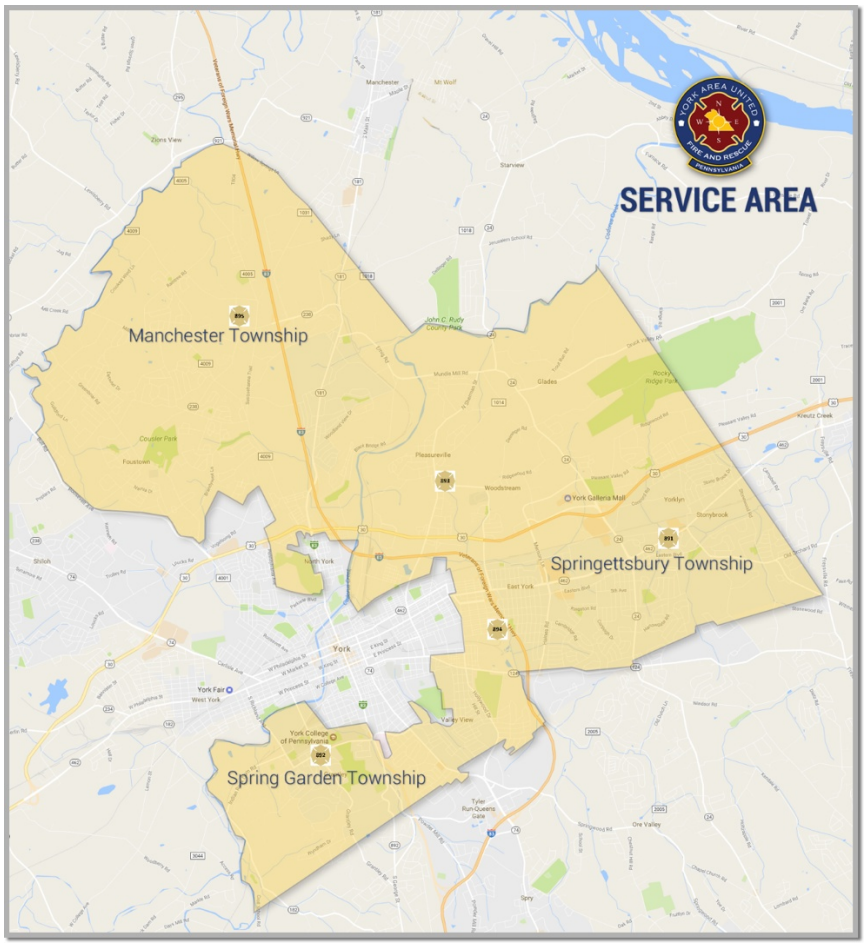
PENNSYLVANIA'S 1ST REGIONAL COMBINATION FIRE DEPARTMENT



Community Risk Assessment & Standards of Cover

2025

York Area United Fire and Rescue

York, Pennsylvania

Community Risk Assessment

Standards of Cover

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Presented to the YAUFR Commission on June 17, 2025

Adopted by the YAUFR Commission on July 15, 2025

Introduction

It is with great pride that I present York Area United Fire and Rescue's Community Risk Assessment – Standard of Cover (CRA–SOC). This document represents our agency's commitment to providing data-driven, accountable, and effective services to the communities we serve.

The CRA–SOC is more than just a planning tool—it is a roadmap that helps us identify the unique risks within our jurisdiction, evaluate our current capabilities, and set clear performance objectives to enhance public safety. By understanding the specific hazards, demographics, and service demands of our community, we can better allocate resources, improve response times, and continually evolve to meet emerging challenges.

This work reflects our dedication to transparency, operational excellence, and our pursuit of accreditation and best practices. I want to thank our personnel, community partners, and governing bodies whose input and support have been vital in this process.

As always, York Area United Fire and Rescue remains committed to protecting life, property, and the environment with professionalism, integrity, and respect.

Sincerely,

Daniel J. Hoff
Fire Chief

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Executive Summary

York Area United Fire and Rescue (YAUFR) developed this Community Risk Assessment – Standard of Cover (CRA–SOC) to strategically align its services with the specific needs and risks of the communities it serves. This document is a comprehensive, data-driven analysis that identifies community hazards, evaluates current response capabilities, and outlines performance objectives for the department. It serves as a foundational component for continuous improvement and accreditation compliance under the Commission on Fire Accreditation International's (CFAI) fire accreditation model.

Community Profile and Risk Assessment:

YAUFR protects a diverse region encompassing urban, suburban, and partially rural areas. The CRA identifies and categorizes risks based on population density, land use, critical infrastructure, and historical incident data. Potential risks include fire, emergency medical services (EMS), hazardous materials, technical rescue, and manmade and natural disasters. Geographic Information System (GIS) mapping, historical activity data, and socio-economic indicators were used to assess community vulnerabilities and resource needs.

Service Demand and Deployment Analysis:

The analysis evaluates historic and projected service demands. YAUFR examined response times, station locations, apparatus availability, and personnel deployment strategies. Baseline performance, including turnout and travel time goals, was compared against internal performance targets. Findings highlight strengths in core service delivery and identify opportunities for service improvements in specific zones.

Standards of Cover and Performance Objectives:

YAUFR establishes clear, measurable performance objectives tailored to the community's risk profile. These include staffing models, response time goals, and incident outcome measures. The agency commits to ongoing monitoring and adaptation of deployment strategies to maintain effective community services.

Strategic Implications and Continuous Improvement:

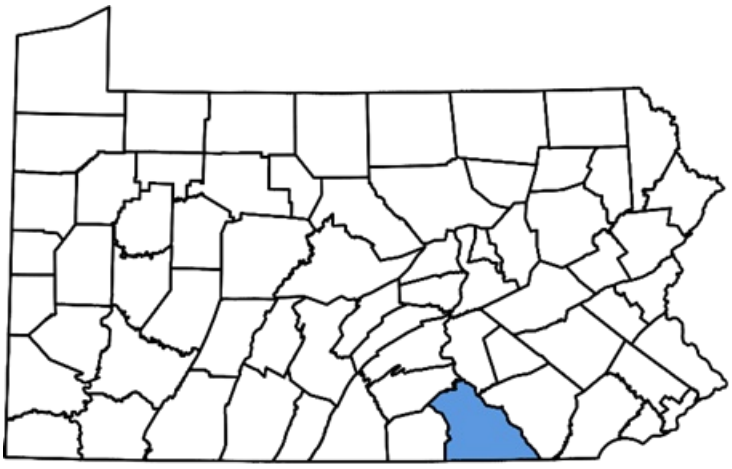
The CRA–SOC supports informed decision-making regarding resource allocation, capital planning, and operational priorities. It also underpins efforts toward accreditation, training programs, and community engagement initiatives. YAUFR's commitment to transparency, accountability, and excellence in public safety is reflected in this dynamic, living document.

In conclusion, this CRA–SOC ensures YAUFR remains proactive, responsive, and resilient in meeting the evolving needs of its service area while maintaining high standards of fire and life safety protection.

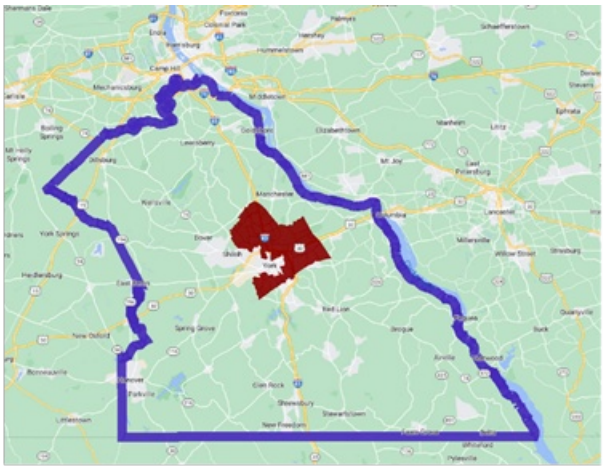
Agency Profile

Agency Summary

York Area United Fire and Rescue provides service to Manchester, Springettsbury, and Spring Garden Townships in central York County in southcentral Pennsylvania. This service area immediately surrounds the City of York, and most of this service area lies within a primary growth zone as designated by the York County Planning Commission. The area enjoys a good mix of residential, commercial, and industrial uses, with the daytime population closely mirroring the resident population. Long-standing written mutual aid agreements were in place between the fire departments immediately surrounding the YAUFR service area and some of the legacy township fire departments, but those agreements were not officially updated after the formation of YAUFR. Under the county-wide communications center, YAUFR provides automatic and mutual aid assistance throughout York County upon request, or by pre-defined response assignments.



York County, Pennsylvania



York Area United Fire and Rescue Primary Response Area

Legal Basis of the Agency

York Area United Fire and Rescue was established as a distinct and separate unincorporated nonprofit association for the purpose of providing regional fire protection to its participating municipalities under the authority of 53 Pa. C.S.A. § 2301 et seq. Springettsbury and Spring Garden Townships, as political subdivisions of the Commonwealth of Pennsylvania, first entered into a Charter Agreement to form the agency on September 6, 2007. This Charter Agreement was amended on October 17, 2017, to include Manchester Township as a third charter municipality. YAUFR is governed by the York Area United Fire and Rescue Commission. The elected bodies of each member municipality, in exercise and discharge of their powers authorized by Article IX of the Constitution of the Commonwealth of Pennsylvania, appoint representatives to serve on the Commission. Two primary and one alternate representative are appointed from each township. A citizen member at large is also appointed to serve a 2-year term. Responsibility to appoint the at-large member rotates between each charter township. The Commission operates under the provisions of the Charter Agreement and its adopted bylaws.

Financial Basis of the Agency

YAUFR operates under an annual budget based on the calendar year. Approximately 91% of the Department's total current budget is derived from direct contributions from member municipalities. The remaining revenue comes from a mix of state and local pension reimbursements, grants, and miscellaneous revenue. The budget is prepared by staff and presented to the charter municipalities for approval during a special joint budget meeting. Once the budget is approved, the charter municipalities share the cost of operation based on a funding formula as defined in the current Charter Agreement. Charter municipalities' contributions are paid bimonthly.

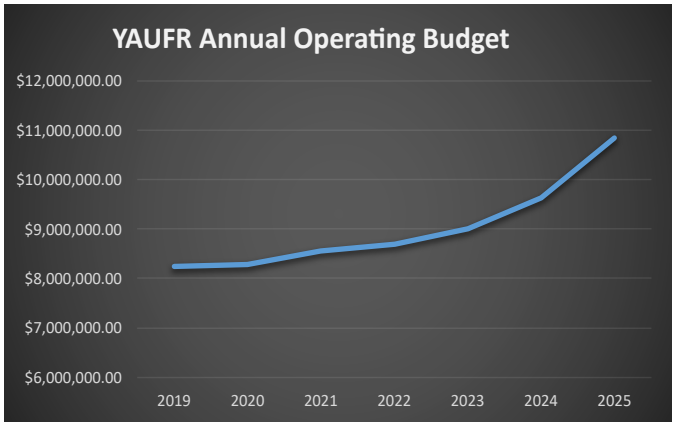


Table 1: YAUFR Budget 2019 - 2025

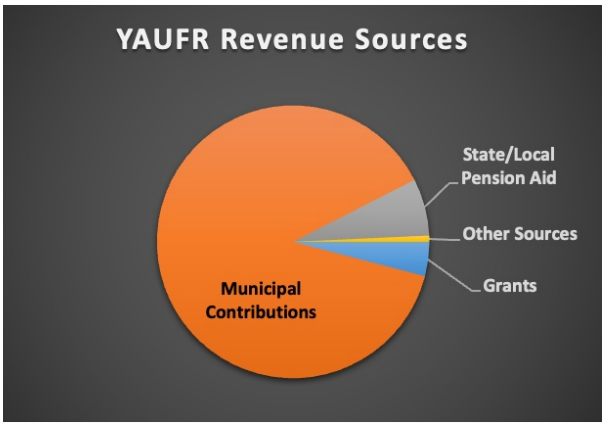


Table 2: YAUFR Budget by Revenue Source

History of the Agency

The elected boards of Spring Garden Township and Springettsbury Township first discussed the sharing of fire service resources in 2004, forming a committee to investigate the viability of creating a combined fire service. In 2005, the first Joint Fire Service (JFS) committee meeting was conducted. With the assistance of both township boards, the township managers, the township fire chiefs, career and volunteer firefighters, and members of the public, work commenced to develop the framework of a regional fire department. The committee was assisted throughout the process by the Pennsylvania Department of Community and Economic Development (DCED).

In 2006 a joint fire services plan was developed. The study was conducted in eight phases to include data collection, interviews, observations, and fact finding, analysis of data, comparative analysis, development of alternatives, preparation of the report and oral briefing. The report covered all facets of the charter municipalities and discussed various consolidation methods.

In 2007, the plan was approved by the JFS committee, and a work plan was developed for the progression of the consolidated department. A charter agreement was approved by the townships, which called for the creation of a Fire Commission, the governing body of the new fire department. The commission was comprised of two members from Spring Garden Township Board of Commissioners and two members of the Board of Supervisors from Springettsbury Township. Additionally, there would be one alternate for each township and a citizen-at-large who would serve a two-year term, with responsibility to appoint the citizen alternating between townships.

In September 2007, the first meeting of the York Area United Fire and Rescue Commission was held. The first fire chief was hired and began work in early 2008. YAUFR officially began operations on May 5, 2008, and the management staff continued to address administrative and operational tasks of the original work plan. The

effective date established York County fire station 89 and the use of individual station numbers from the legacy fire departments ceased. The YAUFR Commission and management staff worked throughout the first year continuing to develop the structure of the agency, and on April 29, 2010, the York Area United Fire and Rescue Commission and the International Association of Fire Fighters, Local 2377, signed its first joint labor agreement.

On September 1, 2011, Manchester Township's fire chief retired, and the Manchester Township Board of Supervisors elected to contract management services from YAUFR as they evaluated joining the regional agency. The sharing of management services and resources continued until January 1, 2018, when Manchester Township officially became the third Charter Member of YAUFR. The YAUFR Commission was expanded to add two additional members from the Manchester Township Board.

History of the Legacy Fire Departments

Springettsbury Township was originally served by two independent volunteer fire companies. Commonwealth Fire Company was organized in 1924 and served the northern area of the Township. Its original station was located in the unincorporated village of Pleasureville. In 1973, a new building was constructed at its current location on North Sherman Street, which now operates as YAUFR Fire Station 893.

Springetts Fire Company was organized in 1926 and served the southern portions of the Township. The original fire station was located on the south side of East Market Street in the 2900 block. In 1959, a new fire station was built in the 3000 block of East Market Street, where it operated until 2014, when the current YAUFR Fire Station 891 opened on Commons Drive.

Career staffing was added by the fire companies around 1959 when paid drivers were hired. In 2001, Springetts and Commonwealth Fire Companies merged to form a single entity in 2001. The Springettsbury Township Volunteer Fire Company operates today under the umbrella of York Area United Volunteer Fire and Rescue.

Basic life support ambulance service was provided by Springetts Ambulance, originally as an offshoot of Springetts Fire Company and eventually as a separate non-profit entity. Springetts Ambulance began providing service to the township's residents in 1956 and began transitioning to a career service in 1978. In the late 1980's, career EMS staff became township employees and remained as such until the township saw fit to start outsourcing EMS service in 2018. The original contract for service was established with White Rose Ambulance, until White Rose was taken over by Life Team, a subsidiary of UPMC.

Spring Garden Township was originally protected by three independent volunteer fire companies. Friendship Fire Company, organized in 1903, was in the Windsor Park neighborhood at the north side of the Township. This station was closed in 1981 to increase staffing at Victory Fire Company. Grantley Fire Company, organized in 1926, is located on the west side of the Township near York College. This station is now YAUFR Fire Station 892, and currently operates from its original location, however, a replacement facility is planned for a site on Indian Rock Dam Road, west of the current location. The building is in the design phase as of early 2025.

Victory Fire Company, organized in 1919, was originally located on Mount Rose Avenue on the east side of the Township. It was relocated to Wheaton Street, where today it serves as YAUFR Fire Station 894. Records indicate at one time a fourth fire company, Tri-Hill, was organized in 1944, but little information is available about its fate. In 1951, the Township formed a fire bureau to oversee the operation of its fire companies. The fire chief and paid drivers became Township employees, and the Township assumed ownership of all fire apparatus.

According to historical accounts, ambulance services in Spring Garden Township were provided by Grantley Fire Company from the company's origin in 1926 through 2022, when Grantley EMS merged with York Regional EMS and West York EMS to form First Capital EMS. Currently, there is no contractual relationship between First Capital EMS and Spring Garden Township to provide EMS service.

Manchester Township was first protected by Alert Fire Company, a private volunteer organization established in 1918. In 1991, the Manchester Township Department of Fire Services was formed, and the career firefighters formerly employed by Alert Fire Company became Township employees. The Department operated out of one fire station, located at 3118 N. George Street in the unincorporated village of Emigsville until 1999. During the 1990's, in consideration of future growth, Manchester Township officials discussed the benefits of construction of a second fire station, to be built at Cousler Park, versus the construction of a single new station centrally located. It was decided that a central fire station would be constructed at the new municipal complex at 3200 Farmtrail Road, and in 1999 all career staffing and primary response apparatus were moved to this location, which is now YAUFR Fire Station 895. The volunteers of Alert Fire Company chose to maintain the Emigsville building, which currently houses a Life Team EMS unit, as well as a utility support vehicle operated by volunteer personnel when they are available.

Figure 1: Emergency Services Timeline

York Area United Fire and Rescue has established Mission, Vision, and Values statements which guide the agency's direction. The statements are reviewed periodically as part of the strategic planning process. They were last revised in 2021 but were reviewed again in late 2024 without revision.

Mission

The Mission of York Area United Fire and Rescue is to serve the community by providing the highest level of comprehensive and timely emergency services.

Vision

York Area United Fire and Rescue strives to be a model, world class, fire department. We accomplish this through our dedication to professionalism, education, training, collaboration, and community involvement. We take pride in supporting the success of all emergency services organizations in our region.

Values

YAUFR is able to provide this level of service by adhering to a core set of values that guide our service delivery:

Commitment to our community, to our service, to each other and to proactive, relevant education;

Professionalism in the performance of our duties;

Honor in placing service before self;

Pride in being a premier provider of emergency services within the region;

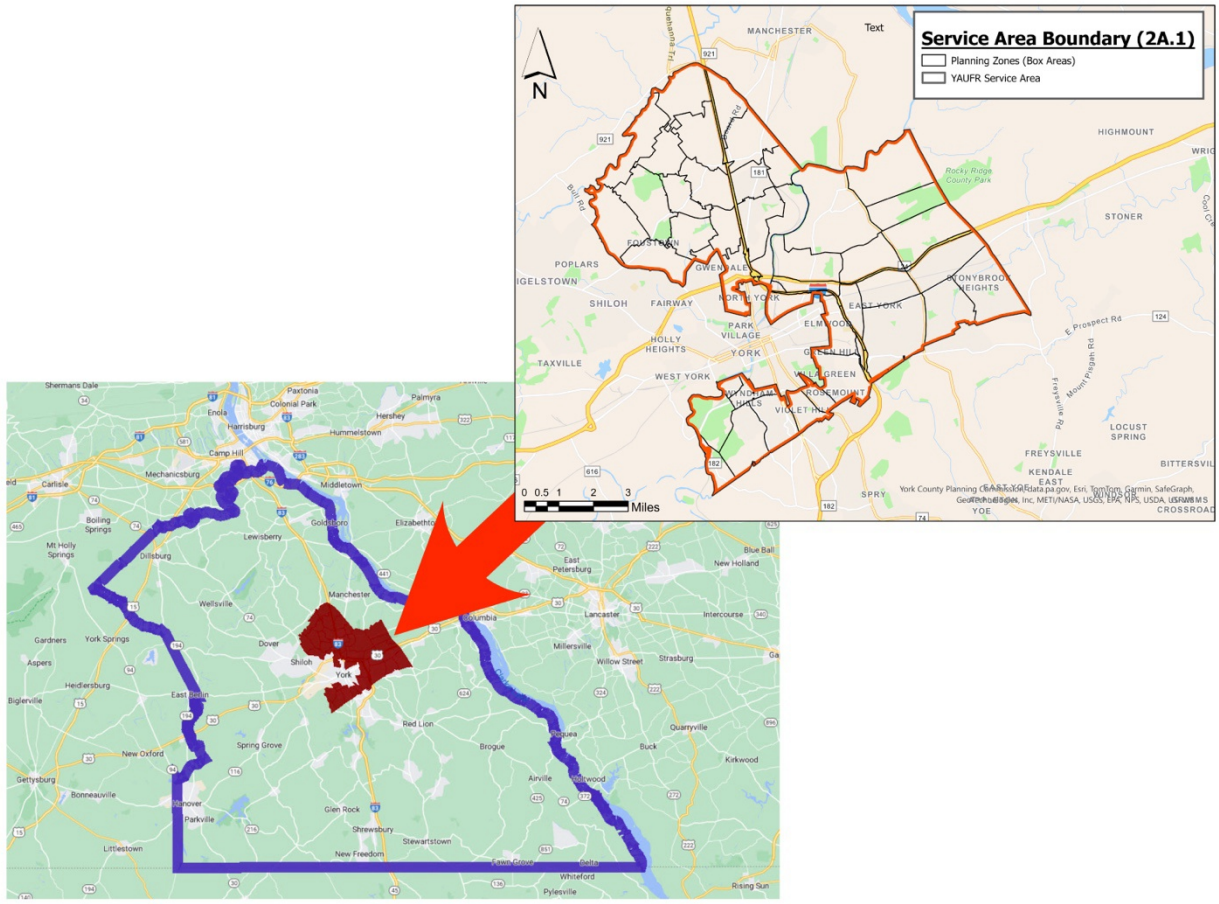
Embrace change and recognize that continuous improvement is necessary to remain the best we can be.

Area Characteristics

Service Area Boundaries

The York Area United Fire and Rescue service area encompasses the legal boundaries of Manchester, Springettsbury, and Spring Garden Townships. The area is bounded by East Manchester and Conewago Townships to the north, West Manchester, North Codorus Townships, and York City to the west, York Township to the south, and Hellam and Windsor Townships to the east. This primary response area encompasses approximately 39 square miles.

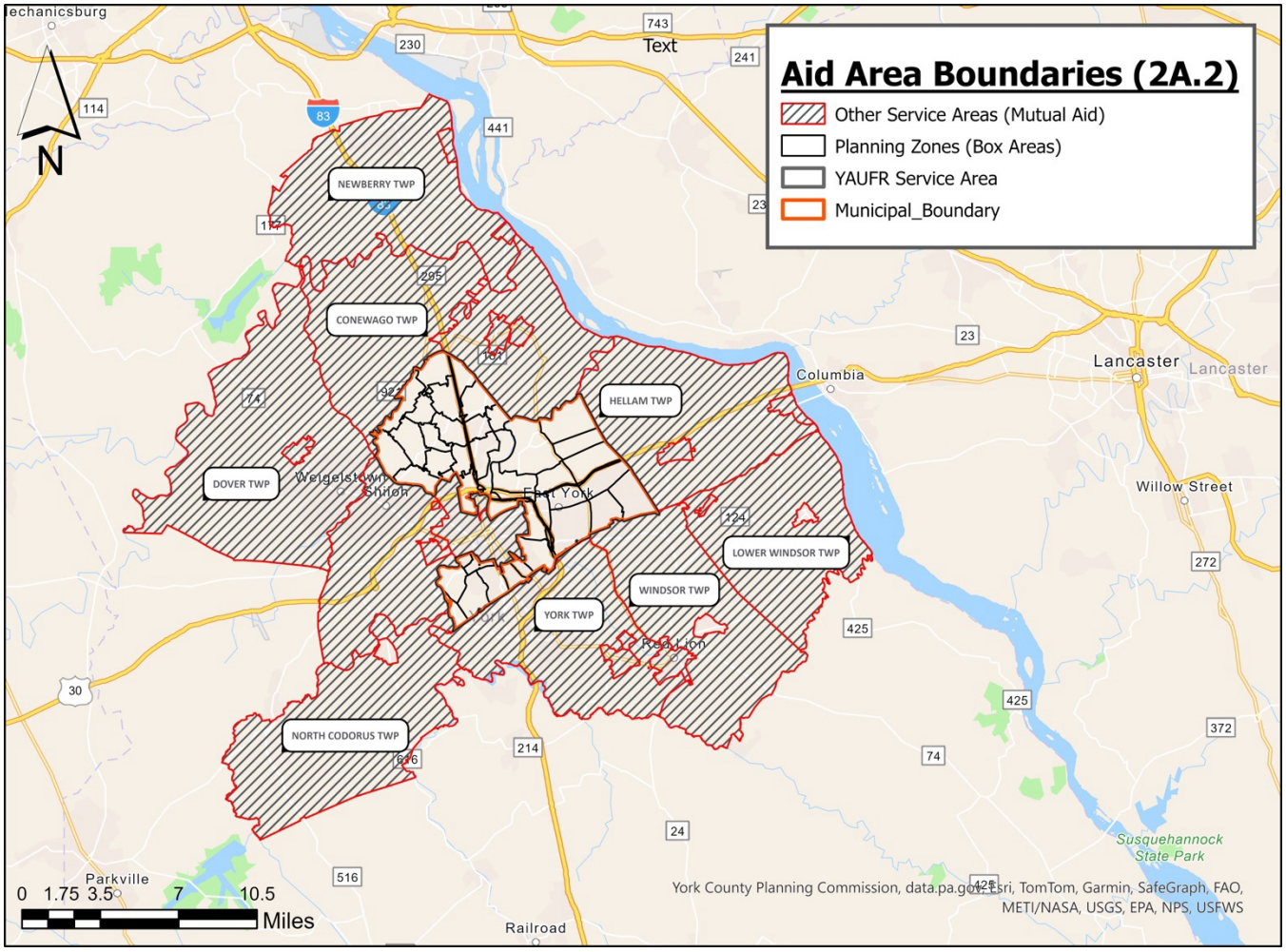
The agency's service area is located in central York County, Pennsylvania. York County is currently the 8th most populous of Pennsylvania's 67 counties. Based on 2020 US Census data, the total resident population of the YAUFR response area is 60,257. This represents an overall 5% increase in population since 2010. The population is projected to continue to grow over the next several years. Residential development projects currently planned or underway support these anticipated growth projections.



Map 2: YAUFR Primary Service Area

Other Service Areas

Through the York County Department of Public Safety (YCDPS) Communications Center, YAUFR units, following established response plans in the computer-aided dispatch (CAD) system, are often called upon to assist with incidents in other jurisdictions, fulfilling automatic or mutual aid requests. While aid requests have occurred throughout York and infrequently into some surrounding counties, Figure 2 shows the location of the most frequent aid responses in relation to the primary service area.



Map 3: Other Service Areas

Community Characteristics

The three townships form the northern, eastern, and southern borders of York City. Areas of the community immediately adjacent to these borders have an urban character, with a mix of high-density residential, as well as commercial and industrial properties. Moving away from city boundaries, the community takes on more suburban characteristics. Areas to the northern edge of the community still retain rural characteristics, as well as the extreme southwestern part of Spring Garden Township, along Indian Rock Dam Road, but new residential and industrial development is starting to change that landscape in many of these areas.

The community is served by two public school districts, Central York and York Suburban. Both districts provide K-12 public education. Combined, there are two high schools, two middle schools, and nine elementary schools. One elementary school from the York City School District is located in Spring Garden Township. Two private K-12 schools are located in the community, as well as several private schools offering elementary-only education.

Manchester Township is located north of York City and is a township of the second class under Pennsylvania Municipal Code. It is generally bounded by the York City and North York Borough to the south, Roosevelt Avenue/Bull Road to the west, the Little Conewago Creek to the North, and the Codorus Creek to the East. It was first settled in 1738 and incorporated in 1742. The township has an overall population density of 1,227.36 people per square mile, encompassing 15.9 square miles, with a population of 19,015 according to the 2020 UC Census data. This represents a 4.7% increase over the 2010 Census and a 49.7% increase over the 2000 Census.

Springettsbury Township is located east of York City and is a township of the second class under Pennsylvania Municipal Code. It is bounded by York Township to the south, Spring Garden and Manchester Townships to the west, East Manchester Township to the north, and Hallam Township to the east. It was settled in 1737 and incorporated in 1891. The township has an overall population density of 1,640.35 people per square mile, encompassing 16.38 square miles, with a population of 27,058, according to the 2020 US Census data. This represents a 1.5% increase over the 2010 Census and a 13.3% increase over the 2000 Census.

Spring Garden Township is located south of York City and is a township of the first class under Pennsylvania Municipal Code. It is generally bounded by York City to the north and York Township to the south, Springettsbury Township to the east, and West Manchester Township to the West. It was first settled in 1750 and incorporated in 1821. The township has an overall population density of 2,024.11 people per square mile, encompassing 6.76 square miles, with a population of 13,683 according to the 2020 US Census Bureau data. This represents an 8.8% increase over the 2010 Census and a 14.3% increase over the 2000 Census.

Demographics and Population

The community as a whole has grown and changed significantly over the past two decades. Across all three townships currently served, the community has seen an average of just over 1% annual growth rate in population, and just under 1% annual increase in housing units. Figure 3 summarizes the community changes since the 2000 U.S. Census. While the population increase is projected to level off significantly, the number of current and pending housing projects to be completed over the next 2-3 years will likely lead to increases higher than the ESRI projections shown.

Further analyzing the population data, 50.5% is female and 49.5% male. The median age of the population is 39.7 years, but 73.7% of the population is either under 18 or over 64 years. The average life expectancy within the community is slightly higher than the state and national averages at 79.2 years. Figure 4 depicts U.S. Census Bureau population data and projections, with comparisons to Pennsylvania and the United States as a whole.

Figure 5 provides a summary of community demographics, using a combination of U.S. Census Bureau and ESRI data. This includes a breakdown of demographics, including population, education, employment, income and housing affordability, age of housing stock, and similar factors. Age of the current population is also shown in comparison to York County, Pennsylvania as a whole.

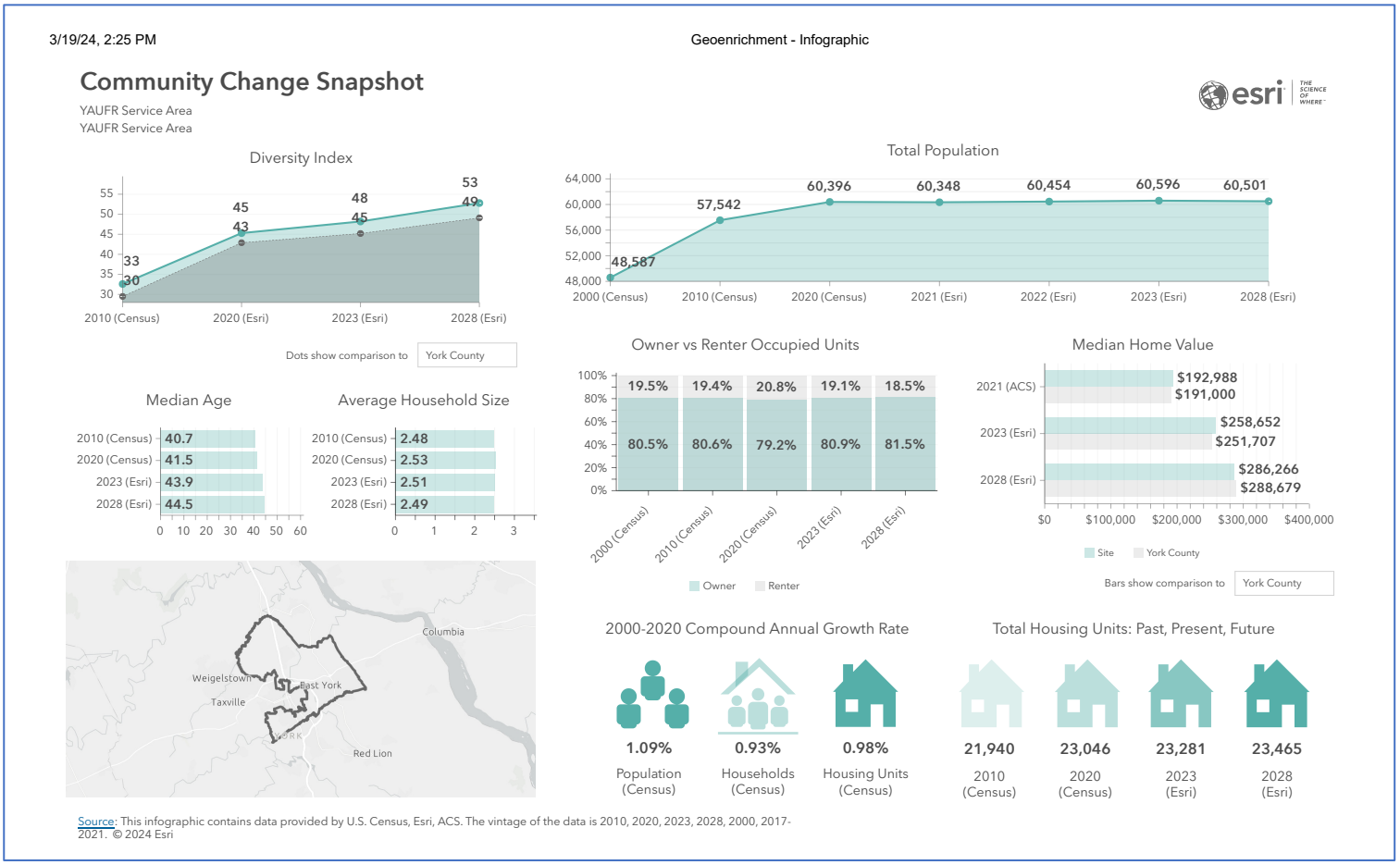


Figure 2: Community Change

Total Population
60,257
People
York Area United Fire and Rescue

12,970,650
People
Pennsylvania

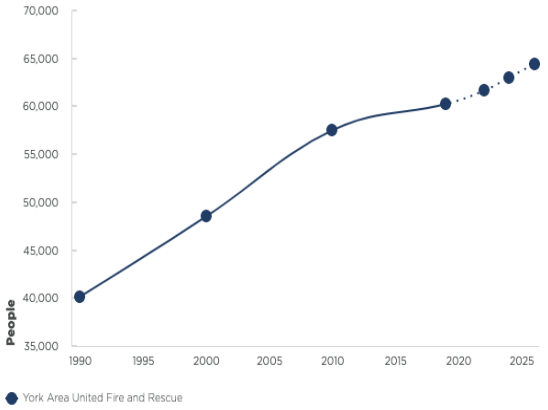
329,725,481
People
United States of America

Total Population (1990)
40,177
People
York Area United Fire and Rescue

11,881,643
People
Pennsylvania

248,709,873
People
United States of America

Sources: US Census ACS 5-year; US Census 1990, 2000, 2010



Sources: US Census 1990, 2000, 2010; US Census 2000; US Census 2010; US Census ACS 5-year

Figure 3: Total Population Comparisons

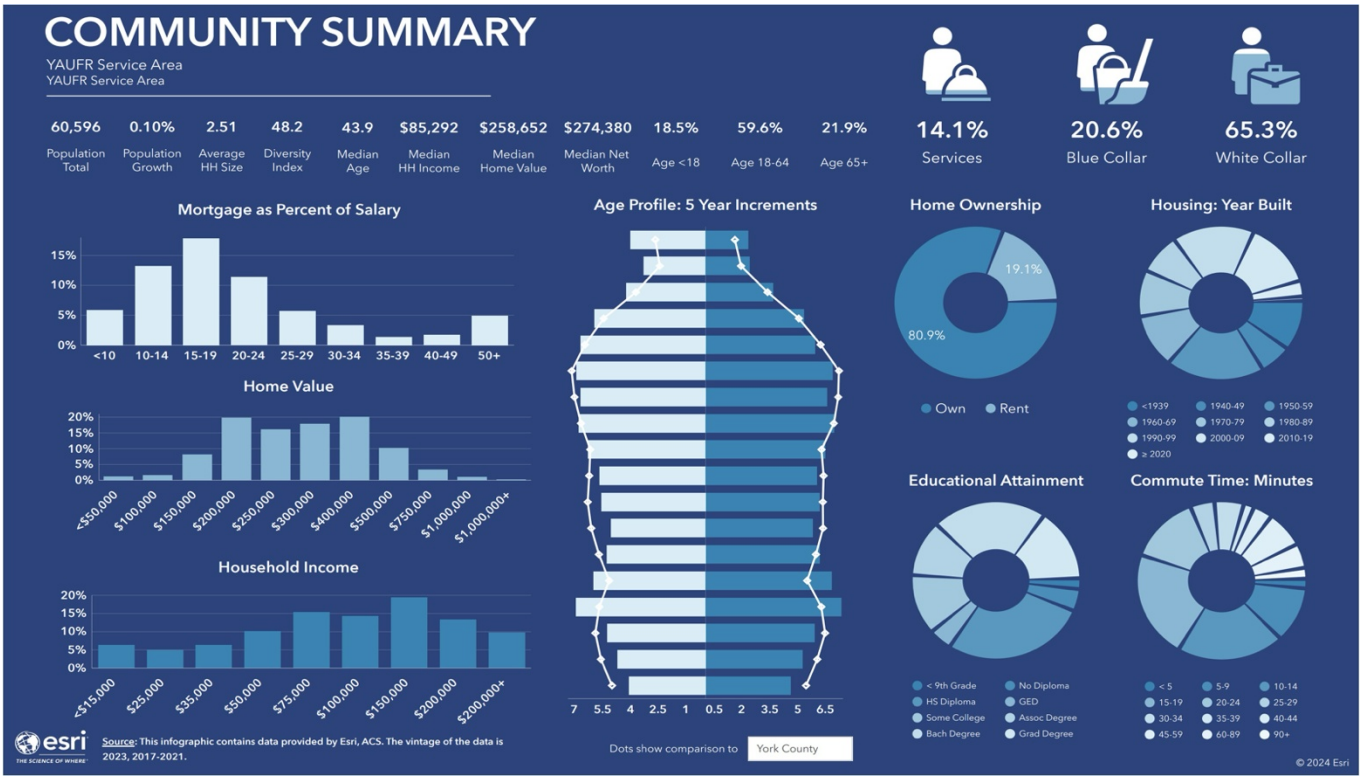


Figure 4: Current Community Summary

Community health impacts quality of life of the population. People with disabilities live in every community. Health and disabilities can affect a person's demand for emergency services and can also impact how they identify and react in an emergency. Figures 6 and 7 provide details of the population with disabilities.

