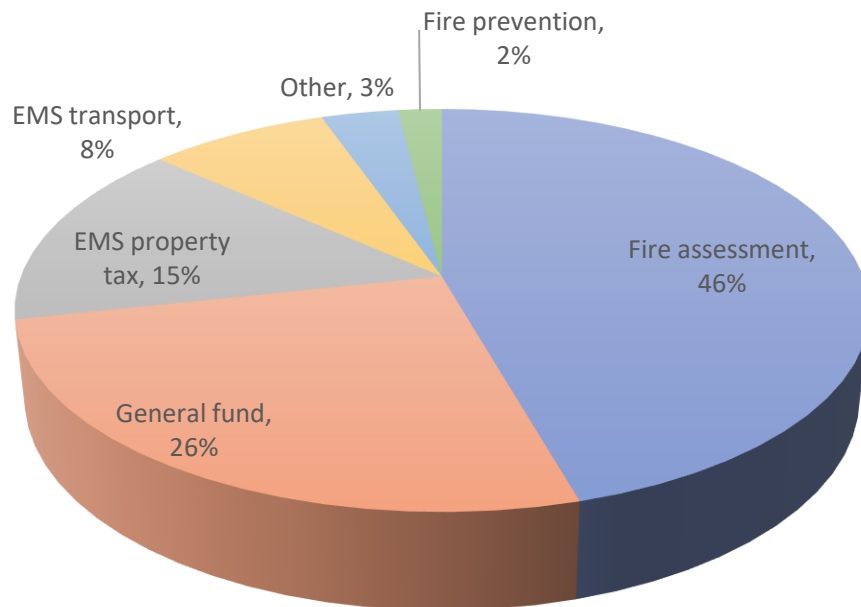
Not included in the above chart is an estimated $17 million in FEMA reimbursement and state public assistance funds received since 2005.

***Key Trend # 2*** *EMS funding is heavily reliant on ad-valorem taxation, which now funds 77% of the $21.5 million of the total revenue requirement. General Fund dependency has intensified since 2009, following the Great Recession.*

Chart 2. **EMS Funding History**
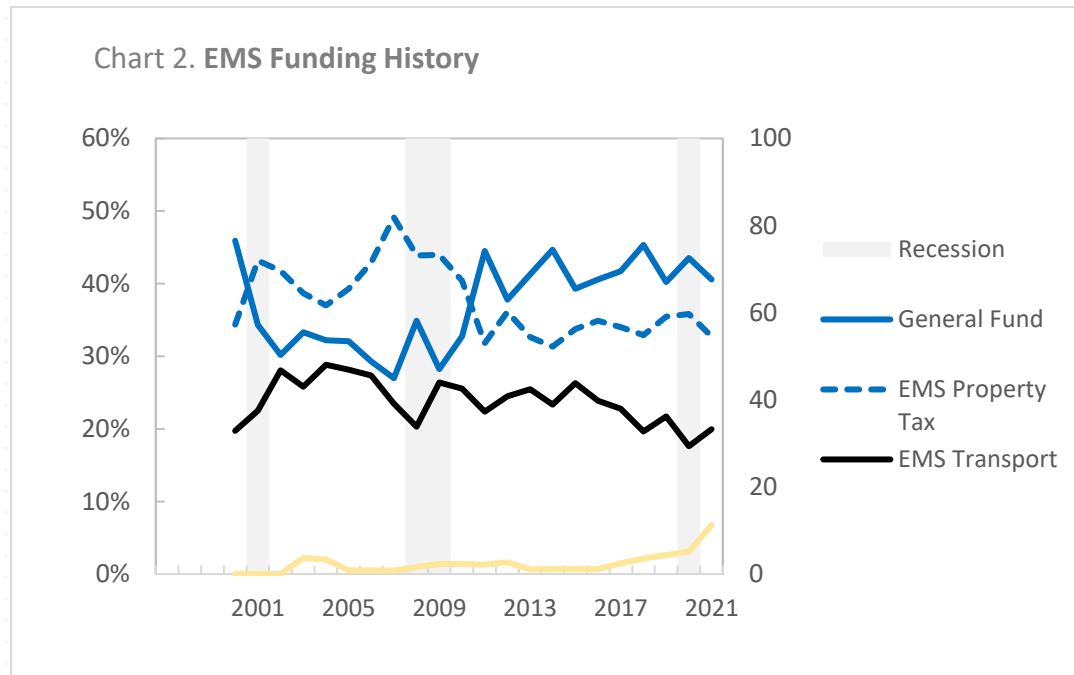

*Receipts from "other" sources (the orange line on the graph) include PEMT, MCO, AFG Grant, and the Sea Ranch Lakes Agreement). Since 2017 the City has been reimbursed over $2.5 million - an average $625,000 a year - from the State of Florida Agency for Health Care Administration (AHCA) through the **PEMT** program and through the Managed Care Organization (**MCO**) program.*

KEY Trend # 3 *The EMS transport revenue increased to a record $4.3 million in fiscal year2021.[21] As compared to the previous fiscal year, receipts increased in nominal terms by 30.6% and in real terms (i.e., inflation adjusted) by 24.1%. Measured relative to the share of the EMS budget – a sensible way to check whether the transport revenue is keeping up with other EMS revenue sources – receipts increased by 2.3 percentage points, translated into less dependency on the property tax.*

Chart 3a. **Percent Change in EMS Transport Revenue**
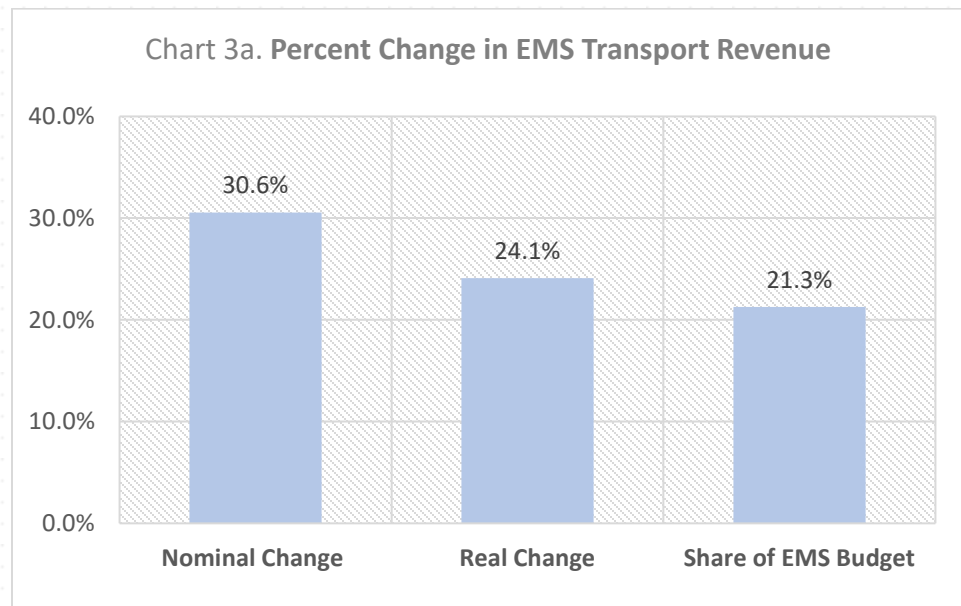
As a share of the EMS Budget, the EMS transport fee has trended down since 2004 due to a combination of factors, some of which (e.g., Medicare-Medicaid reimbursement covering only a fraction of the actual costs of EMS services) are beyond the fire department's control.

Chart 3b. **EMS Transport Revenue as a share of the EMS Budget**
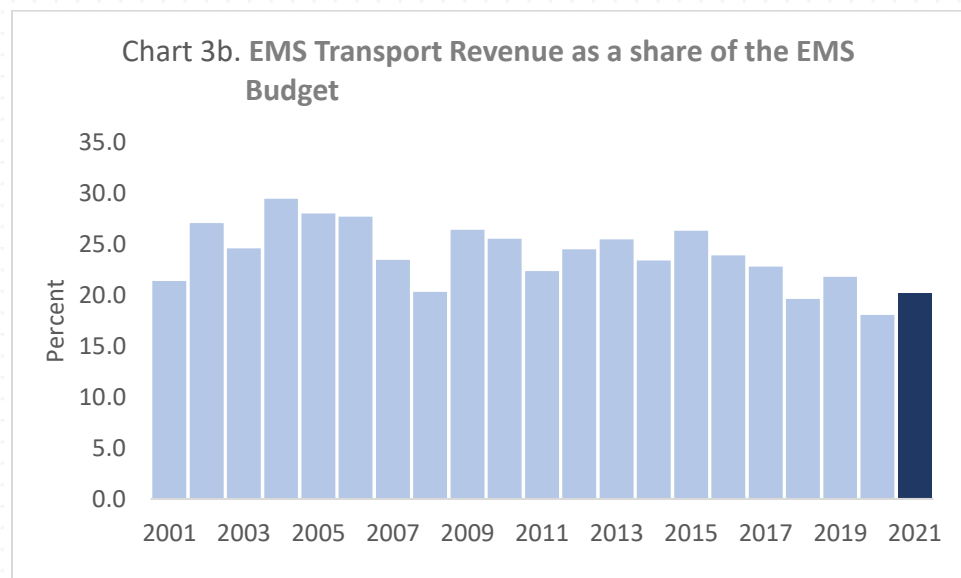
Key Trend # 4 *On an inflation adjusted basis, the fire-EMS cost per capita averages $365/year, or a growth rate of 1.8% from 2001 through 2021. Cost does not include expenditures for Ocean Rescue.*

Chart 4a. **Service Cost per Capita**

Recession
Cost per Capita (nominal dollars)
Cost per Capita (2021 dollars)

Chart 4b. **Pompano Beach Fire Rescue Budget History**

Recession
FD Budget (nominal dollars)
FD Budget (2021 dollars)
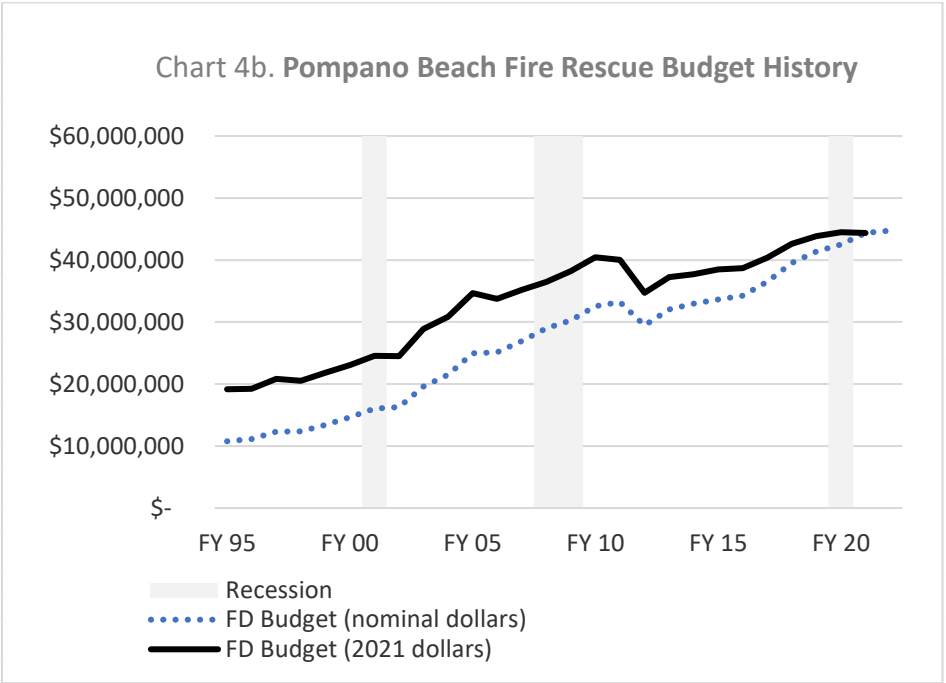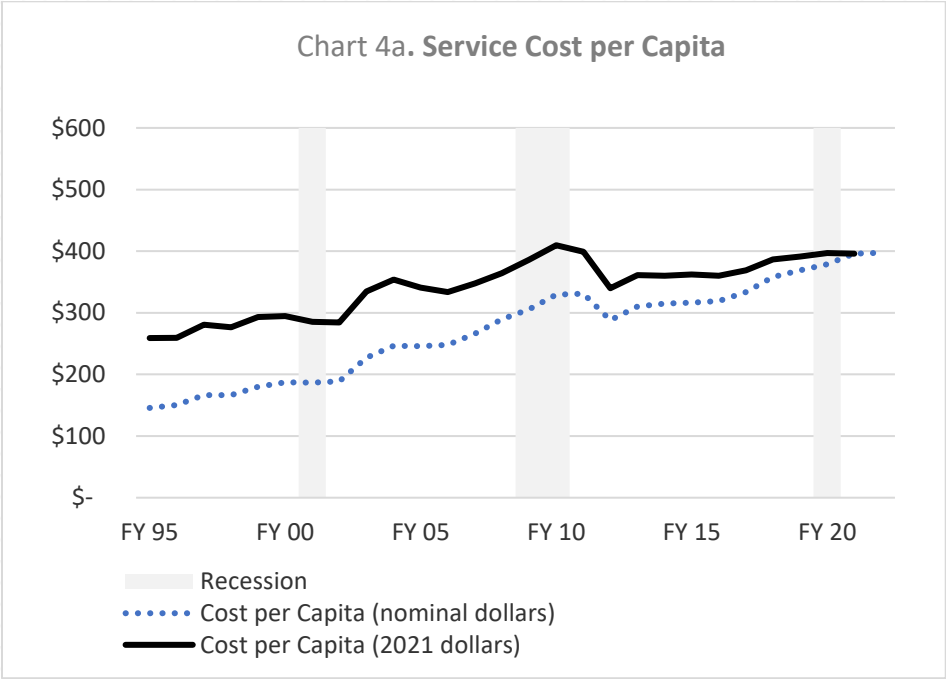
Key Trend # 5 *The number of fire-rescue incidents has increased 3% a year since 2000, an average of 60 calls a day in the 2000s and 71 in the 2010s. When measured on a per capita basis (i.e., 1000 population), the rate averaged 237 in the 2000s as compared to 245 in the 2010s – or an annual growth rate of 1 percent.*