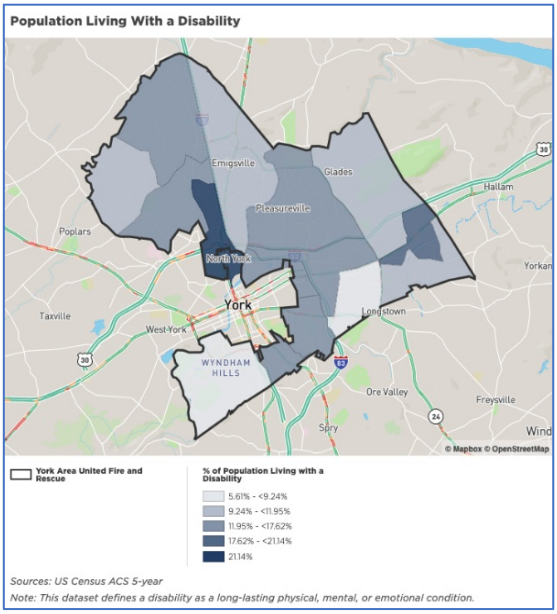


Figure 5: Population with a Disability

Types of Disabilities

Vision-related Disability

York Area United Fire and Rescue	2.41%
Pennsylvania	2.31%
United States of America	2.31%

Hearing-related Disability

York Area United Fire and Rescue	2.84%
Pennsylvania	3.68%
United States of America	3.46%

Cognitive-related Disability

York Area United Fire and Rescue	5.37%
Pennsylvania	5.52%
United States of America	4.77%

Ambulatory-related Disability

York Area United Fire and Rescue	4.02%
Pennsylvania	6.68%
United States of America	6.19%

Sources: US Census ACS 5-year

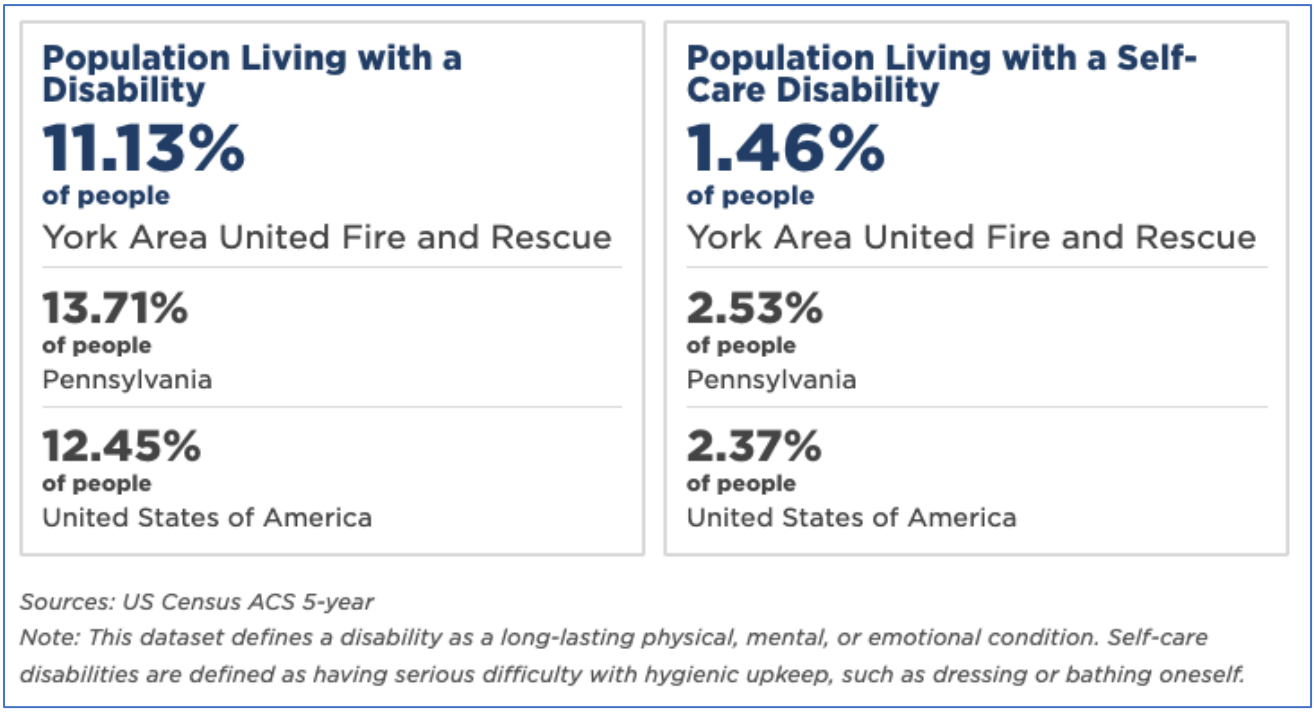
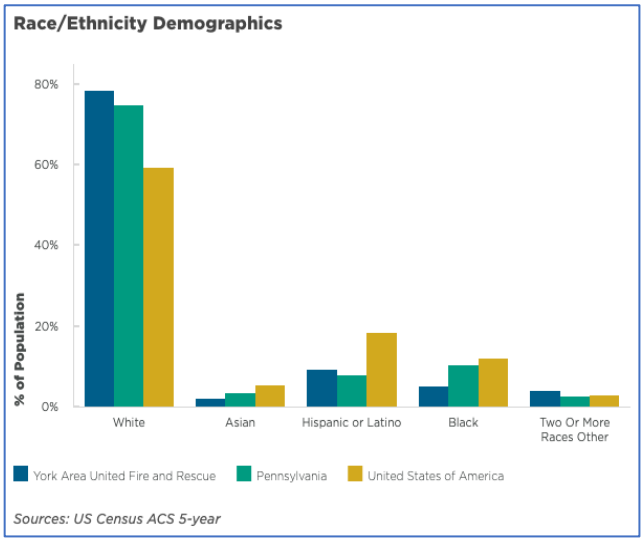


Figure 6: Population with a Disability

The community is less diverse when compared to the rest of Pennsylvania and the United States. Only 5.97% of the population is foreign born. 89.76% of the community speaks English well or as their only language, whereas only 1.34% speak in limited English.



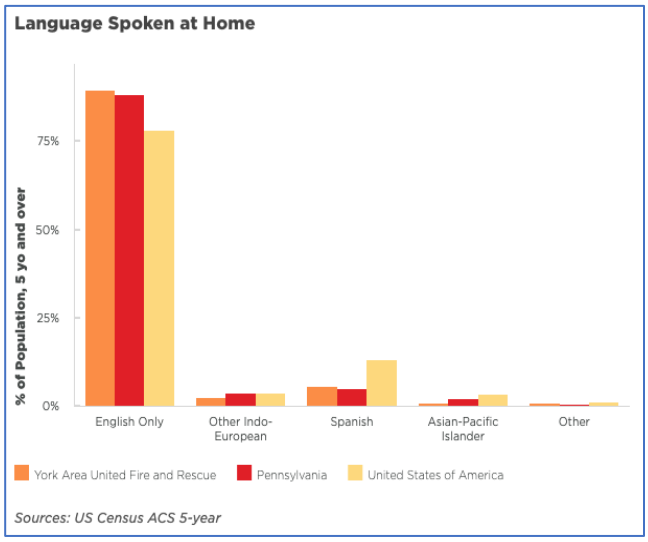


Figure 7: Population Diversity

Planning Areas

All areas within the community are not identical. Some areas contain dense population, others have rural character, and other areas contain predominantly businesses and transient populations. In order to properly assess the characteristics of the community and plan for response to emergencies, it is necessary to break the community down into smaller planning areas for further assessment and planning. YAUFR uses both station response areas and fire box areas for the basis of this analysis. Map 3 shows the fire station response areas.

Station Response Areas

Fire station response areas are the basis for fire and EMS responses in York County. They are used to define the primary response resources for a geographic area. Fire station response areas are based on travel time and distance from the primary fire station. YAUFR currently operates from 5 fire stations.

Station 891: *50 Commons Drive, Springettsbury Township*

Serves the southern portion of Springettsbury Township, predominately south of U.S. Route 30. This station also provides frequent mutual aid assistance to Hellam Township, Windsor Township, and Wrightsville Borough.

Station 892: *918 Virginia Avenue, Spring Garden Township*

Serves the western portion of Spring Garden Township, predominately west of the South Queen Street Corridor. This station also provides frequent mutual aid assistance to North Codorus Township, West Manchester Township, York Township, York City, and West York Borough.

Station 893: *2045 North Sherman Street, Springettsbury Township*

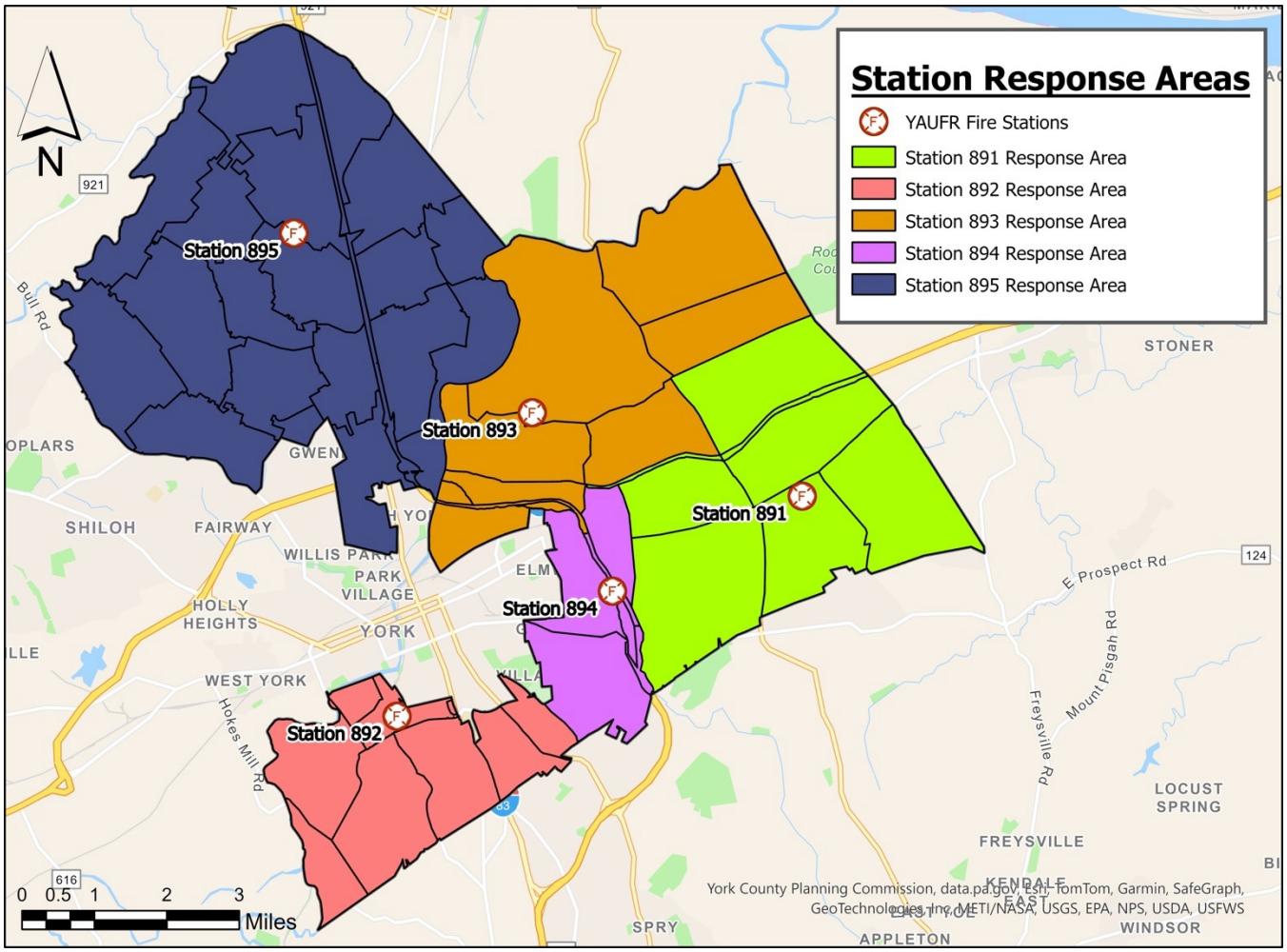
Serves the northern portion of Springettsbury Township, predominately north of U.S. Route 30. This station also provides frequent mutual aid assistance to East Manchester Township and Mount Wolf Borough.

Station 894: *421 Wheaton Street, Spring Garden Township*

Serves the eastern portion of Spring Garden Township, as well as a portion of Springettsbury Township along Interstate 83. This station also provides frequent mutual aid assistance to York Township and York City.

Station 895: *3200 Farmtrail Road, Manchester Township*

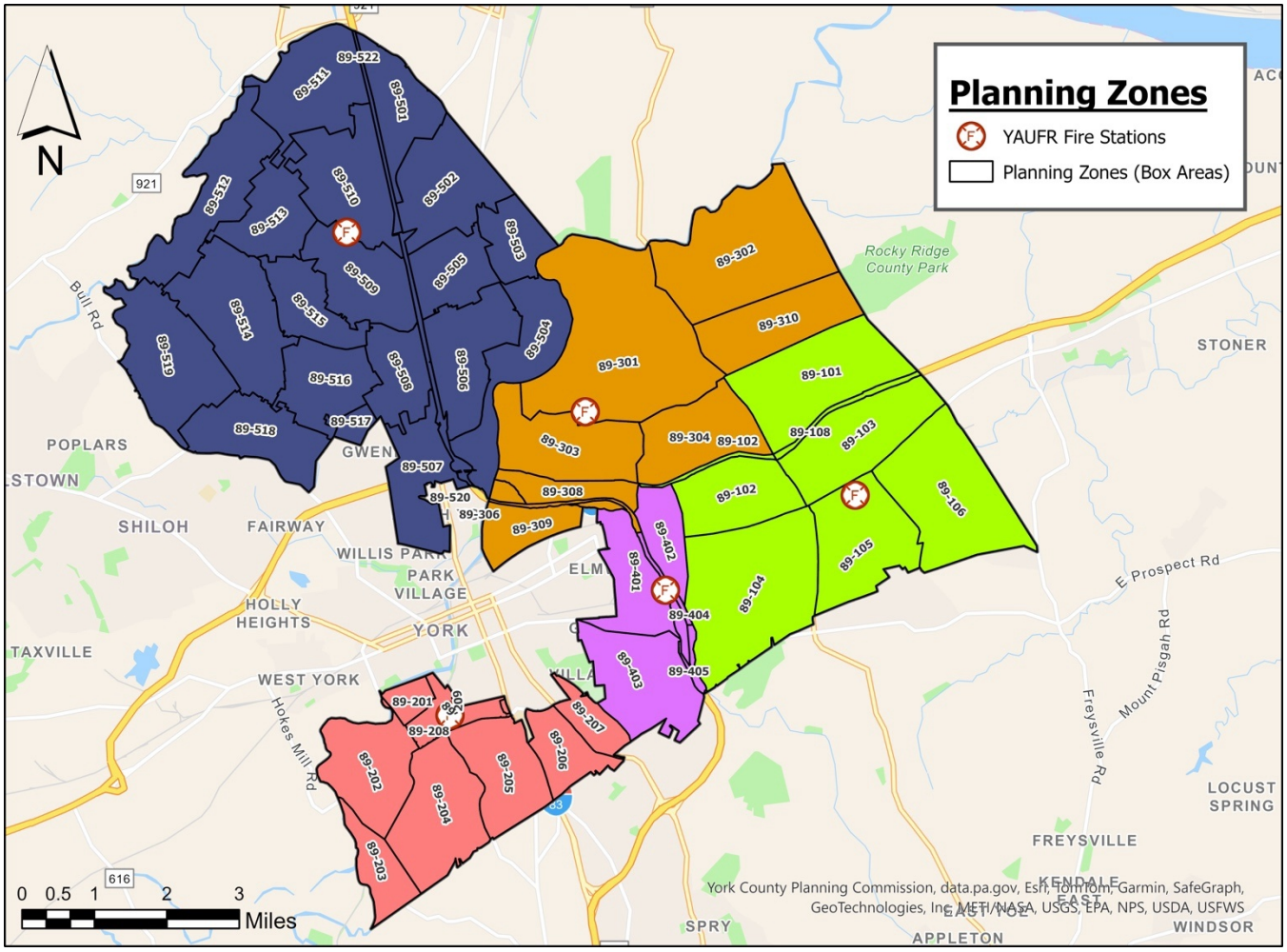
Serves all of Manchester Township. This station also provides frequent mutual aid assistance to Conewago Township, Dover Township, East Manchester Township, West Manchester Township, Dover Borough, Manchester Borough, Mount Wolf Borough, and York City.



Map 4: Fire Stations and Response Areas map

Fire Box Areas (Planning Zones)

The area served by York Area United Fire and Rescue is subdivided in geographical service areas, known as fire boxes. Fire box areas further define a station's response area, grouping together areas of similar characteristics and bound by recognizable geographical characteristics, such as major roadways or bodies of water. Where a boundary is drawn along a roadway, properties on both sides of that road are included in the same box area, to avoid response confusion on that roadway. Fire Boxes are designated numerically using the format "89-101", "89-201", etc. 89 is the department identification number assigned by the county to YAUFR. Box areas in YAUFR station one's area are designated 101, 102, and up. Boxes in station two's area are designated 201, etc. The boundaries of each fire box area are recorded as part of the York County Department of Public Safety's (YCDPS) GIS data, used by the County 911 Center's Computer-Aided Dispatch (CAD) system to assign resources for emergency response. Changes to the fire box boundaries and incident response plans require written authorization by the municipality. All three YAUFR townships have authorized the YAUFR Fire Chief to approve these changes. Map 5 shows the fire box areas.



Map 5: Fire Box Area map

Topography

York Area United Fire and Rescue provides services to a 39.04 square mile area partially surrounding the city of York, in York County, located in southcentral Pennsylvania. This primary service area includes all of Manchester Township (15.9 square miles), Springettsbury Township (16.38 square miles), and Spring Garden Township (6.76 square miles). The area is roughly centered around 39°58'58" N, 76°43'6" W and consists of mostly hilly terrain, varying from gentle slopes to steep elevation changes. Elevation ranges from low points near 325 feet above sea level in the Codorus Creek basin, to high points just over 1000 feet above sea level in the Rocky Ridge Park area of Springettsbury Township, as well as in the Wyndham Hills area in Spring Garden Township. The average elevation of the primary response area above sea level is between 400 and 500 feet. The elevation changes can present challenges during inclement weather, with flooding occurring in low-lying areas during periods of heavy rain, which can frequently affect high-traffic intersections. The hilly terrain also causes response delays during winter weather, due to numerous vehicles stuck on hilly roadways.

Climate

The temperate climate in southcentral Pennsylvania features four distinct seasons, with a wide range of weather. Average temperatures range from a high of 87°F in July, the hottest month, to a low of 22°F in January, the coldest month. The area averages 42 inches of rainfall and 23 inches of snowfall per year. The York Area experiences some form of precipitation about 120 days per year, slightly higher than the nationwide average of 106 days. January or February are typically the driest months of the year, with September being the wettest.

Storms typically approach from the west/southwest, but depending on global weather patterns, approaches from any direction are possible. York County is susceptible to almost every type of severe weather. The most common are thunderstorms, ice storms, and snowstorms. Due to the proximity to the United States East Coast, the area is susceptible to tropical storm systems. On September 7, 2011, Tropical Storm Lee dumped over 10 inches of rain over a 16-hour period. Major snowstorms are capable of 12+ inches of snow. Some of the largest snow events in the York area occurred in 2016 (over 30”), 2010 (18”), 2003 (18”), 1996 (24”), and 1993 (20”). While tornados are possible (the strongest on record to strike the area was an EF-3), straight-line winds occur more frequently. Thunderstorms capable of intense rainfall frequently overwhelm storm water systems, causing flooding of roadways and intersections. Figure 8 shows historical temperature and precipitation data, and Map 6 shows the locations of past sever weather events within the community.

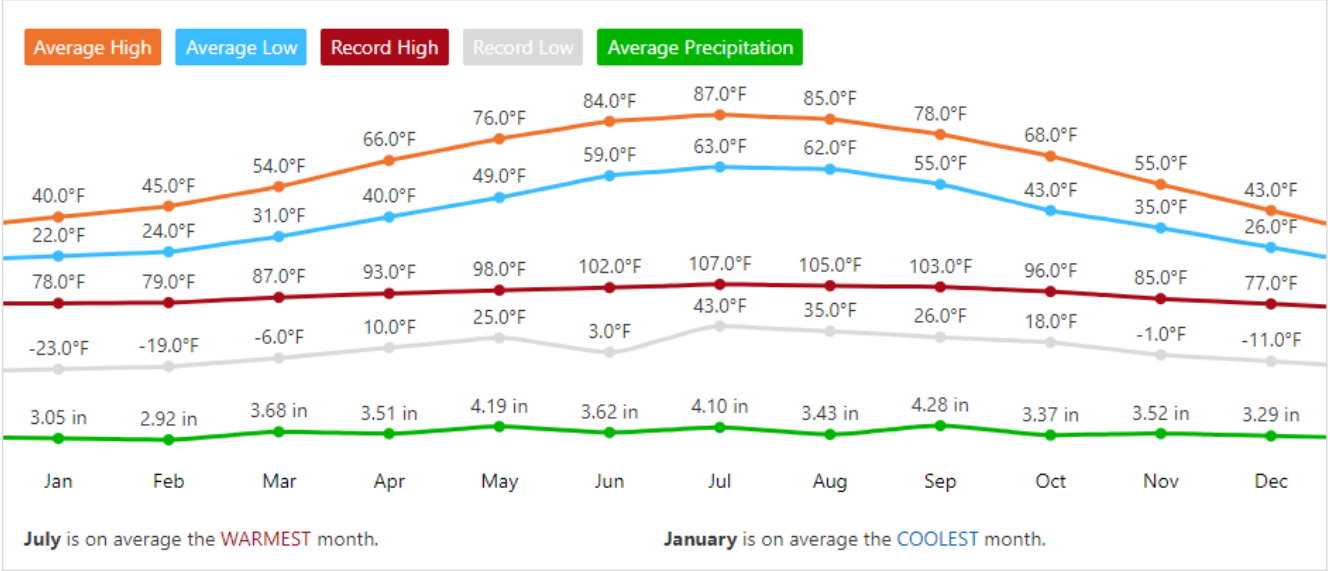
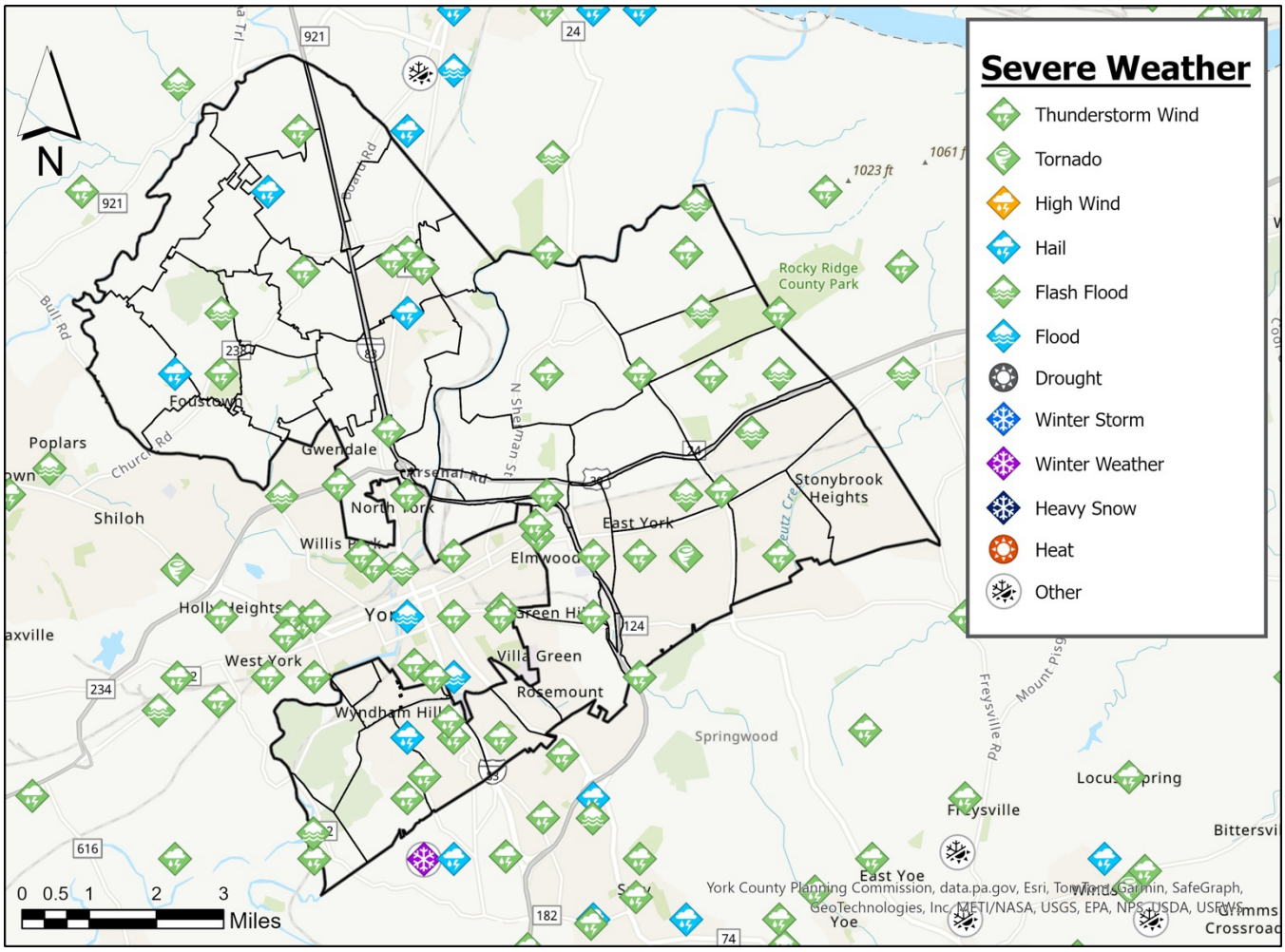


Figure 8: Historical Climate Data

Geology

While there are a variety of geologic and soil types found throughout the community, limestone formations present the greatest potential for community impact. Sinkholes, while not frequent occurrences, have formed and

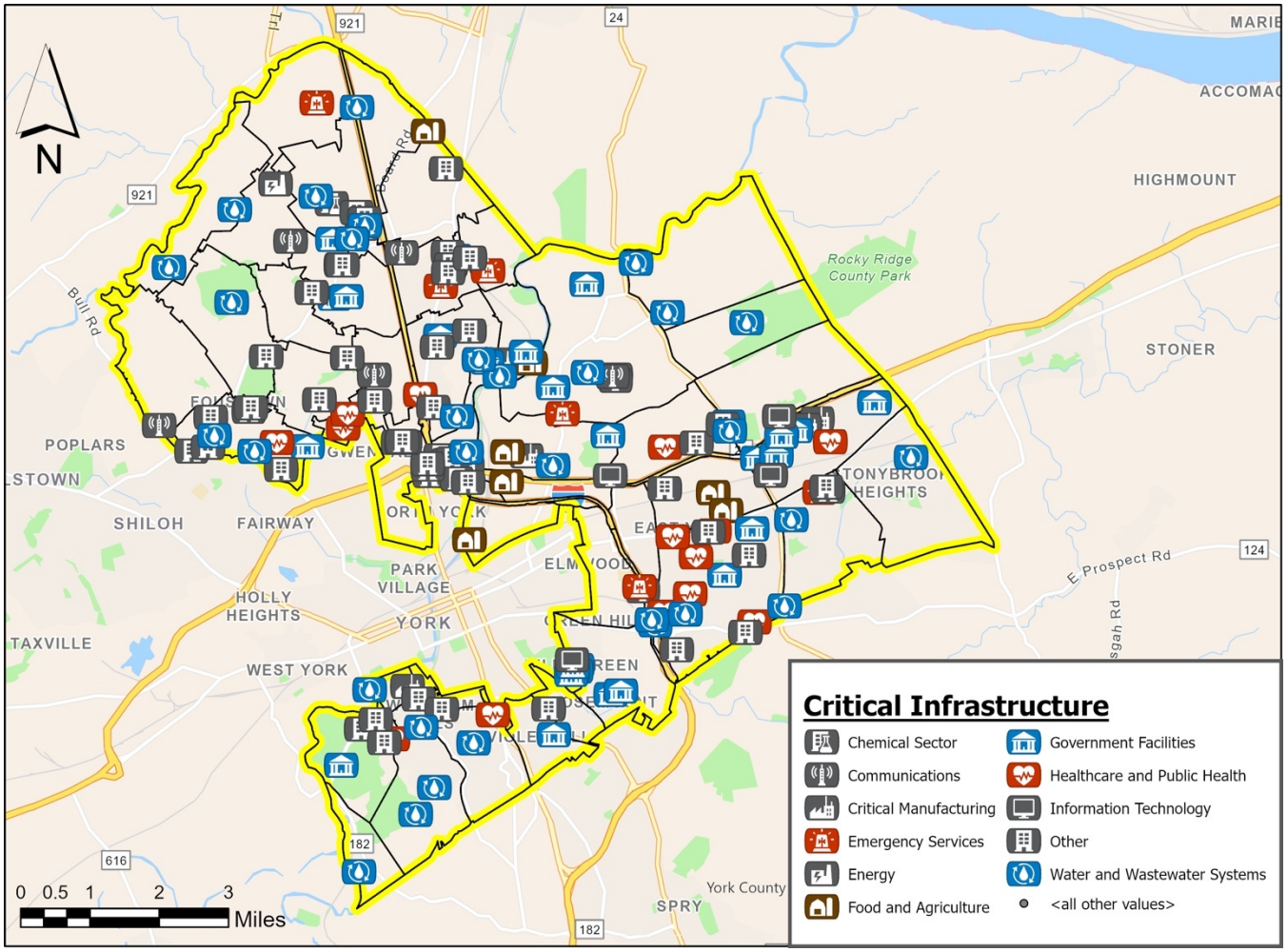
impacted transportation routes. The most-recent occurrence forced the closure of State Street in Manchester Township for approximately one year in 2022-2023.



Map 6: Historical Severe Weather Events

Critical Infrastructure

Every community has infrastructure that is crucial for community functionality. Critical infrastructure includes facilities that are vital to the support and sustainability of the community and sometimes plays an important role in emergency response agencies fulfilling their responsibilities. The U.S. Department of Homeland Security categorizes critical infrastructure into 16 sectors: Chemical, Commercial Facilities, Critical Manufacturing, Dams, Defense Industrial Base, Emergency Services, Energy, Financial Services, Food and Agriculture, Government Facilities, Healthcare and Public Health, Information Technology, Nuclear, Transportation Systems, and Water and Wastewater Systems. YAUFR has identified critical infrastructure from 14 of these 16 sectors within the protected community. Map 7 provides a map of the identified critical infrastructure locations, excluding transportations systems, which are detailed separately in sections that follow.



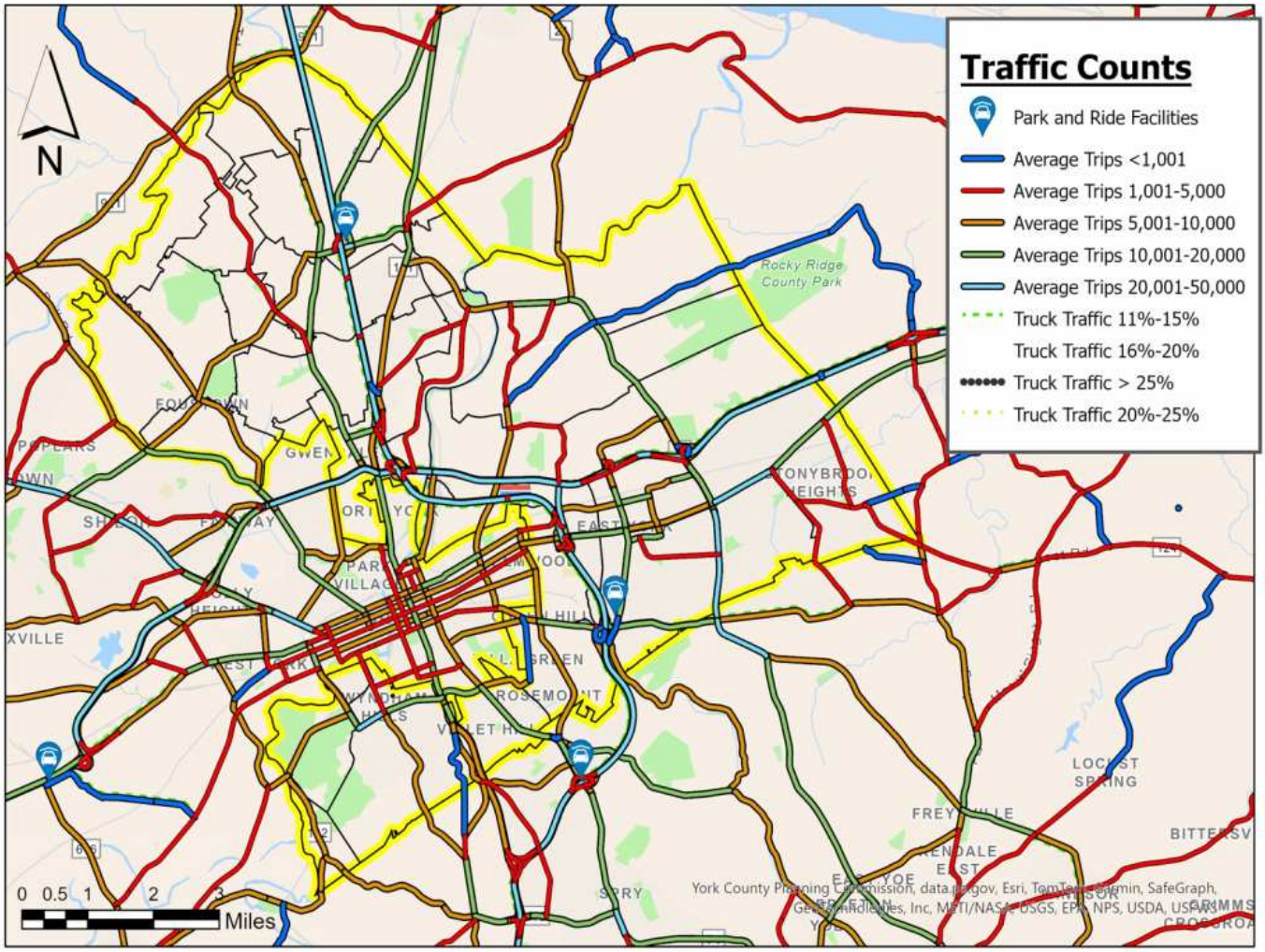
Map 7: Critical Infrastructure

Transportation Systems

The metro-York area is served by a transportation network consisting of streets and highways, freight rail lines, public bus transportation, and a mixed-use rail trail system. Interstate 83 crosses through the middle of the response area. It is a major north-south freight corridor, connecting the Port of Baltimore to the Pennsylvania Turnpike and Interstate 81. I-83 averages between 30,000 and 40,000 vehicles per day, depending on the segment, including an average of over 4,700 trucks. U.S. 30 is the major east-west highway, with an average of 26,000 vehicles per day, including over 3,400 trucks.

Manchester Township encompasses over 121 miles of public roadway, including both township and state road systems. Springettsbury Township has over 136 miles of public roadway. Spring Garden Township is the smallest

municipality yet has an extensive network of over 68 miles of township and state roads. Road mileage data was derived from maps provided by the Pennsylvania Department of Transportation. Map 8 shows major roadways in the service area, with average daily traffic counts and percentage of truck traffic.



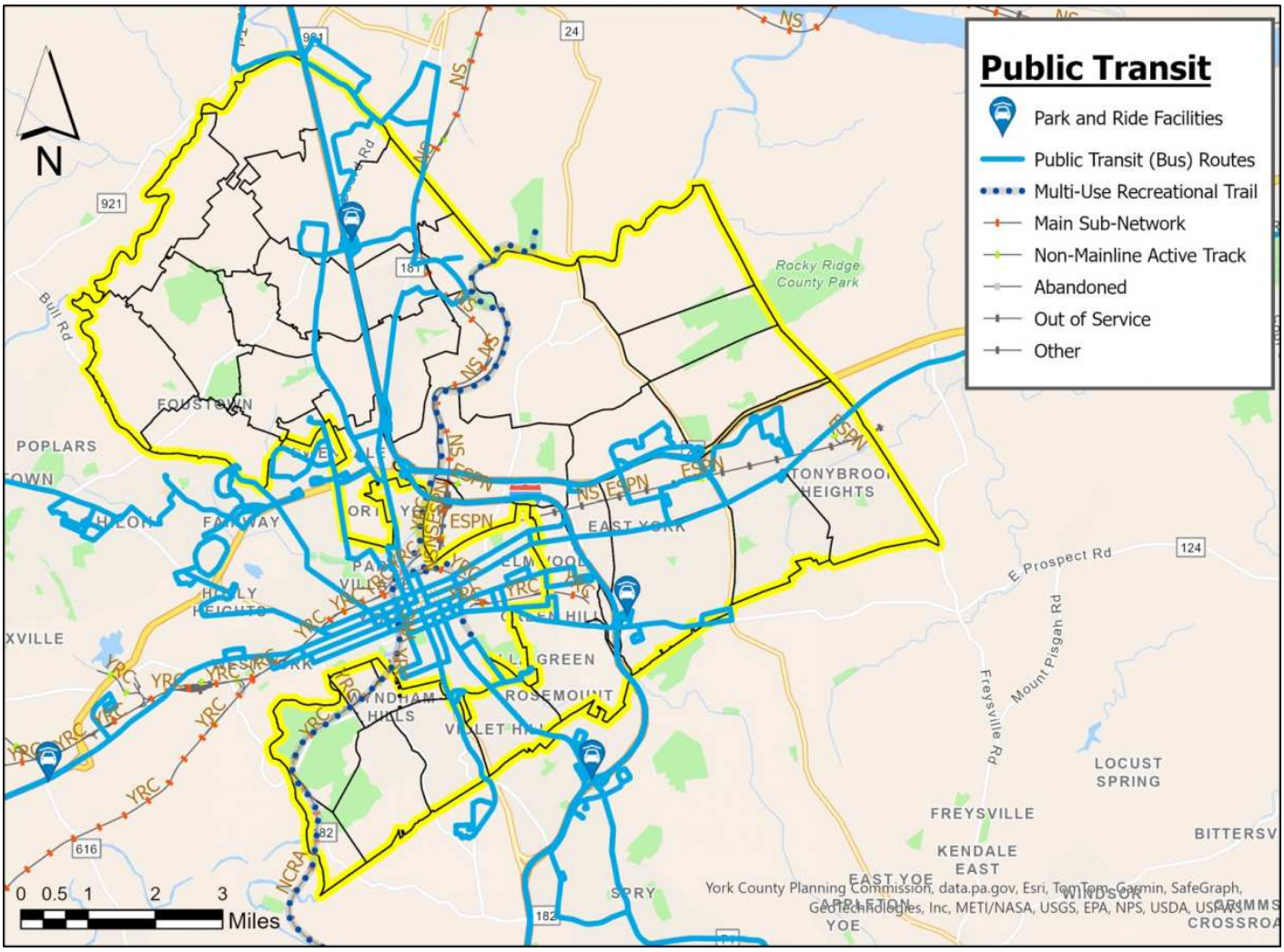
Map 8: Average Daily Trips and Truck Traffic

Rabbit Transit, the local public bus transportation system, operates fixed bus routes, a shared ride van service, and an on-demand shuttle service throughout the area served. Rabbit Transit also operates a commuter bus network connecting York-area residents to both the Harrisburg and Baltimore metro areas using a series or park-and-ride facilities, including a large surface parking lot on Board Road in Manchester Township.

About eight miles of the York County Heritage Rail Trail cross through the community from south to north. This multipurpose recreational trail connects a trail network in Maryland to York County's John Rudy Park. Much of the trail in the community follows the Codorus Creek, with limited access points along portions of the trail.

Rail lines in the area are predominately part of local or regional freight systems, with traffic typically less than 10 trains per day. All are low speed lines. There is no passenger rail currently operated within the response area. Many of the rail lines are spurs, designed to service specific businesses or business parks. There are currently 13 at-grade rail crossings within the response area.

Map 9 shows the network of public transit routes, park and ride facilities, recreational trails, and rail lines throughout the community.



Map 9: Public Transit and Rail Routes

Figure 9 shows the breakdown of methods of work commute for the community's residents. The overwhelming majority of residents drive themselves to work, with the largest number of residents commuting between 10 and 20 minutes.

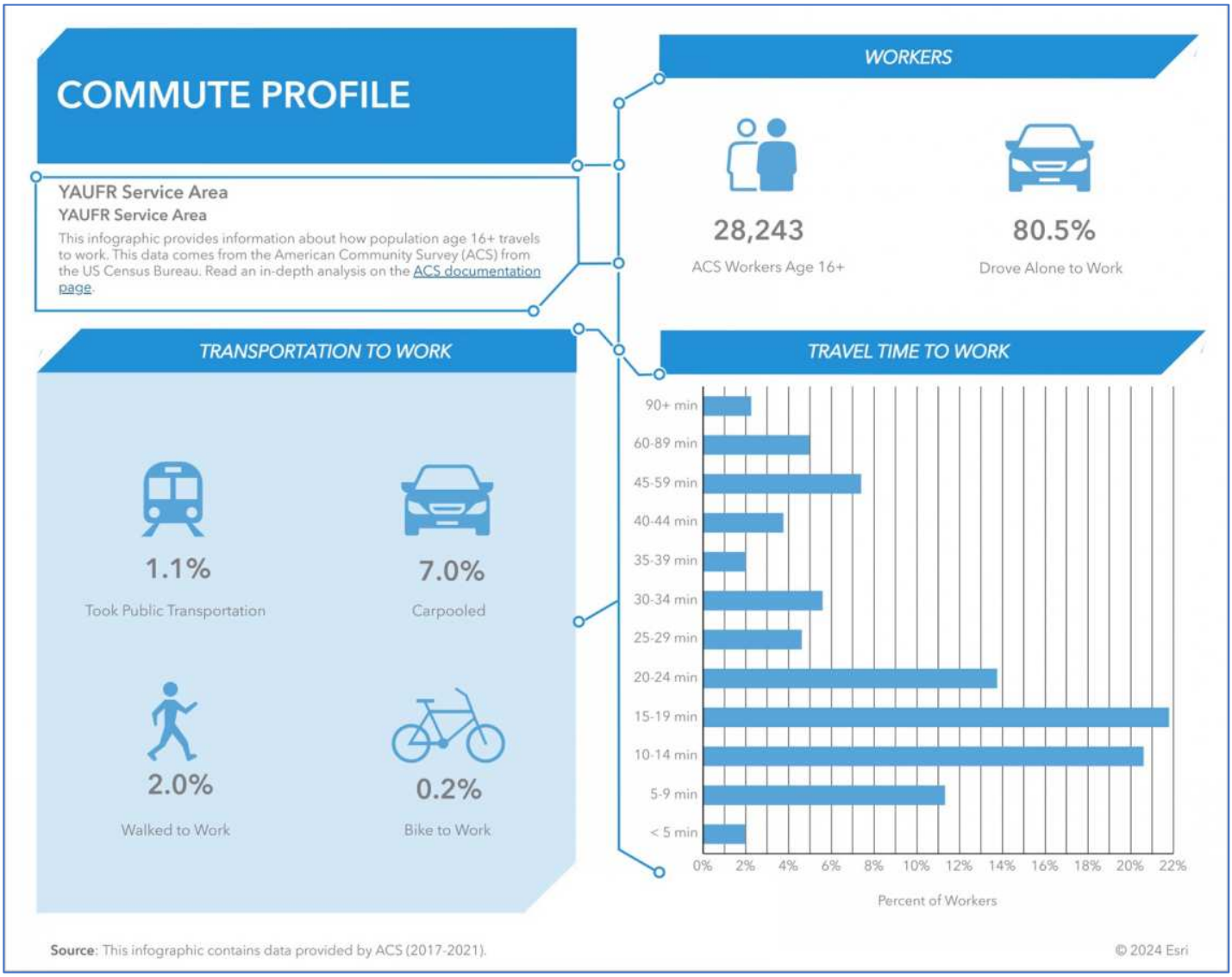
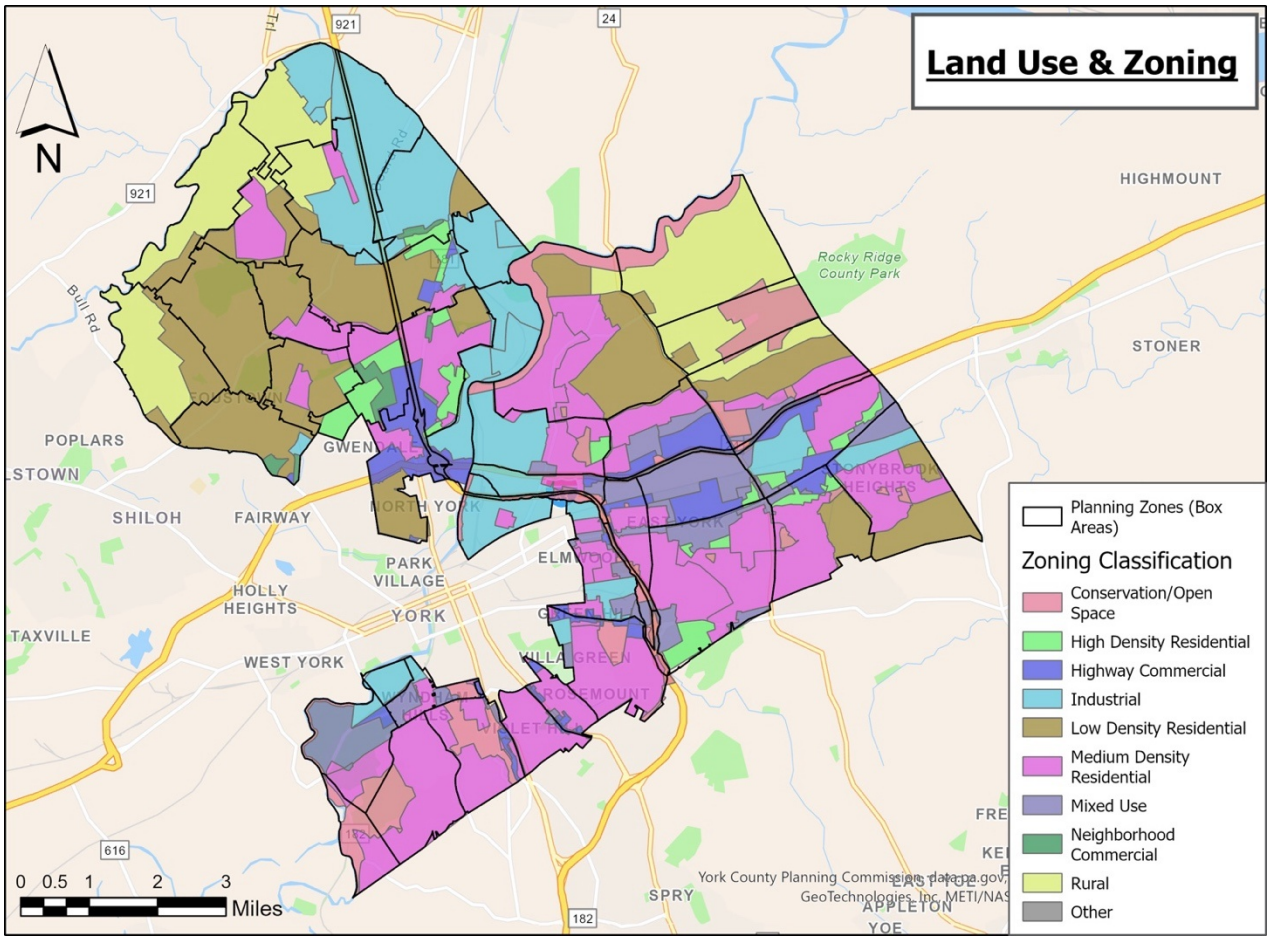


Figure 9: Community Resident Work Commutes

The York County Planning Commission, in conjunction with stakeholders and partners throughout York County, has developed an in-depth Hazard Mitigation Plan. This document provides an additional assessment of hazards and vulnerabilities countywide, and can be found at https://www.ycpc.org/652/2024-YORK-COUNTY-Hazard-Mitigation-PLAN.

Land Use and Zoning

Zoning classifications are used to determine land use and accommodate reasonable community growth. Zoning is determined by the comprehensive land use plans developed by each individual township. The requirements of zoning districts can sometimes be waived or changed at the request of a landowner or potential developer through an established hearing process. Comprehensive plans are periodically reviewed and updated as needed. The map below depicts the current zoning classifications, provided by data obtained by the York County Planning Commission.

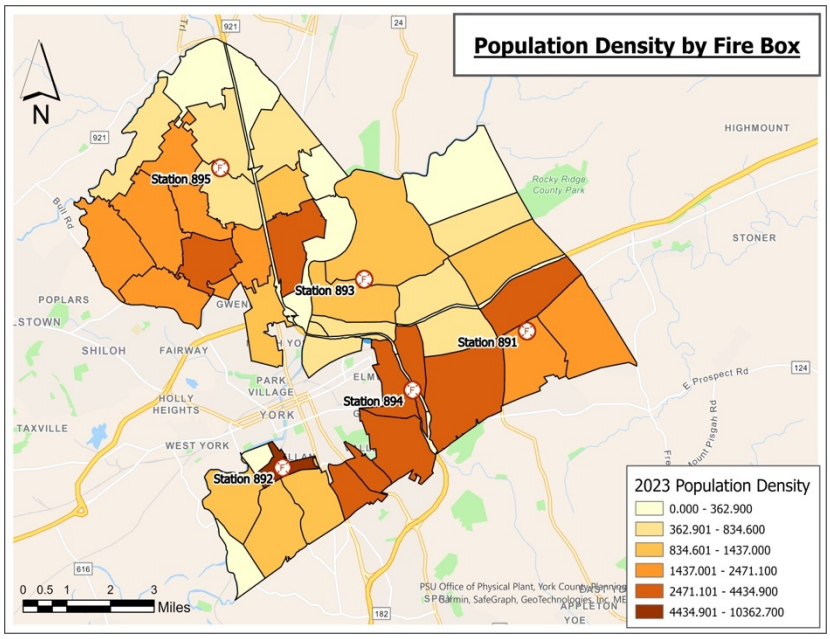


Map 10: Land Use and Zoning in the YAUFR Primary Response Area

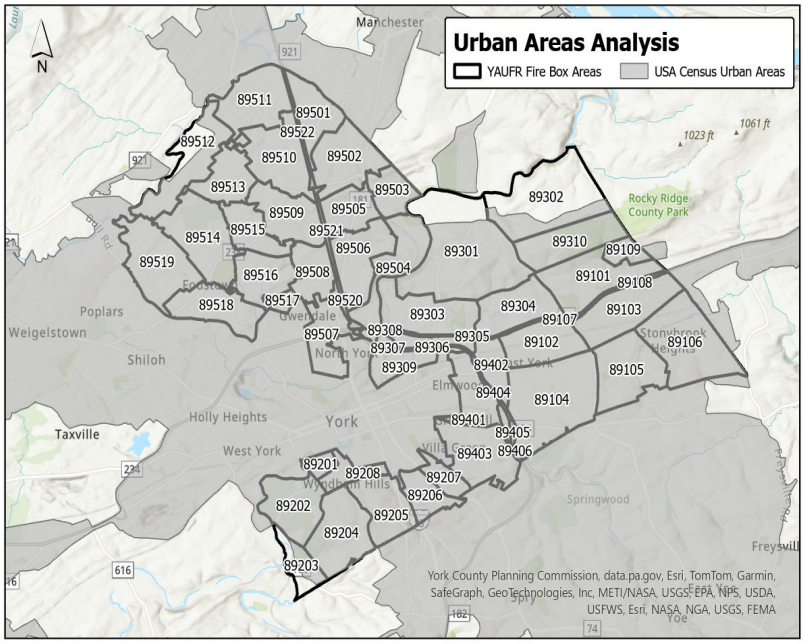
Community Assessment by Planning Zone

It is important to assess the characteristics of the community at the geographic planning zone level to better plan for the response needs of each area, as well as the community as a whole. Agencies must determine the appropriate level of response to these areas and assess response performance accordingly. According to 202 Census data, the overall population density of the YAUFR community is 1,545 persons per square mile. However, when examined by planning zone, the density ranges from under 100 persons per square mile to almost 7,000 persons per square mile. Map 10 shows the population density by planning zone.

Based on the population density analysis, YAUFR has opted to assess the entire response area as urban in nature. This is consistent with the U.S. Census Bureau's revised urban areas analysis (Map 12). Each area not currently meeting urban criteria contains one or more target hazards or has additional planned development.



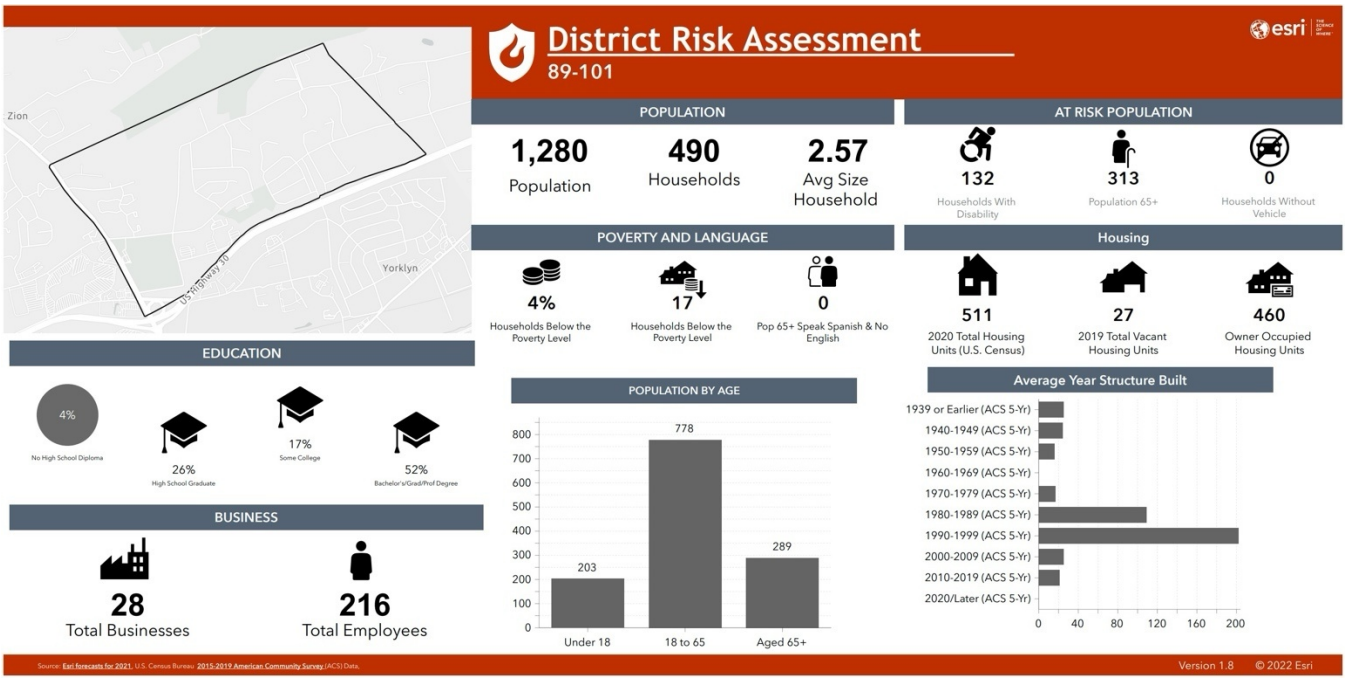
Map 11: Population Density by Planning Zone



Map 12: U.S. Census Bureau Urban Areas

The pages that follow contain further analysis of the area characteristics of each fire box area of the community.

Box 89-101 Area Characteristics & Risk Assessment



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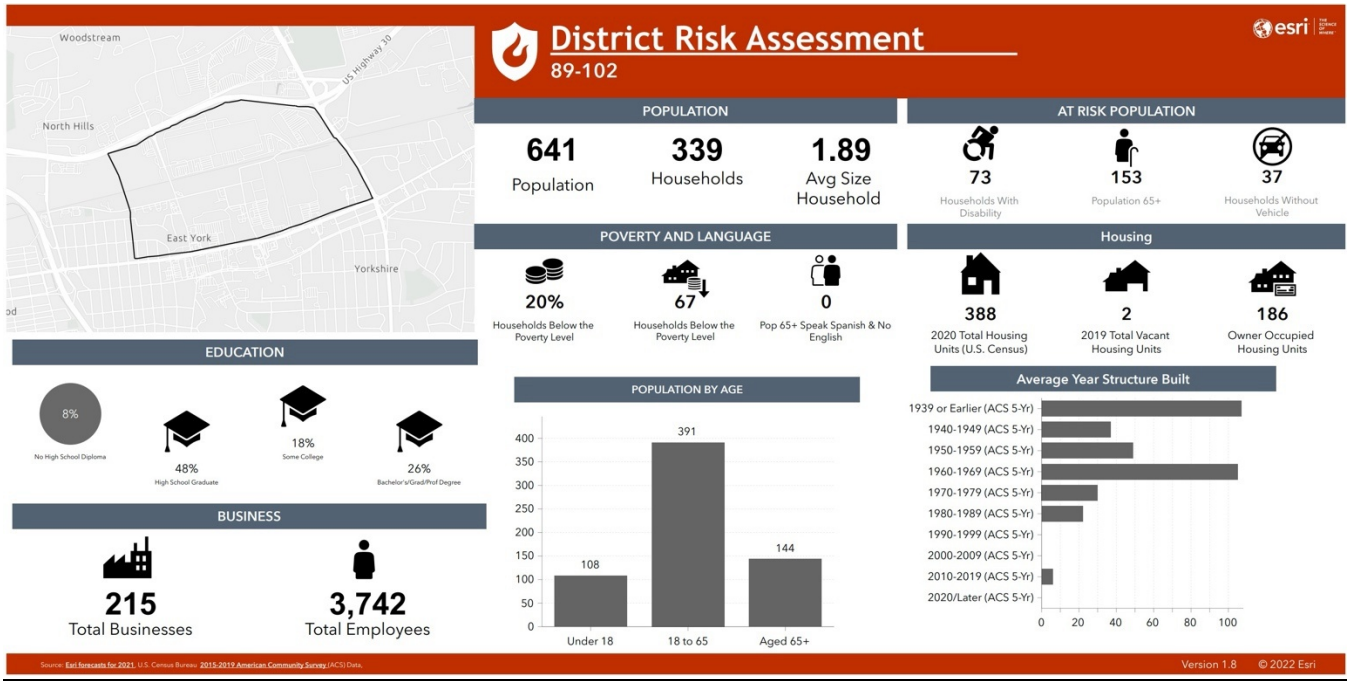

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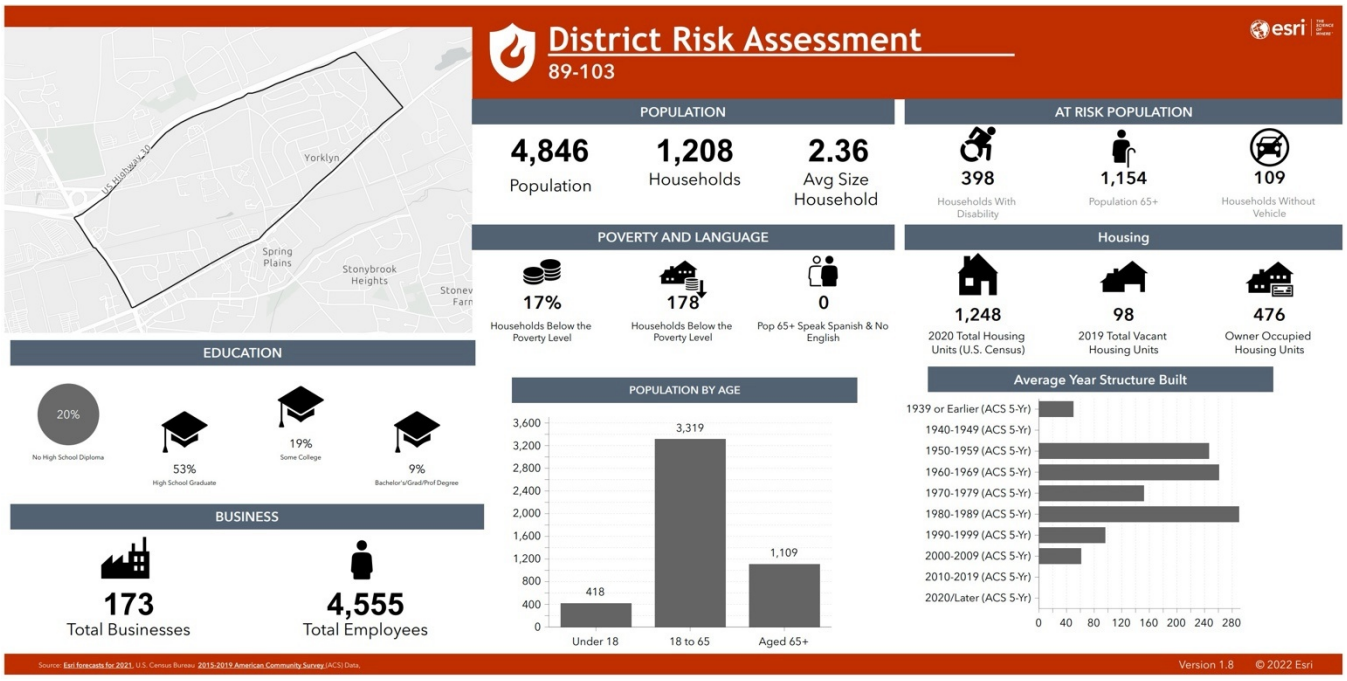

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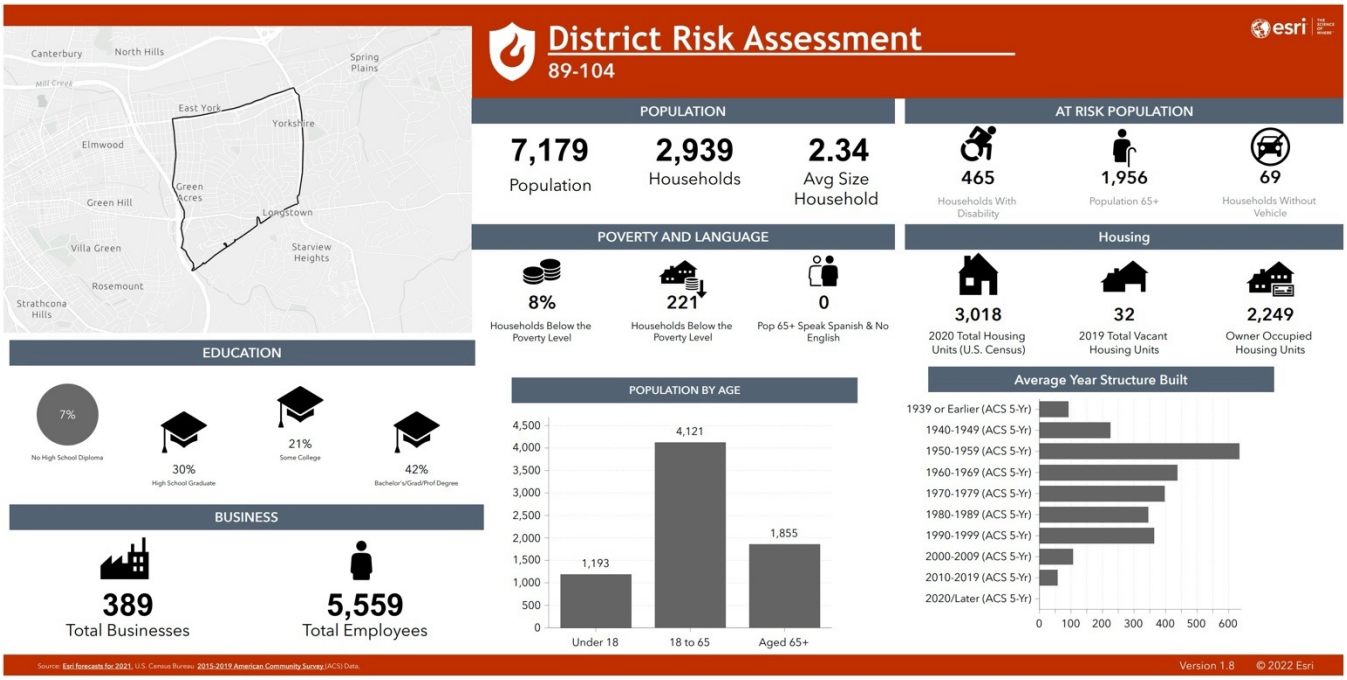

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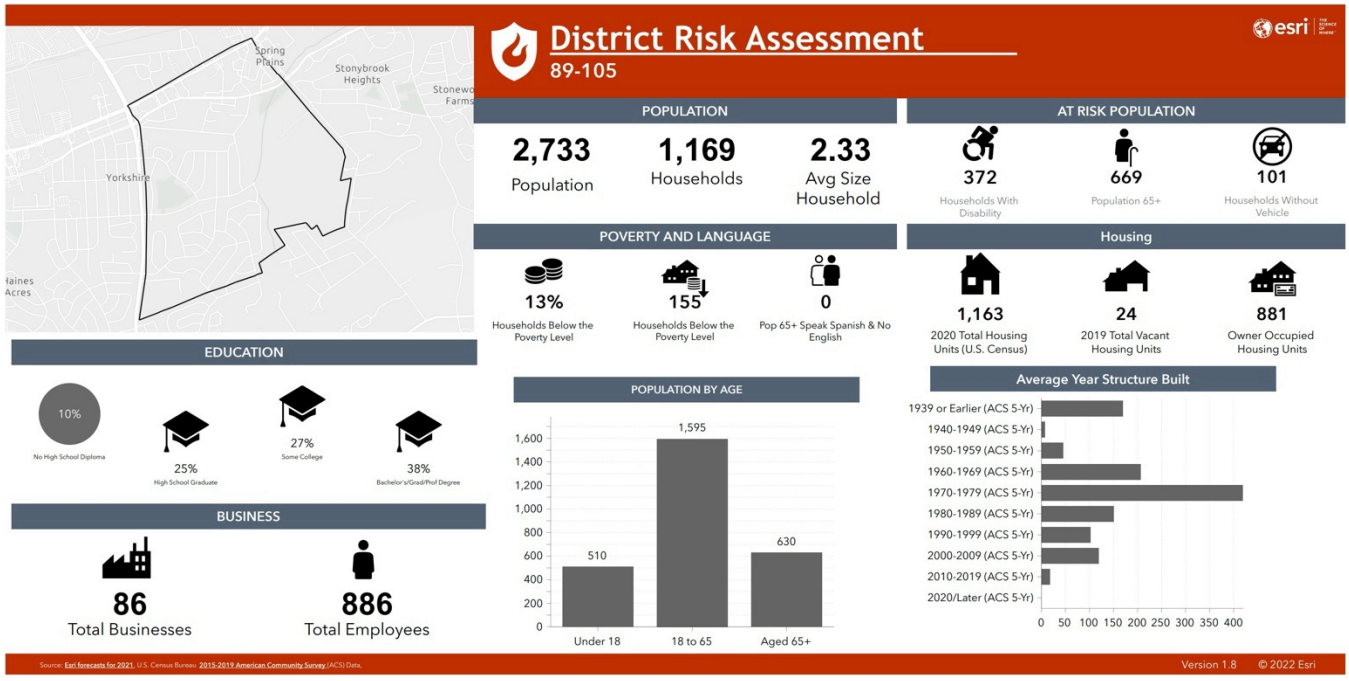

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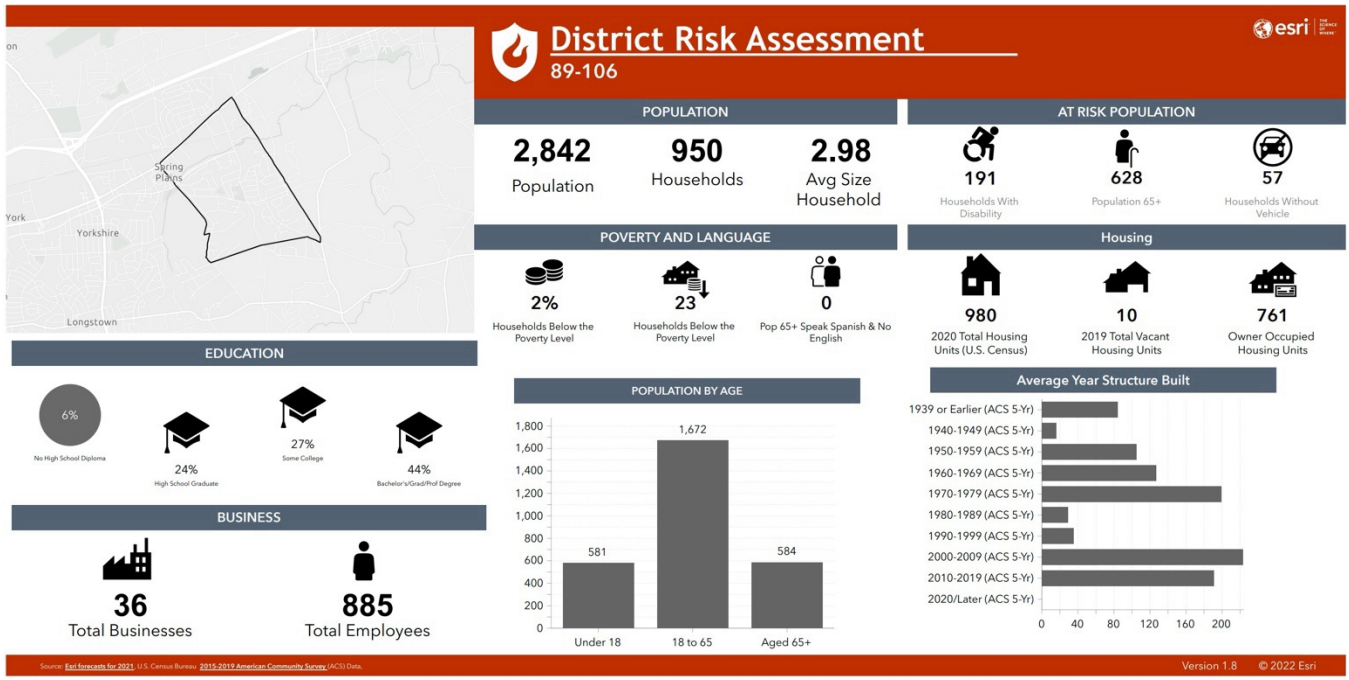

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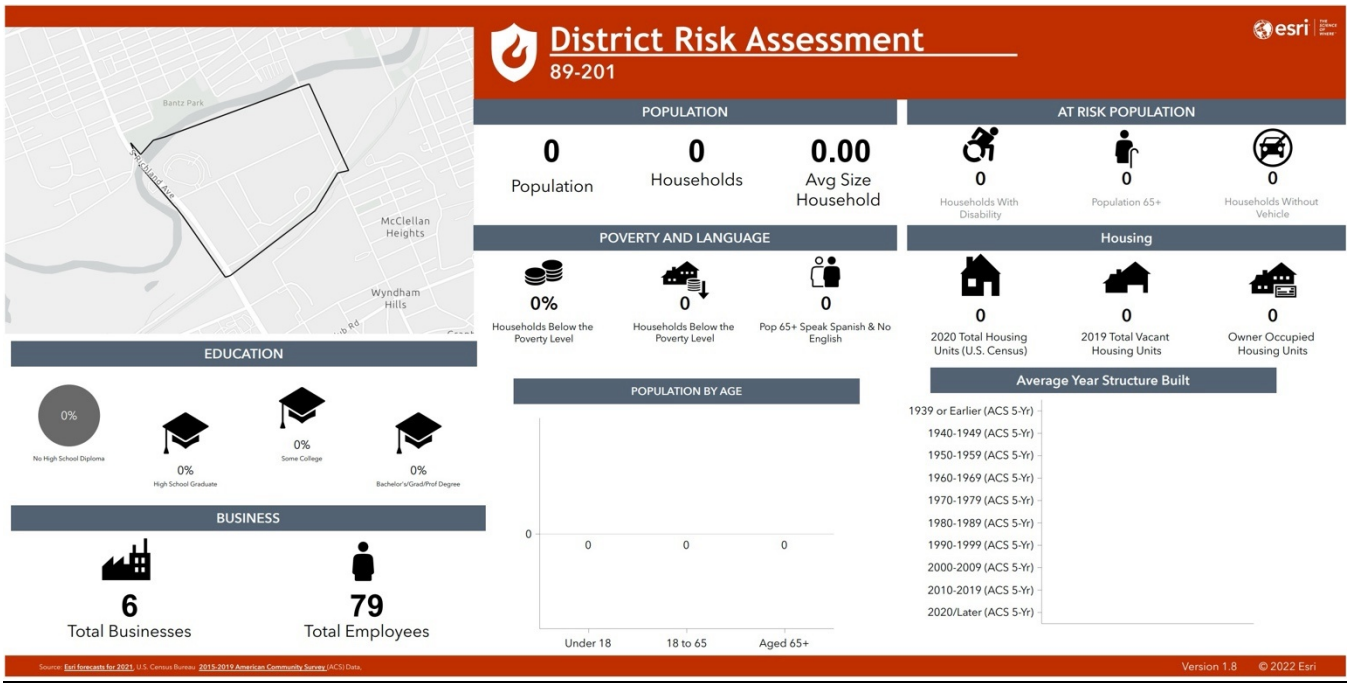

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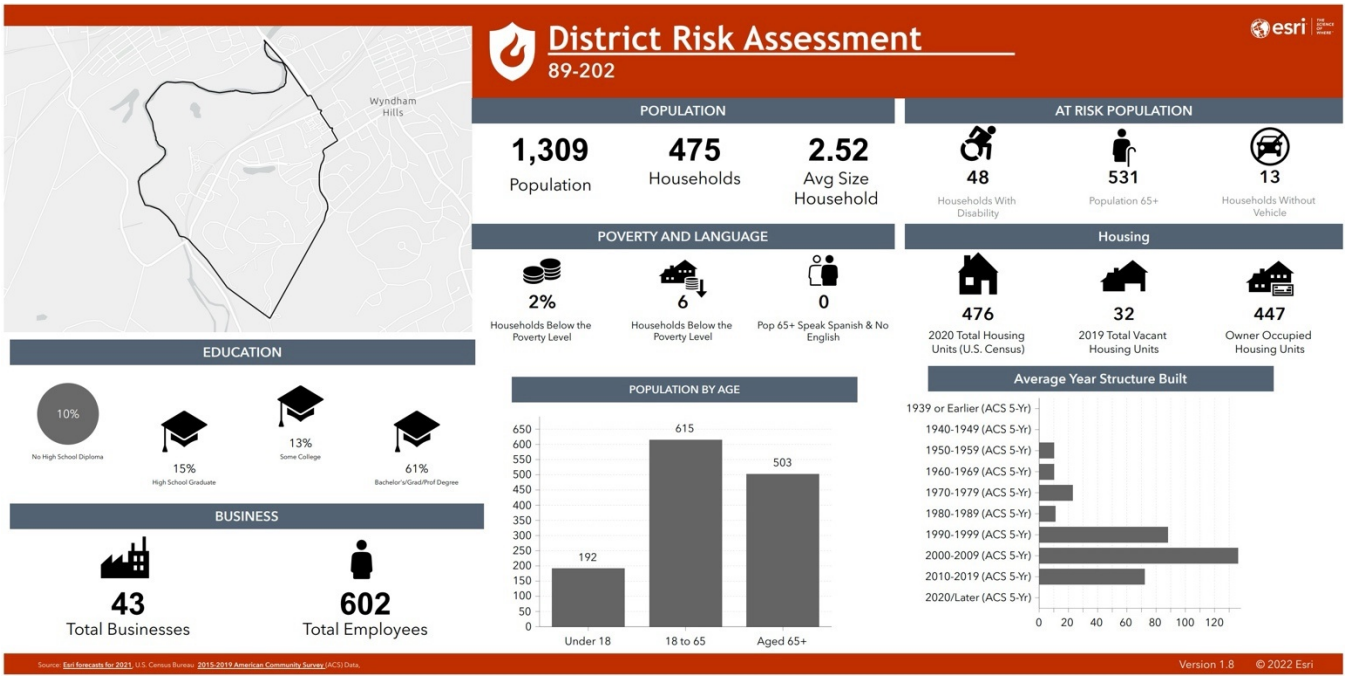