Chart 5a. Emergency Calls per Day
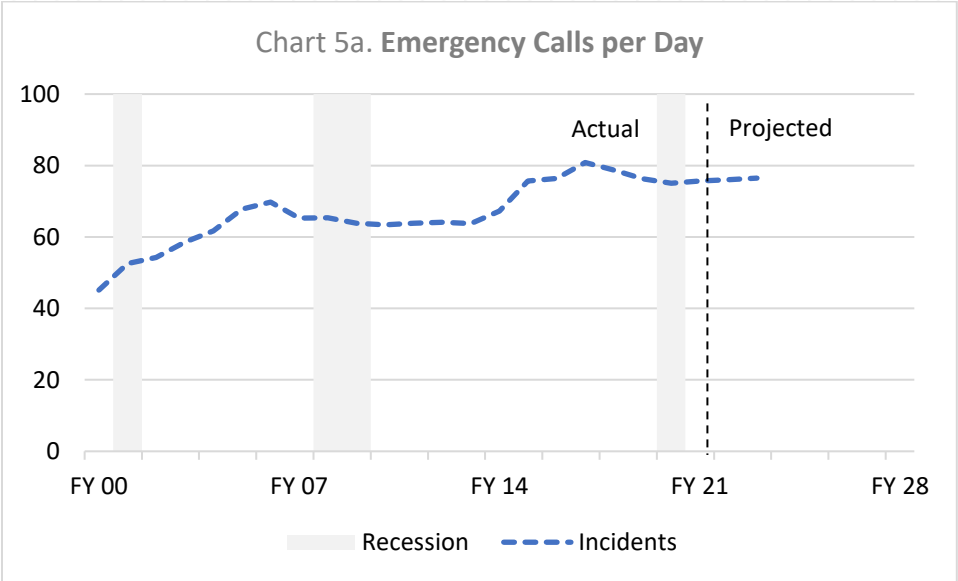
The call volume per population rate reflects community-wide activity. Its main advantage is that it may be used for comparative analyses across agencies, and is easier to understand among a wide range of audiences

Chart 5b. Emergency Calls per 1000-Population
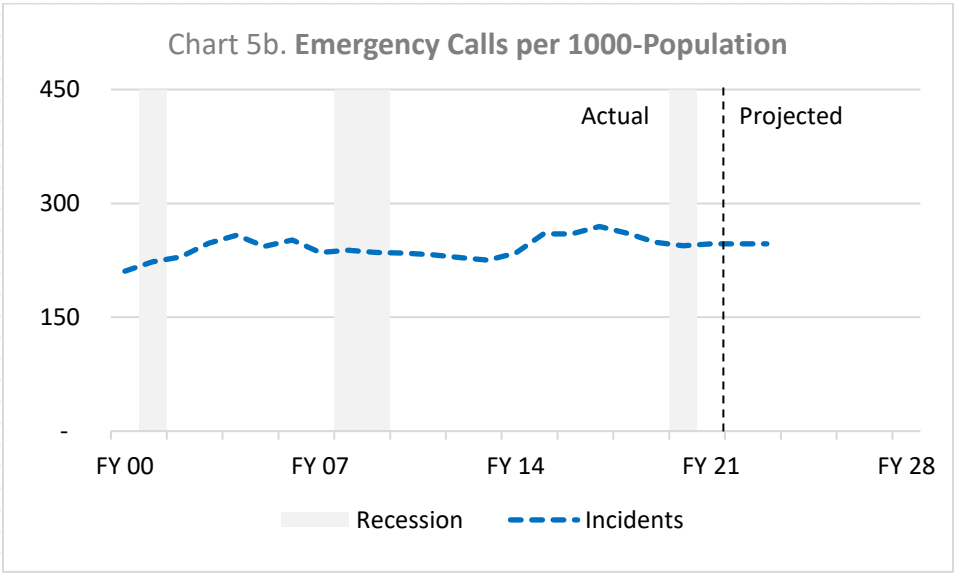
2001 First PBFR strategic plan developed
Addition of (25) firefighter positions to staff Station 103 due to annexation of Cresthaven
Disaster management program developed

2004 Addition of (13) firefighter positions to implement 3-person policy on Rescue 63, Rescue 52, & Rescue 61
Creation of logistics division

2005 Storm recovery $936,000

2006 Storm recovery $9 million

2007 Addition of (4) firefighters / 3rd person policy implementation, Rescue 24
Addition of (1) emergency manager position
Sea-Ranch Lakes agreement: $250,000 annual revenue

2008 Storm recovery $292,000

2009 Merger with Ocean Rescue.
Addition of (1) logistics manager: $60,000 savings
Storm recovery $55k

2010 City of Lighthouse Point service agreement
Storm recovery $159,000

2011 Storm recovery $66,000

2012 Station 11 reconstruction completed

2013 Storm recovery $177,000

2016 Implementation of 2-battalion chief model
Station 103 construction completed
Reclassification of 35 paramedics to lieutenant
ISO Class 1 rating achieved

2017 Addition of (15) firefighters to staff Rescue 252 full time. The unit had been deployed 12hrs a day from 2006 to 201

2018 $40 million GO bond approved by voters

2019 Fire Station 24 reconstruction
CFAI accreditation (p. 24, Box 1)

Addition of (1) battalion chief, (2) fire captains, (2) driver engineers,
(1) Logistics analyst, (1) emergency management coordinator,
and (1) Lifeguard
Grant and cost-recovery funds $1.7 million
Storm recovery $361,000

2020 *Addition of (1) battalion chief, (2) fire captains, (2) driver engineers,*
(1) data analyst, life safety educator and (1) lifeguard
CAAS accreditation (p. 27, Box 2)
(8) New lifeguard towers
Storm recovery $3.9 million

2021 *Addition of (1) battalion chief and (1) fire captain*
Storm recovery $1 million

2022 *Addition of (1) fire captain, (1) driver engineer, and (1) fire inspector*
New fire academy program approved by the City Commission
Fire Station 114 construction completed
Reconstruction of Fire Station 61

Funded Projects *Fire Stations 63*
Fire Station 52
EOC/Administrative Complex
Ocean Rescue HQ
CFAI Re-accreditation

Unfunded Needs *Fire Training Facility (p. 30, Box 3)*
Dispatch Communications (p.31, Box 4)
Fire Station 63

Box 1. Commission on Fire Accreditation International

BACKGROUND

In 1986, the International Association of Fire Chiefs (IAFC) and the International City/County Management Association (ICMA) came together to develop a framework for continuous improvement of the fire and emergency service. By 1996, this led to the formation of the Commission on Fire Accreditation International (CFAI) to award accreditation to fire-rescue agencies.

In 2000, the Commission on Chief Fire Officer Designation was established to credential fire and emergency service officers. In 2006, the corporation's name was changed to the Center for Public Safety Excellence. CFAI and the, now-titled, Commission on Professional Credentialing became entities under CPSE. From its inception, CPSE has valued having a diversity of involvement from organizations, e.g., the International Association of Fire Chiefs (IAFC), ICMA, the International Association of Fire Fighters (IAFF), the National Fire Protection Association (NFPA), the Insurance Services Office (ISO), and the Department of Defense (DoD) on our board and commissions.

THE PROCESS

Pompano Beach achieved CFAI accreditation in 2019, confirming that the agency continually self-assesses and is accountable through third party verification and validation. Self-assessment provides a reliable response to increased oversight by managers and elected officials and potential criticism from the community.

The accreditation process begins by becoming a registered agency, which involves completing an application. The form is an overview of the fire department and designated the agency head and the accreditation manager. A fee is involved. This allows the agency to maintain this status for three years, which may be renewed as many times as needed. The accreditation manager is then recommended to complete the required training of Quality Improvement for the Fire and Emergency Services (QITA) and the Peer Assessment portion. Then an agency becomes an applicant agency status. More forms are required at this point as well, the CFAI agency application and information form as an "applicant" and a letter of understanding for applicant/candidate agencies will be submitted.

Box 1. (Cont.) Commission on Fire Accreditation International

The application fee schedule is based upon the organization's population that it serves. Applicant agency status is valid for 18 months and may be extended to 12 months a maximum of three times. An online site and a volunteer mentor are assigned to provide guidance. During this time a Community Risk Assessment-Standard of Cover document is created, as well as a Self-Assessment Manual and a Community-driven Strategic Plan. Upon completion of these documents, candidacy for accreditation can be declared. A peer team will be assigned, and a site visit will commence to validate documents.

Eleven categories, 46 criteria, and 250 performance indicators are conducted. Ninety-four of the indicators are core competencies. Core competencies (CC) are pass/fail and must be met in order to be accredited. From that visit an accreditation report will be developed. This accreditation report is presented during a CFAI public hearing, which occurs twice a year. The agency head, accreditation manager, and team leader will appear before the CFAI board as the board completes the verification/validation process and render a vote on the accreditation status.

THE CHALLENGE

Accreditation is valid for a period of five years, however more work is required throughout the life cycle of the accredited agency. Each year the agency is required to submit an Annual Compliance report and a fee. Each compliance report contains the identified programs that exist within the accredited agency - examples being fire suppression, EMS, technical rescue, ocean rescue, and so on... At the end of the five-year period, all the steps will be repeated with new and different updates/requirements to speak to within all the new documents.

Sustained commitment and a dedicated team are an absolute must and without it this process is near impossible to accomplish. Commitment is required from many fronts, internally and externally. Administrative team members and elected officials all need to buy in to the accreditation process, and the reaccreditation in five years' time.

Internally, the Fire chief down to the Firefighter need to believe in the process. A majority of the work associated with this continual process of self-improvement involves data collection and analysis, something the fire service as whole was not created around.

Box 1. (Cont.) Commission on Fire Accreditation International

---

CONTINUOUS IMPROVEMENT

In line with the mantra of accreditation and continuous self-improvement, two questions come to mind:

- Has this process made Pompano Beach Fire Rescue better, if so, how?
- Was the effort leading to accreditation in 2019 worth the reward?

Agency accreditation is a voluntary process. Some agencies seek a dollar-for-dollar return on investment before pursuing accreditation, the true investment is agency staff time and learning what you do not know about your organization. These two questions should be looked at again after Pompano Beach Fire Rescue pursues and achieves reaccreditation in 2026.

Incorporating the program appraisals into the strategic planning process will bring all efforts in line with the documents supporting information. This annual process will also ensure that appraisals are completed by March of each year, allowing ample time to compile and update the annual compliance report. This annual report speaks to the measurable data and metrics needed to satisfy the honest evaluation of efforts and services. One of the other unintended outcomes is identification of data points that might shift or realign future target measurables.

Box 2. Commission on Accreditation of Ambulance Services

BACKROUND

In 1982, the American Ambulance Association met to discuss the most pressing issues facing the medical transport industry. As a result of that meeting, the association formed an Ad Hoc Committee to develop standards, which address the identified issues and deficiencies. In 1990, the Commission on Accreditation of Ambulance Services (CAAS) was incorporated and began to accredit ambulance service agencies that met the standards in 1993.

Accreditation is an external entity validating the work of an agency. The CAAS's board of directors include representatives from the American Ambulance Association, Emergency Nurses Association, International Association of Fire Chiefs, National Association of Emergency Medical Technicians, National Association of EMS Physicians, and National Association of State EMS Directors.

THE PROCESS

Pompano Beach gained CAAS accreditation in 2020, placing it among the less than 1% of the 21,000 EMS agencies in the United States that meet the standards for accreditation. The standards are broken down into ten categories: organization, inter-agency relations, management, financial management, community relations and public affairs, human resources, clinical standards, safe operations and managing risk, equipment and facilities, and communication center. Each category is further broken down into approximately 100 sub-categories to create a compressive evaluation of an organization.

The first step to accreditation is a self-assessment. This process forces the organization to look at its current situation and identify any gaps that might prevent it from attaining accreditation. Once an agency feels it has met or exceeded all standards, it applies to CAAS.

CAAS staff reviews the application and decides if a site visit is warranted. Once the CAAS review board is satisfied, an on-site or off-site evaluation is scheduled. The resulting evaluation is submitted to an independent panel of commissioners, who decide whether an agency meets the standards of accreditation.

Box 2. (Cont.) Commission on Accreditation of Ambulance Services

Accreditation lasts three years, at which point an agency would have to resubmit another application to be considered for reaccreditation. During the three-year period of accreditation, an agency must make the accreditation standards a way of doing business. The agency must develop documents to show compliance with accreditation requirements and make sure crews are following standards on a day-to-day basis. During reaccreditation, the agency must keep documentation to demonstrate the continued commitment to the accreditation process and continued commitment to quality improvement.

CONTINUOUS IMPROVEMENT

An integral part of accreditation is the continued quest for improvement. From the first day of our self-assessment, we realized that there was room for improvement. When performance gaps are identified, agencies need to create an action plan and move towards closing those gaps. Some plans involve creating new operating procedures while other plans may involve adding equipment and resources.

Just because an agency received accreditation does not mean the agency will remain accredited. Reaccreditation involves work. Reaccreditation means that an agency is monitoring its operations and responding to issues in real time. An agency must prove, though metrics and milestones that they are committed to improvement and understand that accreditation is a way of life and not a one-time event.

Challenges and Opportunities

Internal Challenges - Despite much progress on several fronts, some of our old problems persist. The department continues to have its data resources stored across various unintegrated systems, making it challenging to perform timely analyses. Personnel hiring still takes too long. Succession planning for management roles is a work in progress.[22]

While significant improvement has been made, diverse representation in the fire department remains inadequate and uneven when one considers the local demographic makeup.[23]

Insofar as physical assets are concerned, the training facility/tower is in dire need of rebuilding (see Box 3). The flow of our logistics operations will be hindered if the warehouse were to be impacted by a Category 5 hurricane. The building was constructed under less rigorous building codes in the early 1990s.

New threats are also emerging as the world transitions away from the more acute phase of the pandemic. Lack of clarity on the impact of *Long-Covid* and its implications on the so-called *great resignation* looms large on the labor market.[24] This trend makes matters worse when one in five fire department employees is expected to leave/retire by year 2028.