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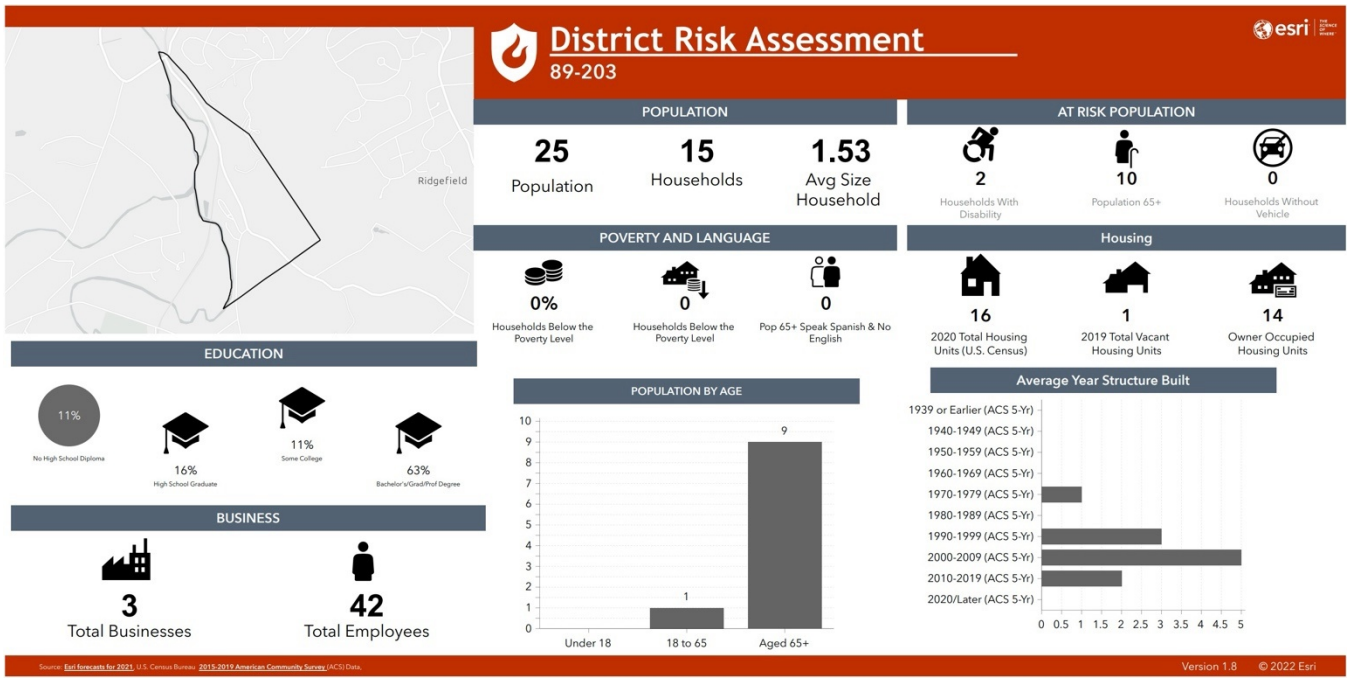

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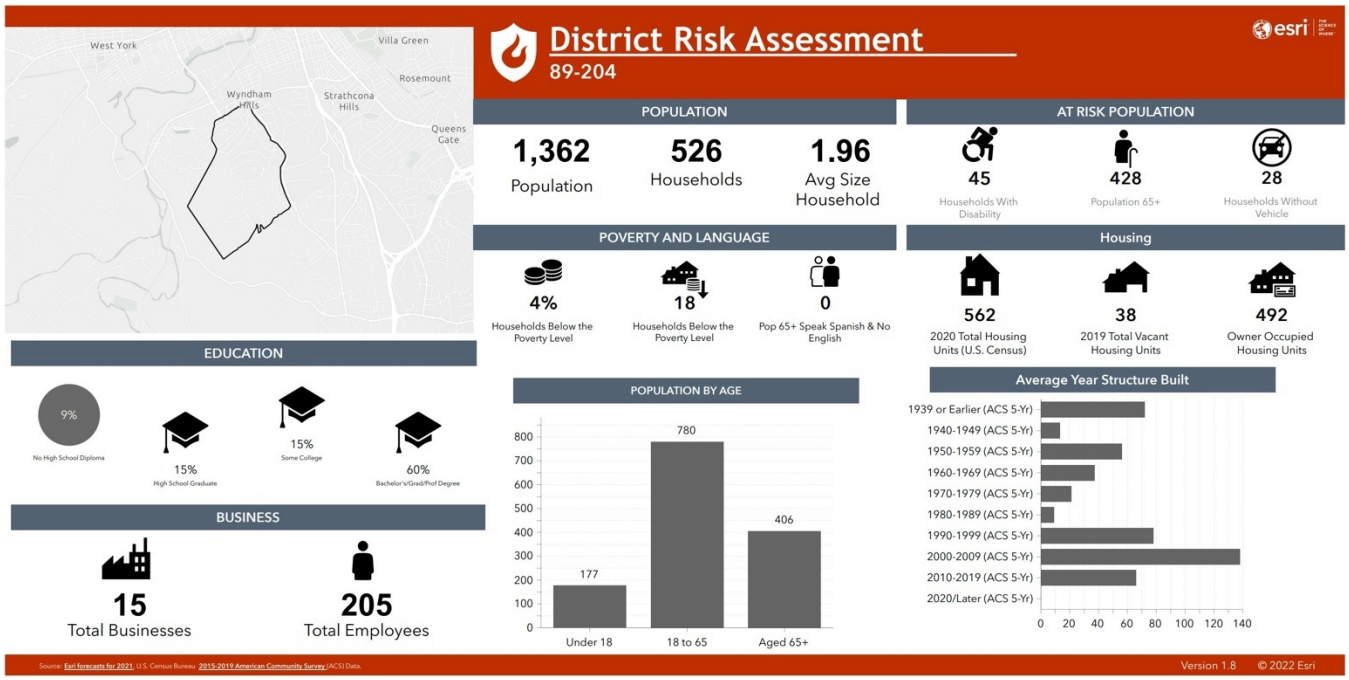

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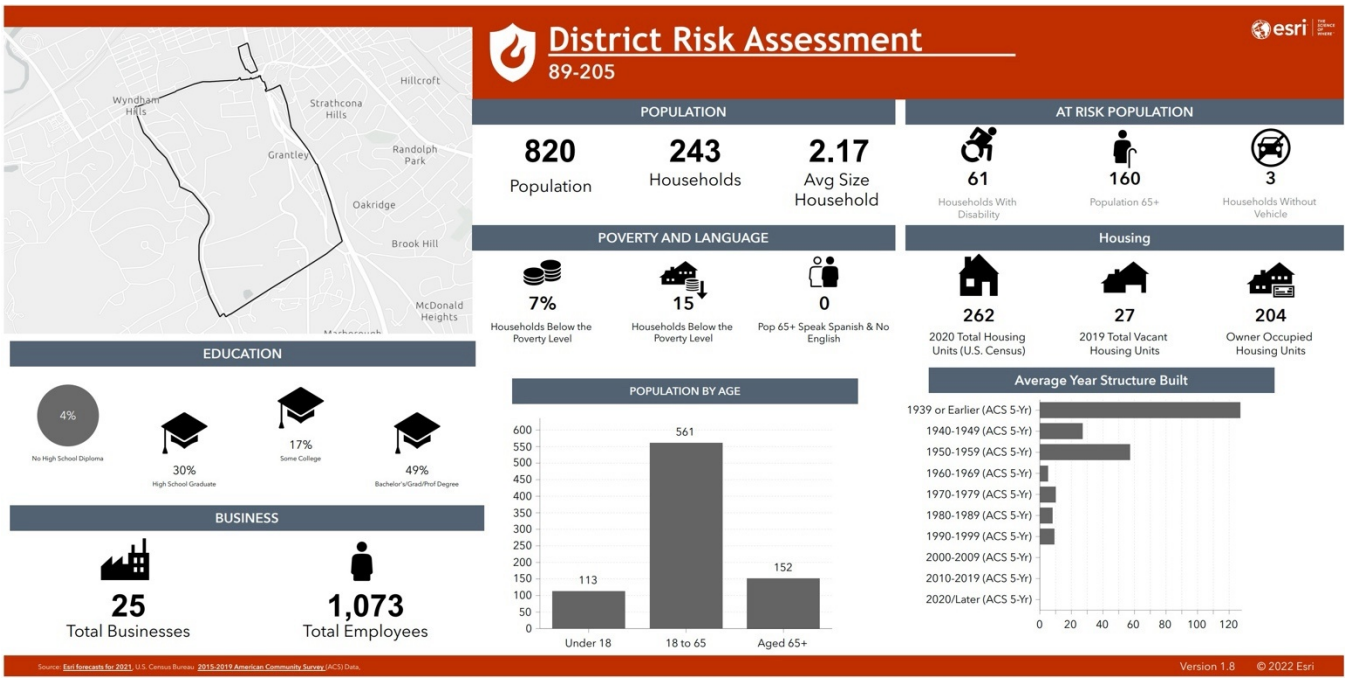

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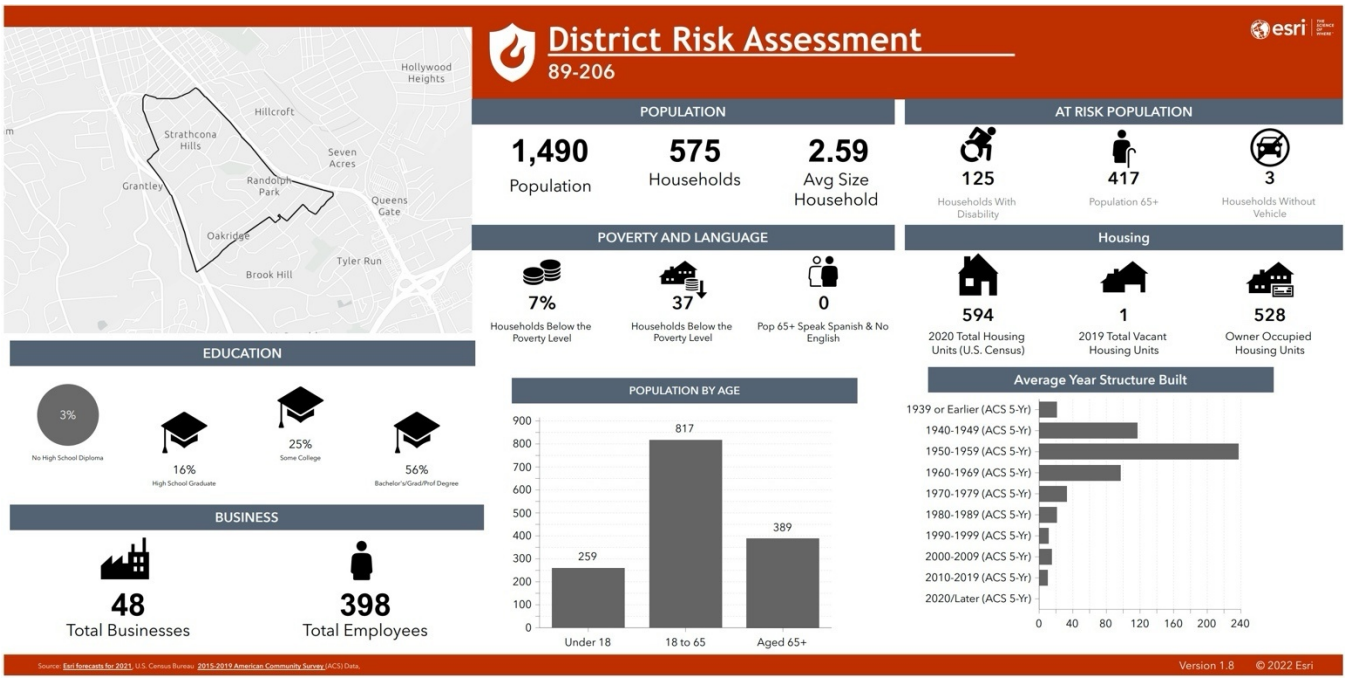

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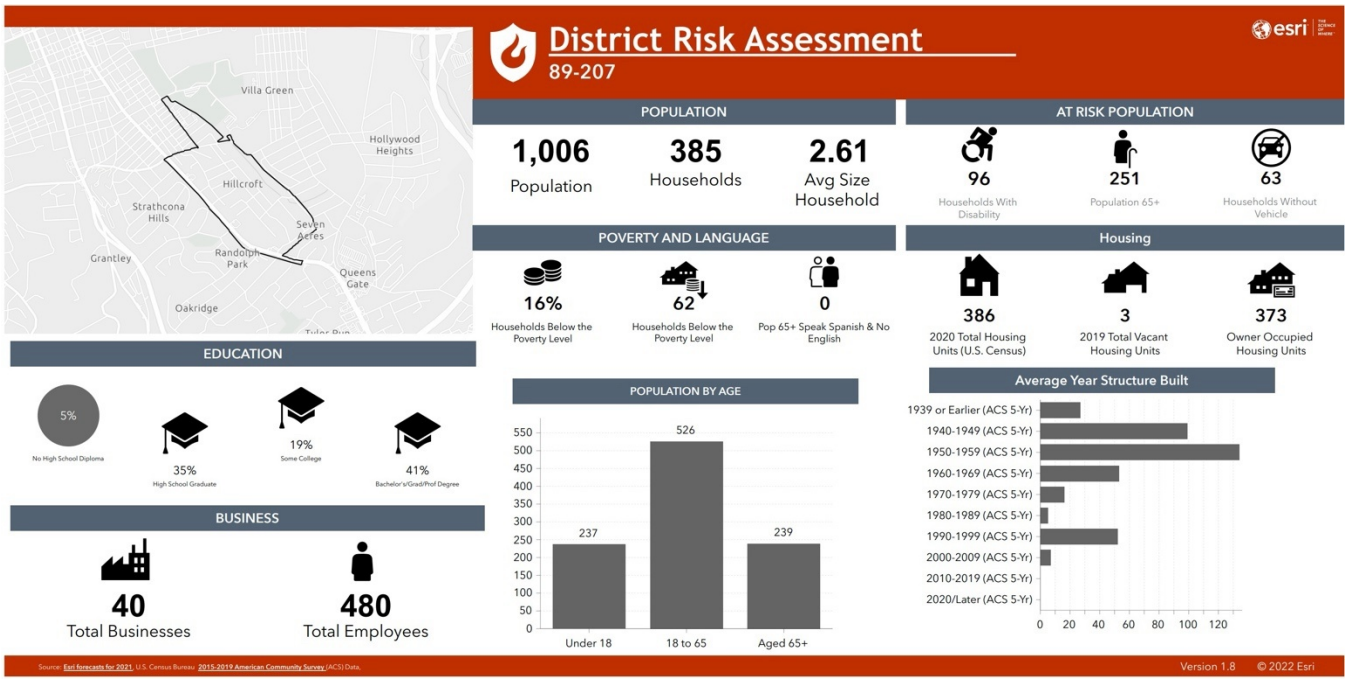

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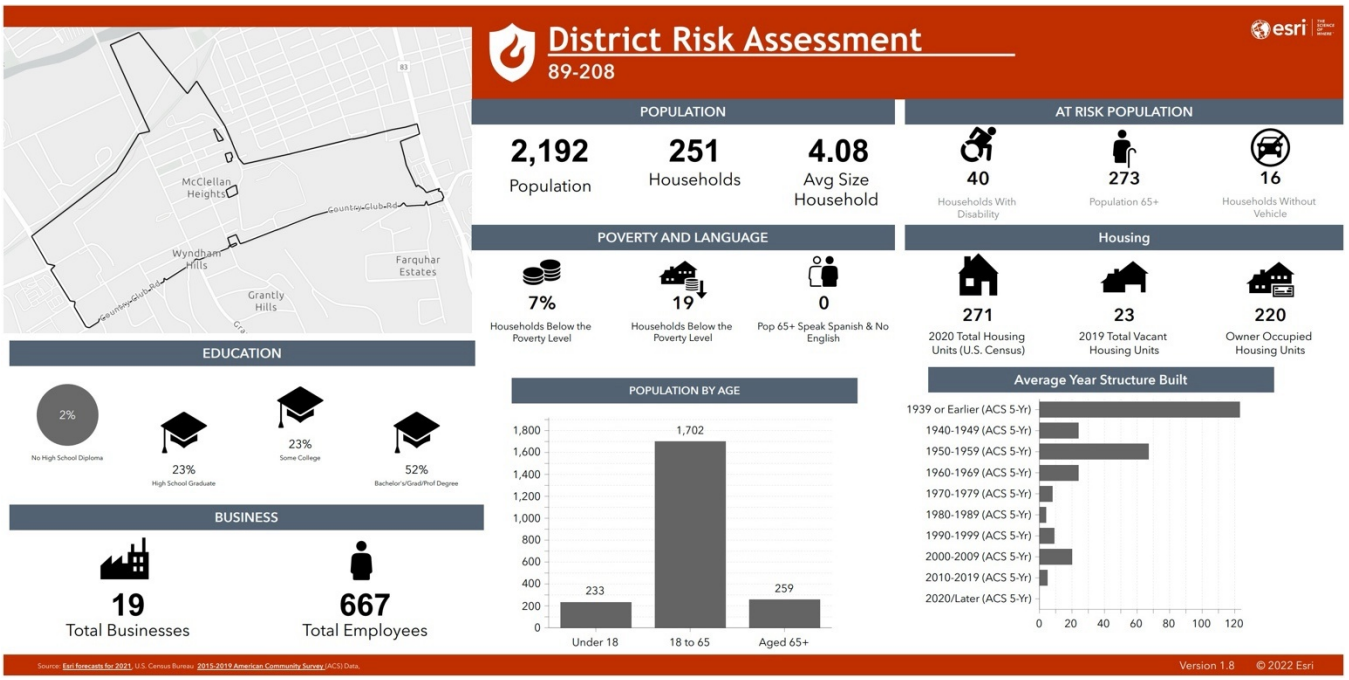

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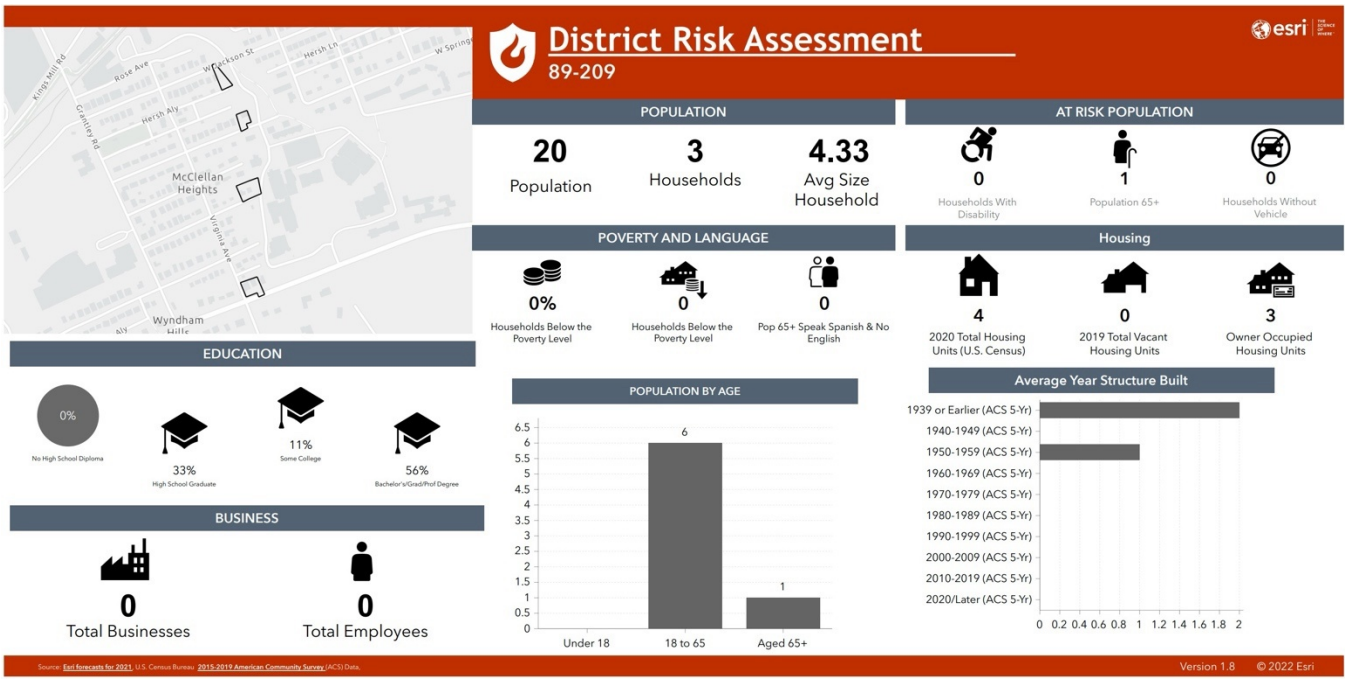

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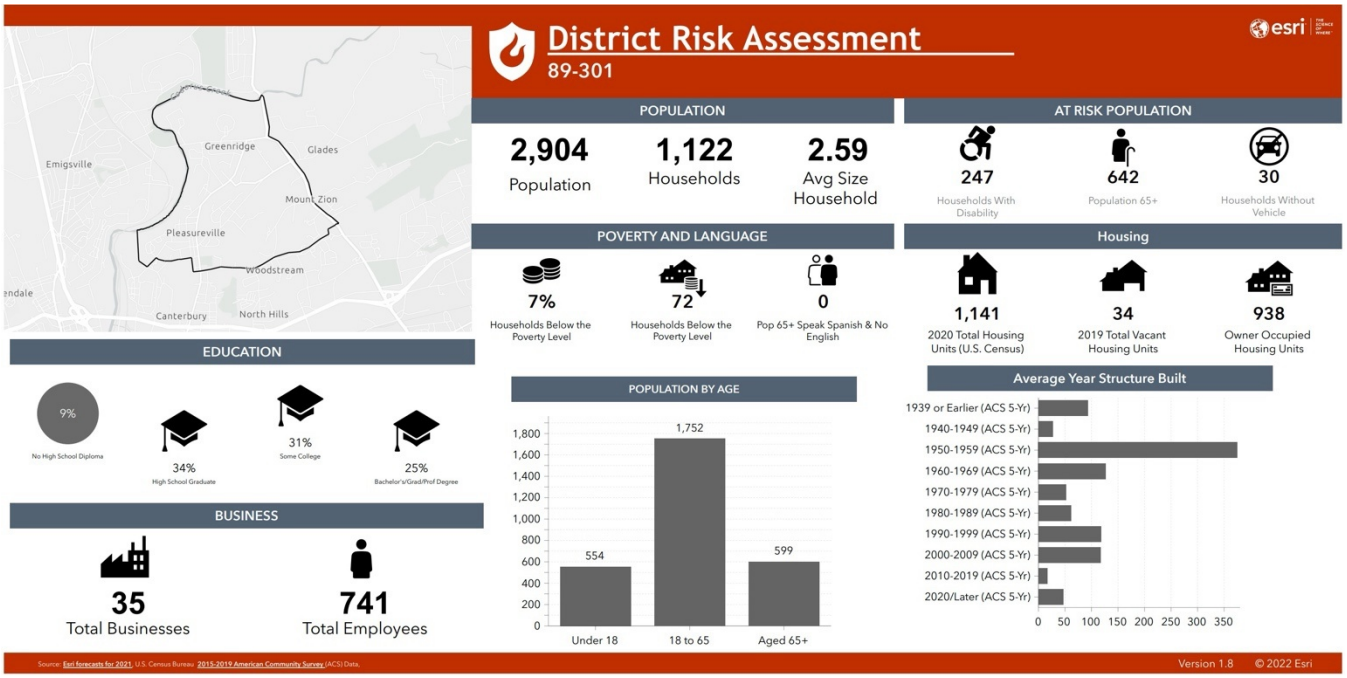

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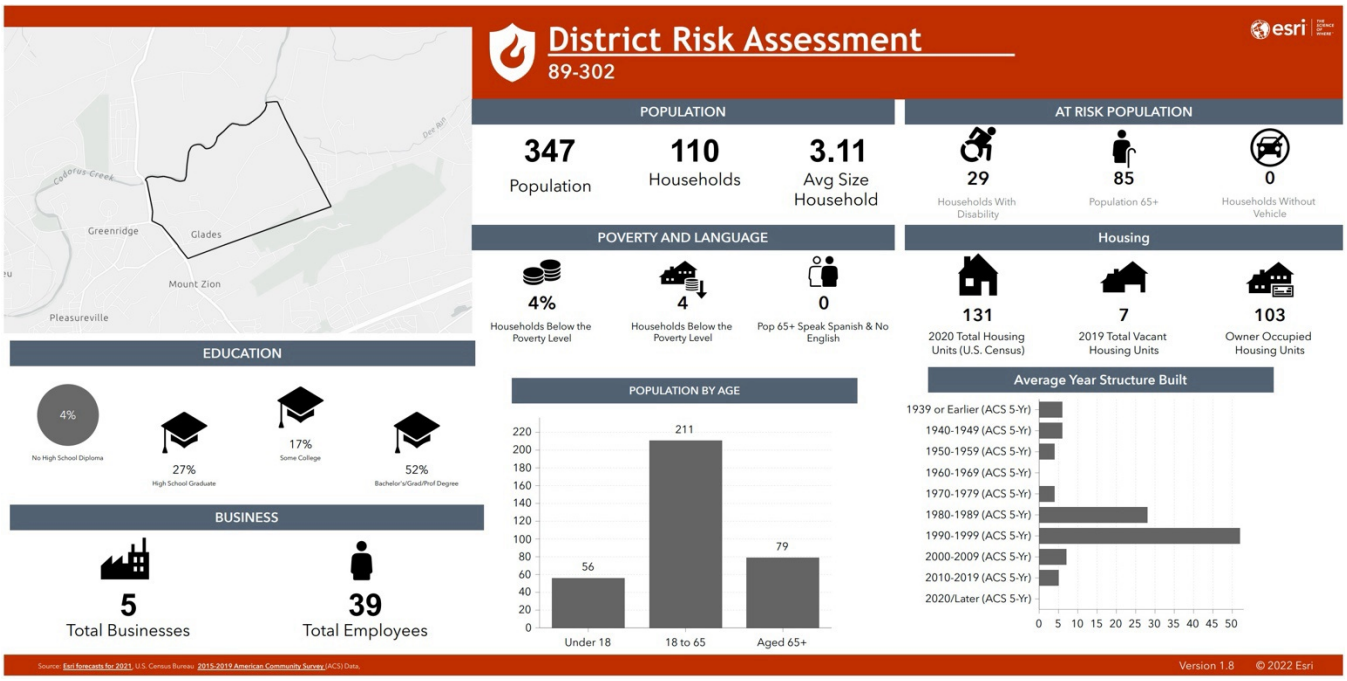

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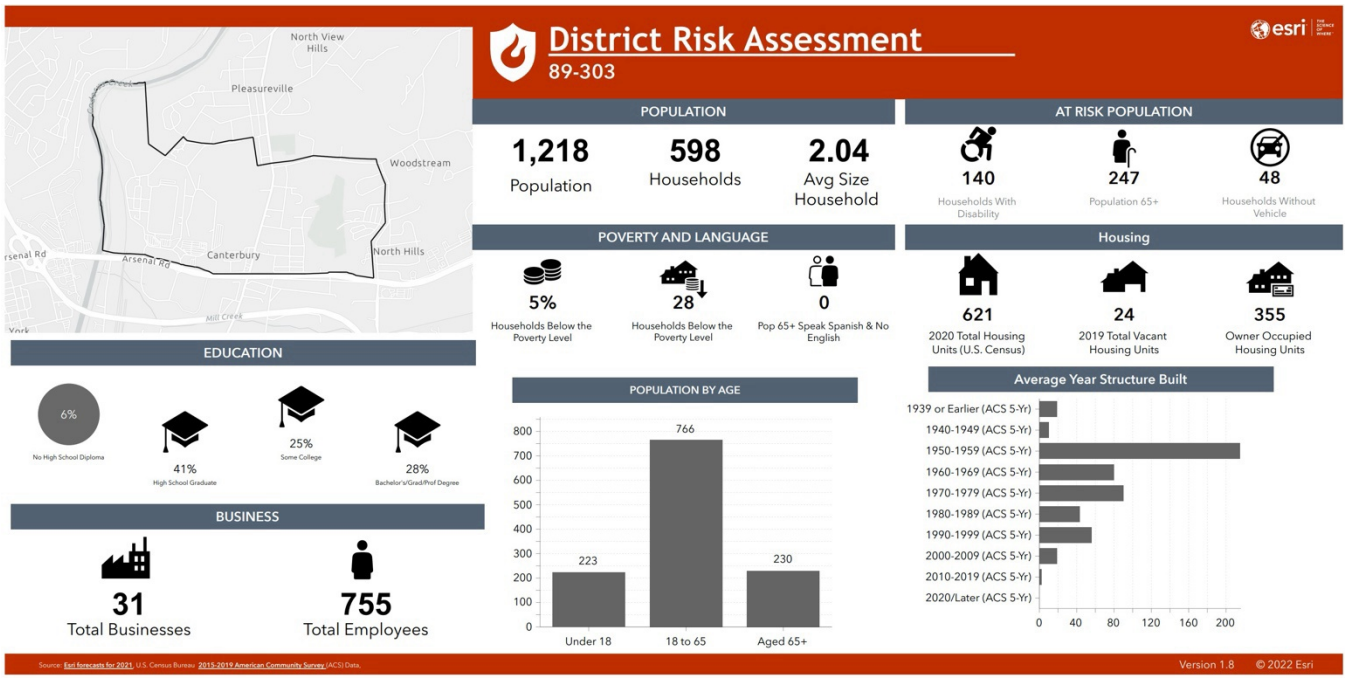

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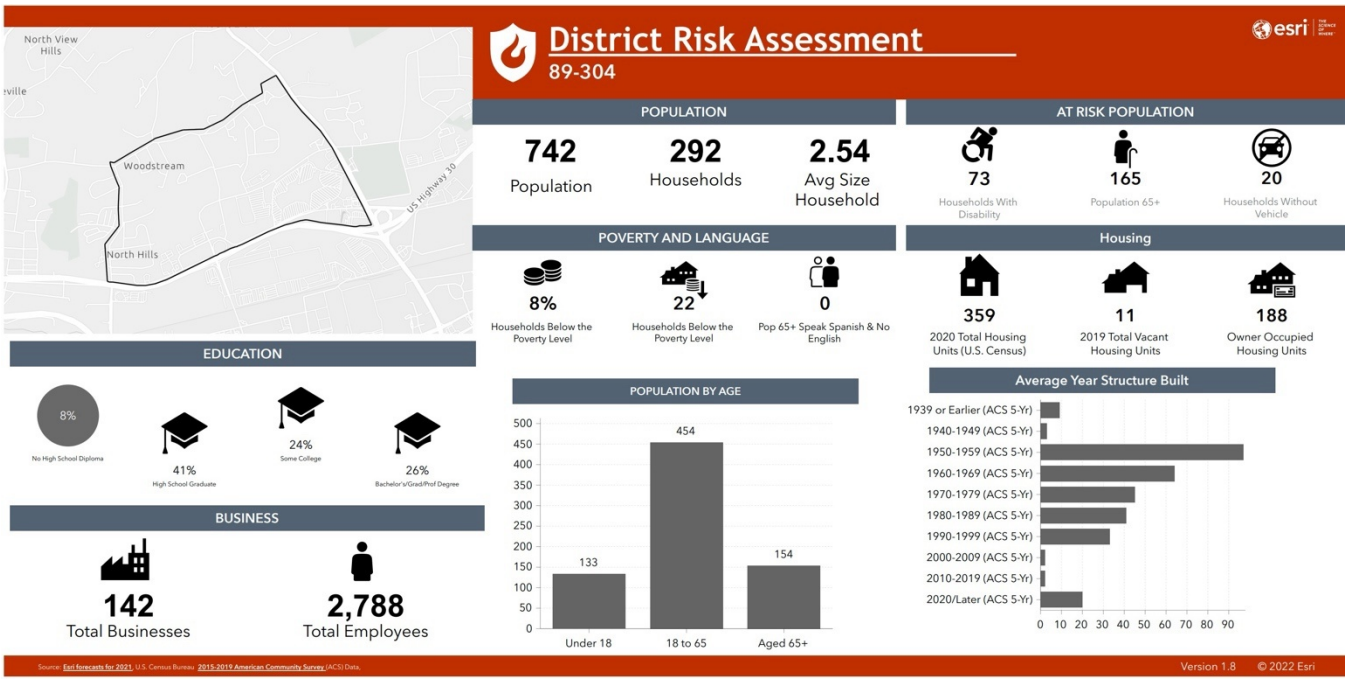

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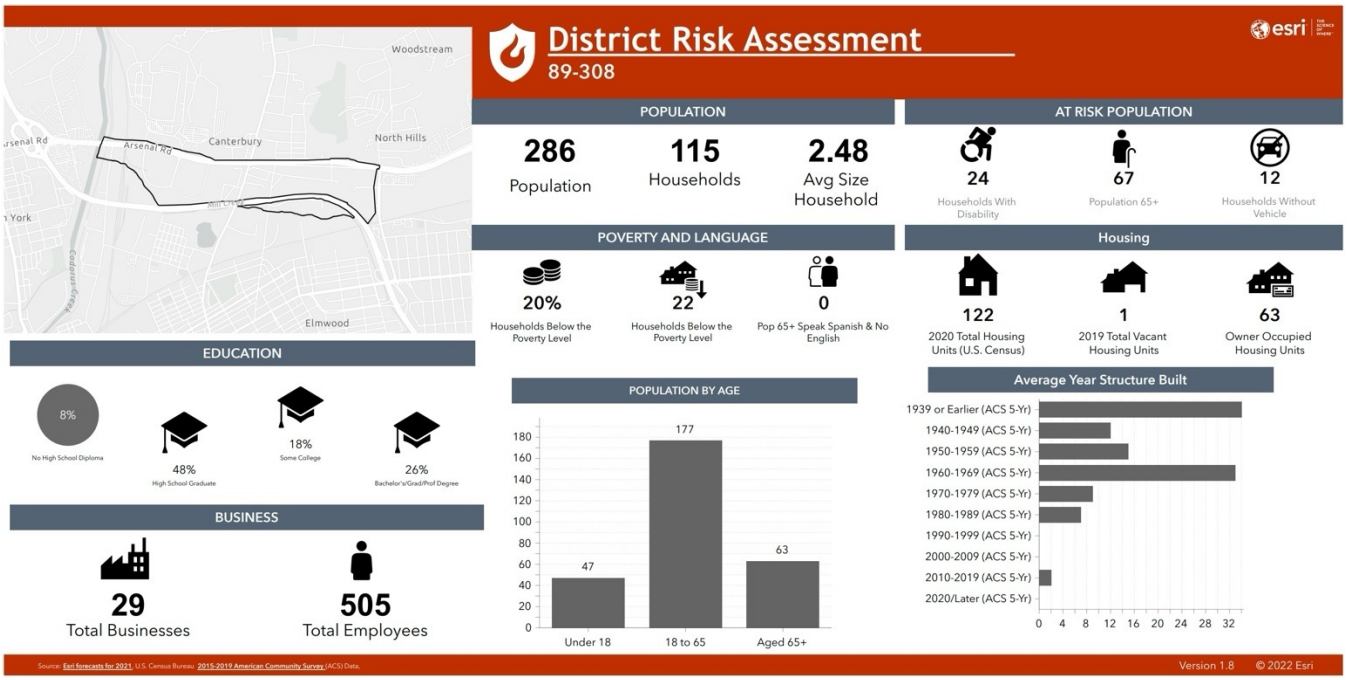