Chart 6 - **Years of Service Distribution, 2021**

Years of Service

0-5 6-10 11-15 16-20 21-25 26-30
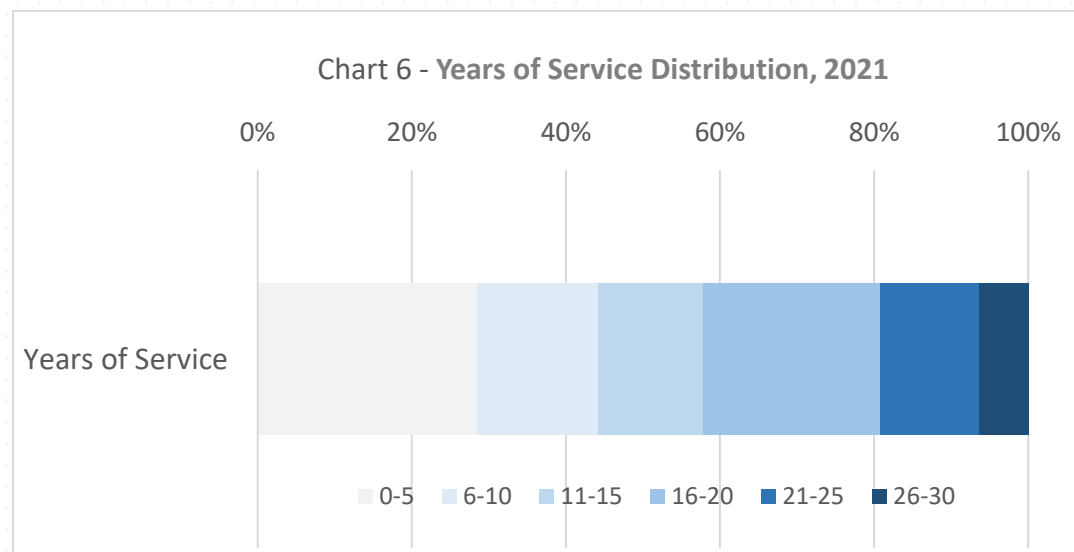
Box 3. Training Facility

The state of Florida and ISO require firefighters to perform 192 hours of training with eighteen of those hours conducted at an approved training facility. Our current facility meets the requirements put forward by ISO. The training tower and the large area to train set us apart from the majority of fire departments in the tri-county. Other agencies that do not have a tower and the required space set by ISO are required to send their crews to one of the local fire academies or Pompano Beach in order to meet their required training needs.

Our training tower was built in the 1980s with the aim of providing the most realistic training for our firefighters that was available at that time. That decision has provided an incredible advantage for our firefighters to meet required training needs. We are able to complete training at the facility without having to take crews out of service to go to one of the recognized academies. This saves the city money in fuel cost along with facility fees that are charged by these academies. In addition, keeping personnel in the city affords us the ability to return to service quickly in the event a large incident takes place.

With the upcoming fire academy, we will need to utilize this tower for our classes. The building's current dimensions do not meet the state requirements that are recognized for a certified state fire academy. Although we have come up with a temporary solution for this issue, we still will have to face these deficits in the near future. In addition, because the tower was built four decades ago, it is suffering the effects of age. The room sizes, windows and stairwells inside of the tower are too small. The classroom currently holds forty-five students with two bathrooms (1 male, 1 female) and no handicapped accessibilities. This makes it complicated to have large training classes and impossible to have multiple fire academy classes running at the same time. The second issue is the placement of our EOC building which is scheduled to start construction in the very near future. Unfortunately, this building is located in the same parking lot as our current training facility which is going to encroach on a large portion of our training grounds. This will make it extremely difficult to perform necessary training with our current firefighters and future academy classes.

With these concerns, it may be time to think of the future. Because of the age of our facility, the needed retro-fitting cost may be prohibitive. Even if the current structure is updated as needed, we still would need to consider the space constraints that will be forced upon us with the placement of the new EOC building. Finally, with the new fire academy coming, we may have to come to the realization that we have simply outgrown the space.

Box 4. Dispatch Communications

When someone calls 9-1-1 in Pompano Beach, the phone call automatically enters the Broward County Communications and Dispatch Center (CDC). It is transmitted through the countywide 911-system, which is made up of several Public Safety Answering Points (PSAPs). The CDC is set up to receive, process, dispatch, and monitor all emergency requests for assistance from beginning to end.

The emergency response system comprises several interdependent components, including the public, the 911 telephone system, the CDC, fire rescue, and (if the call necessitates EMS transport) a health care facility. The breakdown of any one of these subsystems can result in the collapse of the entire structure. For example, *call takers* and *dispatchers* are constantly subjected to intense levels of stress; yet they must remain attentive each and every time a call comes in. Without enough resources or proper training, the potential for failure exists at the entry point. Indeed, the outcome of a 911 call literally depends on each of the system components operating optimally at all time.

Background

Important to note that the City of Pompano Beach has been one of the primary PSAPs in Broward County for several decades. Prior to 1986, Pompano Beach Fire Rescue provided its own dispatching services.

- In 1986, the Pompano Beach City Commission authorized then City Manager Bill Hargett to consolidate police and fire communications into a single operation located then at the police 911 center.
- In 1988, Pompano Beach became one of the first municipalities in the county to acquire the assistance of computer aided dispatching (CAD) in its CDC operations. The equipment was subsequently upgraded in 1998 with a multi-million investment.
- In 1999, the Pompano Beach City Commission adopted the merger of its police department with Broward Sherriff Office (BSO). The CDC was part of the package transferred to BSO.

How Does the System Work?

To fairly assess our 911 system, it is necessary to first review each its part of the system in order to understand its intricacies and the challenges we currently face.

Box 4. (Cont.) Dispatch Communications

What happens when a member of the public calls 911 for fire-EMS**?**

1. First, a *call taker* receives the call and instantly categorizes it either as fire or EMS (as long as the caller is not requesting the help of police). At this stage of the event, a new incident is "created" and the information is entered into the CAD terminal by the *call taker*. In no time, the information is relayed to a dispatcher whose task is to alert the fire department.

2. Second, the dispatcher relies on an automated system to advise for "nearest unit response." At this point, the dispatcher activates an audio alerting sequence over the fire department radio system for the appropriate or closest available unit to respond to the emergency.

3. The third phase involves Pompano Beach Fire Rescue. Once alerted by the dispatcher, Pompano Beach firefighters walk – i.e., *turnout* - to their vehicle and announce over the radio that they are *"enroute"* to the scene of the emergency.

4. They then proceed to drive to the emergency and advise "arrival" upon getting to the address dispatched initially by CDC. This travel time segment is affected by a series of factors; e.g., time of day, traffic, bridges, road conditions, weather, time of year, and so forth.

5. Upon arrival on the scene, the firefighters proceed to the side of the patient or the location of the fire and advise the dispatcher accordingly.

6. If it is an EMS incident, medical treatment is the next step in the process. Firefighters will advise the dispatcher that they are driving to the hospital with the patient if said patient requires transport.

7. Firefighters will at some point inform the dispatcher that they have completed the assignment. The dispatcher will then "close out" the call. These times are entered into the computer system for future reference.

In all, systemwide response time is the time elapsing from the time the caller hangs up the phone after talking to the *call taker* until firefighters arrive on the scene – where the caller is located or the event for which the call was made is situated. The system works well when every one of its components performs proficiently.

Box 4. (Cont.) Dispatch Communications

Challenges

In 2002, consolidation of all 911 communication activities into a single "regional" system was brought forth to the voters in Broward County. The measure passed.

In principle, the idea of a regional system concept was sound. A single agency handling all 911-communications throughout the county was seen as cost-effective. Limiting duplication of dispatch centers and neighboring agencies unable to communicate with one another on emergencies were all supposed to be addressed by this consolidation of services.

Unfortunately, the plan didn't work as envisioned. One could argue that the system was made worse. Too many agencies are involved in different aspects of operations without clear ownership and accountability. End-user feedback is not taken into consideration when operational changes are administered. Having the radio manufacturer, Motorola, with all hardware and software rights was not wise.

These issues, combined with a lack of adequately trained personnel, have resulted in a substantial increase in *call processing time:* the first link of the emergency system which Broward County oversees.

Transitioning out of this situation will be challenging, as infrastructure building is costly and personnel training takes time. Dispatch supervisors must be well trained to ensure that fire-rescue functions are being performed effectively. Call takers and dispatchers must have comprehensive technical training, as well as regular stress mitigation/management training. It takes a minimum of six months to one year to adequately train a call taker.

The development of a new 911 system for Pompano Beach is now a top priority. Talks involving sister agencies, Pompano Beach city officials and the fire department staff are underway. Our recommendations will be submitted to the city manager before the beginning of fiscal year 2023.

External Forces. Worldwide disturbances combined with trends in global temperature are becoming more intense. According to the IMF World Uncertainty Index global disruptions are becoming the norm, causing more disruptions in every link forming the global supply chain.[25] The Great Recession, 9-1-1, the Iraq War, SARS, Brexit, Covid-19, the 2020 US elections, and the Ukraine War all happened in the last twenty-two years. What should we expect in the next twenty-five?

Chart 7. **World Uncertainty Index number**
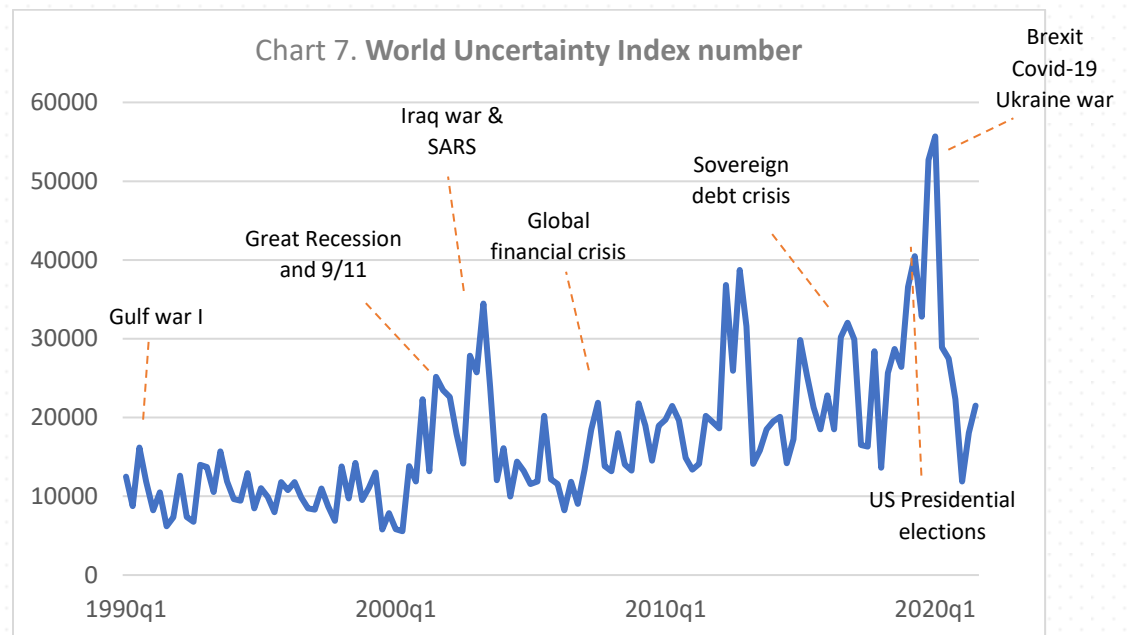
Rising average temperature means not just rising strain on emergency response resources but another layer of difficulty for the economy. There is no reason to assume that the physical effects of more hurricanes, more floods, and a rising sea level will suddenly disappear or even diminish in 2023 and beyond. To some extent, these trends portray futures in which global and national challenges could become incrementally more severe.

The least contested of the trends is that Florida is becoming one of the most populous states in the nation, a development confirmed by the 2020 census:

While 52% of all counties in the nation experienced a decline in population over the last 10 years, with small and rural counties seeing the greatest decline, a majority of Florida counties — nearly all of them in the most populous areas of the state — saw population increase. [26]

This means, we could be in the midst of a major demographic shift toward our region as Florida becomes more and more diverse and more people from other parts of the country make the Sunshine State their retirement destination.

Are we living an economic paradox? Hotel occupancy in Florida plunged in 2020 due to the pandemic. Today, local tourism is back strong; airlines and hotels are increasing their capacity. At the time of this writing (in 2022), the unemployment rate in the region hovered around 3 percent while prices as measured by most indices reached their highest levels in three decades.

Inflation not only lowers the purchasing power in general, but it makes humans behave irrationally – with a tendency to speed up purchases resulting from the belief that "prices are going to continue to rise." This is what economists call inflation expectations: If the population expects inflation to rise next year - say, by 10 percent – actual inflation will increase by about 10 percent.

What about technology? After being on a steady path for half-a-century, is the emergency medical transportation order about to be threatened by new technologies designed to make self-driving vehicles ubiquitous? Or will Uber-Health disrupt the emergency response industry both operationally and financially the same way Uber transformed the Yellow Cab dominance? A growing number of patients appear to prefer virtual care in some circumstances, which was not the case before the pandemic. If this trend sticks, what impact if any will that have on emergency medical transports? On an inflation adjusted basis, EMS transport revenue has been on a downward slide for many years (p.

19, Chart 3b). Making matters worse, the EMS property tax which generates about $7 million annually is capped at .5 mill. Our $9 million EMS budget gap is funded through the general fund. (p. 18, Chart 2).

Infrastructure investment needs, coupled with long-term potential tax base value shrinkage, always threaten municipalities' fiscal health everywhere. In the immediate, our concern however is a return to persistent inflation tied to a severe recession. A combination of rising unemployment[27] and declining property tax for a relatively short period of time could mean fiscal collapse.

Opportunities –The convergence of these trends represents also an opportunity for a new cycle of improvement, another round of progress. Technology will become more advanced and superfluous at increasing speeds in most industries, including in the fire service or the prehospital care sector.[28] Robotics certainly will be disruptive, but the trend will also make firefighting safer, and the industry will be more productive as a result.

Concurrently, as the fire department turns the page with a new generation of firefighters, there is also an opportunity to improve organizational learning, as well as individual thinking on a whole range of other issues. The following six questions were noted in our FY 2022-26 plan; they will remain our focus in the future.[29]

- *How can our directives and procedures be made more rational?*
- *How do we create a workplace environment that is inclusive?*
- *How do we nurture a culture with a sensitivity to human flourishing?*
- *How can our service to the business owner feel less threatening?*
- *How can every patient benefit, not just from our assistance but from our deep sense of kindness?*
- *How can we achieve lasting organizational performance?*

Since March 2020, when the pandemic was declared by the World Health Organization, the city has been experiencing a whole new level of uncertainty. Though the extent of covid-related uncertainties has changed with the creation of the vaccine, the economic outlook remains uncertain.

Recognizing that events beyond our control can give the city no choice but to cut expenses, it's worth reminding ourselves that there is no evidence in the history of public finance where a government agency was able to successfully cut its way to productivity and excellence simultaneously. Although substantial investments have been made in the fire department, the organization endured years of austerity during the 2000s.

Going forward, it would not be wise to recommend cutting expenses to mitigate cost impact resulting from normal operations. One of many lessons of the pandemic is the need to prioritize adaptability/resilience as we continue to alleviate cost. We will refrain from allowing fire department expenses to grow unsustainably by investing in human capital and technology, starting with making good use of data.

Strategy - Strategy means different things to different people. Regardless of one's preferred definition, *good* strategy is always a function of accurate prediction about the future. But how do we sensibly plan when so much seems so uncertain in a changing, muddled environment? While it may be relatively easy to forecast call volume in the short run because we're dealing with a basic time series model, it's not as easy to predict with accuracy from which street in Pompano Beach the next swimming pool incident will come - or the time and date a train derailment will occur. Through the application of fiscally responsible practices, we remain confident that only a well-integrated strategy can prepare Pompano Beach Fire Rescue for uncertain times.[30] Twenty-two years ago, preparedness based on system integration was the main focus of the 9/11 Commission Report. Integration remains today our dominant strategy.