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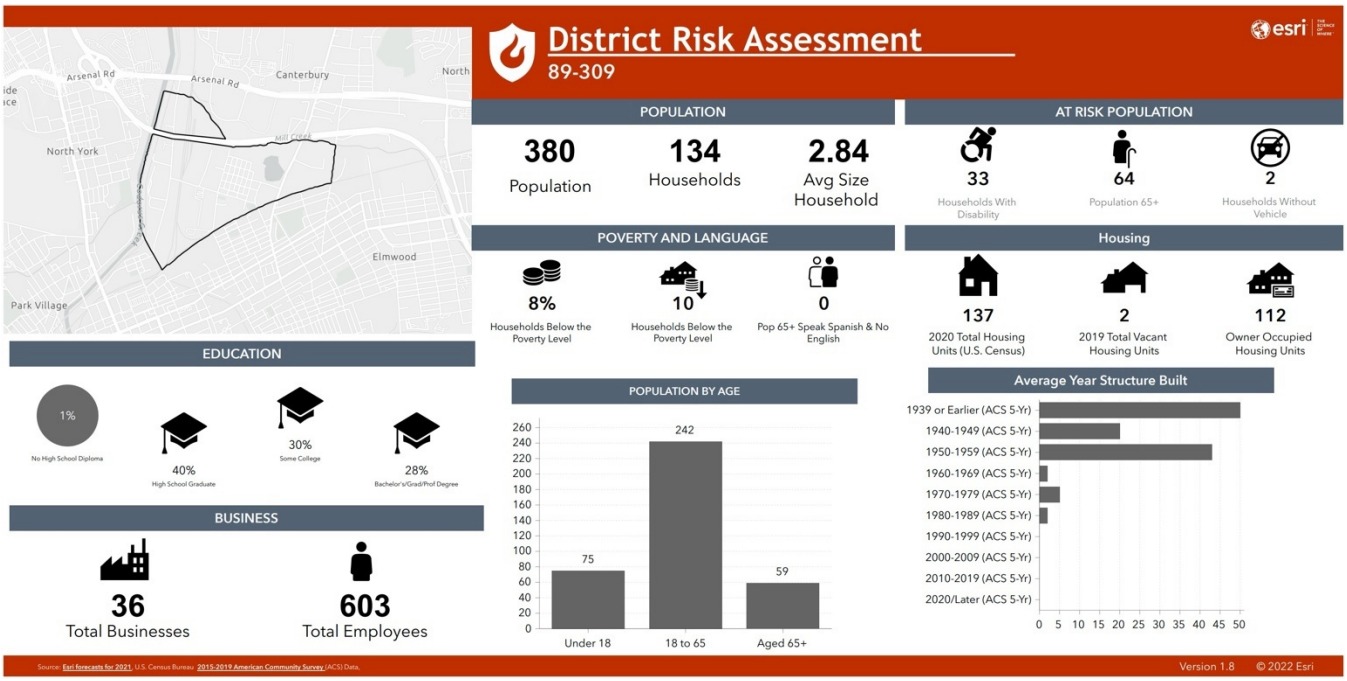

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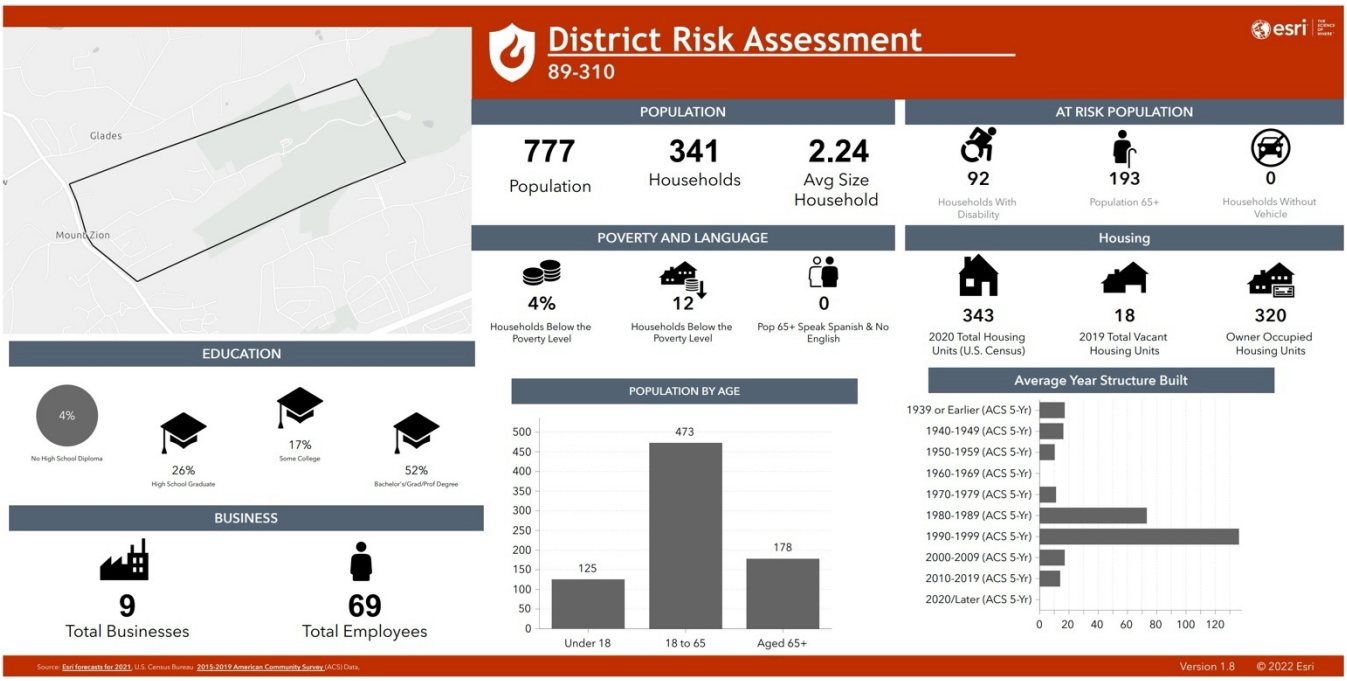

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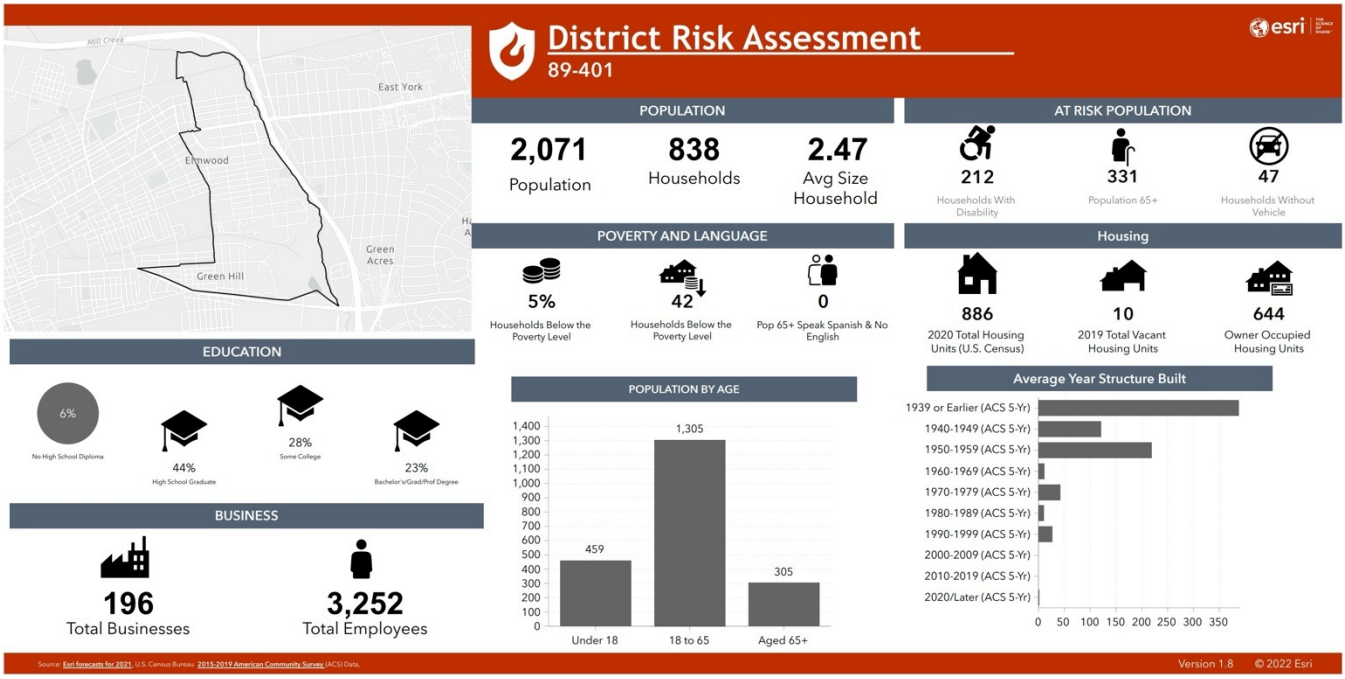

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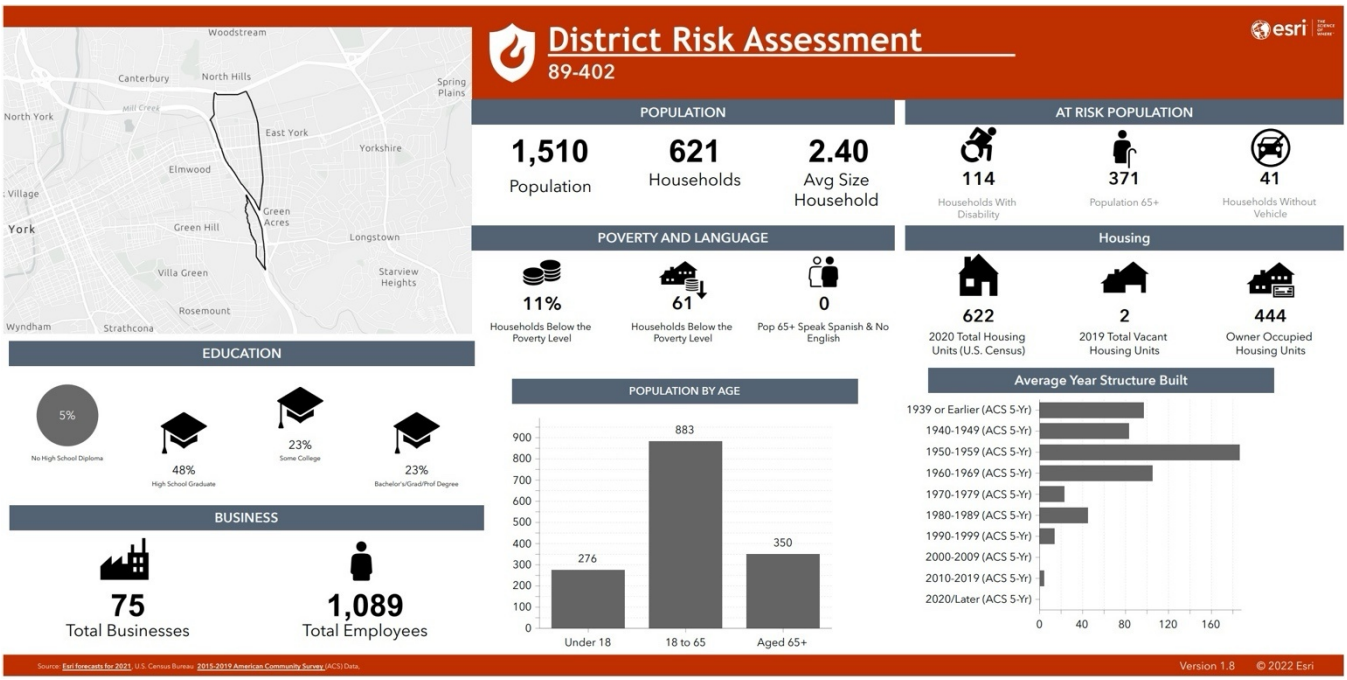

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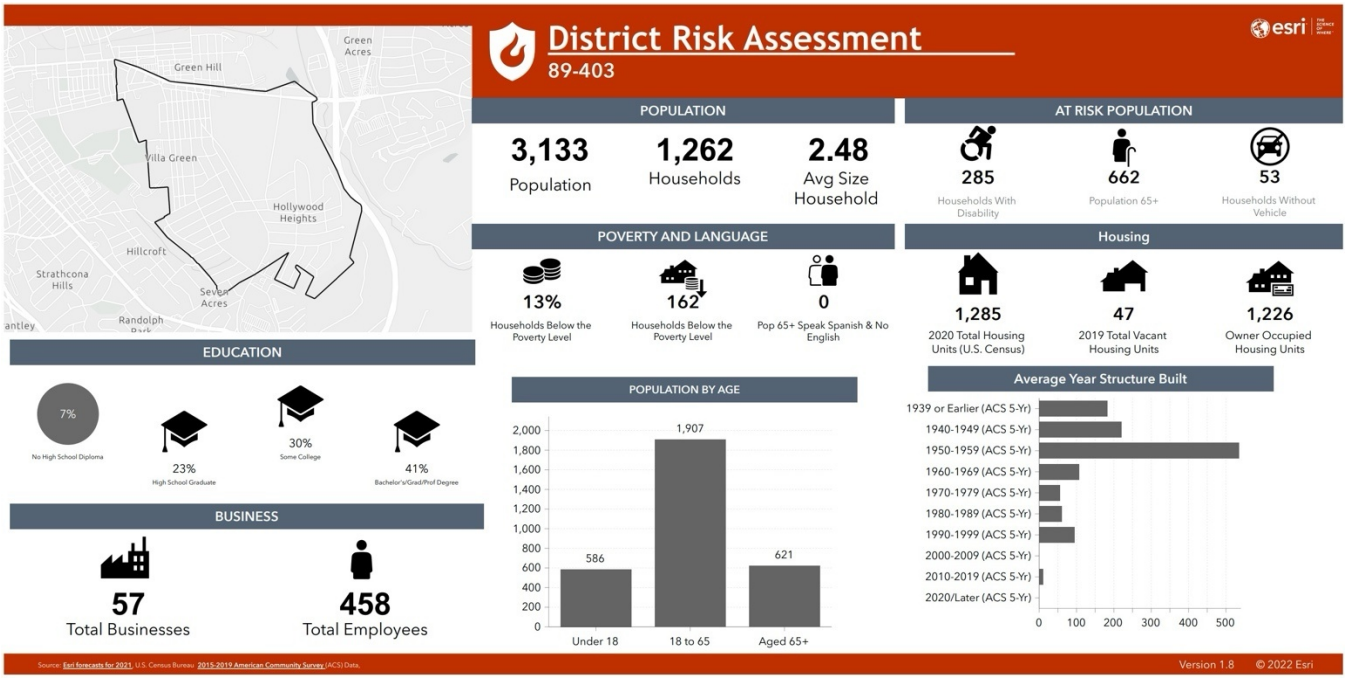

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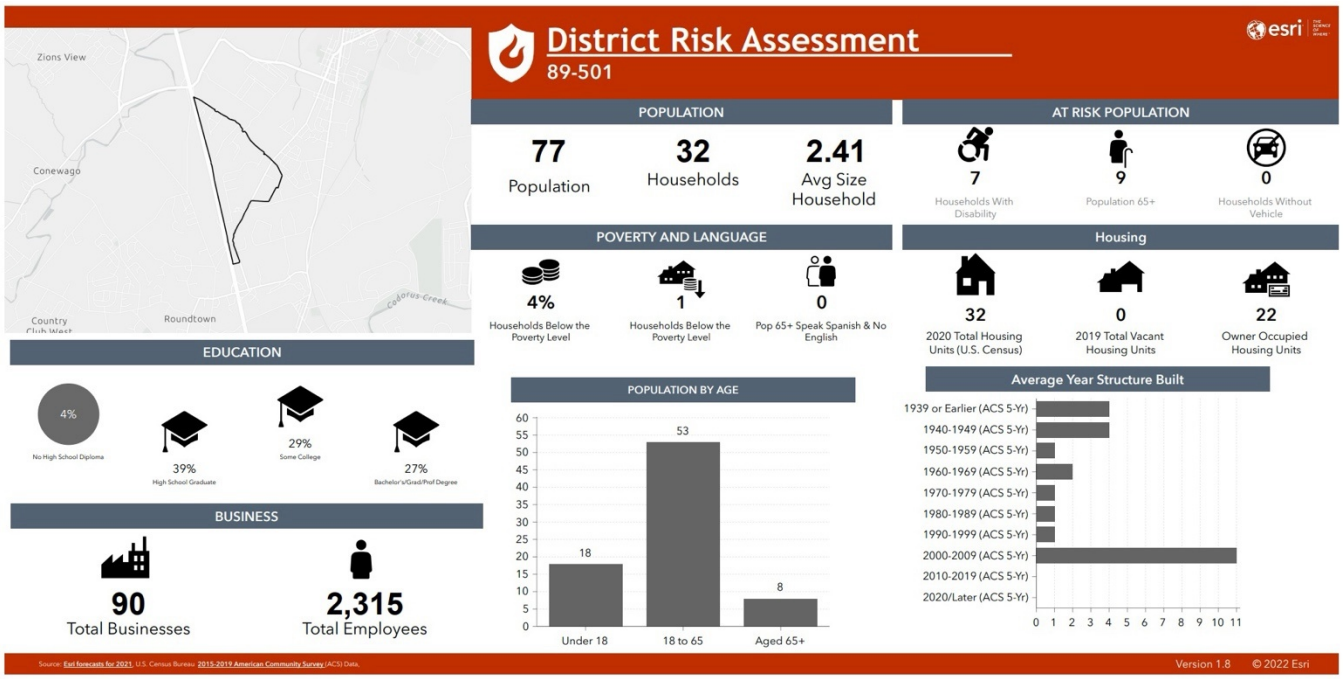

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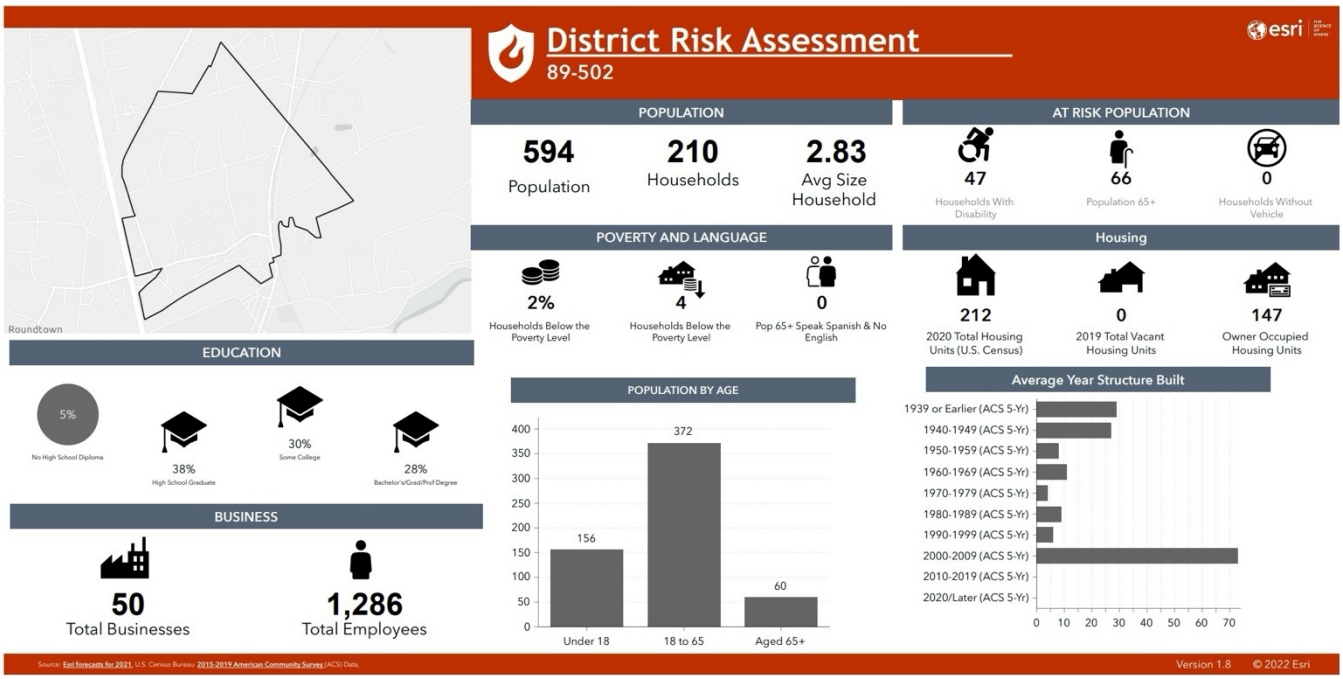

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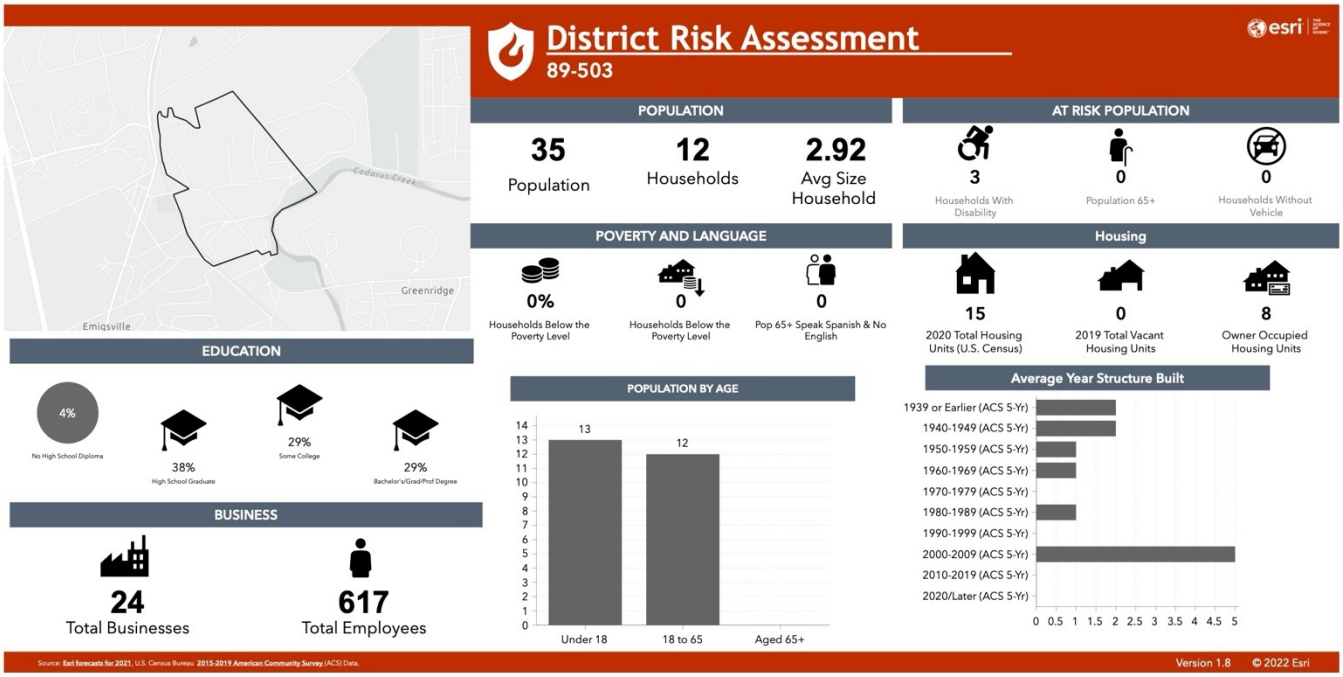

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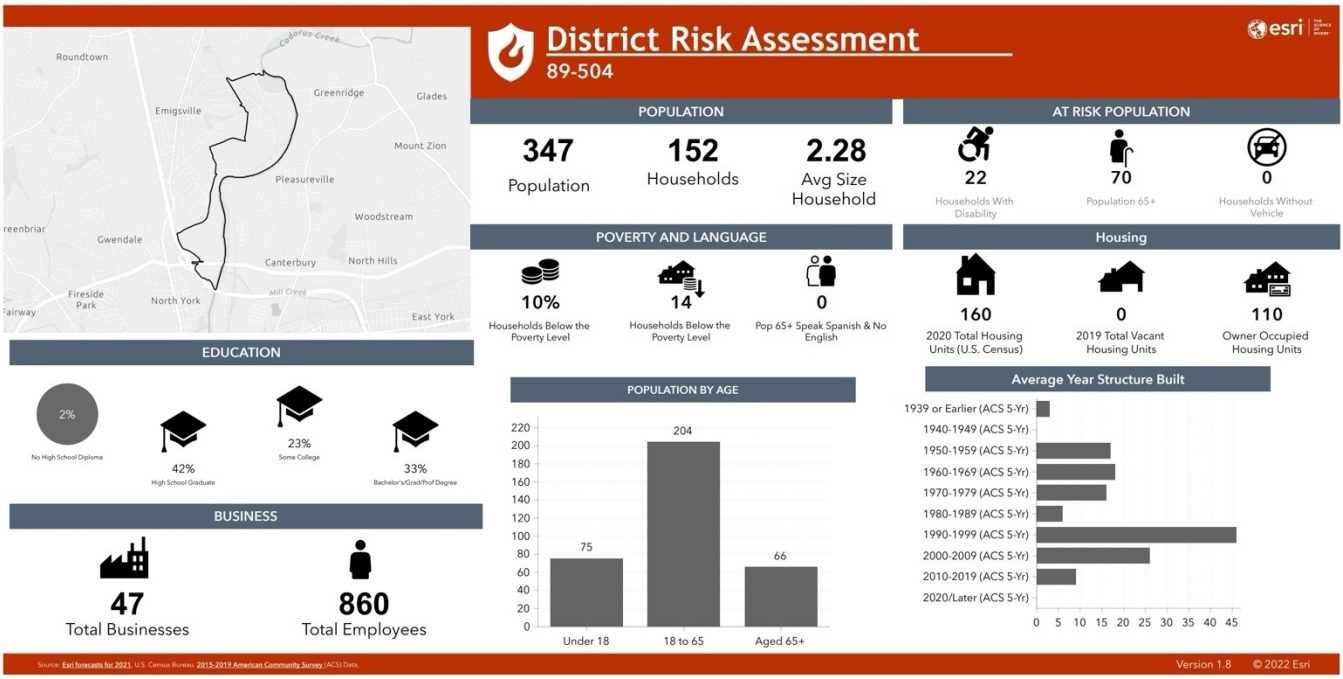

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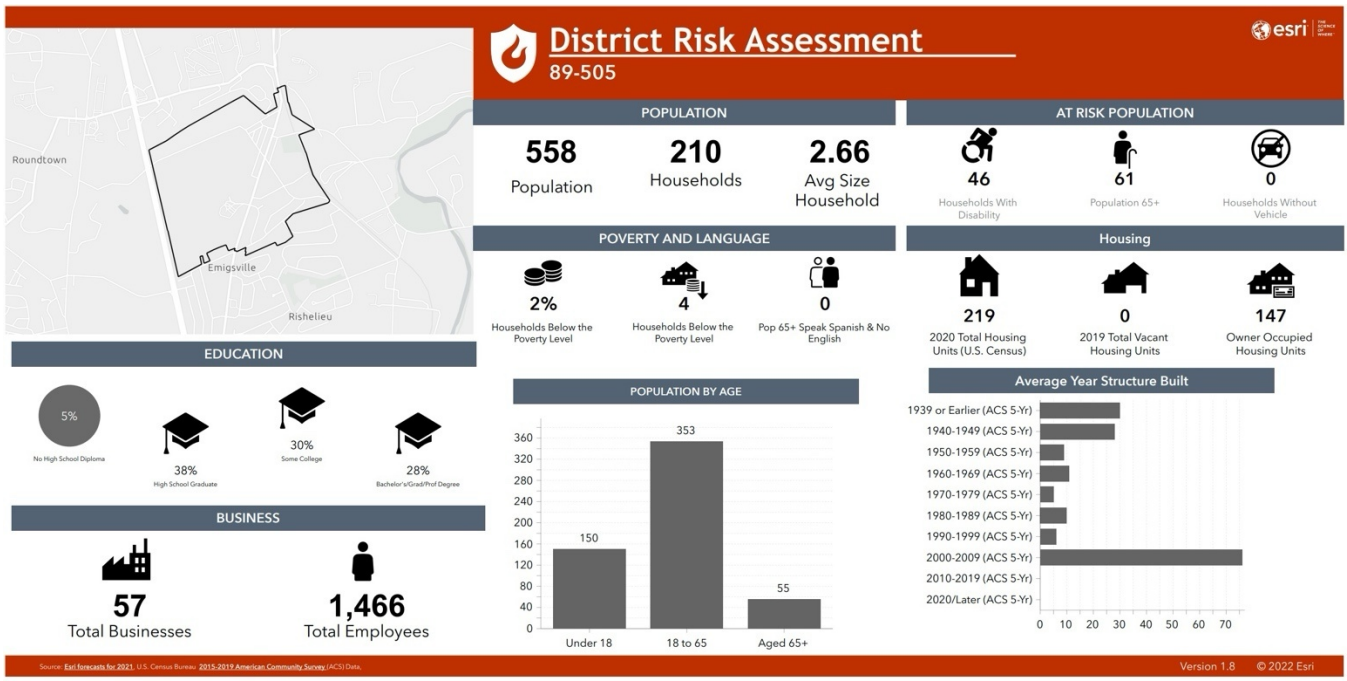

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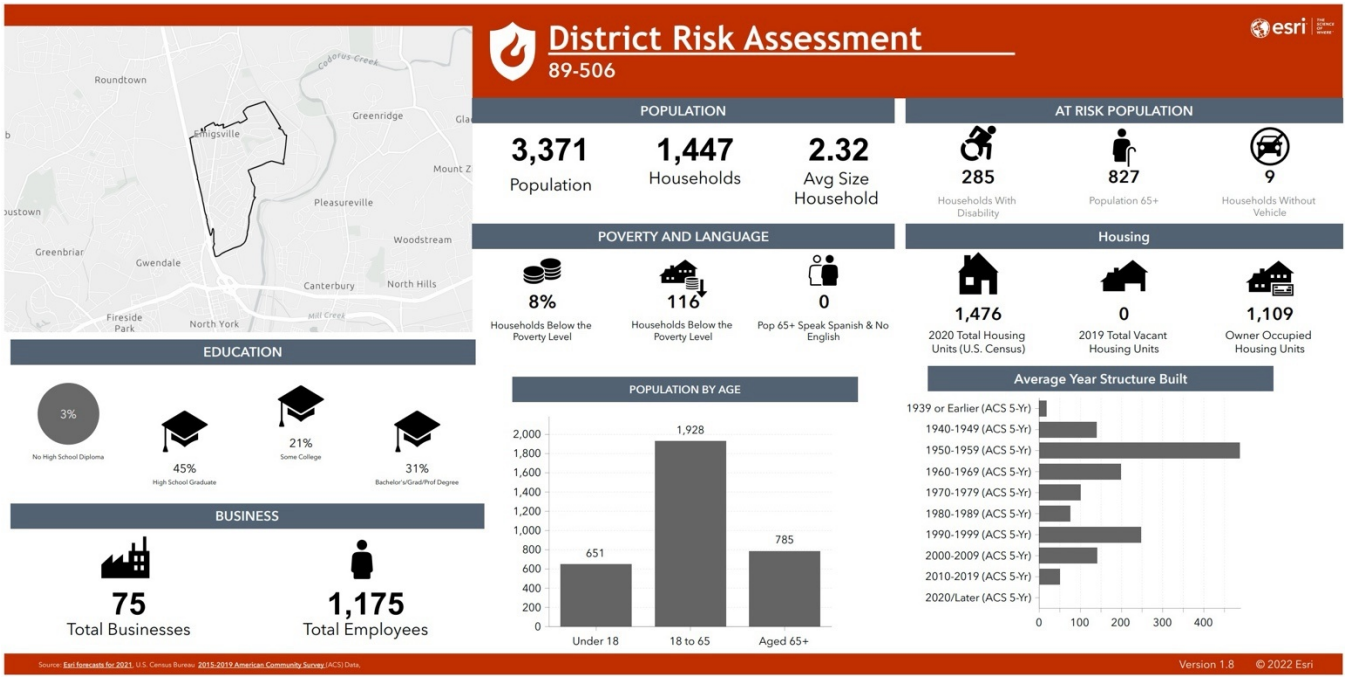

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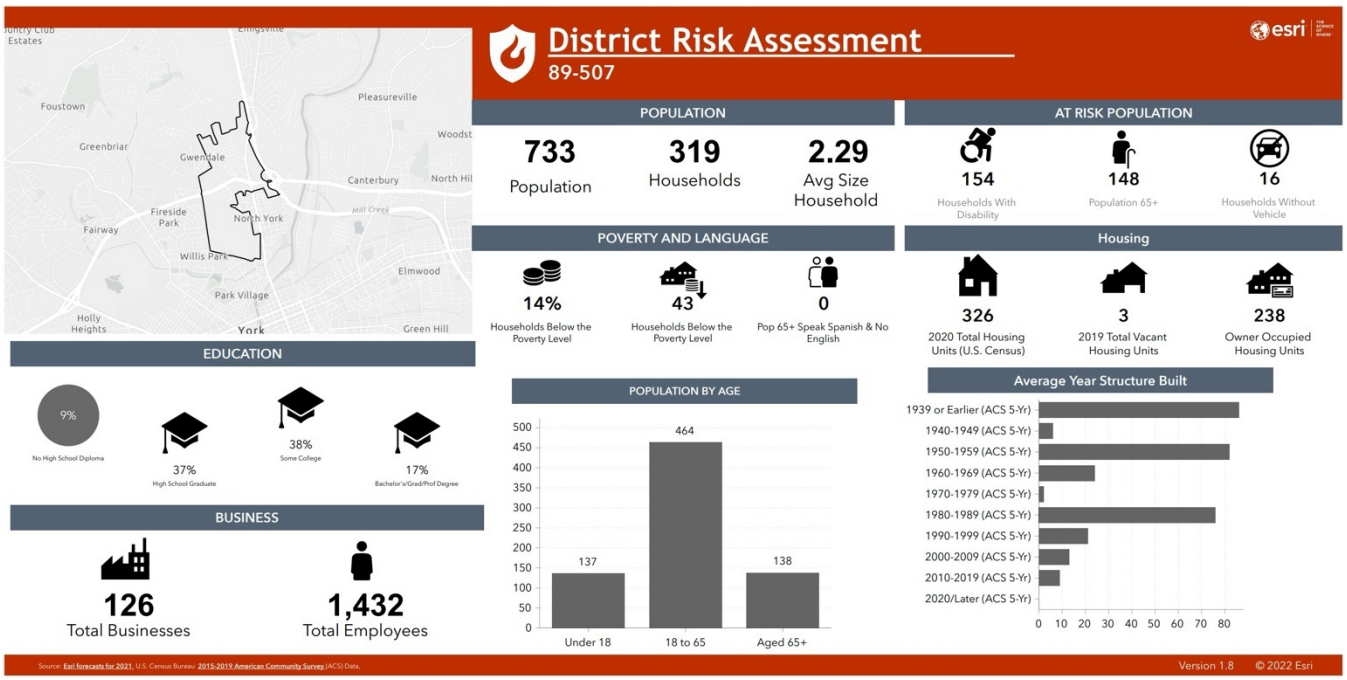

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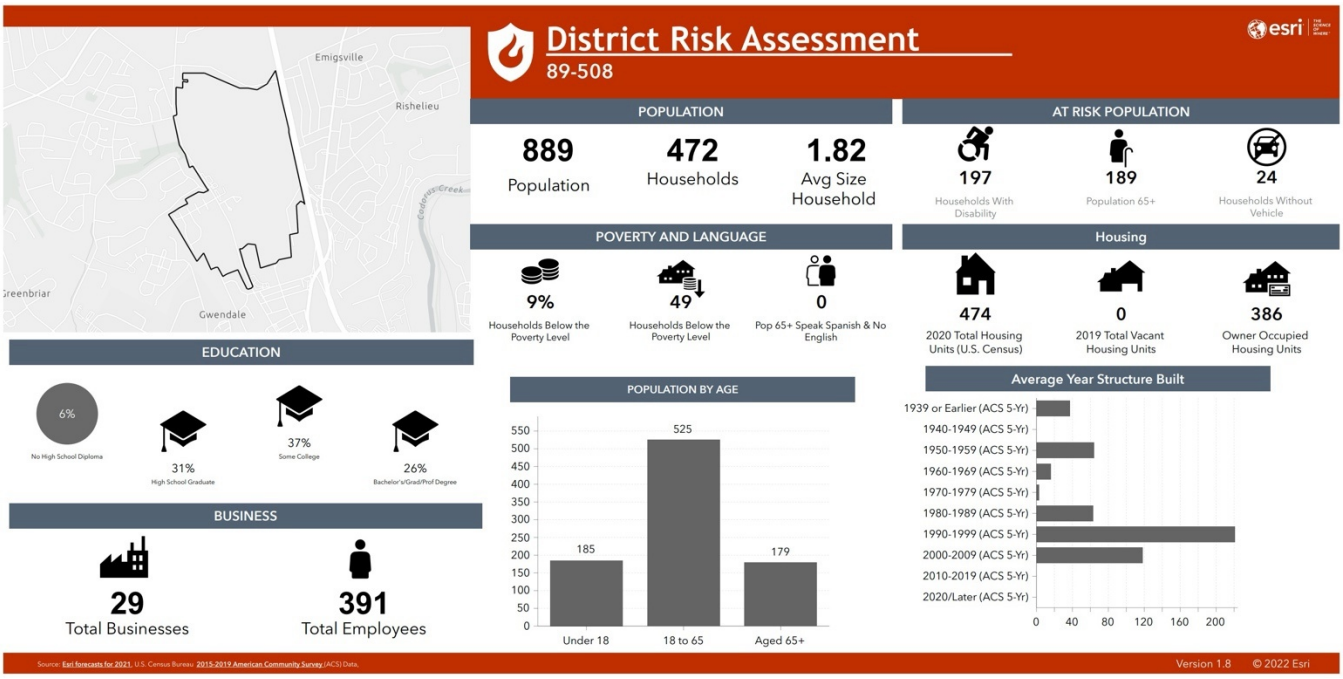