PLANNING FRAMEWORK

This plan establishes Pompano Beach Fire Rescue's goals for fiscal year 2023 through fiscal year 2027. Every effort was made to align the goals/objectives with the city's strategic plan. Indeed, several actions are linked directly to the city plan. While it spells out a strategy, this document is not intended as a financial plan to allocate funding.

- **Strategic goals** are outcome-oriented statements, mid- or long-term objectives that the fire department wants to achieve.

- **Operational (Value-Based) Goals or Targets -** Unlike strategic goals, which are long-term oriented, operational goals reflect the result the fire department is trying to achieve in the short run, and they are tied closely to performance indicators. They are quantitative values that describe specifically what the fire department wants to achieve and by what time period.

- **Performance Indicators** are near-term results/metrics that measure progress toward the goal being pursued. They are numerical values to be tracked regularly through time - to indicate whether we are on track to achieving the intended results.

- **Actions** are steps or initiatives to be taken to accomplish the goal. They provide further details on the approach that will be followed to achieve a desired outcome.

Chart 8. **Fire Department Planning Framework**
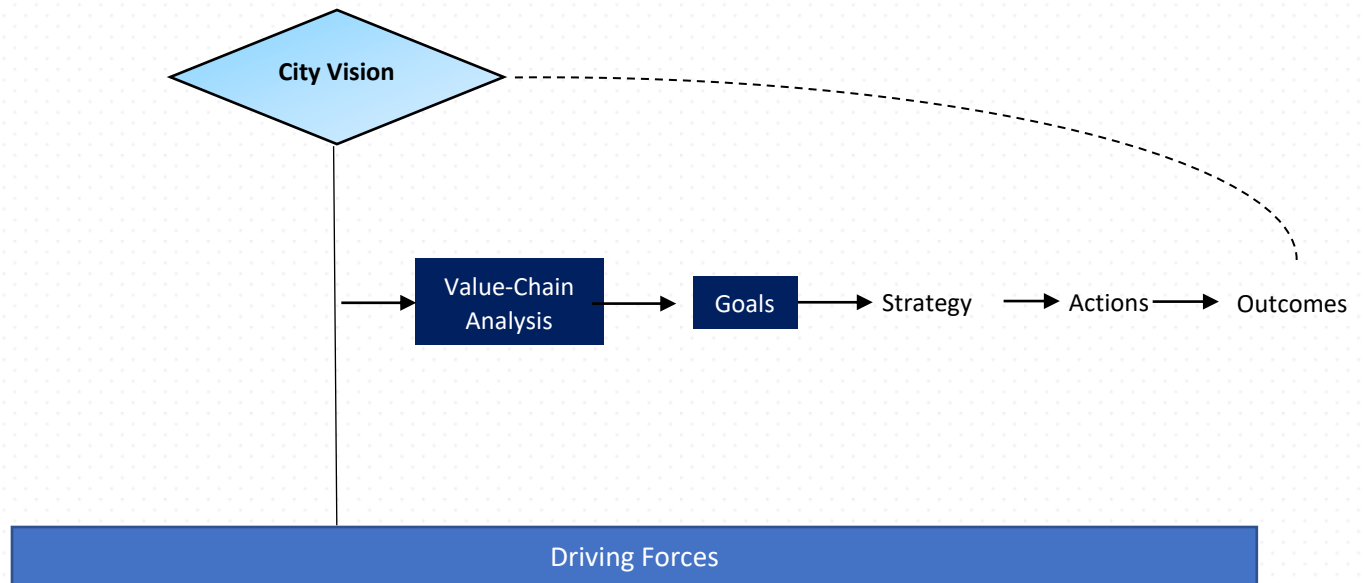
Internal

1. Fire department culture
2. Talent quality
3. Succession planning
4. Financial standing
5. Organizational learning
6. Tangible assets (e.g., facilities, vehicles, etc.)
7. Intangible assets (e.g., reputation, etc.)
8. IT infrastructure
9. Best practice (NFPA standards, ISO rating, CAAS accreditation, CFAI accreditation, etc.)
10. Partnership (e.g., mutual aid and interlocal agreements)
11. Reward system
12. Inventory management

External

1. Global climate
2. Business cycle
3. Social & cultural trends
4. Technology
5. Energy
6. Demographic trends
7. Local economy
8. Public health
9. Geopolitics
10. Regulatory mandates
11. Revenue sharing (state & federal)
12. Bargaining power of suppliers
13. Black swan events

Value-Based Goals

BUDGETING

FIRE TRAINING

BUNKER GEAR CLEANING

FIRE SUPPRESSION

FIRE ACADEMY

BEACH SAFETY

NIMS TRAINING

CARDIAC CARE DELIVERY

Administration

BUDGETING

Overview - A financial plan is developed annually to carry out Pompano Beach Fire Rescue's department's mission through three interconnected priorities:

- Update the fire department's strategic plan to ensure alignment between the city's vision and department goals;
- Ensure city budget procedures and policies are adhered to; and
- Provide budget oversight to determine whether existing programs work or are still needed.

In pursuing these goals, staff interacts with city personnel in ways that are both visible and sometimes hidden from view. During the preparation phase, all budget requests from the department (in March) are considered by the fire chief, who then determines which proposals deserve further consideration for funding. This phase concludes with a presentation to the city manager in May.

In the ensuing months (phase II), several budget workshops are held by the city manager for the city commission (July through August), followed by two public hearings in September. The result is a document that details a plan to fund day-to-day operations (i.e., the operating budget) and a capital improvement plan conceived to fund long-term expenditures or infrastructure projects.

Budgeting and Forecasting – But much of this would be pointless if the budget added no value to what we do. In general, a budget is a mechanism designed to ensure that planned and actual spending are consistent with each other. Budgeting is also known to reflect an estimate of the resources which requires forecasting operations to be carried out. How reliable is that estimate though if it's not done in the context of an outcome-based analysis and an understanding of the wider world in which the department functions?

In a world of preferences and constraints, all decisions involve trade-offs, particularly when choices have to be made. These decisions are as good as the predictions they are based on. They are often wrong mainly due to cognitive biases decision-makers are unable to mitigate. Without relying on a deep reservoir of knowledge and judgment, it is impossible to accurately predict Pompano Beach's call volume on a population adjusted basis three years out. Or whether the US annual rate of headline inflation as measured by the consumer price index (CPI) will be 6% or higher in October 2022. Ultimately, a budget is the challenging task of adding value in an unstable world of preferences and constraints – and forecasting accurately is essential to its success. Good decision-making is therefore imperative. Without that, no organization can develop meaningful budgets. To improve budgeting, we incorporated evidence-based forecasting into our strategic planning in 2022 by giving everyone in the management team the opportunity to share their insight into the external environment on which our success depends.

Value Chain 1.1 Budgeting

Knowledge Development (e.g., analysis of performance and industry trends, familiarity with recent research in public finance, public choice theory, budget development process improvement, etc.)

ICT Development (Integrated information systems for outcome-based practice)

City Staff (Guidelines and policies for budget requests)

	City vision	Forecasting	Internal Factors	Value chain analysis	Outcomes
	"A city of great places and great opportunities by 2036"	Has Pompano Beach entered an era of "peak emergency calls" with occasional spikes? Has Pompano Beach emerged from COVID-19 with new resilience? Will the United States be in a recession in 2023? What is the purpose of Pompano Beach Fire Rescue? How will the fire department remain relevant and competent into the future? How will this fire department remain (or become) economically sound into the future?	Fire department culture Talent quality Financial standing Tangible assets (e.g., facilities, vehicles, etc.) Intangible assets (Reputation, etc.) IT infrastructure Best practice (NFPA, ISO, CAAS, CFAI, ICMA, etc.) Mutual aid and interlocal agreements) Reward system Inventory management	Value Proposition: Rate of change in fire department operating cost not to exceed % change in median household income Goal setting Action plan Oversight	Reassess value proposition(s) Follow up

PRIMARY ACTIVITIES

Goal 1.1 Rate of change in cost per capita not to exceed rate of change in city's median income

Performance Indicator 1.1.ia   Health of US economy (*Measured by inflation and the unemployment rate*)
Performance Indicator 1.1.ib   City tax base *(Taxable value trends)*
Performance Indicator 1.1.ic   Median household income (*Simple 5-year moving average*)
Performance Indicator 1.1.id   Personnel cost (as a share of the budget)
Performance Indicator 1.1.ie   Cost per capita *(Simple 5-year moving average)*

Action	Lead	Funds	Due Date	Status
1.1.i 5-year fire department operating budget update	Lafalaise	n/a	April 2023	③
1.1.ii 5-year fire department strategic olan update[a]	Lafalaise	n/a	Mar 2023	③
1.1.iii Develop diagnostic instrument to integrate performance and budget information	Lafalaise	TBD	Mar 2024	②
1.1.iv Internship program	Lafalaise	$36,000	Oct 2022	②

Challenges/Roadblocks

Long-term effects of the Covid-19 pandemic or a severe recession. Non-approval of human capital investment request.

Project Status
  ④ **SKY BLUE**   *if the action/project has been fully implemented or the milestone is met.*
  ③ **GREEN**   *if the action/project is on track to be achieved according to schedule or target date.*
  ② **ORANGE**   *if no evidence of any progress forward by choice or due to factors beyond our control.*
  ① **BLACK**   *if the action/project has been delayed, put on hold or will be achieved through a different* strategy.
  ⓪ **RED**   *if the action/project has been cancelled or removed from the plan.*

City Strategic Plan Linkage
    a.   *Management in Progress: 5.3.48*

EMERGENCY MANAGEMENT

On March 1, 2004, The US Department of Homeland Security issued the National Incident Management System (NIMS), which incorporates existing best practices into a comprehensive national approach to domestic incident management, applicable at all jurisdictional levels and across all functional disciplines.

NIMS represents a core set of doctrine and organizational processes to enable effective, efficient and collaborative incident management at all levels. To provide the framework for interoperability and compatibility, the NIMS is based on a balance between flexibility and standardization.

NIMS helps prepare the nation for catastrophic disasters by uniting all incident personnel, from on-scene responders to individuals in Emergency Operations Centers (EOC) and senior officials, enabling them to meet challenges beyond the capacity of any single jurisdiction or organization. This nationwide system hinges on a shared understanding of what NIMS implementation entails.

On September 27th, 2005, the city adopted NIMS, providing residents with the shared vocabulary and processes to successfully deliver the capabilities described in the National Preparedness System.

NIMS Value Chain -Emergency Management will conduct an analysis of all of FEMA's current implementation objectives that revolve around the following four categories: General, Resource Management, Command and Coordination, and Communications and Information Management.

The phased implementation approach of the new objectives will involve short- and long-term goals. Not all components involve ICS training of staff. Longer-term objectives for other components will be evaluated for the timeframe of implementation within the 5-year strategic planning process. Outlined below are the performance indicators focused on training components.

Value Chain 2.2 National Incident Management System Implementation

SUPPORT ACTIVITIES

Strategic Planning (FEMA compliance criteria, analysis of metrics, gap analysis, continued short and long-term planning, evaluation and continued process improvement)

Budgeting (Cost-benefit analysis, grant funding, funding needs, allocation of internal resources)

Training – (NIMS/ICS Instructors, training for EOC, ERT and all general employees)

ICT Development (Data monitoring and tracking system, FEMA's National Qualification System (NQS)/ NIMS Information System Indicators)

Logistics (Facilities, adequate audio and visual needs in EOC and teaching facilities)

Assess	Facilitate	Implement	Comply	Evaluate
FEMA Compliance Requirements Analyze and Assess FEMA Implementation Objectives and NQS Assess current situation, gaps and needs pertaining to the City's NIMS Compliance Objectives	Establish requirements based on employee positions and NIMS/ICS roles Provide Coaching Develop Instructors	Provide guidelines Provide Additional Training Incorporate with Human Resources for new employee orientation	Data Inputs Review/ analyze metrics Determine level of FEMA compliance using FEMA's implementation Indicators	Re-evaluate FEMA Indicators Make short-term immediate corrective actions /implement improvements Evaluate and Re-assess across all implementation categories Develop strategic long-term goals and objectives based on evaluations

PRIMARY ACTIVITIES

Goal 2.2 Annual City NIMS Training Compliance.

Performance Indicator 2.2.ia	Annual City NIMS Training Compliance Report – *EOC Staff Category*
Target 2.2.iia	No less than 93% of Emergency Operations Center (EOC) staff credentialed consistent with pertinent NIMS guidance.
Performance Indicator 2.2.iib	Annual City NIMS Training Compliance Report – *ERT Category*
Target 2.2.iib	No less than 85% of Emergency Response Team (ERT) staff credentialed consistent with pertinent NIMS guidance.
Outcome/Performance Indicator 2.2iic	Annual City NIMS Training Compliance Report – *All Employees Category*
Target 2.2.iic	Beginning with the annual report in Nov. '23, measure increased improvement of no less than 25% from previous year on an annual basis for all employees meeting minimum NIMS training requirements.

Action	Lead	Funds	Due Date	Status
2.2.i Conduct analysis of indicators and performance metrics and benchmarks for requirements (all categories)	K. Cristiano		July '22	3
2.2.ii Perform quarterly training compliance analysis	K. Aaron		Quarterly	3
2.2.iii Annual NIMS Compliance Report and corrective actions	K. Cristiano		Annual/Nov.'22	3
2.2.iv Annual NIMS Progress Report (All employees)	K. Cristiano		Annual Nov.'23	3

Challenges/Roadblocks

EOC staff changes that may be often and/or sudden.
Support from Department Heads critical. Time constraints for departments

Project Status
- **4 SKY BLUE** *if the action/project has been fully implemented or the milestone is met.*
- **3 GREEN** *if the action/project is on track to be achieved according to schedule or target date.*
- **2 ORANGE** *if no evidence of any progress forward by choice or due to factors beyond our control.*
- **1 BLACK** *if the action/project has been delayed, put on hold or will be achieved through a different* strategy.
- **0 RED** *if the action/project has been cancelled or removed from the plan.*

Fire Operations

FIRE SUPPRESSION

The single-family dwelling is considered as a structure that measures up to 2000 square feet. It can consist of two-stories, but excludes a basement. Some of the actions that must occur are as follows:

- Establish incident command (one member).
- Establish uninterrupted water supply with a minimum of 400 gpm for 30 minutes maintained by an operator (one member).
- Establish water flow application of 300 gpm from two handlines, with each handline operated by a minimum of two members.
- One support member for each attack and back up line to provide hydrant hookup, assist in hose lines, utility control, and forcible entry.
- One victim search and rescue team consisting of a minimum of two members.
- One team to raise ground ladders and perform outside ventilation.
- If an aerial device is used in operations, one member is assigned to maintain primary controls at all times.
- Establishment of RIC/RIT consisting of two members.
- Request EMS crew for treatment and transport of injured people.