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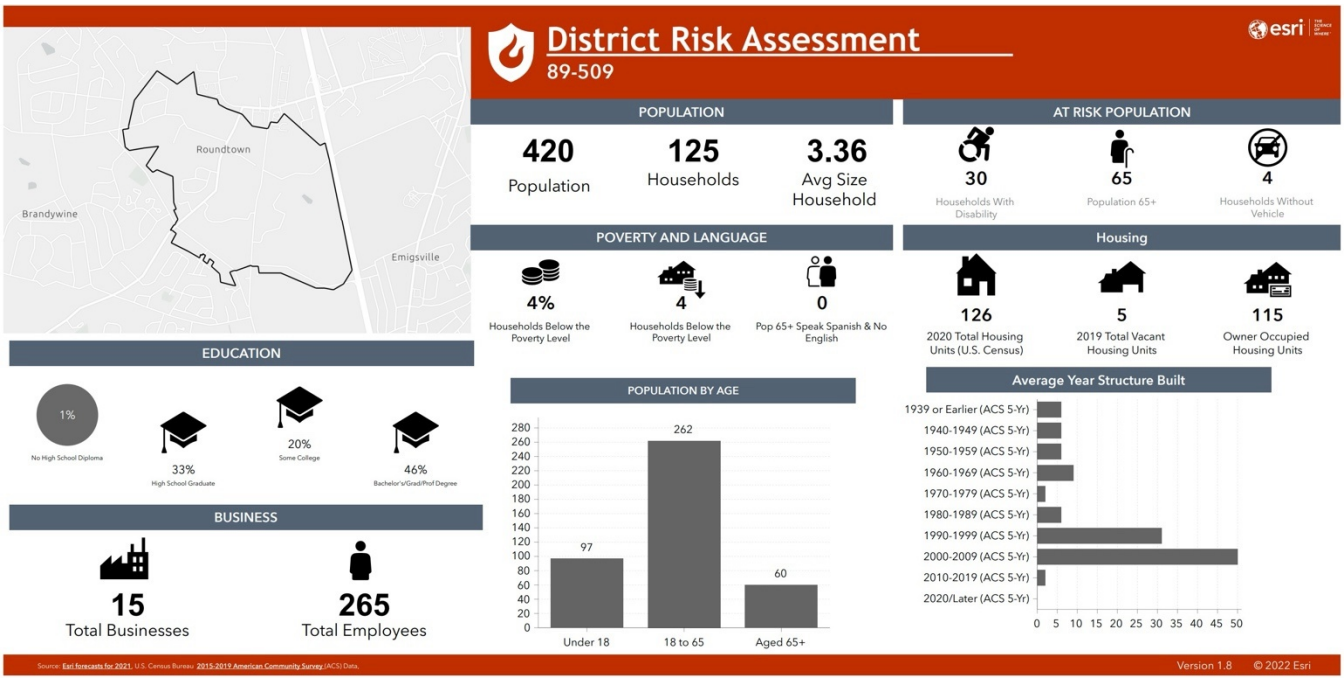

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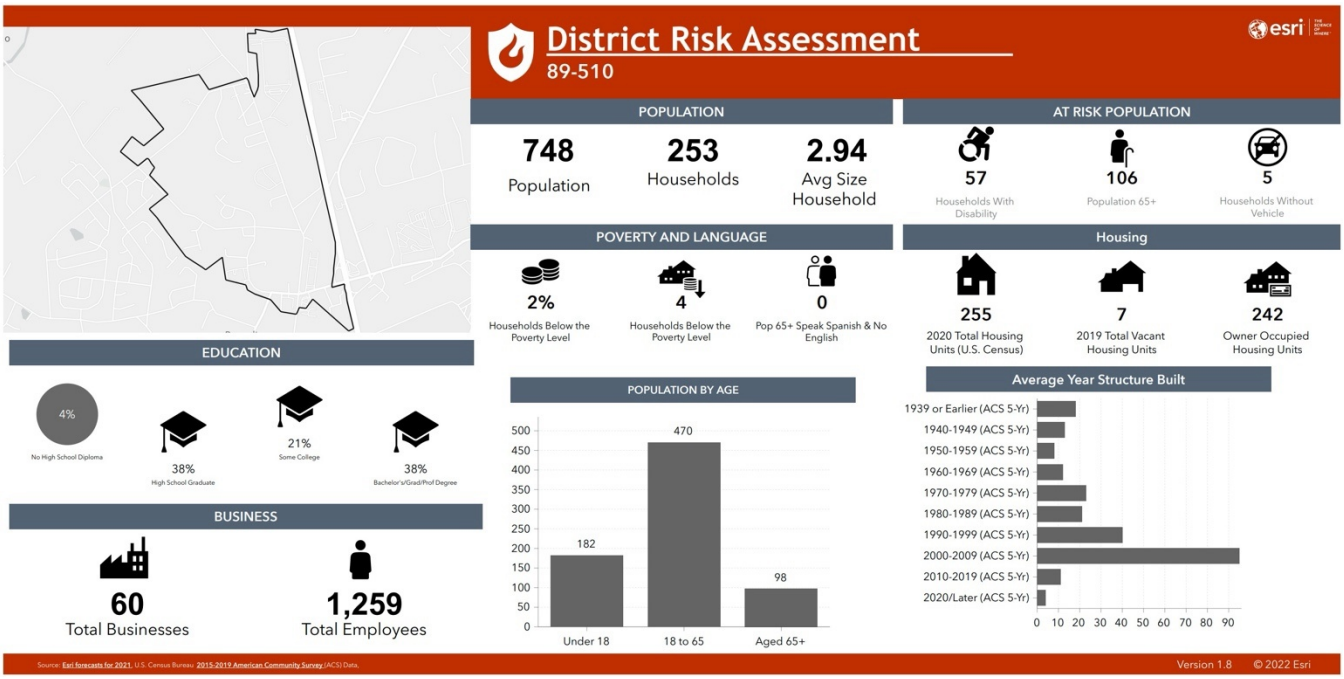

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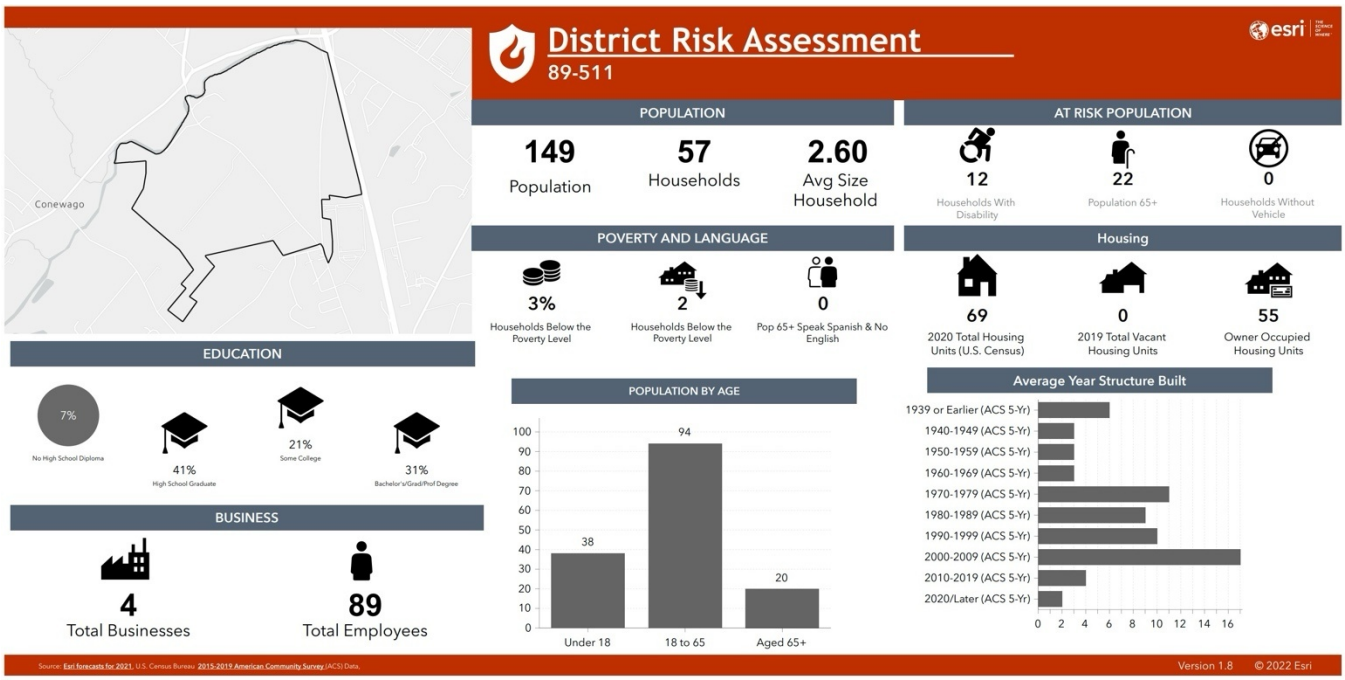

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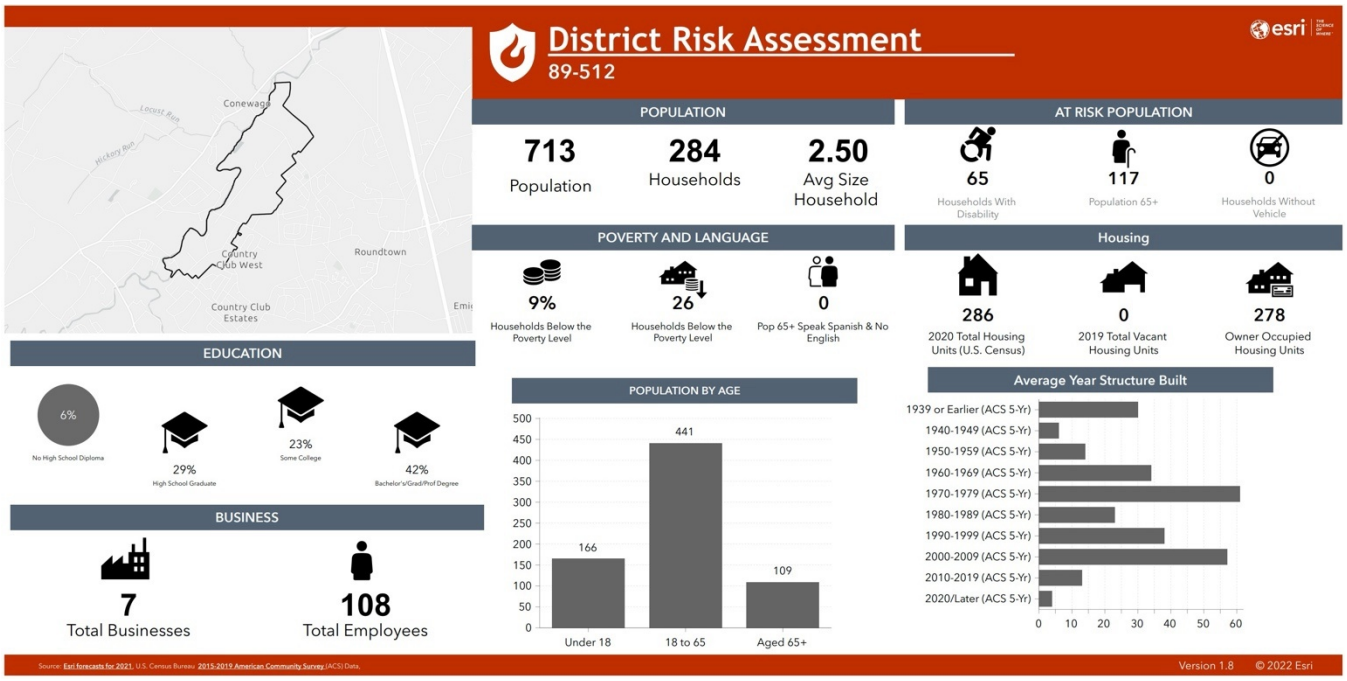

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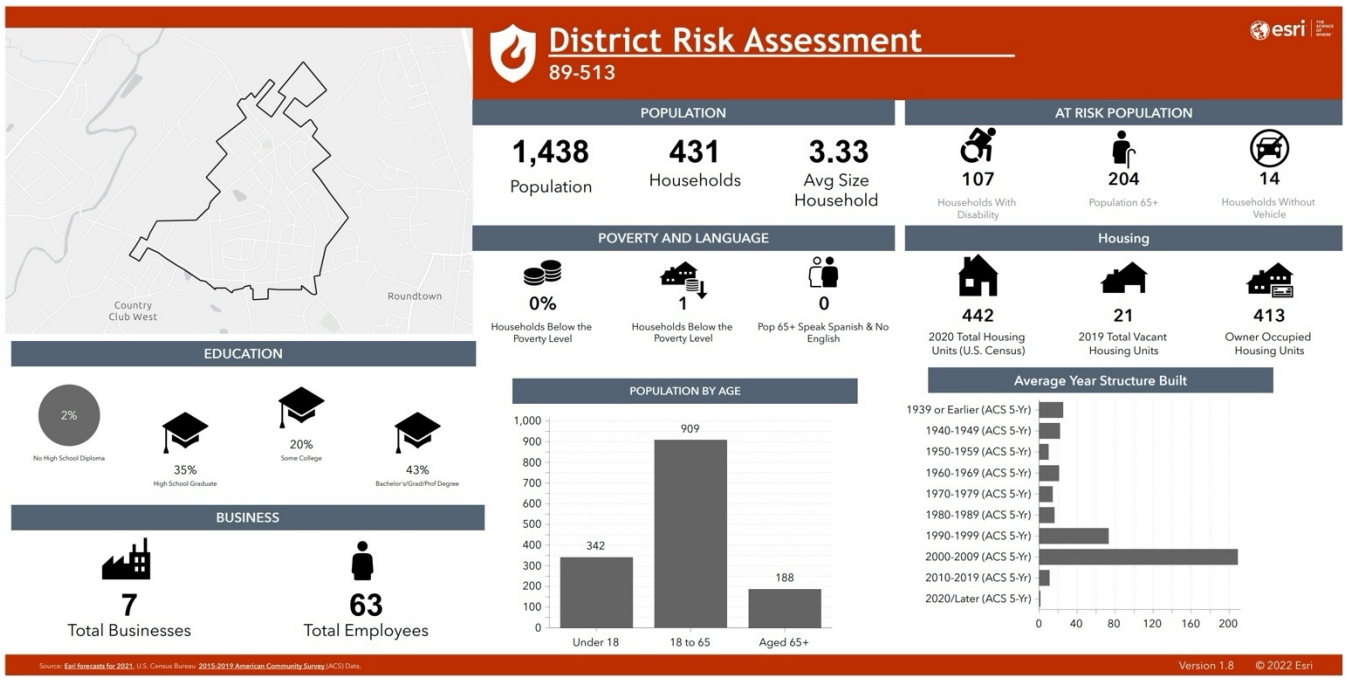

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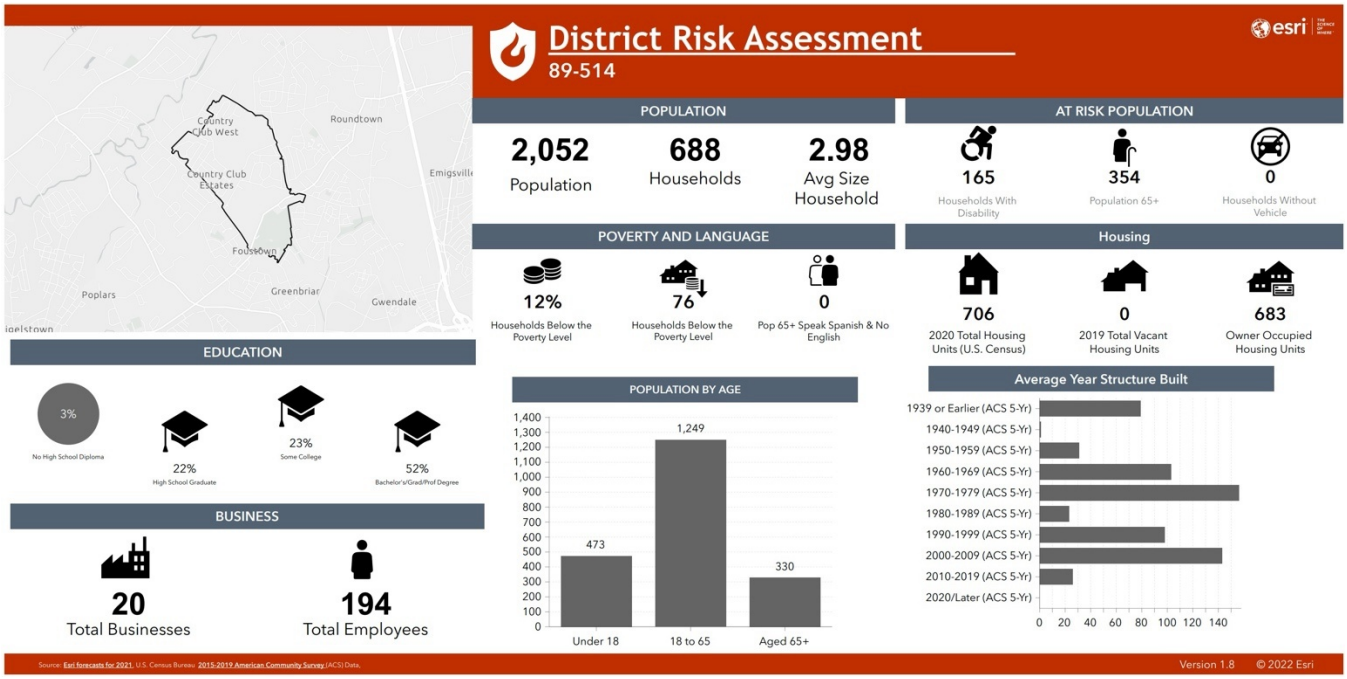

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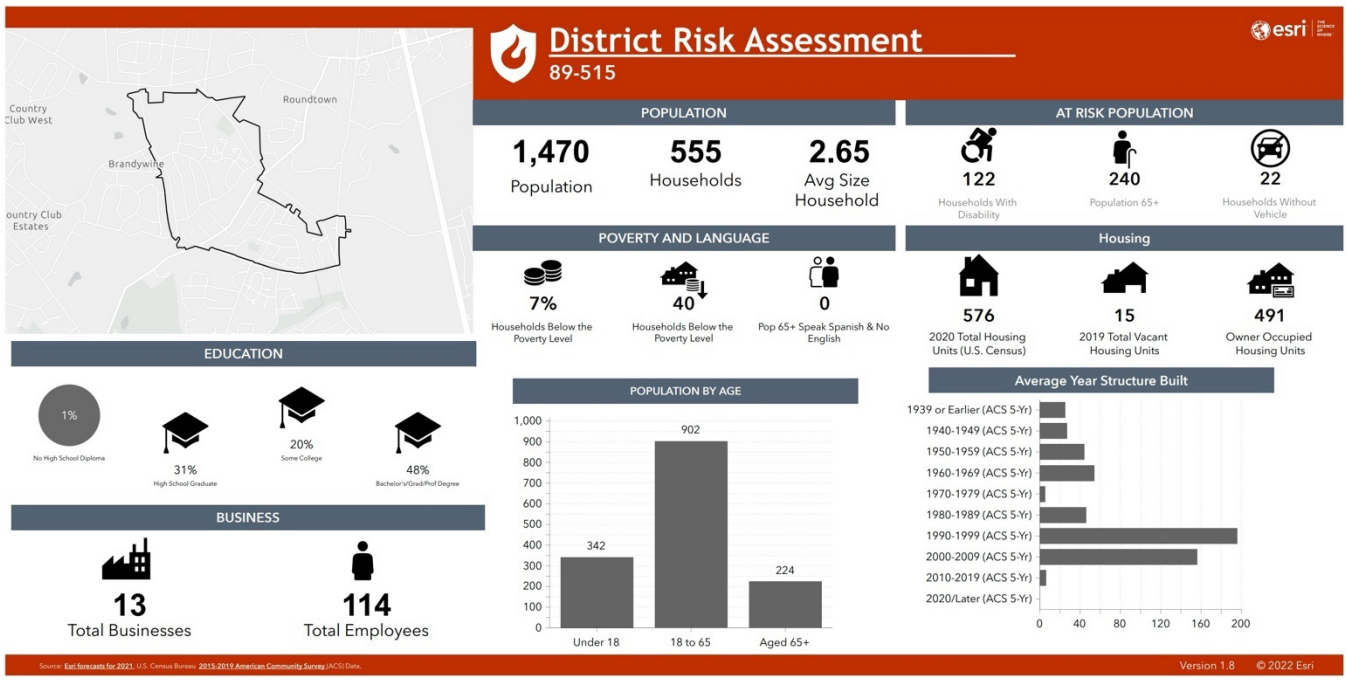

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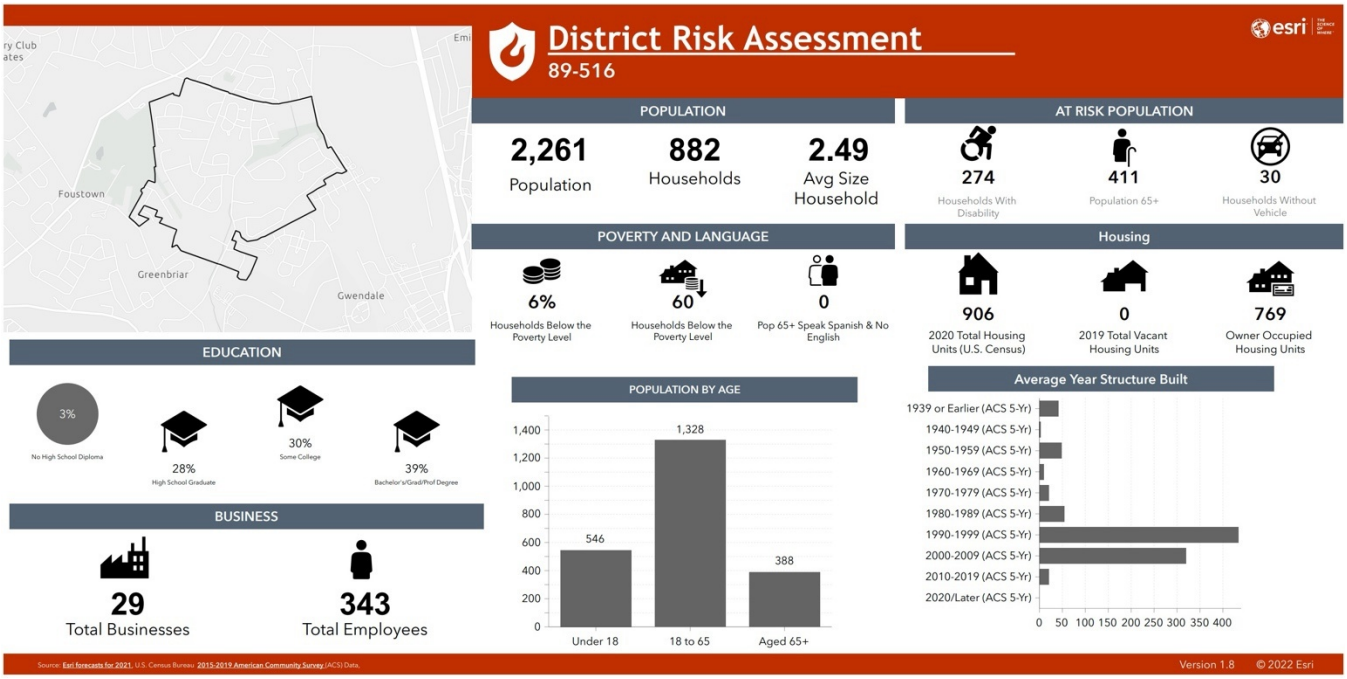

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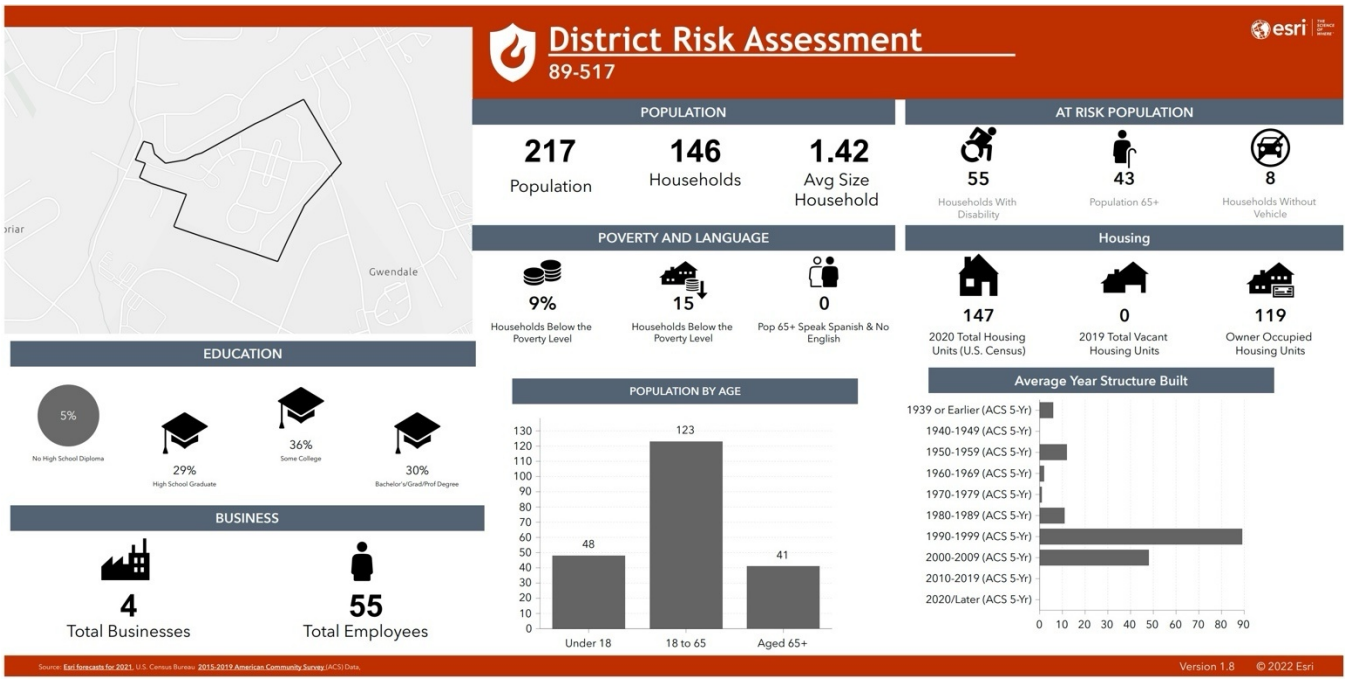

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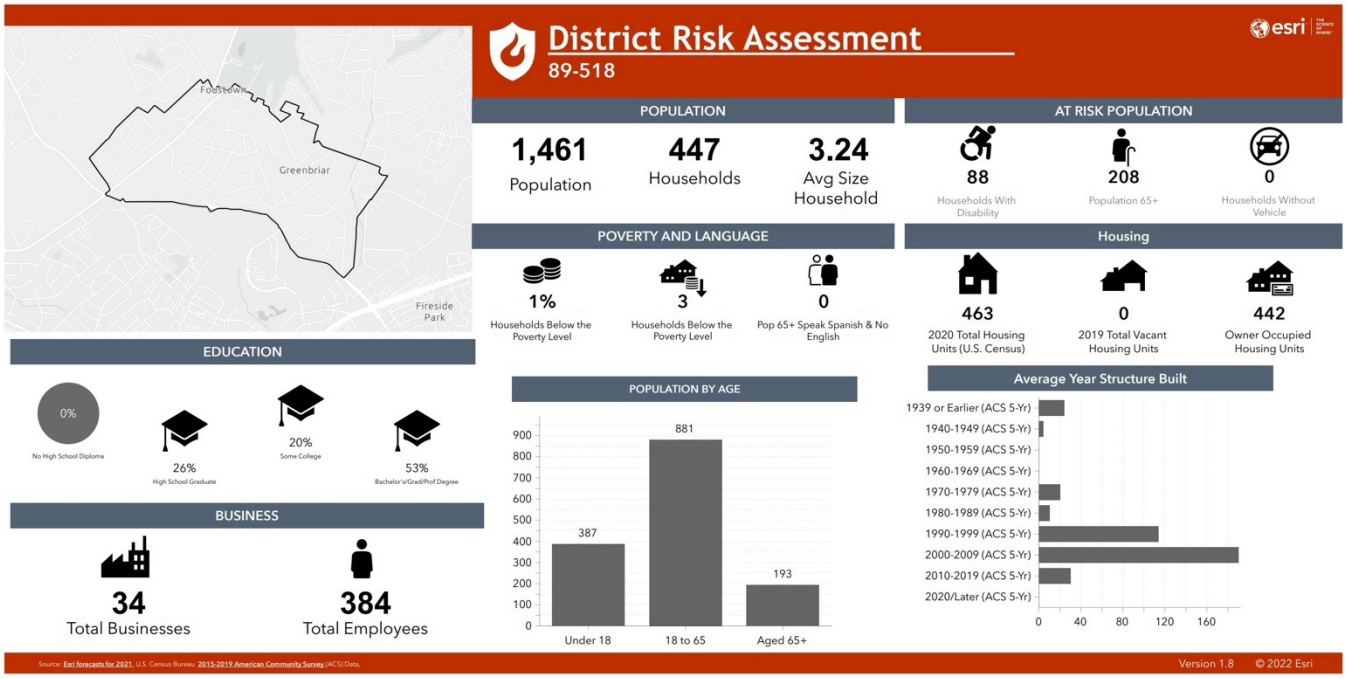

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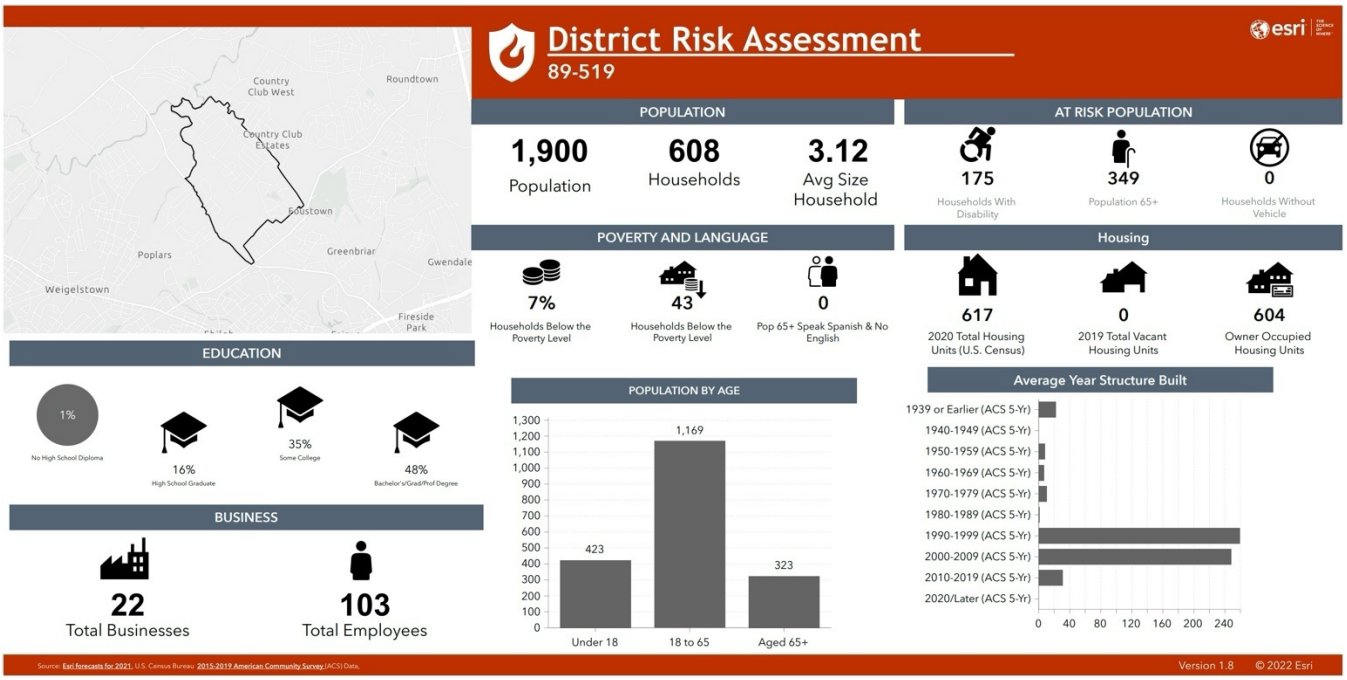


Description of Agency Programs and Services

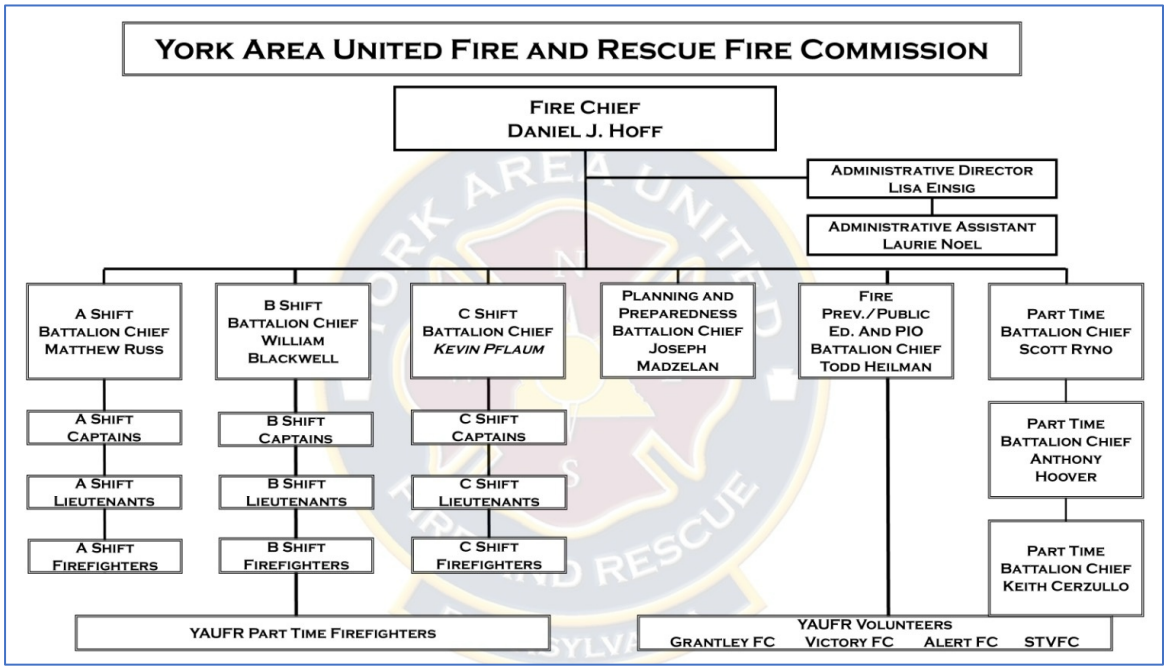


Figure 10: YAUFR Organizational Chart

Fire Prevention

The Prevention Program consists of prevention and mitigation strategies meant to minimize risks found within the community. The prevention program includes plan review, code compliance, and pre-fire planning. YAUFR has made great strides in its fire prevention program since 2016. The fire prevention program falls under the direction of the Battalion Chief of Planning and Preparedness, who is certified as a Fire Inspector, Commercial Building Inspector, and Pennsylvania Building Code Official. While other agency personnel are occasionally tasked to assist with fire prevention duties, no personnel are assigned solely to this program.

All construction projects requiring a building permit are conducted under the requirements of Pennsylvania's Uniform Construction Code (UCC). Pennsylvania's UCC currently recognizes the requirements of the 2018 International Codes but is working to adopt the 2021 edition of the codes. YAUFR is provided with copies of all commercial building permit applications and related plans for review and comment. This includes changes of occupant with no associated construction. The Battalion Chief of Planning and Preparedness reviews all permit submissions and provides comments to the Building Code Official of the respective municipality to be addressed by the applicant. YAUFR staff participate in permit-related commercial building inspections pertaining to life safety systems, as well as final inspections prior to issuance of a certificate of occupancy. Pre-fire planning information of new and renovated commercial occupancies is also completed at this time.

Similarly, YAUFR is provided opportunity to review and comment on all land development plans. All three charter municipalities hold staff plan review meetings where the developer meets with municipal planning and

zoning officials, as well as the fire and police departments to review the plans and answer any questions. The agency's review is focused on access to and egress from the development, maneuverability of fire apparatus within the site, fire hydrant locations, and other risk assessment-related items.

The Pennsylvania UCC deals with new construction, building renovations, and changes in commercial occupancy. After a certificate of occupancy is issued under the permit, the UCC has minimal application with regard to enforcement of the maintenance of life safety systems. In order for the YAUFR to enforce life safety concerns, municipalities must adopt their own fire code. As of late 2024, all charter townships have adopted uniform fire code language, with differences in enforcement authority.

- Manchester Township adopted the 2018 ICC International Fire Code by ordinance, delegating enforcement authority to YAUFR.
- Spring Garden Township adopted the 2018 ICC International Fire Code by ordinance, delegating enforcement authority to YAUFR.
- Springettsbury Township adopted the 2018 ICC International Fire Code by ordinance, but delegated enforcement authority to its building code official, with YAUFR providing assistance under their direction as necessary.

Fire and life safety code enforcement is primarily request or complaint driven. If YAUFR or one of the charter townships is notified of a concern, an inspection will be conducted. An inspection will also be conducted at the request of a property owner or business manager. When an existing property is inspected as part of a UCC building permit, a life safety inspection is also conducted, and life safety issues otherwise outside of the scope of the building permit are addressed.

In 2025, YAUFR incorporated a fire safety survey into the preplanning process. Operations personnel complete an abbreviated inspection while conducting the preplan, notifying the Battalion Chief of Planning and Preparedness if a follow up inspection is required.

Fire Prevention program-specific goals:

- Review and update occupancy preplans annually, but no less than bi-annually.
- Conduct fire safety surveys of all commercial occupancies annually, but not less than bi-annually.
- When inspection goals cannot be met, prioritize target hazards for annual inspections.
- Review 100% of all submitted land development and building plans.
- Send a YAUFR representative to 100% of the UCC commercial permit final inspections.

Fire Suppression

York Area United Fire and Rescue (YAUFR) provides services, including fire suppression, to Manchester, Springettsbury, and Spring Garden Townships. Automatic and mutual aid is provided to surrounding jurisdictions upon request, following established response assignments in the York County 911 Center's Computer Aided Dispatch system. YAUFR operates from five fire stations, with a minimum of 12 career firefighters and company officers on duty at all times, supervised by a battalion chief that oversees all shift operations. Two additional full-time battalion chiefs provide additional operational support on weekdays.