NFPA 1710 references these required benchmarks and outlines the minimum number of personnel needed to safely and effectively operate on scene of a single-family dwelling. The minimum required personnel for a fire of this type is 16 members (17 if an aerial device is used). This count is defined as the effective response force (ERF) needed to safely and effectively manage the risk and magnitude of the incident.

The other governing body of professional measurement is the Center for Public Safety and Excellence, which offers the Commission on Fire Accreditation International (CFAI). This process involves setting and measuring benchmarks in an effort to self-improve. Single family dwellings are identified as a moderate risk within our organization. Below are the main benchmarks used for assessing our likelihood of success on a single-family dwelling structure fire.

Fire Suppression Benchmark Performance - For 90 percent of all fire incidents, the total response time for the arrival of the first-due unit, staffed with a minimum of a firefighter, driver-engineer and officer, shall be 8 minutes in all areas. The first-due unit for all risk levels shall be capable of providing 500 gallons of water and 1,500 gallons per minute (gpm) pumping capacity; initiating command; requesting additional resources; advancing an attack line, each flowing a minimum of 150 gpm; establishing an uninterrupted water supply; containing the fire; rescuing at-risk victims; and performing salvage operations.

These operations shall be done in accordance with agency standard operating procedures, while providing for the safety of responders and the general public. For 90 percent of all moderate risk fire incidents, the total response time for the arrival of the ERF, staffed with a minimum of 14 firefighters and officers, shall be 10 minutes and 30 seconds in all areas. The ERF shall be capable of establishing command; appointing a site safety officer; providing an uninterrupted water supply; advancing an attack line and a back-up line for fire control; complying with the Occupational Safety and Health Administration (OSHA) requirements of two-in and two-out; completing forcible entry; searching and rescuing at-risk victims; ventilating the structure; controlling utilities; and performing salvage and overhaul.

These operations shall be done in accordance with agency standard operating procedures while providing for the safety of responders and the general public.

Value Chain 2.1 Residential Fire Incident Response

Strategic Planning (Station placement and functionality, partnerships, equipment replacement cycles, industry trends and standards, forecasting).

Budgeting (Funding allocation)

Skill Development and Training (Performance objective training/evaluating, report writing, tactic deployment training, water supply and hydraulic principles training)

Logistics (Fire hose, uniforms, bunker gear - primary and secondary sets, and PPE.)

Benchmarks/Evaluation (Turn out and response times)

Prevention	System response	On scene actions	Suppression activities	Reporting and Investigation	Follow up
Fire safety week at schools	911 call processing / dispatching	Initiate rescue efforts	Extinguish fire	Document properly	Reach out to homeowners / occupants after the fire
Extinguisher / Smoke detector giveaways	Resource management	Attack seat of fire	Ventilate	Start investigation process early	Offer list of vetted vendors to help with restoration
Public service announcements	Deploying minimum required units	Secure water supply	Limit damage from crews	Call outside agencies when needed	
Strengthen CRR model	Adequate staffing	Maintain 2 in / 2 out rule (RIT)	Control excess water		Offer support services
EDITH	Rapid scene assessment	Track personnel	Deploy salvage and overhaul in timely manor	Ensure board up begins	
Public outreach through events and NGO partnerships	Initiating initial tactics / actions taken	Follow NIMS	Limit exposure damage	Work with homeowners / occupants on their various needs	Review that all times and values are accurate in fire report (CQI)
		Establish a safety officer	Drain and pack hose and tools		
		Evaluate effectiveness of on scene operations	Decontaminate equipment and gear		

PRIMARY ACTIVITIES

Goal 2.1 Confine the fire to the area/room of origin 90% of the time.

Performance Indicator 2.1.ia   Initial arriving suppression unit within 5 minutes 30 seconds
Performance Indicator 2.1.ib   ERF arriving within 10 minutes 30 seconds

Action	Lead	Funds	Due Date	Status
2.1.i Monthly fire report (NFIRS) review/QA	Hudson	-	End-of-month	
2.1.ii Report monthly on first suppression unit arrival times	Hudson	-	End-of-month	
2.1.iii Report monthly on effective response force (ERF) times	Hudson	-	End-of-month	
2.1.iv Report monthly on structure fires (111 coded) contained to area of origin	Hudson	-	End-of-month	
2.1.v Fire rescue accreditation annual compliance report[a]	Hudson	-	August 2023	🟢3

Challenged/Roadblocks

Project Status
- 🔵4 **SKY BLUE**   *if the action/project has been fully implemented or the milestone is met.*
- 🟢3 **GREEN**   *if the action/project is on track to be achieved according to schedule or target date.*
- 🟡2 **ORANGE**   *if no evidence of any progress forward by choice or due to factors beyond our control.*
- ⚫1 **BLACK**   *if the action/project has been delayed, put on hold or will be achieved through a different* strategy.
- 🔴0 **RED**   *if the action/project has been cancelled or removed from the plan.*

City Strategic Plan Linkage
-     b.   *Management in Progress: 5.3.41*

Logistics

BUNKER GEAR MAINTENANCE

NFPA 1971 protects fire personnel by establishing minimum standards for protective ensembles for structural firefighting and proximity firefighting.[31] These standards specify the minimum design, performance, safety, testing, and certification requirements for structural firefighting protective ensembles and ensemble elements that include coats, trousers, coveralls, helmets, gloves, footwear, and interface components.[32]

Additionally, NFPA 1851 outlines the standards associated with the proper PPE maintenance and limiting the exposure of fire contaminants to firefighters. The NFPA 1851 Standard covers selection, care, and maintenance of structural and proximity firefighting PPE. Currently, two advanced cleanings are required each year, and protective clothing should be subject to advanced cleaning whenever it is exposed to products of combustion. [33]

The contract agreement between the Pompano Beach Professional Fire Fighters Local 1549 and The City of Pompano Beach, Florida October 1, 2019 to September 30, 2022, outlines the fire department's obligations to provide all firefighters with protective gear, in accordance with NFPA standards and other regulatory requirements. In addition to following all regulatory requirements, Pompano Beach Fire Rescue tracks the turnout gear for the purpose of ensuring that all eligible personnel are provided new turnout gear every five years in order to stay in compliance with the NFPA. The preferred procurement method for Pompano Beach Fire Rescue is to utilize piggyback and *co*operative purchasing agreements to save time and achieve more competitive pricing by aggregating the purchasing power.

Accordingly, Pompano Beach Fire Rescue has approximately 215 firefighters that must be equipped in compliance with NFPA codes and standards. Bunker gear clothing consists of the coat, pants, hood, and gloves, and is used as a critical line of defense against the hazardous environment in which firefighters perform their duties.[34] Firefighters are exposed to contaminants that may be flammable, toxic, or carcinogenic. Clean gear provides better protection, and proper cleaning can add to the life of the gear. NFPA 1851 Standard suggests a minimum of two advanced cleanings of bunker gear clothing in a 12-month period, with one of those advanced cleanings occurring at the time of an advanced inspection. The purpose of the advanced inspection is to find gear that has been compromised and perform the necessary repairs. We currently have over 400 sets of gear (including spare sets) that require cleaning and inspection. This process is managed by the Fire Logistics Division.

Bunker Gear Cleaning Value Chain - The firefighter drops off the gear at the logistics facility after it has been exposed to products of combustion and is issued a spare set. Logistics then contacts an outside vendor to pick up the gear and perform both an advanced cleaning and advanced inspection. The gear is returned to the logistics facility after being serviced and the firefighter is contacted to pick it up and return the spare set. The vendor then submits an invoice to Logistics and the payment is processed. A period for annual cleaning is also scheduled with the vendor to make certain that each set of gear receives the required two cleanings per year.

The bunker gear maintenance cost for FY 2021 was over $32,000. Reducing the FY 2023 maintenance cost by 15% of the FY 2021 total is our goal. This will be done by not scheduling bunker gear for the annual cleaning if they already meet the required two cleanings and inspections standard. The cleaning report will track the service of each firefighter's gear and it will be reviewed prior to scheduling the annual cleaning.

Value Chain 3.1 Bunker Gear Management

SUPPORT ACTIVITIES

Knowledge Development (Analyzing results, Research & Development Team report, process improvement)

Budgeting (Cost-benefit analysis, funding needs, allocation of resources, etc.)

ICT Development (Platforms and integrated information systems for outcome-based practice.)

	Regulatory compliance	Departmental policies	Tracking Program	Procurement	Inbound	Follow-up
	NFPA 1971 Turnout Gear lifespan (10 yrs.) code. NFPA 1971	Fire Contract (2019-2022) Article 24: Protective Clothing.	Annual Roster Review/Approval	PIGGYBACK Contract (currently)	Receive, inventory, and record all serial numbered items.	Maintain records of inspection/cleaning of Bunker Gear to ensure regulatory compliance.
	NFPA 1851 Standard on Selection, Care, and Maintenance Ensembles. NFPA1851	Provide a new set of Bunker Gear clothing every five (5) years.	Vendor Sizing in coordination with Fire Training & Logistics.	-Identify quantity to be purchased. -Obtain vendor quote.	Issue Turnout Gear in coordination with Fire Training.	Review Bunker Gear Cleaning Report monthly.
	69A-62.043 Review the cleaning and maintenance procedures of Bunker Gear. SAFETY COMMITTEE			-Request Commission Approval to Piggyback an Outside Agency Contract.		Reduce the FY 2023 Bunker Gear maintenance cost by 15% of the FY 2021 total.

PRIMARY ACTIVITIES

Goal 3.1 Reduce bunker gear maintenance cost by 15%

Performance Indicator 3.1.ia   Annual bunker gear expenditure report.
Target 3.1.ib   FY 2023 expenditure on bunker gear not to exceed $27,000.

Action	Lead	Funds	Due Date	Status
3.1.i Update Bunker Gear Cleaning Report and review it monthly.	Mair	-	Oct 2023	
3.1.ii Update Bunker Gear Expenditure Report.	Mair	-	Oct 2023	
3.1.iii Fire inventory tracking system[a]	Mair	-	Recurring	

Challenges/Roadblocks

Vendor Bunker Gear cleaning and repair price increase due to inflation.

Project Status
- **4 SKY BLUE**   *if the action/project has been fully implemented or the milestone is met.*
- **3 GREEN**   *if the action/project is on track to be achieved according to schedule or target date.*
- **2 ORANGE**   *if no evidence of any progress forward by choice or due to factors beyond our control.*
- **1 BLACK**   *if the action/project has been delayed, put on hold or will be achieved through a different* strategy.
- **0 RED**   *if the action/project has been cancelled or removed from the plan.*

City Strategic Plan Linkage
   a.   *Management in Progress: 5.1.43*

Ocean Rescue

BEACH SAFETY

Ocean Rescue provides surf lifesaving services seven days per week during daytime hours.[35] Currently, there are eight lifeguard towers staffed with twelve lifeguards (including supervisors and lifeguards to cover break) that protect 0.8 mile of the beach in the area designated as the public beach park. This leaves an additional 2.2 miles of beachfront outside of the guarded area that ocean rescue must respond to in an emergency. The ocean rescue and fire rescue response are *integrated* to provide seamless basic life support (BLS) and ultimately advanced life support (ALS) to all water rescue and medical emergencies on the beach.

Readiness - The Ocean Rescue Division is a United States Lifesaving Association (USLA) certified agency. The lifeguards are able to perform surf rescues in most ocean conditions and provide medical care when needed. To maintain a constant state of readiness, all ocean rescue personnel complete mandatory daily physical or medical training exercises. In addition, they must pass the annual USLA requalification test and complete the continuing education units (CEUs) required for bi-annual emergency medical technician (EMT) recertification.

Workload - Although an estimated more than 35 million people attended the beach in Pompano Beach over the past 21 years, there has only been one drowning incident in the guarded beach area.[36] The lifeguards also ensure the beach and adjacent waters remain safe by conducting ordinance enforcements, as well as alcohol and vessel enforcements. In addition, ocean rescue maintains forty-one vessel exclusion buoys from the Hillsboro Inlet to the city's southern border in order to ensure the designated swimming area is kept safe.

Value Chain 4.1 Beach Safety

SUPPORT ACTIVITIES

Knowledge Development (Analyzing results, familiarity with recent literature, training, process improvement)

Planning (Industry analysis, course correction, goal setting, strategy formulation, etc.)

Budgeting (Cost-benefit analysis, funding needs, allocation of resources, etc.)

ICT Development (Platforms and integrated information systems for outcome-based practice.)

Logistics (Supplies and equipment readiness)

Initial lifeguard training	Ongoing training	Prevention	System response	Evaluation
40-hour lifeguard recruit class Focus on daily drills providing recruits with opportunity to understand teamwork USLA objectives required during the 40-hours to verify skills proficiency	Daily workout and training to maintain skills and physical readiness Completion of USLA continuing education training Completion of EMT required CEUs and skills check off Annual USLA skills requalification Bi-annual EMT recertification	Lifeguards on towers Sep-Mar 0845-1645 and Mar-Sep 0845-1845 to perform surveillance of public beach Lifeguards perform public contacts Lifeguards perform preventative actions Lifeguards enforce city ordinances Lifeguard supervisors perform roving patrols on unguarded beach Maintain vessel exclusion buoys	Lifeguards perform first aid Lifeguards perform ocean rescues using rescue buoys, rescue boards, jet skis and boats Lifeguards perform resuscitation on cardiac arrest victims Lifeguard respond to medical and ocean rescue incidents on unguarded beach	Lifeguard recruits complete initial training All lifeguards complete all EMT CEUs and recertification All lifeguards complete USLA training and annual requalification Public contacts, preventative actions and ordinance enforcements are documented Drowning incidents are minimized or non-existent

PRIMARY ACTIVITIES

Goal 4.1 Continually Improve Beach Safety

Outcome/Performance Indicator 4.1ia   Annual drowning incidents
Target 4.1ib   Below national average

Outcome/Performance Indicator 4.1iia   ROSC rate
Target 4.1iib   Above national average

Action	Lead	Funds	Due Date	Status
4.1.i Require that all new hire lifeguards successfully complete our 40-hour lifeguard recruit class.	Wagenhals	-	Recurring	3
4.1.ii Require that all lifeguards successfully complete daily workout and training.	Wagenhals	-	Recurring	3
4.1.iii Require that all lifeguards successfully complete annual USLA water rescue skills requalification	Wagenhals	-	Recurring	3
4.1.iv Require that all lifeguards successfully complete all required CEUs for bi-annual EMT recertification	Wagenhals	-	Recurring	3
4.1.v Replace any missing vessel exclusion buoys annually to maintain swimming safety zone	Wagenhals	-	Recurring	3
4.1.vi Ocean rescue management and operations study[a]	Hohl	-	FY 2024	1

Challenges/Roadblocks

Maintain full staffing of part time lifeguards to provide additional staffing when needed
Meet increased staffing needs during peak beach attendance (e.g. July 4th)
Maintain full staffing of full-time lifeguards – vacant position(s), injury/illness
Delayed response to water and medical emergencies in the unguarded areas of the beach

Project Status
4 **SKY BLUE**   *if the action/project has been fully implemented or the milestone is met.*
3 **GREEN**   *if the action/project is on track to be achieved according to schedule or target date.*
2 **ORANGE**   *if no evidence of any progress forward by choice or due to factors beyond our control.*
1 **BLACK**   *if the action/project has been delayed, put on hold or will be achieved through a different* strategy.
0 **RED**   *if the action/project has been cancelled or removed from the plan.*

City Strategic Plan Linkage
     a.   *Management in Progress: 1.1.39*

Fire Training

FIREFIGHTER TRAINING

Since 2010, Pompano Beach has hired over one hundred firefighters which accounts to nearly half of our current overall combat personnel. Each new hire is assigned to the Training Division for the first eight weeks in order to fine tune their basic firefighting skills and prepare them for combat. Once these probationary firefighters are moved to "shift work", they are monitored and evaluated throughout their first year. Our goal is to promote a conducive

learning environment and identify any deficiencies that may exist in their first year.