On duty personnel staff five engines (pumpers), two ladder trucks, and a heavy rescue as needed. Every station is assigned a frontline pumper. Stations 894 and 895 are assigned ladder trucks, and the heavy rescue is also assigned to station 895. No apparatus responds with less than two personnel, so minimum staffing only allows for 6 units to respond to incidents at any given time. Stations 891, 892, 893, and 894 each have one crew assigned.

Station 895 is assigned two crews. Five of the six crews have a total of three personnel assigned. The third crew members on these crews are often reassigned to fill shift vacancies. If there are no shift vacancies, maximum staffing on a shift is seventeen firefighters and one battalion chief.

Pumpers carry a minimum of 1000' of supply hose in 3" and 5" diameters. 1.75" and 2" fire attack hose is carried in various preconnected lengths of 150, 200, or 300 feet. Frontline pumpers have a pumping capacity of at least 1250 gallons per minute (GPM), with 500-gallon water tanks, although current apparatus specifications have increased those minimums to 1500 GPM and 600 gallons of water. Two additional pumpers are available in reserve status for use when frontline units are out of service and can also be staffed by off duty personnel as needed.

One ladder truck is equipped with a 105-foot rear mount aerial, while the other is equipped with a 95-foot mid-mount platform. A 100-foot mid-mount tower ladder is currently on order to replace that unit. The 105-foot aerial is equipped with a 300 GPM and 300-gallon water tank, for basic fire suppression capability if needed. The 95-foot tower is equipped with a 2000 GPM pump and 300-gallon water tank.

A single axle walkaround heavy rescue with air cascade system (for self-contained breathing apparatus (SCBA) air cylinder refills) is staffed as needed and operates in place as the tower ladder when that unit is out of service. It is equipped with fire suppression equipment comparable to ladder companies, including extension and roof ladders. A tandem-axle walk-in-style heavy rescue is currently on order as a replacement unit.

Photo: Residential Structure Fire - Manchester Twp

All fire apparatus is equipped to meet or exceed the minimum standards established by NFPA 1901. Seating is provided for a minimum of four personnel, with SCBA and spare air cylinders available for all crew members. All apparatus is equipped with thermal imaging cameras, air monitoring equipment, and rapid intervention team (RIT) equipment. Pumpers carry hose packs for standpipe operations in large or multistory buildings, as well as basic wildland firefighting equipment.

Through the community risk assessment process, YAUFR has identified areas with elevated risk for wildland urban interface (WUI). WUI is a zone of human development intermingled within wilderness areas. Typically, WUI areas contain multiple residential structures in heavily forested areas. These areas often have limited or difficult access by fire apparatus, making fire control challenging. To better address this risk, YAUFR has acquired a four-wheel drive pickup with the intent of equipping it as a brush fire response vehicle. When placed in service, this unit would be cross staffed by an engine company crew.

Fire Suppressions program-specific goals:

- Stop the fire loss on all structure fires at the level of involvement encountered upon suppression unit arrival 100% of the time.
- Ensure no further civilian casualties occur after suppression unit arrival.
- Identify cause and origin of all fires and deliver real-time public messaging through the public education program and PIO to educate the community and minimize preventable causes.
- Identify trends in fire causes: Report to applicable consumer agencies and adjust public education programs accordingly to ensure emerging trends are incorporated.

Emergency Medical Services

YAUFR provides basic life support services within the community served without capability for patient transport. The agency is a licensed Quick Response Service (QRS) under the Pennsylvania Department of Health. All personnel are certified as basic level emergency medical technicians (EMTs) operating according to Pennsylvania Basic Life Support (BLS) Protocols. All pumpers, ladders trucks, and the heavy rescue are equipped with basic life support equipment, including basic airway management tools, including oxygen, bandages and trauma care supplies, and automated external defibrillators (AEDs). Fire apparatus also carries naloxone to treat opioid overdoses.

Fire apparatus is dispatched to all emergency medical incidents identified as potential AED responses (where the patient is reported to be not conscious and not breathing. Fire apparatus also respond to high-priority medical incidents when the primary ambulance is committed to another incident and another ambulance is responding from a farther distance. This ensures timely arrival of trained medical personnel that can begin medical care until arrival of an ambulance.

The agency has also developed a specialized program for response to active assailant attacks or other hostile incidents that have the potential for multiple casualties. All apparatus is equipped with ballistic vests and helmets, and personnel have been trained in integrated response with law enforcement to these types of incidents. Personnel are trained and equipped to deliver Tactical Emergency Casualty Care (TECC) to multiple patients in environments that have not yet been fully secured by police.

EMS program-specific goals:

- Respond to all class 1 incidents where second-due EMS is dispatched; in 893 first-due area, respond to assist on all class 1 incidents.
- Respond on all AED responses.
- If first-due suppression company is unavailable, dispatch second-due suppression company.
- Identify optional programs within BLS protocols and evaluate for incorporation into the response model.
- Evaluate EMS response trends and develop recommendations for overall system improvement; i.e transport unit capacity, alternate deployment models, ALS availability, etc.
- Become a leader in development of active assailant incident response protocols within the region.

Technical Rescue

York Area United Fire and Rescue is trained and equipped to handle various types of technical rescue incidents at either the technician or operations response level. Technician-level capabilities, where the agency is properly trained and equipped to operate within the “hot zone,” include response to confined space, high angle, water/ice, and vehicle/machinery incidents.

In addition, the agency is trained and equipped to provide operational level support for structural collapse and trench rescues. Operations level response means personnel area trained and equipped to take initial mitigation actions and support technical operations but will require additional resource to successfully mitigate the incident. In York County, those additional resources are provided by the York County Advanced Technical Rescue Team (ATR).

The heavy rescue unit carries the primary equipment cache for technical rescue incidents. Rescue 89 is certified by the PA Department of Health (DOH) for Advanced Rescue Services and is inspected and recertified every three years. This unit is equipped with advanced rescue tools, such as stabilizing struts for trench, structural collapse, and heavy vehicle rescue, hydraulic recue tools, air lifting bags, and addition to gear for confined space, rope, and water rescue. In 2027, a new rescue unit, currently on order, is expected to be placed in service that will provide additional capabilities for structural collapse and trench rescue.

Photo: Vehicle Extrication

To ensure efficient response and availability, YAUFR has strategically equipped all apparatus with basic rescue equipment. Each engine company is equipped with hydraulic rescue tools, rope rescue gear, and water rescue personal protective equipment (PPE). Truck 891 carries additional water, rope, and vehicle rescue equipment. This unit serves as a backup to the heavy rescue.

Training is a key aspect of YAUFR's technical rescue response program. Personnel are trained to the operations level for various rescue scenarios, including rope, confined space, vehicle and machinery, and water rescue early in their career. Personnel have the opportunity to pursue technician-level certification as their career progresses. The agency's goal is to ensure at least one technician-level certified member in any ladder or rescue company crew. Over 90% of the career staff holds technician certifications in one or more technical rescue disciplines. The annual training plan covers certifications in rope, confined space, trench, structural collapse, vehicle, and machinery. In addition, efforts are underway to develop strategic partnerships with regional services, including the Pennsylvania South Central Task Force, to enhance the region's technical rescue capabilities.

Technical Rescue program-specific goals:

- Expand the number of personnel with technical rescue training and certifications.
- Expand YAUFR's capabilities to mitigate technical rescue incidents.
- Extend working relationships with County and regional technical rescue response teams.

Hazardous Materials

YAUFR currently provides the response to hazardous materials incidents at an operations level, as defined by the NFPA 1072/472 standard. Operations level response includes the mitigation of hazardous materials emergencies by isolating the areas around the emergency and containing the hazardous materials until additional resources arrive. Technician-level response is provided by the York County Hazardous Materials Response Team. Several YAUFR personnel are trained and certified as hazardous materials technicians, with a plan to increase the number of technician-certified personnel. Having these trained personnel allows YAUFR to assist county and regional hazardous materials teams.

The YAUFR heavy rescue carries much of the hazardous materials response equipment cache. This includes bulk absorbent materials, containment pools, leak control devices, air monitoring equipment, and personal protective equipment. In addition to the equipment carried on Rescue 89, each pumper is equipped with air monitoring equipment and spill control and containment materials. All personnel responsible for hazardous materials

response are trained to the operations level per NFPA 1072, with a refresher training offered annually as part of the master training plan.

With about 80% of the York County Hazardous Materials Response Team's incidents occurring in the YAUFR response area, the two agencies are developing a collaborative working relationship that includes sharing of resources, including personnel and expendable supplies. This relationship continues to evolve, with efforts being made to develop a joint operational agreement that would allow YAUFR and county resources to work more closely together and will assist YAUFR in offsetting some of the operational costs of the program while supplementing the county team's staffing.

Hazardous Materials program-related goals:

- Expand the number of YAUFR personnel certified to the hazardous materials technician level.
- Explore development of a partnership with the York County HazMat response team.

Community Risk Reduction

Community risk reduction (CRR) consists of prevention and mitigation strategies meant to minimize risks found within the community. This is accomplished through public education and assistance programs. YAUFR has made great strides in its fire prevention program since 2016. The CRR effort is coordinated by a battalion chief that oversees the public education and youth fire setter programs. No other personnel are assigned solely to this program.

Suppression company officers and their crews are assigned to assist with delivery of public education programs. One captain and one lieutenant are tasked with the coordination of pre-fire planning, which identifies and documents the potential hazards and risks in commercial buildings, ensuring responder awareness before an incident occurs.

Public education programs cover an all-hazards range of topics. Fire safety and prevention programs are available in many formats and for all age groups. YAUFR most-frequently delivers programs to school age children. Workplace safety programs and fire extinguisher trainings are also in high demand. Non-fire-related programs are also available, including water safety, fall prevention, and child passenger safety.

Community Risk Reduction program-related goals:

- Increase the number of certified child passenger safety technicians.
- Increase the number of personnel with public education specialist certification.
- Increased presence in public schools, especially higher grade levels
- Provide delivery of public education messaging from incident scenes, related to preventable causes.
- Complete development of program curriculum outlines to be used to provide consistent messaging.

Training and Professional Development

YAUFR continues its commitment to the training and preparedness of its personnel to provide our communities with an elevated level of service. To meet this goal, an annual training plan is developed to guide officers and personnel in achieving required training and personal development goals that we have committed to stay true to our mission. The annual training plan details monthly training topics, objectives, and job performance requirements (JPR) for the services we provide. As part of the quality improvement plan and the standards set forth by NFPA, OSHA, and ISO, we have set a goal to not only meet these standards but exceed them. Over the

last several years we have utilized training software to deliver and document training. This software tracks hours of training to ensure that we are meeting or exceeding this goal. Currently, annual training requirements are divided into five general categories along with the required hours of related training. These training categories are driver training, fixed facility training, hazmat, officer, and company training.

Photo: Training at YCPSTC

New recruits begin their career with a 120-hour orientation period. The orientation consists of learning about the agency structure, general orders, communications, operations, and engine company driver operator. This is a tested program to ensure consistent and thorough knowledge. New recruits do not count as staff until the orientation period is complete. All new recruits will then participate in a career fire academy at Harrisburg Area Community College. Here they will obtain Emergency Medical Technician, Firefighter 1 and 2, Hazmat Operations, and a handful of technical rescue certifications.

New recruits that successfully complete the career academy begin a 1-year probationary period. During this time, they will begin a rookie book that consists of 5 chapters. Each chapter is geared towards the arrival duties of the 5 engine companies for a structure fire. They will also learn the area immediately surrounding each station, pertinent skills for the engine company driver operator, line of duty deaths, various reading materials, and department operations. The rookie book is tested per chapter to show proficiency in skills and knowledge learned. Upon completion of the rookie book and their 1-year probation, recruits move on to another 6-month orientation of the truck and rescue companies.

The training plan accounts for daily training for the shifts. Annual re-certification training is built in to include CPR/AED, hazmat operations refreshers, blood borne pathogens, SCBA respiratory training, and structural burns. Each shift completes an 8-hour daytime structural burn and an 8-hour nighttime structural burn. Additional re-certification training is built into the program for EMS continuing education for EMTs and paramedics. Employees are also free to complete other work-related continuing education while on duty.

The annual budget allocates at least one certification training per employee. Employees are also urged to attend courses at the National Fire Academy. York Area United Fire & Rescue is also partnered with Columbia Southern University and Elizabethtown College to offer tuition discounts for those that wish to pursue higher education.

Training and Professional Development program-related goals:

- Ensure all personnel are meeting required annual training per ISO
- Develop and implement a mentoring process to ensure longitudinal and latitudinal growth for all personnel
- Ensure access to programs aligning with the YAUFR training plan and desired career progression plans
- Encourage advanced professional certification and credentialing

All-Hazard Risk Assessment and Response Strategies

York Area United Fire and Rescue provides all-hazards response services to the community, including both man-made and natural events. All-hazards means responding to a variety of requests for service, including fires, emergency medical calls, hazardous materials, and technical rescue incidents. The all-hazards approach is inclusive of prevention, preparedness, response, and recovery actions that meet a full range of threats and hazards. To provide the most effective level of service, it is important to identify the risks that exist in the response area and assess those risks to ensure programs and services meet the needs and expectations of the community.

Definitions associated with risk assessment include:

- **Risk:** potential for an unwanted outcome resulting from an incident, event, or occurrence as determined by the likelihood and associated consequences.
- **Threat:** natural or man-made occurrence, individual or entity or action that has or indicates the potential to harm life and or property.
- **Hazard:** natural or man-made sources or cause of harm or difficulty.
- **Vulnerability:** physical feature or operational attribute that renders an entity open to exploitation or susceptible to a given hazard.
- **Consequence:** the effect of an event, incident, or occurrence, including the number of deaths, injuries, and other human health impacts along with economic, impacts, and other negative impacts on the society.
- **Probability:** the mathematical likelihood of an event occurring.

The goal of the risk assessment process is to categorize fire and non-fire risks in order to better manage them. Risk management is the continual process of identifying and evaluating of risk. The risk management process involves:

- Determining the demands presented by the risks
- Managing the workload created by the risks
- Documenting the capability and capacity of the available resources to respond to risks
- Establish processes that prevent hazards and threats from becoming incidents that require mitigation (for example, public education programs meant to prevent fires from occurring)

Risk cannot be completely eliminated, but it can be avoided. Predictable harm can be managed through directed efforts to reduce risk, such as public education or life safety inspection programs. Risk can be transferred to other parties through insurance. Some residual risk can be accepted. A risk/benefit-cost analysis must be conducted to determine the level of risk that a community is willing to allow. Elected officials, under the direction of their constituents, determine the levels of acceptable risk, and then agency personnel take appropriate action to allocate resources supplied to meet determined risk levels.

The Commission on Fire Accreditation International defines four steps regarding risk assessment methodology:

- Identifying the Risk
- Assessing the Risk
- Classifying the Risk
- Categorizing the Risk

Risk Assessment Methodology

Risk assessment is defined in NFPA 1600, Standard on Disaster/Emergency Management and Business Continuity/Continuity of Operations Programs as:

> "A process for identifying potential hazards/risk exposures and their relative probability of occurrence; identifying assets at risk; assessing the vulnerability of the assets exposed and quantifying the potential impacts of the hazard/risk exposures on the assets. Periodic reassessment is needed when changes to the entity occur. Reassessment is also necessary because hazards/risk exposures change over time, and the collective knowledge of hazards/risk exposures develops over time."

Risk is assessed by quantifying or measuring probability and consequence. In addition, every incident has an impact on operations. For this reason, York Area United Fire and Rescue opted to assess risk in the community using a three-axis approach, as defined in the Quality Improvement for the Fire Service book by the Center for Public Safety Excellence. In addition to probability and consequence, the impact on resources and deployment is also assessed. Two or more risks may interact, resulting in a greater impact.

Probability is the likelihood that an event will occur. YAUFR measured probability using historical incident data from the agency's records management system over a period of five years.

Consequence evaluates the effect an incident may have on the community. The agency's method of evaluation looks at the effect on property, life safety, and damage to the community (including economic or environmental damage, and loss of historic or irreplaceable assets).

Impact measures the strain an incident may place on the agency's resources, as well as resources from outside agencies. As an incident involves more resources, the ability to manage simultaneous incidents in a timely and efficient manner decreases.

Risk assessments can be complex, even when being reduced to a manageable set of factors. Historical data is useful for risk assessment across all categories of risk. While rare or unusual events can and will happen, historical patterns are a reasonably accurate indicator of future events, particularly when combined with a review of changes occurring within the area assessed. Using the three-axis approach, probability, consequence, and impact are identified, analyzed, and classified for each historical incident. Historical incident data is used to find correlation between incident types, deployment standards, and loss. This risk evaluation is used to make informed decisions about future incidents and guide policy development.

ERSI's Fire Accreditation Analysis solution is utilized in ArcGIS Pro to analyze historical incident data. The risk analysis methodology for determining probability uses the frequency of each incident type to determine the likelihood of a similar event occurring, using the Jenks natural breaks classification method.

The methodology for determining consequence involves evaluating the loss of life, injuries, and property that result from an incident. If an incident results in one or more deaths, the incident receives the highest risk score. Injuries and property loss are independently classed using the Jenks natural breaks classification method. The scores for these three variables are then summed and classified to calculate the final consequence score.

The methodology for determining impact involves evaluating the drain effect of an incident on the agency's deployment and coverage capacity. This is measured by the total number of resources and personnel deployed to an incident and classifying the result.

Risk must then be evaluated to determine its degree or severity. The total risk score uses Heron's Formula modified for tetrahedrons to combine probability, consequence, and impact scores to calculate a degree of risk.

$$Risk\ Score = \sqrt[2]{\frac{(PC)^2}{2} + \frac{(CI)^2}{2} + \frac{(IP)^2}{2}}$$

$P = Probability \quad C = Consequence \quad I = Impact$

Plotting probability, consequence, and impact values allows the agency to visualize where the risk comes from, i.e. high risk, low consequence, and low impact, etc. The ESRI fire accreditation analysis solution is used to analyze incident data for the previous five calendar years, evaluating the degree of risk on a per-incident basis.

Levels of risk for incident types were assigned by dividing the calculated Risk Scores into ranges, low, medium, and high. The high-risk incidents are grouped by incident types and plotted by year, allowing the identification of trends. Table 3 shows the five-year distribution of high-risk incidents in each incident type group.

Figure 11: Plotting 3-Axis Risk Score

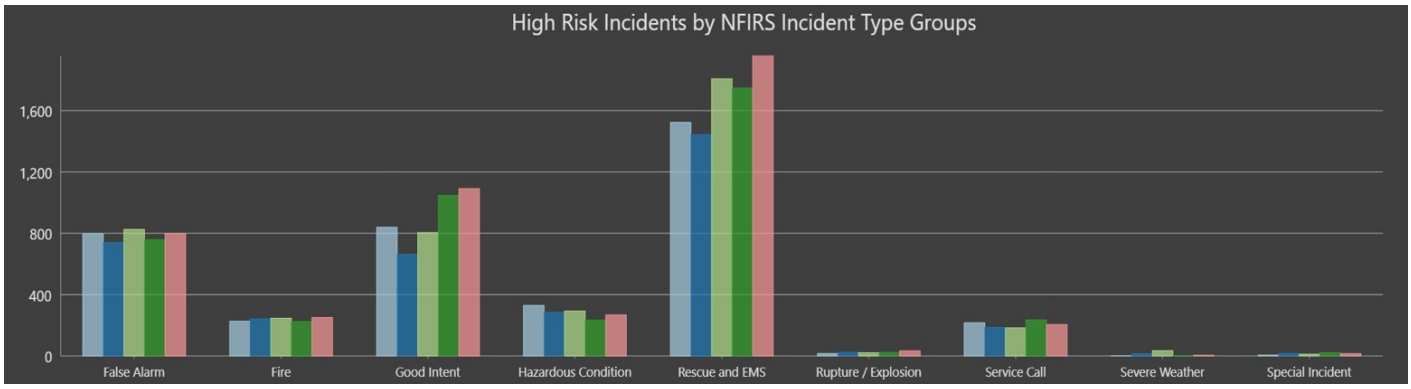
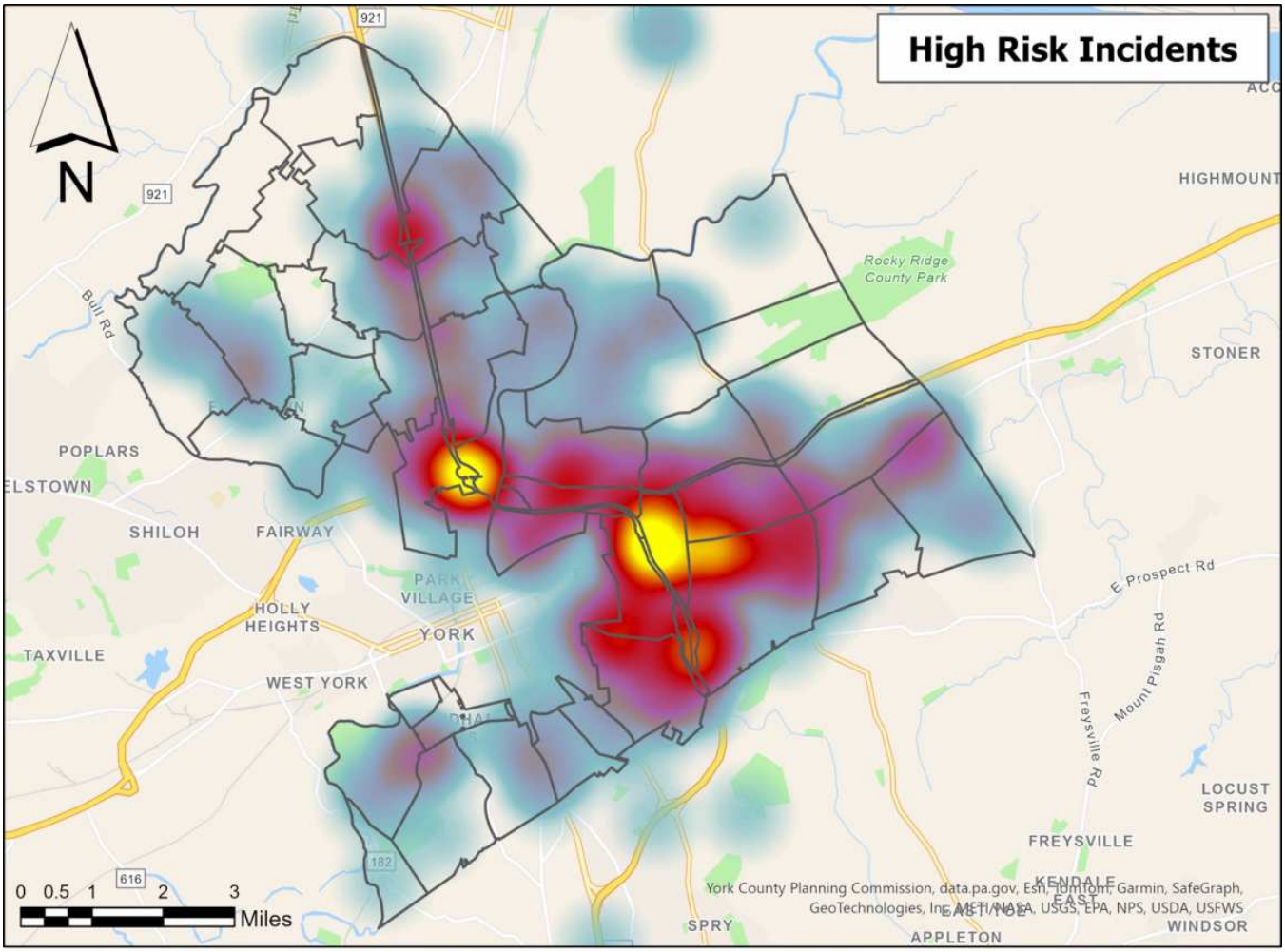


Table 3: Distribution of High-Risk Incidents by NFIRS Incident Type Group and Year (2020-2024)

Plotting historical high-risk incident locations in a heat map shows the area's most likely to experience these types of incidents, as shown in Map 13.



Map 13: High-Risk Incident Locations 2020 - 2024

Additional Risk Assessment Considerations

Risk Assessment by Occupancy

Certain commercial occupancies may possess higher factors than others. For this reason, the YAUFR pre-fire planning process includes the use of Occupancy Vulnerability Assessment Profile (OVAP) scoring based on data collected about the location. OVAP scoring considers:

- Needed Fire Flow (how much water is needed to extinguish a large fire)
- Building construction and separation factors
- Life Safety factors (occupant mobility, alarms, and exits)
- Frequency/Likelihood of an incident, possible consequences of an incident, and impact to the community

Similar to the overall risk assessment strategy, each of the above items is assigned a numeric value, which is used to calculate an overall Risk Score for that occupancy. The Risk Score is automatically calculated by the First Due records management system. Occupancy risk levels are assigned based on ranges of scores, either Low, Moderate, High, or Very High. Table 4 shows the classification of risk based on the calculated risk score. Table 4 shows the occupancy assessments by planning zone, including the number of assessed occupancies, the average risk score, and the number of target hazards. Target hazards include critical infrastructure and properties of community significance.

Occupancy Risk Classification	
OVAP Score	**Risk Classification**
< 15	Low
15 - < 40	Moderate
40 - < 60	High
60 +	Very High

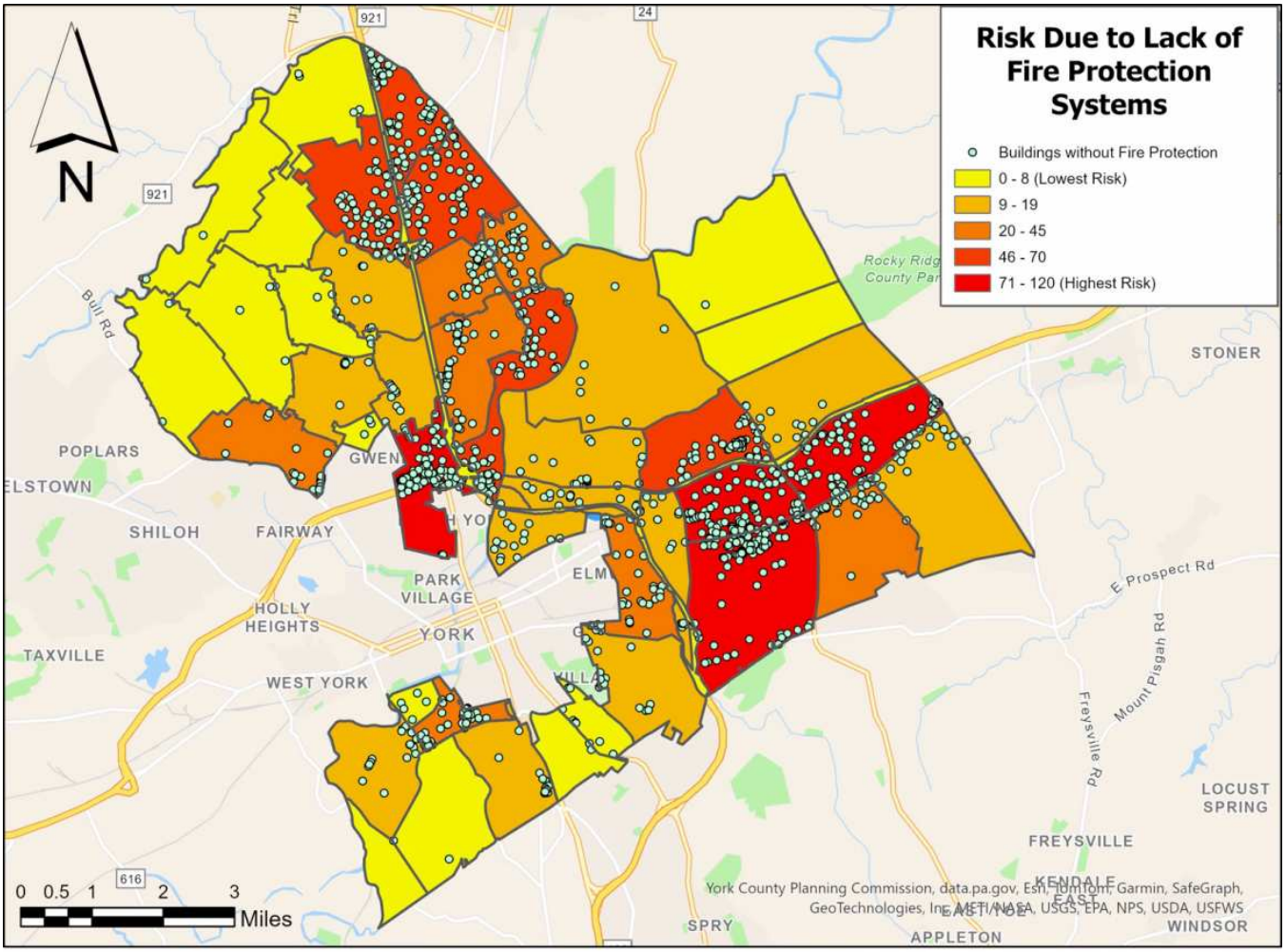
Table 4: Risk Classification System

Planning Zone	Assessed Occupancies	Average Risk Score	Target Hazards
Box 89-101	16	28.86	2
Box 89-102	199	28.35	5
Box 89-103	186	28.56	13
Box 89-104	385	30.09	17
Box 89-105	90	30.33	3
Box 89-106	37	30.08	3
Box 89-108	1	35.00	0
Box 89-201	21	27.79	1
Box 89-202	53	29.81	5
Box 89-203	3	25.67	0
Box 89-204	5	27.75	0
Box 89-205	36	28.76	2
Box 89-206	53	27.13	1
Box 89-207	55	27.09	1
Box 89-208	32	28.00	2
Box 89-209	1	25.00	0
Box 89-301	20	27.50	3
Box 89-302	5	29.67	1
Box 89-303	23	28.38	4
Box 89-304	189	27.92	4
Box 89-308	34	28.89	2
Box 89-309	69	28.78	2
Box 89-310	2	31.00	0
Box 89-401	217	29.07	5
Box 89-402	77	25.00	3
Box 89-403	65	27.70	8
Box 89-501	94	30.58	2
Box 89-502	72	29.67	1
Box 89-503	30	29.00	4
Box 89-504	65	30.30	16
Box 89-505	60	30.57	5
Box 89-506	46	29.51	4
Box 89-507	133	30.81	7
Box 89-508	18	24.92	2
Box 89-509	7	29.60	1
Box 89-510	70	28.53	2
Box 89-511	8	30.25	1
Box 89-512	1	28.00	0
Box 89-514	7	28.57	1
Box 89-515	6	28.80	1
Box 89-516	15	30.85	2
Box 89-517	9	30.11	5
Box 89-518	21	30.50	7
Box 89-519	3	27.00	0
Total	**2539**	**28.99**	**149**

Table 5: Occupancy Hazard Assessment by Planning Zone

Fire Alarm and Suppression Systems

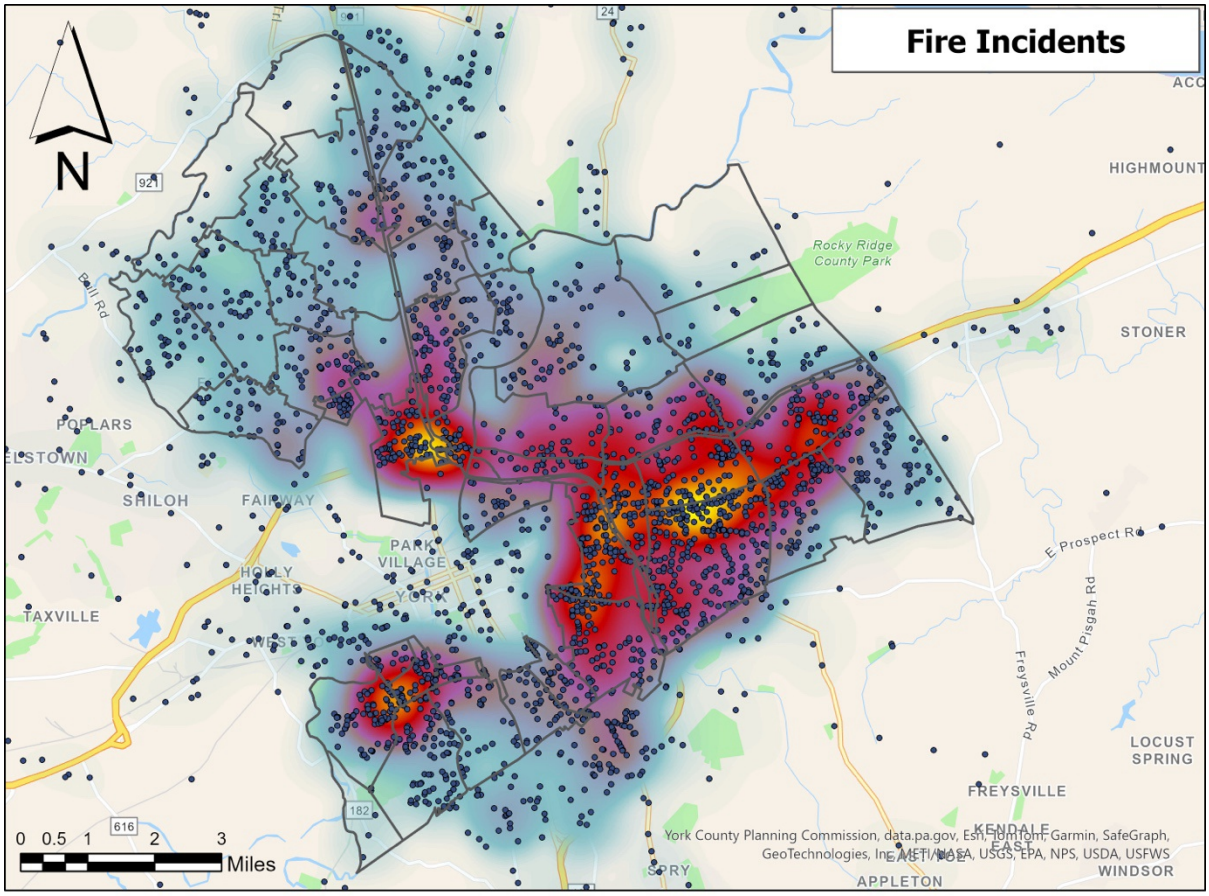
Certain risks in buildings that are equipped with an alarm and/or a fire sprinkler system have a modified level of risk. In buildings equipped with an alarm system, occupants are notified of the need to evacuate. If the alarm system is capable of sending a remote signal, the fire department may receive notification of an incident sooner. Building fire sprinkler systems are capable of controlling or extinguishing a fire prior to fire department arrival. The YAUFR pre-fire planning process identifies commercial occupancies that lack alarms or sprinklers (Map 14).



Map 14: Commercial Occupancies without Fire Suppression or Fire Alarm Systems

Fires

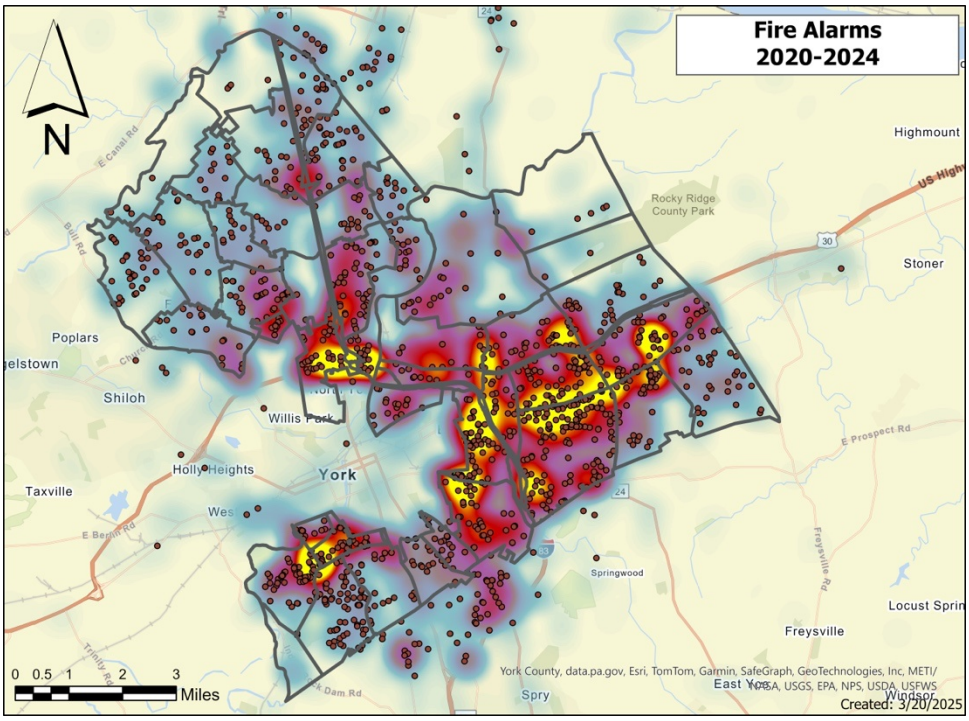
Fire incidents include any response involving smoke, flames, or an investigation of smoke or burning odors. These incidents include structure and vehicle fires, brush or trash fires, and similar incidents. Fire alarm responses are also included in this category. Areas of fire incident activity are plotted using both a heat map to show density of incidents in a given area and individual incident points to show the exact locations of incidents. On the fire incidents map, it is evident that these incidents occur more frequently in densely populated and developed areas.