Development of new employees is crucial to the success of the fire department and the career of our new recruits. One of several programs that has been developed to assist new employees with their development is mentoring, which was designed to create a communication path between a senior member (Lieutenant) and the recruit. It was also designed to have a mentor assigned to the recruit and meet with them quarterly throughout their probationary year. Although the mentor meets with the recruit quarterly, the aim was to promote a constant line of communication between the officer and recruit to provide an opportunity for the recruit to communicate with the mentor and discuss any issues that may have come up during the previous quarter.

In addition to the mentor program, daily evaluations are conducted during a recruit's probationary year. These evaluations are completed by the officer of the station. This evaluation process enables the officers to monitor the progress that a recruit is making their first year. This also encourage officers to become more engaged with the recruit and monitor their progress more closely, thus allowing us to identify any deficiencies early and time for remediation.

When a deficiency is identified, the Training Division is notified and a Training Improvement Plan is developed for the firefighter. When this plan is activated, the Training Division is intimately involved and the recruit may be re-assigned into Training for extensive remediation.

By having these programs in place, we feel that we are providing a probationary firefighter with every opportunity to acquire and develop the knowledge and skills needed to have a successful probationary year and career with our department. With continuous monitoring and daily evaluations on our new recruits, we believe that our goal is achievable and will assist our firefighters in having a successful career as a firefighter.

Value Chain 5.1 Training and Development of New Employees

SUPPORT ACTIVITIES

Strategic Planning: (Emphasis on Recruit success)

Budgeting: (Funding as needed; resource allocation)

Personnel Development and Training: (training and evaluation process)

ICT Development: (Target Solutions platform to assist with Training and evaluation process)

Hiring process	Recruit class	Shift mentor assignments	Combat assignment	Evaluation
Interviewing qualified candidates Having candidate pass all pre-requisites testing (mega-code, PAT course, Mechanical aptitude test, swimming test)	Eight-week recruit class where recruits are refreshed on medical and fire related skills. Focus on company drills providing student with opportunity to understand teamwork Performance objectives required in the eight weeks to verify skills retention	Recruits are assigned to an officer (Lieutenant) who will act as their mentor	Recruits are placed into Combat and scheduled as a fourth person with an engine company for approximately ten shifts and monitored Recruits then placed on rescue trucks with the expectation of operating as a fully functioning firefighter Throughout the probationary year, fire officers monitor and evaluate recruit's progress	If deficit is determined or identified recruit has a "performance improvement plan" created and he/she **may** be reassigned to Training for remediation. All recruits are required to return to Training quarterly and test on all performance objectives including a written test Any failure of quarterly PO's or written test, recruit will be remediated or potentially terminated

PRIMARY ACTIVITIES

Goal 5.1 Ensure that officers provide proper development and guidance of probationary firefighters.

Performance Indicator 5.1.ia   Daily evaluation feedback for probationary freighters
Performance Indicator 5.1.ib   Monthly performance objective testing through Target Solutions

Action	Lead	Funds	Due Date	Status
5.1.i Officer development programs implemented	Desmond	-	Recurring	4
5.1.ii Quarterly monitoring and testing of recruits.	Desmond	-	Recurring	3
5.1.iii Combat officers submit daily evaluation report on recruit development	Desmond	-	Recurring	3

Challenges/Roadblocks

Project Status
4 **SKY BLUE**   *if the action/project has been fully implemented or the milestone is met.*
3 **GREEN**   *if the action/project is on track to be achieved according to schedule or target date.*
2 **ORANGE**   *if no evidence of any progress forward by choice or due to factors beyond our control.*
1 **BLACK**   *if the action/project has been delayed, put on hold or will be achieved through a different* strategy.
0 **RED**   *if the action/project has been cancelled or removed from the plan.*

FIRE ACADEMY DEVELOPMENT

Many departments in South Florida have expressed their concern with the quality and lack of diversified candidates coming out of the surrounding fire academies. Pompano Beach has acknowledged this and decided to take initiative in correcting these problems.

We decided to start our own fire academy and incorporate a high school program for students that have interest in a career as a firefighter. This project has been met with broad community support, and progress in this venture has already been made.

We currently are certified by the state to hold continuing education classes; however, our goal is to become a fully registered fire academy. Because of the support, we are on track to achieve this goal and host an open house for our new academy in January 2023.

Value Chain 5.2 Fire Academy Development

Knowledge development (Idea generation/development, familiarity with recent literature, fire department diversity and competency need, feedback & input from trusted advisors in and outside the industry)

Validation (Idea testing, customer base for academy, City and partners interest)

Budgeting (Cost-benefit analysis, funding needs, allocation of resources, etc)

ICT Development (Platforms and integrated information systems for outcome-based practice.)

Logistics (Equipment readiness)

Academy Idea	Launch	Scaling	Sustainability	Exit or Repositioning
Concept: Unique institution to fulfill a need. Strategy formulation: competition based on differentiation Pro forma budget and seed financing Operational infrastructure: accounting, online presence, policies and procedures, student manuals…. Administrative, business, regulatory and legal requirements approval.	Strategy and business plan update Exposure, marketing and branding… Student placement, mentoring and leadership center Core executive team profile and culture framing Staffing Academy creation Business model reassessment. Stand-alone division Quarterly expense and revenue reports	Performance: Revenue growth, program cost, voice of the students… Assess relationship – and milestone investments with local partners Upgrade core executive team, Quarterly expense and revenue reports	Performance: Revenue growth, cost, job placement, long-term success, fire department diversity and competency, voice of the students… Profitability through performance Assess relationship with partners Quarterly expense and revenue reports	Has the academy been successful at fulfilling need? If no, exit. If yes, upgrade positioning strategy.

PRIMARY ACTIVITIES

Goal 5.2 Fire academy open house: January 2023

Target 5.2.iia   Fully credentialed fire academy by Dec. 2022
Target 6.2.iib   Core administrative staff in place
Target 6.2.iic   Pompano High School Program in place by 8/23

Action	Lead	Funds	Due Date	Status
5.2.i Continue with the CIE application.	Castro	TBD	Sep 2022	3
5.2.ii Securing foundation of conex boxes and buildout.	Desmond	$100,000	Sep 2022	
5.2.iii Fire academy structure is fully defined.	Brocato	Unknown	Sep 2023	
5.2.iv High school minimum Standards Firefighter program developed.	Desmond	TBD	Aug 2023	
5.2.v Conex training facility[a]	Desmond	-		4

Challenges/Roadblocks

Possible road block could be the CIE application process. This application reportedly takes approximately eighteen months from start to finish. Although we have been working on it, the delay with incorporating could potentially set all listed goals back.

Project Status
- **4 SKY BLUE**   *if the action/project has been fully implemented or the milestone is met.*
- **3 GREEN**   *if the action/project is on track to be achieved according to schedule or target date.*
- **2 ORANGE**   *if no evidence of any progress forward by choice or due to factors beyond our control.*
- **1 BLACK**   *if the action/project has been delayed, put on hold or will be achieved through a different strategy.*
- **0 RED**   *if the action/project has been cancelled or removed from the plan.*

City Strategic Plan Linkage
   a.   *Management in Progress: 5.6.119*

Emergency Medical Service

MEDICAL RESPONSE

Heart Disease - Heart disease is a major health concern in the United States and around the world. Cardiovascular disease is the leading cause of death globally. Heart disease remains the number one cause of death in the United States. The cost of cardiovascular disease is estimated at $363 billion annually. Every 40 seconds someone in America will have a heart attack and every 36 seconds someone will die from cardiovascular disease. There are approximately 400,000 out of hospital cardiac arrests (OHCA) each year with approximately 90% being fatal. Of the OHCA, 70% occurred at home and 18.8% occurred in public. 51% of OHCA are witnesses, 38.3% by layperson and 12.7% by EMS.

Cardiac Care Response – Each year PBFR performs CPR on approximately 120 cardiac arrest patients. The survival of a patient depends on performance and collaboration from several entities. Prevention should remain a high priority within the department's strategy of reducing mortality. The department will continue to educate during EMS week and will establish relationship with external stakeholders in the hopes of finding comprehensive care for individuals who have identified risk factors.[37] Knowing the prevalence of OHCA, the department will continue to emphasize community training on recognizing heart related issues, Calling 911 and hands only CPR. Community recognition of heart related issues and immediate intervention is critical for survival. Survival rates go down 10%, for every minute a person is in cardiac arrest, bystander CPR doubles the patient's chance of survival.

Once a person calls 911, the job of a dispatcher is critical. The dispatcher must weigh the benefits of a fast dispatch vs a dispatch with enough information. Dispatchers continue to train and adapt to find the right balance between time and information requirements. The primary goals of a dispatcher is to get the rescue crew enroute and to have a person on scene begin CPR. Dispatchers must continually train to remain effective at giving fire rescue all the necessary information that is timely and accurate.

Fire rescue crews must remain in a state of readiness. The crews must check equipment and have reliable vehicles that are ready to respond at a moment's notice. Part of being ready is having a working knowledge of the protocols. Crews need to practice working as a team and know their role in a code before arrival on scene. Once crews are notified, they need to respond without delay and take the fastest route available. Crews need to be familiar with the city and know what delays might exist.

Upon arrival, crews need to be familiar with entry points for the address and make patient contact as soon as possible. Once a cardiac arrest has been identified, the crew's priority is great CPR and early defibrillation. Defibrillation involves using electricity to bring back a person's pulse or heartbeat. Crews must work as a team and follow American Heart Association guidelines. Once the patient is ready for transport, the crew must select the closest appropriate facility. In a cardiac arrest, the appropriate facility would be the closest emergency room.

Once crews arrive at the emergency room there needs to be a smooth transition. The EMS crew needs to continue care until the ER staff is ready to take over patient care. The EMS crew will assist the ER staff with transferring the patient. During this transfer, the lead medic will give a complete pass on to the ER staff and will stay to answer any questions that might arise. Transfer of care is not complete until the ER staff has advised they no longer require any assistance from the EMS crew.

Value Chain 6.1 Cardiac Care Delivery Response

SUPPORT ACTIVITIES

Knowledge development (Analyzing results, familiarity with recent literature, training, process improvement)

Planning (Industry analysis, course correction, goal setting, strategy formulation, etc.)

Budgeting (Cost-benefit analysis, funding needs, allocation of resources, etc)

ICT Development (Platforms and integrated information systems for outcome-based practice.)

Logistics (Supplies and equipment readiness)

Prevention	System response	On scene care	Hospital bound	Delivery to hospital	Follow up
Meeting patient at EMS Week events Identifying high-risk individuals	Reliable vehicle and equipment	Quickly recognize code Immediate CPR and defibrillation Initial interventions on scene	Monitoring response to treatment	Continue care in hospital	Providing counseling and information
Promoting risk reduction strategies Referring to government services Community CPR training	Mastering protocol Annual code training	Transport to appropriate facility	Notify hospital Continue care	Give complete pass on	Primary care health maintenance Perform CQI
	Dispatch advise caller to perform CPR				
	Dispatch accurate information				

PRIMARY ACTIVITIES

Goal 6.1 Increase chance of survival for cardiac arrest patients

Performance Indicator 6.1.ia   ROSC rates
Target 6.1.ia   Above national average

Performance Indicator 6.1.ib   Rate of hospital discharge
Target 6.1.ib   Above national average

Action	Lead	Funds	Due Date	Status
6.1.i Hands only CPR classes	McGinnis	-	6/22	②
6.1.ii Continue department education, including BLS, ACLS, and PALS	Whitton	$3,000	Recurring	③
6.1.iii Perform CQI and Monitor ROSC rates	Whitton	-	Recurring	③
6.1.iv EMS Protocol update[a]	Whitton	-		③

Challenges/Roadblocks

Project Status
- ④ **SKY BLUE**   *if the action/project has been fully implemented or the milestone is met.*
- ③ **GREEN**   *if the action/project is on track to be achieved according to schedule or target date.*
- ② **ORANGE**   *if no evidence of any progress forward by choice or due to factors beyond our control.*
- ① **BLACK**   *if the action/project has been delayed, put on hold or will be achieved through a different* strategy.
- ⓪ **RED**   *if the action/project has been cancelled or removed from the plan.*

City Strategic Plan Linkage
   a.   *Management in Progress: 5.4.53*

Planning Timeline

	2021 Oct-Dec	2022 Jan-Mar	2022 Apr-Jun	2022 Jul-Sep	2022 Oct-Dec	2023 Jan-Mar	2023 Apr-Jun	2023 Jul-Sep	2023 Oct-Dec	2024 Jan-Mar	2024 Apr-Jun	2024 Jul-Sep	2024 Oct-Dec	2025 Jan-Mar	2025 Apr-Jun	2025 Jul-Sep
Workgroups formed	■				■				■				■			
Forecasting		■			■	■			■	■			■	■		
ISO/Accreditation		■			■				■				■			
Surveys		■			■	■			■				■			
Value Chain Analyses			■			■				■				■		
Budgeting			■	▓		■	▓	▓		■	▓	▓		■	▓	▓
Workgroups Report				■			■				■				■	
First Draft Distributed				■			■				■				■	
Plan Submitted w/ Budget to CMO				■			■				■				■	
Plan Presented to CM				■				■				■				■
Plan Submitted to Commission				■				■				■				■
Plan Released Online				■				■				■				■
Plan Presented to Employees				■				■				■				■
Status Report					■	■	■	■	■	■	■	■	■	■	■	■

Notes

[1] Sources:

"1918 Pandemic (H1N1 virus)." *Center for Disease Control and Prevention*.
https://www.cdc.gov/flu/pandemic- resources/1918-pandemic-h1n1.html
Smiley, G. "The Great Depression." *Econlib: The Library of Economics and Liberty*.
https://www.econlib.org/library/Enc/GreatDepression.html
"History is repeated in protests at the death of George Floyd." *The Economist*. June 1, 2020
https://www.economist.com/united-states/2020/06/01/history-is-repeated-in-protests-at-the-death-of-george-floyd

[2] CHALLENGE QUESTION
During fiscal year 2023, what will be the level of call volume per 1000 population?

Staff Forecast
- *Less than 247 incidents:* 30% probability
- *Between 247 and 257 incidents: 59% probability*
- *More than 257 incidents:* 11% probability

Panelist Comments
- *"The number of people moving to Florida, and the number of residential units being built at least suggest that we could experience an increase."*
- *"I think call volume will be 250. The increase in COVID news, the slight increase in income and education will help keep numbers down. Numbers will continue to go down as income and education [attainment] rise [in Pompano]."*
- *"330,000 people moved to Florida in 2020, but a significant number has also left the state. A more prescient question is whether this situation will persist well into 2023? This, coupled with a possible recession, creates more uncertainty about the trajectory of call volume in the short term. What's clear is that with the exception of Fort Lauderdale and Pembroke Park, no other city in the Broward County has had a call volume record higher than 247 per 1000 population in recent years. I'll anchor my bet close to 247 for Pompano based on an estimated 113,000 population and 28,000 calls during FY 2023.*
  Sources:
  "A Proclamation on Advancing the Safe Resumption of Global Travel During the COVID-19 Pandemic." *The White House Briefing Room*. October 25, 2021
  https://www.whitehouse.gov/briefing-room/presidential-actions/2021/10/25/a-proclamation-on-advancing-the-safe-resumption-of-global-travel-during-the-covid-19-pandemic/
  Carter S. M. "Almost 330,000 Americans moved to Florida in the past year: Here's how much it costs to live there" *Grow.* May 18, 2021
  https://grow.acorns.com/florida-cost-of-living/
  https://www.miamiherald.com/news/business/tourism-cruises/article255571251.html

CHALLENGE QUESTION:
During fiscal year 2023, will call volume average less than 78 a day?

Staff Forecast
- *Yes: 58% probability*
- *No: 42% probability*

Panelist Comments
- *"Call volume will average 76 calls a day."*
- *"78 calls a day is realistic in the short run, but it all hinges on the pandemic unpredictable path and the state of the world economy. The hurricane season will not be less of a factor. In 2017, call volume climbed well above 78 a day due mainly to Hurricane Wilma. The so-called Uber effect and the fact that fewer people are willing to venture in emergency rooms are trends that are threatening to put downward pressure on call volume."*
  Sources:
  Anderson, M. L. and Davis L. W. "Uber and Alcohol-Related Traffic Fatalities."
  (*NBER Working Papers,* 2021).

CHALLENGE QUESTION:
Will the median household income in Pompano Beach exceed Broward County's median income level in January 2024?

Staff Forecast
- *Yes: 22% probability*
- *No: 78% probability*

Panelist Comments
- *"Income will begin to rise but not enough to bring it over county median by 2024"*
- *Using a historical analysis, this is unlikely to occur without a major shift in our local economy and job market. Education levels also suggest that this is unlikely to occur."*
- *"New construction and rental market surge will allow for more young professionals and younger families to increase faster than county averages."*
- *"Historically, Pompano Beach median household income is less than Broward County. However, demographics are slowly changing"*

CHALLENGE QUESTION:
In October 1, 2024, what will be the share of the Pompano Beach population with a bachelor's degree?

Staff Forecast
- *Less than 25%:   22% probability*
- *Between 25 and 32%:   69% probability*
- *More than 32%:   9% probability*

Panelist Comments
- *"We may see an increase related to the demographics based upon all of the new development occurring in the city."*

- *"The percent of the US population with a bachelor's degree or higher has been rising for decades, reaching 32.1% in 2019. Though the attainment gaps by ethnicity and race continue to be a problem, Pompano's competitive housing market as a sea side town will likely attract high-income retirees from other parts of the country, a significant fraction of whom will be college educated, but this infusion will not be enough to bring the rate up to 32%.*
  Sources:
  Nietzel, M." New From U.S. Census Bureau: Number of Americans With A Bachelor's Degree Continues To Grow." *Forbes.* February 2021.
  https://www.forbes.com/sites/michaeltnietzel/2021/02/22/new-from-us-census-bureau-number-of-americans-with-a-bachelors-degree-continues-to-grow/

[3] To build resilience, we first try to understand past/existing risks (e.g., flooding and Covid-19) and those we have yet to experience. Resilience is defined in this document as our capacity to adapt and recover from shocks, while transforming the fire department's culture and investing in resources to strengthen organizational capacities.

CHALLENGE QUESTION:
What is the likelihood of a flood above 3 feet anywhere in Pompano in 2023?

Staff Forecast
- *Less than 15%:   36% probability*
- *Between 15 and 40%:   44% probability*
- *Between 40 and 60%:   16% probability*
- *More than 60%:   5% probability*

Panelist Comments
- *"We have a good infrastructure for water management through the city. …. That helps to minimize our risk"*
- *"Other predictions show a 73% chance by 2050, therefore it is unlikely by 2023"*
- *"There are 14,802 properties in Pompano Beach that have greater than a 26% chance of being severely affected by flooding over the next 30 years. These properties represent 48% of the total in the city."*
  Sources:
  "Pompano Beach Faces Great Risk from Flooding." *Risk Factor.*
  https://floodfactor.com/city/pompano-beach-florida/1258050_fsid

CHALLENGE QUESTION:
When will the 7-day moving average of daily cases of COVID-19 in the US reported to the CDC fall below 10,000?

Staff Forecast
- *Before October 1, 2022   18% probability*
- *Between October 1, 2022 and March 1, 2023   27% probability*
- *Between March 1, 2023 and October 1, 2023   33% probability*
- *Not before October 1, 2023   23% probability*

Panelist Comments
- *"As of January 2022, "7-day average 122,297 cases…. Cases will spike high and come down quickly, unless new variant emerges."*
- *"There is a good chance that it will drop, but variants may not allow the drop to remain in place"*
- *"As of 1/9/2022 the 7-day average was still climbing. The surge will peak in mid-February and begin to drop a couple of weeks thereafter? The introduction of additional variants could add even more uncertainty and drive a change in the prediction."*
  Sources:
  Leatherby, L and Lutz, E. "Early Data Hints at Omicron's Potential Toll Across America." *New York Times.* January 9, 2022
  https://www.nytimes.com/interactive/2022/01/09/us/omicron-cities-cases-hospitals.html

CHALLENGE QUESTION:
As of October 1, 2022, will Joe Biden commit to releasing crude <u>Strategic Petroleum Reserve</u>   fear of rising oil prices?

Staff Forecast
- *Yes: 60% probability*
- *No: 40% probability*

Panelist Comments
- *"OPEC will reduce production to negate impact, so he will not do it again. Last release had minimal impact."*
- *"Price of crude oil is expected to climb above $100 a barrel by end of year 2022 according to most industry watchers. Will that cause Joe Biden to release an additional 50 million barrels following the 2021 release, something that has happened only a handful of times since the creation of the SPR in 1975? No. It would take a major catastrophe – say, a Black Swan type crisis, a devastating terrorist attack on one of the OPEC members or a category 5 hurricane similar to Katrina – for Biden to make that move again in the middle of a mid-term election"*
  Sources:
  "Crude Oil Prices - 70 Year Historical Chart." *Macrotrends.*
  https://www.macrotrends.net/1369/crude-oil-price-history-chart
  "International oil and natural gas companies reported increased cash flow and higher proved reserves in 2021." *US Energy Information Administration.*
  https://www.eia.gov/petroleum/weekly/
  https://www.eia.gov/analysis/#:~:text=Price%20summary%20%28historical%20and%20forecast%29%20%20%20,%20%203.23%20%204%20more%20rows%20
  Reid, D. "Saudi Aramco reveals attack damage at oil production plants" *CNBC*. September 21, 2019.
 *https://www.cnbc.com/2019/09/20/oil-drone-attack-damage-revealed-at-saudi-aramco-facility.html*
  Gardner, T. and Resnick-ault, J. "What is the SPR, the emergency oil stash Biden is tapping? *Reuters*. November 23, 2021.
  https://www.reuters.com/business/energy/what-is-spr-emergency-oil-stash-biden-may-tap-2021-11-18/

CHALLENGE QUESTION:
What will be Pompano Beach's property taxable value in October 2023?

Property Taxable Value (In Billions of Dollars)
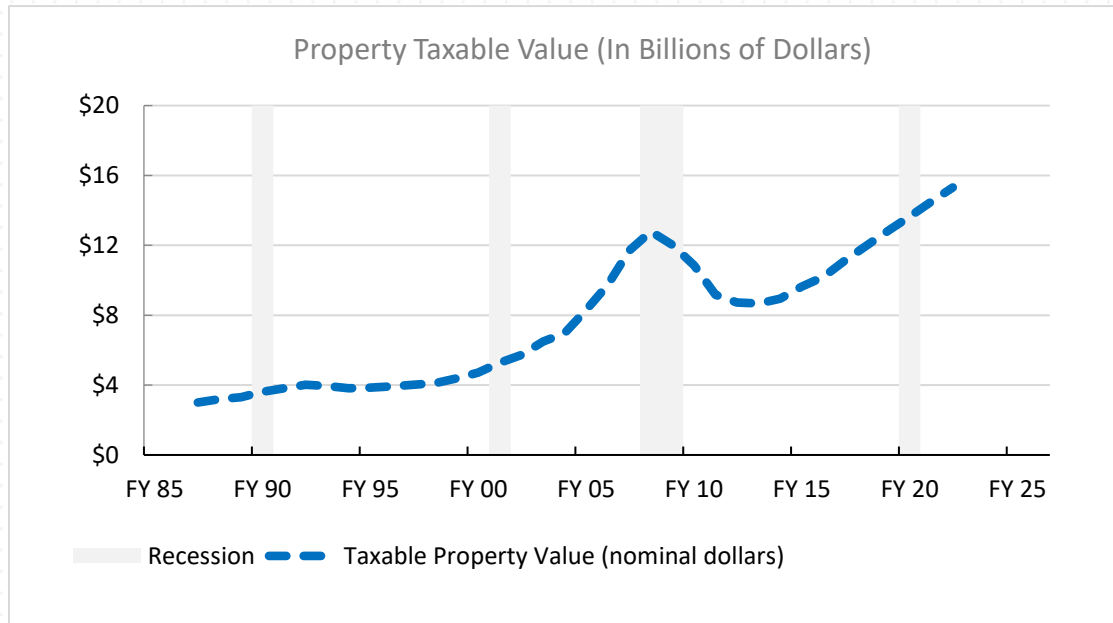
Staff Forecast
- *Less than $17 billion*   *24% probability*
- *Between $17 and $ 18 billion*   *43% probability*
- *Between $18 and $ 19 billion*   *28% probability*
- *More than $19 billion*   *5% probability*

Panelist Comments
- *"The forecasts from other experts is less than $17 billion; however, we have a significant amount of new construction occurring in the city, and that may drive the values higher than anticipated."*
- *"In 2022, property value was estimated at $15 billion, and will grow over the next couple of years due to new construction. Whether the expected growth will translate into $18 billion (20% increase) or $19 billion (27%) in 2023 is the big unknown. Paul Krugman's analysis in the NY Times (January 7, 2022), pointing out that housing inflation will persist, in part due to the way it is measured and reported, makes sense … Therefore, we can expect growth to reflect price inflation as well. The Fed's decision to communicate future interest rate increases will likely serve as a counter measure. Population growth will not be much of a factor since the projected local population is expected to hover around 113,000. Looking ahead, there is no reason to expect* Pompano to experience the same *kind of price growth in the housing sector that many others in the region will continue to experience."*
Sources:
Krugman, P. "The Economic Case for Goldilocks" *New York Times*. January 6, 2022.
 https://www.nytimes.com/2022/01/07/opinion/inflation-2022-us-economy.htm
https://www.nytimes.com/2022/01/06/opinion/inflation-unemployment-economy-growth.html

CHALLENGE QUESTION:

Will the National Bureau of Economic Research declare the US is in a recession by December 2023?

US Recessions Duration (number of months)
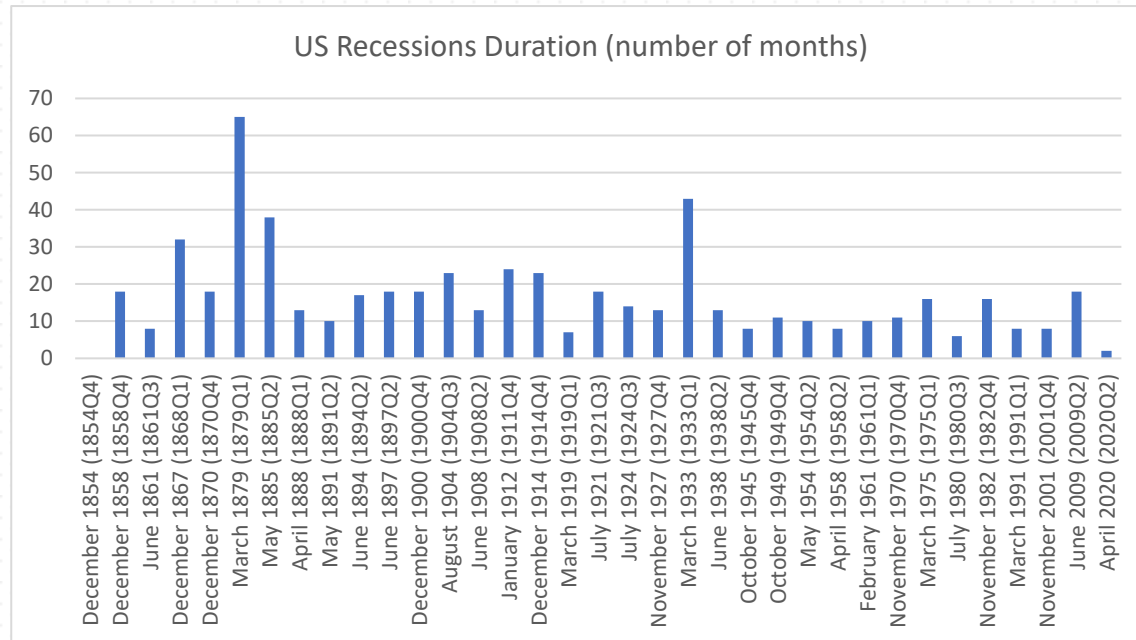
Staff Forecast
- *Yes: 26% probability*
- *No: 74% probability*

Panelist Comments
- *"The new surge of Covid will help to drive this problem. No answers will be found with supply chain issues and a depressed GDP worldwide."*
- *"Fed policy is destiny. The possibility of a recession in the short run hinges on the level of success the Fed will enjoy at combating inflation by tempering market expectations.*
   With the Fed having to play catch up in the fight against inflation, Fed Chair Jerome Powell remains confident the Fed can quell inflation without causing unemployment growth to plummet. "I think there's quite a bit of room to raise interest rates without threatening the labor market," he told reporters back in January 2022 week. But a growing number of economists aren't convinced, indicating that historically, once inflation has started to spiral out of control, the Fed has almost never been able to rein it back in without triggering a recession. The most cited case is what Paul Volcker did in 1980 after inflation had risen to 14% on an annual basis, bringing down both the economy and the Carter presidency. "There have been few, if any, instances in which inflation has been successfully stabilized without recession," former Treasury Secretary Larry Summers wrote in the Washington Post op-ed."
   Sources:
   Timiraos, N. "Fed Interest-Rate Decision Tees Up March Increase." *Wall Street Journal*. January 26, 2022.
   https://www.wsj.com/articles/fed-tees-up-march-interest-rate-increase-11643223603

Weissman, J. "The Fate of Joe Biden's Presidency Is in Jerome Powell's Hands" *Slate.* February 3, 2022.

https://slate.com/business/2022/02/fed-inflation-rate-hike-joe-biden-jerome-powell.html
Summers, L. H. " The Fed's words still don't measure up to the challenge of inflation."
Washington Post. December 16, 2021.
https://www.washingtonpost.com/opinions/2021/12/16/lawrence-summers-fed-inflation/

CHALLENGE QUESTION:
Will the US annual rate of headline inflation as measured by the consumer price index (CPI) be 6% or higher in October 2022?

Staff Forecast
- *Yes: 26% probability*
- *No: 74% probability*

Panelist Comments
- *"The Federal Reserve has been wrong about inflation in 2021. While inflation for the first and second quarter of 2022 can be expected to hover above the Fed's target of 2%, my projection for the last quarter of the calendar year is for the annual CPI to land somewhere within the 2 to 4% range - above Fed's projections."*

[5] CHALLENGE QUESTION:
When surveyed in February 2022, what percent of the fire department employees will agree with the following statement: "Pompano Beach Fire Rescue has a clear purpose"?

Staff Forecast
- *Less than 35%   14% probability*
- *Between 35 and 50%:   13% probability*
- *Between 50 and 65%:   26% probability*
- *More than 65%:   47% probability*

CHALLENGE QUESTION:
If surveyed in February 2023, what percent of the local population will agree with the following statement: "Pompano Beach Fire Rescue has a good understanding of our community needs and values"?

Staff Forecast
- *Less than 35%:   6% probability*
- *Between 35 and 50%:   9% probability*
- *Between 50 and 65%:   33% probability*
- *More than 65%:   52% probability*

[6] CHALLENGE QUESTION:

How many major hurricanes (Category 3 or higher) will threaten South Florida in the 2022 hurricane season, according to the National Hurricane Center?

Staff Forecast
- *0*   *3% probability*
- *1*   *7% probability*
- *2*   *29% probability*
- *3*   *34% probability*
- *4 or more*   *28% probability*

Panelist Comments
- *"We are on borrowed time for a major hurricane. This region is overdue!"*
- *"13–16 named storms, 6–8 hurricanes, 2–3 major hurricanes..."*
- *"As of 2/8/2022 the NOAA 5-day forecast is showing zero hurricane activity in the Atlantic. As we draw closer to the beginning of the hurricane season, things will change. At this juncture (taking an outside view perspective) it's a fair bet to assume that 2 to 3 major hurricanes will threaten the area in the 2022 season."* https://www.nhc.noaa.gov/gtwo.php?basin=atlc&fdays=5

CHALLENGE QUESTION:

Before September 30, 2026, will an open-to-the-public ambulance, ride-hailing service that uses autonomous vehicles without a back-up driver be launched in the US?

Staff Forecast
- *Yes: 55% probability*
- *No: 45% probability*

Panelist Comments
- *"Today, there is no infrastructure to accommodate such vehicles in most major US cities. The main determinant will be the long-term effects of the pandemic on such trends. If self-driving ambulances are deemed safe and can be introduced at significant cost saving, big cities such as Los Angeles, Chicago and New York will make the first move. Medium-size cities will take a while to join in."*
  Ng, A. "Completely driverless cars are being tested in China for the first time" *CNBC.* December 3, 2020. https://www.cnbc.com/2020/12/04/fully-driverless-cars-are-being-tested-in-china-for-the-first-time.html

CHALLENGE QUESTION:

What will South Florida's average temperature be in July 2023?

Staff Forecast
- *Less than 90 degrees Fahrenheit:*   *7% probability*
- *Between 90- and 93-degrees Fahrenheit:*   *60% probability*
- *Between 93- and 95-degrees Fahrenheit:*   *28% probability*
- *95 degrees Fahrenheit or higher:*   *6% probability*

CHALLENGE QUESTION:
During fiscal year 2023, will the average response time for cardiac arrest or chest pain incidents be less than 5 minutes?

Staff Forecast
- *Yes: 43% probability*
- *No: 57% probability*

Panelist Comments
- *"This depends on how you define response time. The travel time should be less than 5 minutes but not the response time. My answer is for travel time."*
- *"With the bigger stations, increased traffic and increased security at homes, the response times will go up."*
- *"Changing traffic patterns, increasing congestion, and population increases will lead to increased travel time."*

[7] CHALLENGE QUESTION:
What will be the rate of change in the fire department operating budget in October 2023?

Staff Forecast
- *Less than 2%   11% probability*
- *3%   39% probability*
- *Between 3 and 6%   43% probability*
- *6% or more   7% probability*

CHALLENGE QUESTION:
What will be the rate of change in the city of Pompano Beach median household income in October 2023?

Staff Forecast
- *Less than 2%:   35% probability*
- *3%:   28% probability*
- *Between 3 and 6%:   29% probability*
- *6% or more: 8% probability*

Panelist Comments
- *"Median income in 2022: $50,643. I don't think it will go up more than 3% by October 2023 but will rise more once construction projects near completion."*
- *"While most forecasts show US Real GDP growth rising to between 5.0 and 6.0 percent in 2022, household income is expected to grow more modestly on an inflation adjusted basis, 2.5%.*
- *"The Federal Reserve has been late to spot the dangers of inflation and is now in a hurry to cool prices which will potentially tip the economy into a slump in 2022 or 2023. Despite some uncertainty beyond 2022 (COVID 19, inflation, a Russia invasion of Ukraine, US midterm elections outcome, the risk of a recession, etc), US median household income should grow about 5 percent (or 2 percent when adjusted for inflation) for both the country and the city."*

CHALLENGE QUESTION:
During fiscal year 2023, will the rate of change in the fire department operating budget be greater than the rate of change in the city's median household income?

Staff Forecast
- *Yes: 50% probability*
- *No: 50% probability*

CHALLENGE QUESTION:
Will the EMS transport revenue share of the EMS budget exceed 25% before September 2024?

Staff Forecast
- *Yes: 23% probability*
- *No: 77% probability*

Panelist Comments
- *"The EMS budget will increase and transports will decrease due to telehealth, poor care at hospital, covid etc. EMS Billing is recovering more but will not go above 25%."*
- *"As a share of the EMS Budget, the EMS Transport fee has been decreasing since 2004 due to a combination of factors, some of which (e.g., Medicare-Medicaid reimbursement covering only a fraction of the actual costs of EMS services) are beyond our control.*
  EMS funding will likely continue to depend essentially on the ad-valorem tax (the EMS Property Tax and the General Fund), making the EMS function therefore more susceptible to economic fluctuations. Unfortunately, as tax revenues slow during economic slumps, fixed costs and service demand do not disappear as demonstrated by the pandemic.
  Operating cost, which is within the department's control, has been rising in the last few years at a much faster rate than the EMS transport fee, even when accounting for the PEMT refund program. This means, without measures intended to control costs, one cannot expect the current trend to change in the near term. And with regard to the long run, one has to wonder whether EMS transport is even going to take place in its current form."

[8] Population density, household income trends, and the state of the economy tend to affect demand for fire-EMS assistance.

[9] Shoemaker, P. J. H., and Tetlock, P. **"**Superforecasting: How to Upgrade Your Company's Judgment" Harvard Business Review. May 2016.

[10] Tetlock, P. E. and Gardner, D. "Superforecasting: The Art and Science of Prediction.*" Crown Publishers,* 2015.

[11] We couldn't develop a plan based solely on the perception of our nine-member team. In addition to forecasting, employee inputs were sought by means of a survey instrument, email exchanges among the management team, and informal chats to build some consensus on the goals we feel the fire department is suited to pursue at this time.

[12] Considered the founder of the modern strategy field, Michael Porter has long argued that the value-chain approach presents organizations with an opportunity to gain/sustain superior performance.

[13] Porter, Michael E. "Competitive Advantage: Creating and Sustaining Superior Performance." *New York: Free Press, 1985. (Republished with a new introduction, 1998.)*

[14] Performing the value-chain analysis was not without challenges. Most people found the process difficult and time-consuming, especially at the level of drivers or determinants.

[15] See The 9/11 Commission Report "The first responders of today live in a world transformed by the attacks on 9/11. Because none believes that every conceivable form of attack can be prevented, civilians and first responders will again find themselves on the frontlines. We must plan for that eventuality. A rededication to preparedness is perhaps the best way to honor the memories of those we lost that day." (Page 323)
https://9-11commission.gov/report/

[16] The consulting firm DMG-Maximus was selected by the city manager to conduct a management study of the fire department.

[17] Plus, one material handling specialist that was transferred to the Logistics Division from Purchasing.

[18] In the 1990s, our logistics operations were run by one full-time material handling specialist and a reassigned light-duty officer. Since fiscal 2008, significantly more dollars have been allocated to fire logistics through the City's normal budget process. Its operating budget averages $580,000 annually since 2018, including funds in personal service accounts which constitute about 40 percent of the division's total operating budget.

[19] Puleo, M. "Fire Chief Awarded for Diversity." *Point Publishing*. June 26, 2018.

[20] The Insurance Service Office (ISO) is a for-profit organization that provides statistical information on fire risk. ISO analyzes data for communities and fire districts throughout the country. They assign a Public Protection Classification (PPC) score between 1 and 10 to the agency, with *Class 1* representing "superior property fire protection" and *Class 10* indicating that an area doesn't meet the minimum criteria set by the ISO.

[21] Additionally, since 2017 the City has been reimbursed $1,507,743 or an average $301,549 a year from the State of Florida Agency for Health Care Administration (AHCA) through the PEMT program, which provides supplemental payments for eligible Public Emergency Medical Transportation (PEMT) to agencies that meet defined requirements and that provide emergency medical transportation services to Medicaid beneficiaries. These payments were made to the City for allowable expenses that were in excess of other Medicaid revenue that it received for emergency medical transportation services to Medicaid eligible recipients.

[22] Lack of succession planning is not a unique problem to this fire department. In a survey conducted before the pandemic, more than half of the members who sat on public company boards stated that they needed to do a better job with CEO succession planning. Below the CEO level, things appear more complicated. Most organizations, according to other surveys, were not prepared for sudden departures despite claiming that succession planning is one of their primary responsibilities. https://www.nacdonline.org/insights/publications.cfm?ItemNumber=66566 .

[23] Through the development of our new fire academy, the fire department intends to increase the share of local minority applicants.

[24] Faccini, R., Melossi, L., and Miles, R. "The Effects of The Great Resignation on Labor Market Slack and Inflation." *Chicago Fed Letter*, Number 465, February 2022.

[25] Ahir, H., Bloom, N. and Furceri. D. "60 Years of Uncertainty" *IMF: Finance & Development*. March 2020.

[26] Klas, M. E., Dasgupta, S. and Wang, K. "Census: Florida defies decline in population growth as nation becomes more diverse." *Miami Herald*. August 12, 2021. https://www.miamiherald.com/news/local/article253441589.html

[27] One of the most watched recession indicators in the US States is the inverted yield curve   yield curve. An inverted yield curve is often interpreted as a sign that the stock market is   expecting a recession.
Benzoni, L., Chyruk, O. and Kelley, D. "Why Does the Yield Curve Slope Predict Recessions?" *Chicago Fed Letter. No 404.* 2018 .
Bauer, M. D. and Mertens, T. M. "Economic Forecasts with the Yield Curve." *FRBSF Economic Letter.* March 5, 2018.

[28] Taylor, J. I. "Bill to Allow Uber and Lyft to Take Medicaid Patients to Docs Passes Florida House." *Florida Politics.* April 11, 2019.

[29] Kahneman, D. (2011). Thinking, Fast and Slow
Klein, G. (2007). Performing a Project Premortem
Sunstein, C. R. (2011). Empirically informed regulation. *University of Chicago Law Review*.
Sunstein, C R. (2019). How Change Happens.
Sunstein, C. R. & Thaler, R. H. (2008) Nudge

[30] Strategy is "the set of long-term choices that an organization makes to distinguish itself   from competitors" (Michel Porter).

[31] The National Fire Protection Association (NFPA) is an international nonprofit organization devoted to eliminating death, injury, property and economic loss due to fire, electrical and related hazards.

[32] The combination of turnout gear with a self-contained breathing apparatus (SCBA), personal alert safety system (PASS) and communications equipment makes it feasible and survivable to enter burning structures.

[33] Florida Rule 69A-62.043 outlines the Duties and Functions of the Safety Committee and Workplace Safety Coordinator. This committee is required to review all safety procedures to protect fire personnel from recognized hazards in the work environment.

[34] Each year, Pompano Beach Fire Rescue brings in new recruiting classes to replenish their ranks. There are, on average, twelve new recruits each year; and they need to be outfitted with clothing, turnout gear, and other essential equipment to perform their duties safely. The cost to outfit a firefighter with clothing and personal protective equipment is over $13,000. This amount   does not include the tools and other equipment they carry during training or on the
apparatus to get to the fire.

[35] September to March 0845-1645 and March to September 0845-1845.

[36] Source: Pompano Beach Ocean Rescue annual statistics.

[37] A life safety educator can emphasize the importance of a healthy life style to include: eliminating smoking, regular exercise, healthy diet, body composition, and the monitoring of cholesterol, blood sugar and blood pressure.