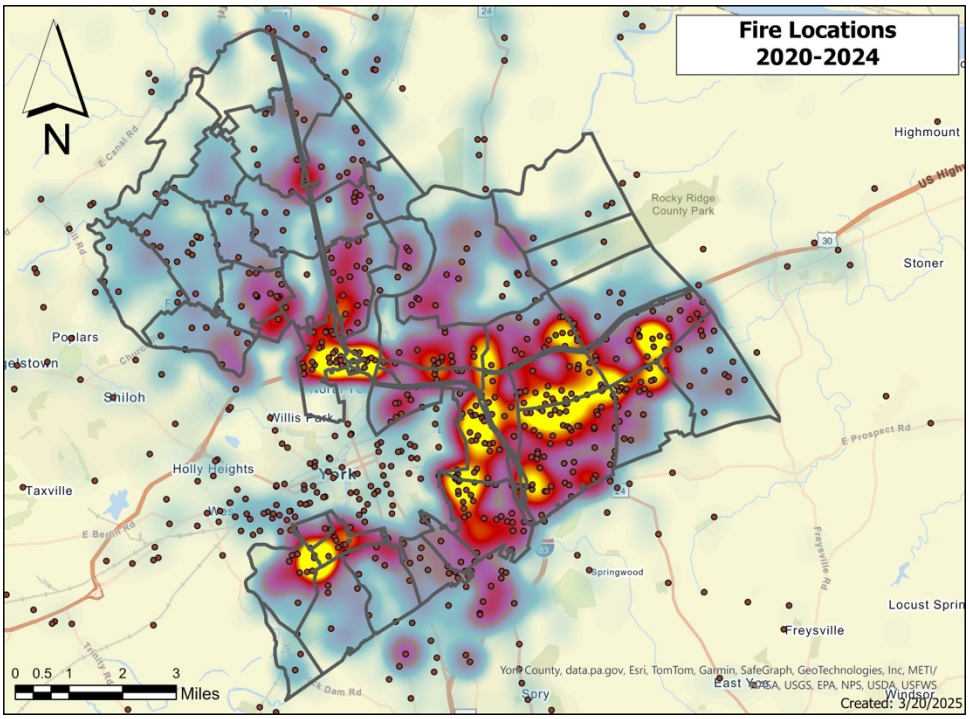
Map 15: Fire Incident Locations 2020 - 2024

Since this category includes incident types that do not result in a loss from fire, it is helpful to separate that risk for further analysis. Mapping just those incidents that involve fire and potential loss from that fire, we identify that the risk shifts largely to areas with dense residential population. Map 16 shows the location of incidents involving fire and fire loss over the previous 5 years.

Fire alarm responses account for a significant portion of the overall fire incident workload. While fire alarms are typically a high frequency, low consequence event, they do have a significant impact on resource availability. However, they are usually resolved quickly. When fire alarm incidents only are plotted on the map, we see the risk shifts largely to the areas with dense commercial development and large numbers of apartment and dormitory buildings. Map 17 shows fire alarm incidents over the past 5 years.



Map 16: Location of Fire Alarm Responses 2020 - 2024



Map 17: Location of Actual Fires 2020 - 2024

Risk levels for fire incidents are assigned based on the established risk assessment methodology, and are categorized as either low, medium, or high. The impact, or drain, on agency resources is calculated based on the critical task analysis for each event type. The number of resources sent to each incident is based on the typical unit staffing. Table 5 shows the fire incident types, their assigned level of risk, and their associated NFIRS incident types.

Fire Incidents - Risk Assessment		
Dispatch/Event Type	**Risk Level**	**Associated NFIRS Incident Types**
Controlled Burn Extinguish	**LOW**	561, 631, 632
Outside Equipment Fire	**LOW**	162
Dumpster or Trash Fire	**LOW**	150, 151, 152, 153, 154, 155
Pole/Wires Down or on Fire	**LOW**	444
Other Outside Fire	**LOW**	160, 161, 163
Investigation Outside	**LOW**	480, 481, 482, 531
Grass/Brush Fire, etc.	**LOW**	140, 141, 142, 143, 170, 171, 172, 173
Fire Alarm*	**LOW**	711, 712, 713, 714, 715, 730, 731, 732, 733, 734, 735, 740, 741, 742, 743, 744, 745
Investigation Inside	**MODERATE**	200, 210, 211, 212, 213, 220, 221, 222, 223, 231, 240, 241, 242, 243, 244, 251, 440, 441, 442, 443, 445
Vehicle Fire	**MODERATE**	130, 131, 132, 133, 134, 134, 136, 137, 138
Structure Fire - Residential	**HIGH**	110, 111, 112, 114, 120, 121, 122, 123
Structure Fire - Commercial	**HIGH**	111
Aircraft Incident	**HIGH**	135, 462
** Incidents meet the Moderate Risk threshold due to high probability, but do not have significant impact on operations, thus are dispatched and assessed as low risk.*		

Table 5: Fire Incident Risk Levels by Event Type and Associated NFIRS Incident Type Code

Consequence of Fires

According to data from the National Fire Protection Association, fire departments across the United States respond to over 1.5 million fires per year. About one-third of those are structure fires. Although only about 25% of structure fires occur in a residential property, residential fires account for 72% of civilian fire deaths and 75% of civilian injuries. Nationally, while the number of fires has declined by an estimated 50% since 1980, the number of fires per year has again begun to increase, with the total number of fires up by about 30% since 2012. Locally, the number of fires to which YAUFR responds annually has remained consistent.

Pennsylvania ranks 23rd in the United States for the number of fire deaths per million populations. Since 2019, the YAUFR community has only experienced 1 civilian fire fatality. According to US Fire Administration data, Pennsylvania averages 3.5 deaths and 7.3 injuries per 1,000 fires, as compared to the national average of 2.1 deaths and 6.4 injuries per 1,000 fires. The YAUFR community averages 1-2 civilian fire injuries due each year.

Even when there are no casualties resulting from a fire, there are still consequences. Fire damage results in monetary losses for the property owner and can lead to a loss of use of the property, which can further impact the lives of residents and the operation of businesses. Loss of use will vary, depending on extent of damage and the property owner's insurance coverage, but the loss of use of a single-family dwelling averaged 12 months or longer (the time residents were unable to occupy the structure). Commercial building fire consequences can vary due to an even greater number of factors. For example, an industrial facility fire in 2022, contained to the machinery and contents, with no structural damage, resulted in an 18-month loss of production at the facility and the permanent elimination of dozens of jobs. Table 6 shows the property loss due to fire over the last five years.

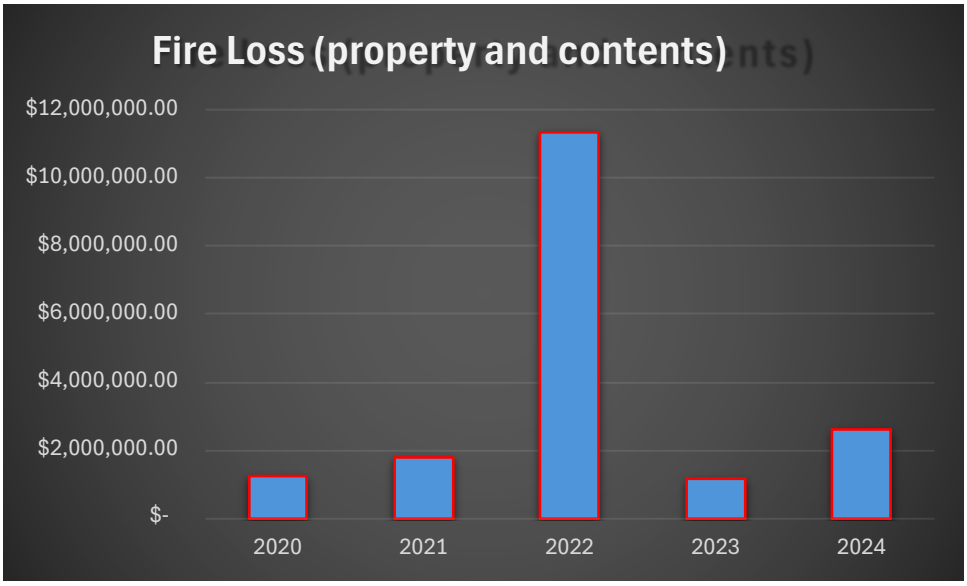
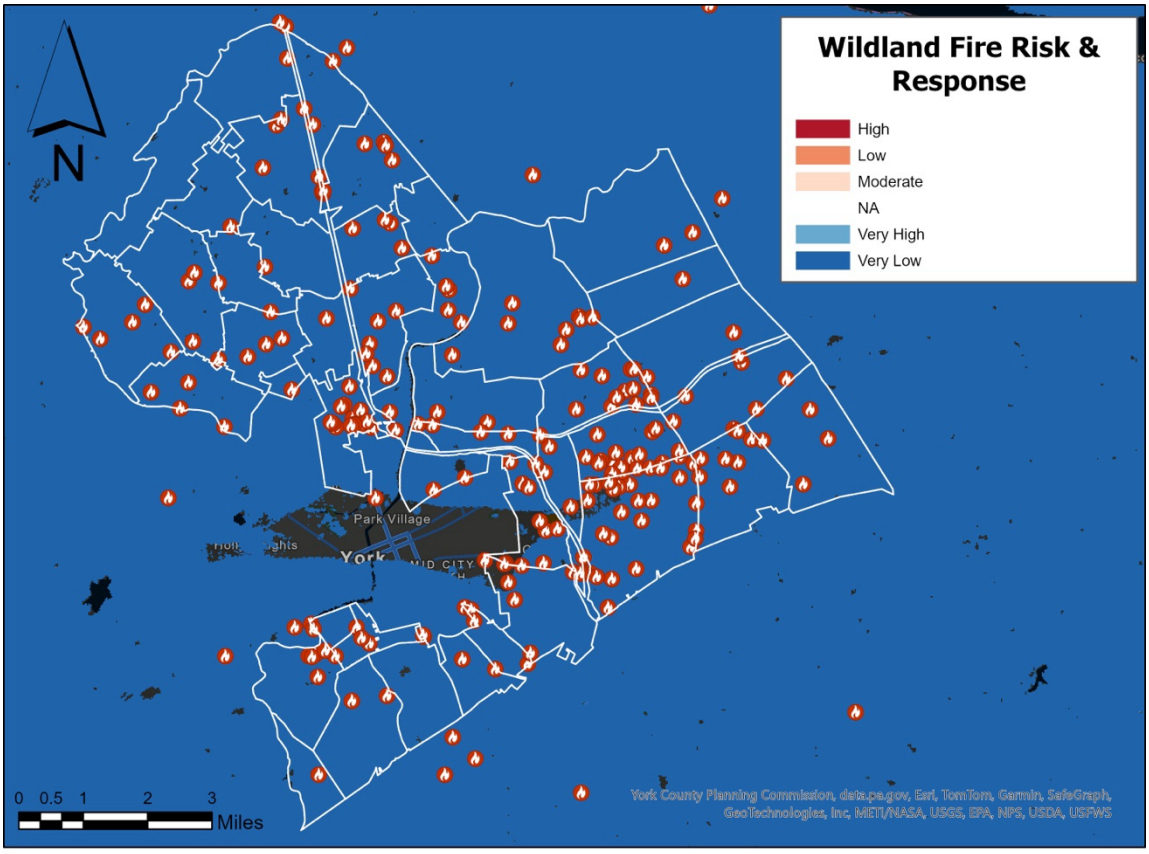


Table 6: Monetary Property Loss Due to Fire

Wildland Fire Risk

Wildland fires do not occur with regularity in the YAUFR community. FEMA publishes the Wildland Fire Risk map showing the risk for a wildland fire response occurring. This area is currently rated as a very low risk for wildland fires. However, brush and woods fire do occur, and potential does exist for those fires to spread and endanger structures. Of particular concern is the wooded area along the ridgeline in the northern part of Springettsbury Township, within the 89-301, 89-302, and 89-310 box areas. This area contains heavily wooded properties that extend beyond Rocky Ridge County Park. Numerous housing units and other structures are located within the forested area, many of which have difficult access for fire apparatus. A forest fire has the potential to spread rapidly in this area and spread to these structures. Limited access to some properties could allow a fire to spread before resources could be in place to mitigate the threat. Map 18 shows FEMA Wildfire Risk map as well as the locations of brush and woods fires over the past 5 years.



Map 18: Wildland Fire Risk versus Actual Brush Fire Incidents 2020 - 2024

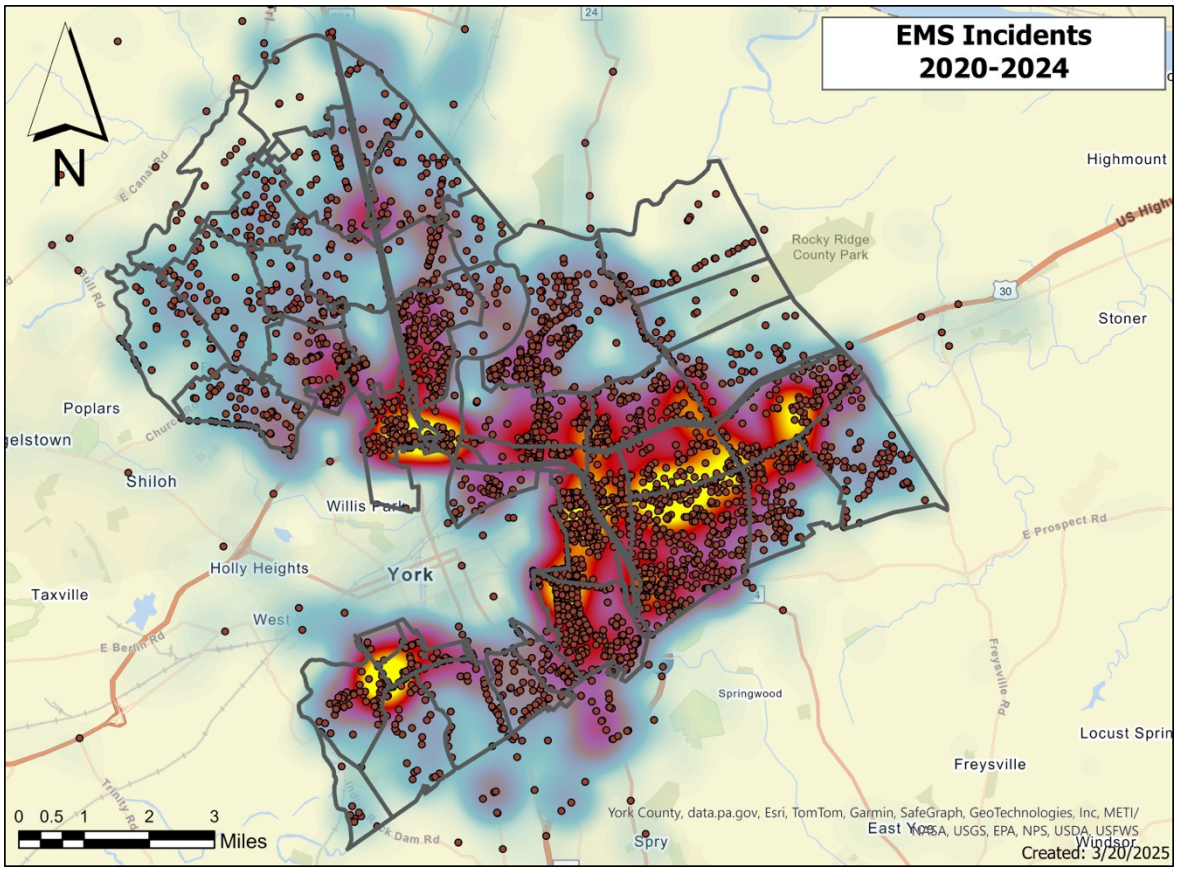
Emergency Medical Services (EMS)

EMS incidents include any call for service where the primary actions taken involve care for sick or injured subjects. YAUFR They also may include incidents where a subject is lost, and responders must conduct a search to locate them. YAUFR does not provide ambulance service, personnel only assist in providing medical care until an ambulance can transport the patient to a hospital. YAUFR personnel are often dispatched to begin to provide patient care when the closest ambulance is not available. YAUFR provides non-transport EMS services at the basic life support level. YAUFR crews are dispatched to high-priority medical incidents when the closest ambulance is unavailable, when patients are reported in cardiac arrest, or when assistance is requested by an ambulance. Medical assist incidents make up the largest percentage of incidents in the EMS category.

Vehicle crashes account for the second-largest number of EMS incidents. While other tasks may be performed at these scenes, when a patient is treated or evaluated for potential injuries, vehicle crashes are categorized as EMS incidents. Vehicle crashes are only categorized as EMS incidents if they do not involve extrication or disentanglement of the patient from a vehicle.

Searches for victims on land are also categorized as EMS incidents. While infrequent, these incidents typically involve subjects who are lost or disoriented, or incapable of self-removal from a wilderness setting, typically due to an existing medical condition or injury.

When plotted on a map, it is evident that EMS incidents occur with more frequency in areas with greater population density and along major transportation routes. These areas often include a higher percentage of at-risk populations. Within the YAUFR community, there are also numerous skilled care and assisted living facilities that generate a disproportionate number of calls for service, particularly EMS incidents. Map 19 shows the EMS incident locations over the past 5 years.



Map 19: EMS Incident Locations 2020 - 2024

Risk levels for EMS incidents are assigned based on the established risk assessment methodology, and are categorized as either low, medium, or high. The impact, or drain, on agency resources is calculated based on the critical task analysis for each event type. The number of resources sent to each incident is based on the typical unit staffing.

EMS Incidents - Risk Assessment		
Dispatch/Event Type	**Risk Level**	**Associated NFIRS Incident Types**
Medical Assist*	**LOW**	300, 311, 320, 321, 370, 371, 381, 460, 512, 554, 661
Vehicle Crash w/ Injury	**LOW**	322, 323, 324
Search Detail	**MODERATE**	341
Mass Casualty Incident	**HIGH**	Any of the above with 5 or more patients
** Incidents meet the Moderate Risk threshold due to high probability, but do not have significant impact on operations, thus are dispatched and assessed as low risk.*		

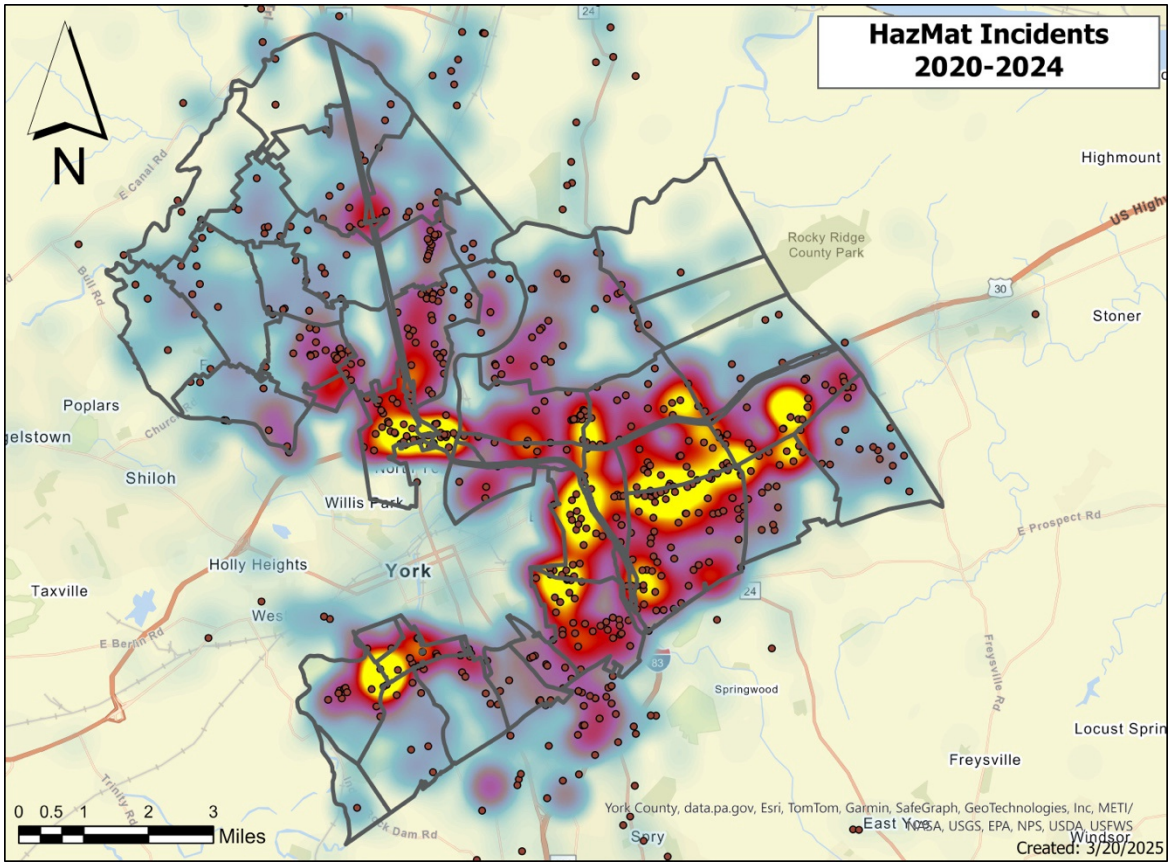
Table 7: EMS Incident Risk Levels by Event Type and Associated NFIRS Incident Type Code

Medical assist incidents are extremely high frequency events, thus driving the risk score into the moderate range. However, since the consequence and impact are generally lower, these are assessed as low risk events. Mass casualty incidents involve 5 or more patients and usually occur as part of another incident type. When an EMS incident type involves a mass casualty, it is assessed as a high-risk incident. Table 7 shows the EMS incident types, their assigned level of risk, and their associated NFIRS incident types.

Hazardous Materials

Hazardous materials incidents involve substances that pose a threat to the health and welfare of human beings or other living things or otherwise pose a threat to the environment. Hazardous materials can be found in all physical states, solids, liquids, and gases. Incidents include fluid spills from vehicle crashes, carbon monoxide incidents, natural gas leaks, and chemical spills.

Hazardous materials can be found in almost any location in some quantity. Commercial and industrial buildings often contain a more diverse selection of materials, in larger quantities. The movement or manipulation of hazardous materials can increase the risk for leaks and spills. This is most common in manufacturing and transportation settings. Thus, when plotted on a map, hazardous materials incidents are found to occur most frequently along major transportation routes and in areas with a large amount of industrial or commercial development. Map 20 shows the location of hazardous materials incidents over the last 5 years.



Map 20: Hazardous Materials Incident Locations 2020 - 2024

Risk levels for fire incidents are assigned based on the established risk assessment methodology, and are categorized as either low, medium, or high. The impact, or drain, on agency resources is calculated based on the critical task analysis for each event type. The number of resources sent to each incident is based on the typical unit staffing. Table 8 shows the hazardous materials incident types, their assigned level of risk, and their associated NFIRS incident types.

Hazardous Materials Incidents - Risk Assessment		
CAD Event Type	Risk Level	Associated NFIRS Incident Types
Fluids on Roadway/Fuel Spill	LOW	410, 411, 413, 463
Gas Leak Outside	LOW	400
Bomb/Explosive Removal	LOW	471
Haz-Mat Investigation	LOW	420, 421, 671, 672, 746, 751
CO Emergency	MODERATE	424
Gas Leak Inside	MODERATE	412
Haz-Mat Incident	HIGH	422, 423, 430, 431, 451

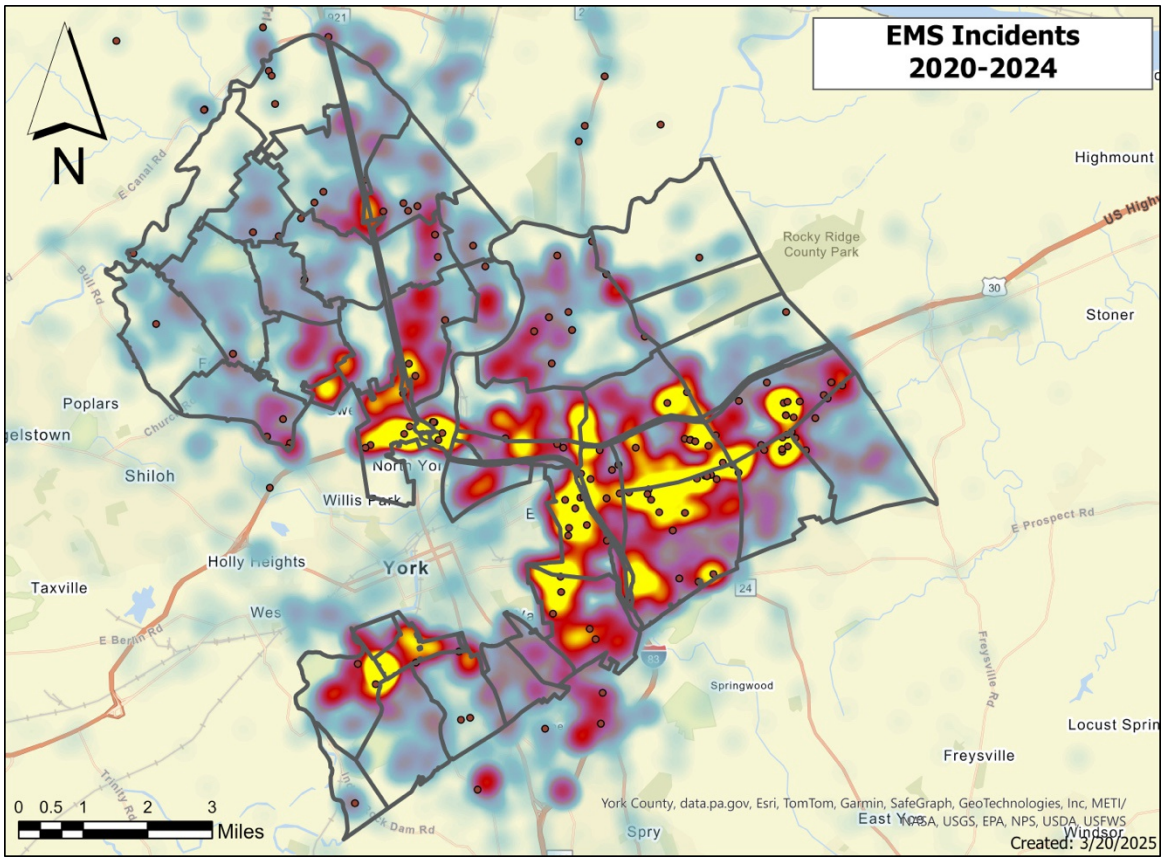
Table 8: HazMat Incident Risk Levels by Event Type and Associated NFIRS Incident Type Code

Technical Rescue

Technical Rescue incidents cover a broad spectrum of responses. All of these incidents involve accessing and removing victims from an unsafe or potentially unsafe environment. Generally, these victims are not capable of self-rescue, and many have sustained injuries. Access usually involves the use of specialized equipment and training. Technical rescues include vehicle crashes involving entrapment of victims, rescue of victims from confined or below-grade spaces such as trenches, high angle rescues, and water or ice rescues.

Due to the broad range of incident types in this category, technical rescues can occur in almost any setting, depending on the type of rescue. This becomes evident when historical incidents are plotted on a map. Clustered areas of technical rescue incidents appear along major roadways where severe vehicle crashes are most common. During significant rain events, there are certain roads prone to flooding. Map 21 shows the location of technical rescue incidents over the past 5 years.

Technical rescue incidents are low frequency events, with the most common type being vehicle crashes with entrapment. These incidents tend to involve smaller numbers of victims; however mass casualty events are possible within these incidents. Technical rescues tend to be very resource heavy, and can tie up agency units for extended periods, impacting the ability to respond to other events. Risk levels for rescue incidents are assigned based on the established risk assessment methodology, and are categorized as either low, medium, or high. The impact, or drain, on agency resources is calculated based on the critical task analysis for each event type. The number of resources sent to each incident is based on the typical unit staffing. Table 9 shows the rescue incident types, their assigned level of risk, and their associated NFIRS incident types.



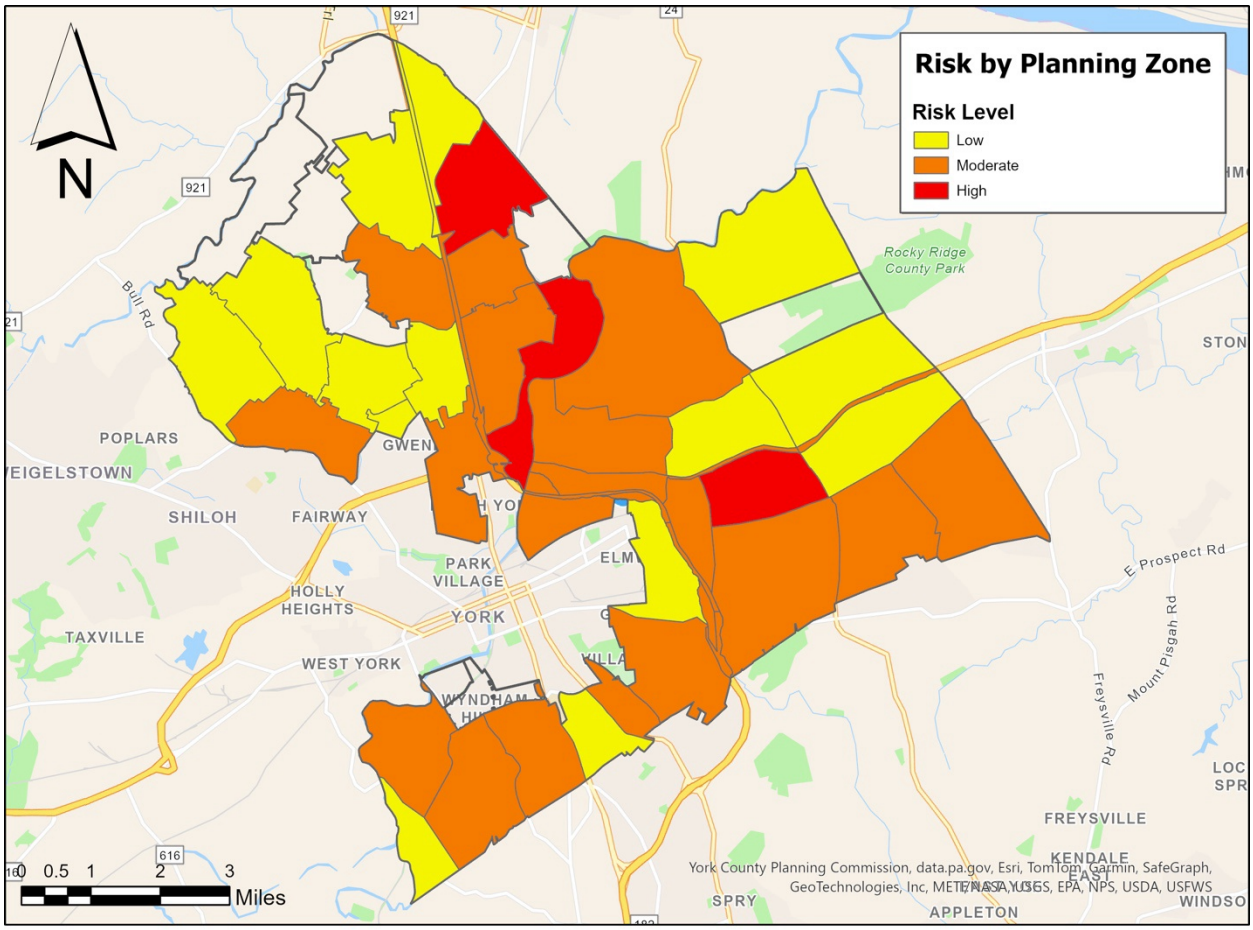
Map 21: Rescue Incident Locations 2020 - 2024

Rescue Incidents - Risk Assessment		
CAD Event Type	**Risk Level**	**Associated NFIRS Incident Types**
Lock-In	LOW	331
Search, Other	LOW	340
Electrocution Hazard, Trapped	LOW	372
Elevator Alarm, No occupants	LOW	355
Basic Rescue	MODERATE	350, 353,
Drowning	MODERATE	361
MVA into Structure	MODERATE	461
MVA w/ Entrapment	MODERATE	352
Special Rescue (Trench, C-Space, Etc.)	HIGH	343, 351, 354, 355, 356, 357
Water Rescue	HIGH	342, 360, 362, 363, 364, 365

Table 9: Rescue Incident Risk Levels by Event Type and Associated NFIRS Incident Type Code

Overall Community Risk Profile

By compiling data from historical incident activity, knowledge of existing buildings, and community characteristics, it is possible to generate an overall risk profile within the community. This is done by planning zone (fire box area). Map 22 shows the risk level by planning zone, as calculated using the ESRI Fire Accreditation Analysis Solution in ArcGIS Pro. The data incorporates both the frequency, types, and severity of past incidents within each area, population trends and demographics, as well as the hazard information of pre-planned occupancies within each zone.



Map 22: Cumulative Community Risk by Response Zone

Community Expectations, Agency Goals and Objectives

Strategic Planning and Community Expectations

YAUFR conducted its last strategic planning process in 2024. The planning process was used to determine community expectations and priorities, identify strengths, weaknesses, opportunities, and challenges facing the agency, and develop goals and objectives to guide YAUFR's direction over the period 2025 through 2027.

The planning process included:

1. Review of current operations and services provided.
2. SWOT analysis of operational programs and the agency overall
3. Review of agency activity data (incident response and non-emergency)
4. Review of YAUFR's Mission, Vision, and Values
5. Survey of internal and external stakeholders
6. Development of Goals and Objectives
7. Command staff review.
8. Presentation to YAUFR Commission for adoption

The planning process led to the development of three strategic initiatives, based on the community expectations and list of priorities. These broad categories became the basis for the development of agency goals and objectives. The strategic initiative, in no particular order:

- Recruitment & retention of volunteer & career personnel,
- Expanded contracted regional services,
- CFAI Accreditation.

Agency Goals and Objectives

Goals are broad targets for improvement of an organization. Objectives are created in support of achieving a targeted goal. Critical Tasks are specific steps that can be used to measure accomplishment of objectives. The Department developed a list of goals and objectives based upon the established Strategic Initiatives. They will improve upon YAUFR's strengths, address weaknesses, leverage opportunities, and ideally minimize threats. Goals and objectives are reviewed and adjusted annually, in conjunction with revised SWOT analysis and program appraisals.

<u>Goal 1: Recruit and retain a skilled career and volunteer firefighting workforce.</u>

Objectives:

1.1: Develop a comprehensive operational structure and opportunities for recruiting and utilizing volunteers in the YAUFR organization.

1.2: Develop a comprehensive marketing and recruitment strategy for attracting career firefighters.

1.3: Develop a comprehensive marketing and recruitment strategy for attracting volunteer staff.

1.4: Maintain and continue to develop a professional, collaborative, innovative, learning, and supportive culture to retain volunteer and career personnel.

1.5: Develop a leadership development program for volunteer and career YAUFR personnel.

1.6: Develop succession plans for personnel who will be retiring within the next five years.

Goal 2: Build a cohesive visionary governance and charter agreement structure to guide YAUFR operations.

Objectives:

2.1: Review and revise the charter agreement as needed to build consensus between the charter members.

2.2: Align the charter agreement and the organization bylaws for consistency.

Goal 3: Achieve and maintain accreditation from the Commission on Fire Accreditation International (CFAI).

Objectives:

3.1: Develop and document all required standards, documentation, and performance requirements to become an accredited CFAI organization.

3.2: Become a candidate agency for accreditation in fall 2025, with accreditation in spring 2026.

3.3: Develop and implement a sustainability process to maintain CFAI accreditation in future years and engage all members in understanding the accreditation process and expectations

Goal 4: Expand YAUFR's regional impact through extended contracts, operations agreements, and cost-balancing efficient growth.

Objectives:

4.1: Balance level of services provided to neighboring communities with delivering high level effective and efficient services and the financial costs of providing the services.

4.2: Develop a menu of services, the benefits of a YAUFR partnership, capital contributions needed, and level of community need, for partnership considerations with regional municipalities.

4.3: Develop Mutual Aid agreements with regional partners that define program expectations, training requirements, and liability protection.

4.4: Continue developing Advanced Technical Rescue and HazMat services with York County and explore funding opportunities to expand these services and fund personnel.

Goal 5: Assess Emergency Medical Services (EMS) level of care and readiness in the contracted charter municipalities.

Objectives:

5.1: Support charter municipalities in assessing current EMS metrics of efficiency, response times, and operations against national benchmark standards for basic and advanced care EMS services.

5.2: Assess the effectiveness and impact of EMS services received in each charter municipality and establish contract metrics for assessing care.

5.3: Develop operational and financial models to expand and integrate enhanced EMS services into YAUFR operations.

Current Deployment and Performance

Terms and Concepts

Throughout the discussion on agency deployment and performance, there are terms that may not be familiar to a general audience when placed in the context of emergency services operations.

Baseline Performance: The measure of how an agency currently performs. Baseline performance will be expressed for each risk classification and category.

Benchmark Performance: The target level of performance for an agency. In the context of continuous quality improvement, the agency should be taking steps to strive to reach this level. Benchmark performance will also be expressed for each risk classification and category.

Concentration: The spacing of multiple resources so an initial effective response force (ERF) can assemble on a scene in a timely manner within the timeline expected in the performance expectations.

Critical Tasks/Tasking: The actions that must occur in order to successfully mitigate an incident, minimizing its consequences. Critical tasks include advancing hose lines to extinguish a fire, searching for and removing victims, and providing patient care. Critical tasking is an analysis of each type of incident to determine these critical tasks, as well as the minimum number of personnel needed to efficiently carry out these tasks.

Distribution: The geographic location of first-due resources to assure timely arrival to begin initial interventions within the timeline expected in the performance expectations.

Effective Response Force (ERF): The minimum staffing and equipment needed on a scene in a maximum amount of time in order to perform the tasks necessary to successfully mitigate the incident. This is determined as part of the critical task analysis performed as part of the development of the standards of cover.

Reliability: The probability that agency resources will be available when needed. When all units are staffed and there are no incidents occurring, reliability is 100%. When incidents occur, the reliability drops until crews are again available. A large portion of YAUFR's incident responses are handled by a single unit. YAUFR currently staffs six units at all times. When a single-unit incident occurs, reliability drops to 83%, etc.

Resilience: The ability of an agency to return resources to an available status after handling an incident.

Total Response Time: The amount of time that elapses between when a call for service is answered by the public safety answering point (PSAP), and when unit(s) arrive on scene.

Sequence of Events of an Incident

The National Fire Protection Association developed Figure 12 to define the phases and progression of an emergency incident. *Discovery of an event* is a phase that can be influenced by the presence of fire alarm systems. While an agency is not always able to control the length of time it takes for a fire to be discovered, a well-developed community risk reduction program can advocate for the installation of smoke alarms and/or sprinkler systems and ensure that such installed systems are maintained and remain functional. The faster an emergency is detected, the faster the agency's response can be, and the less time an incident can progress and get worse.

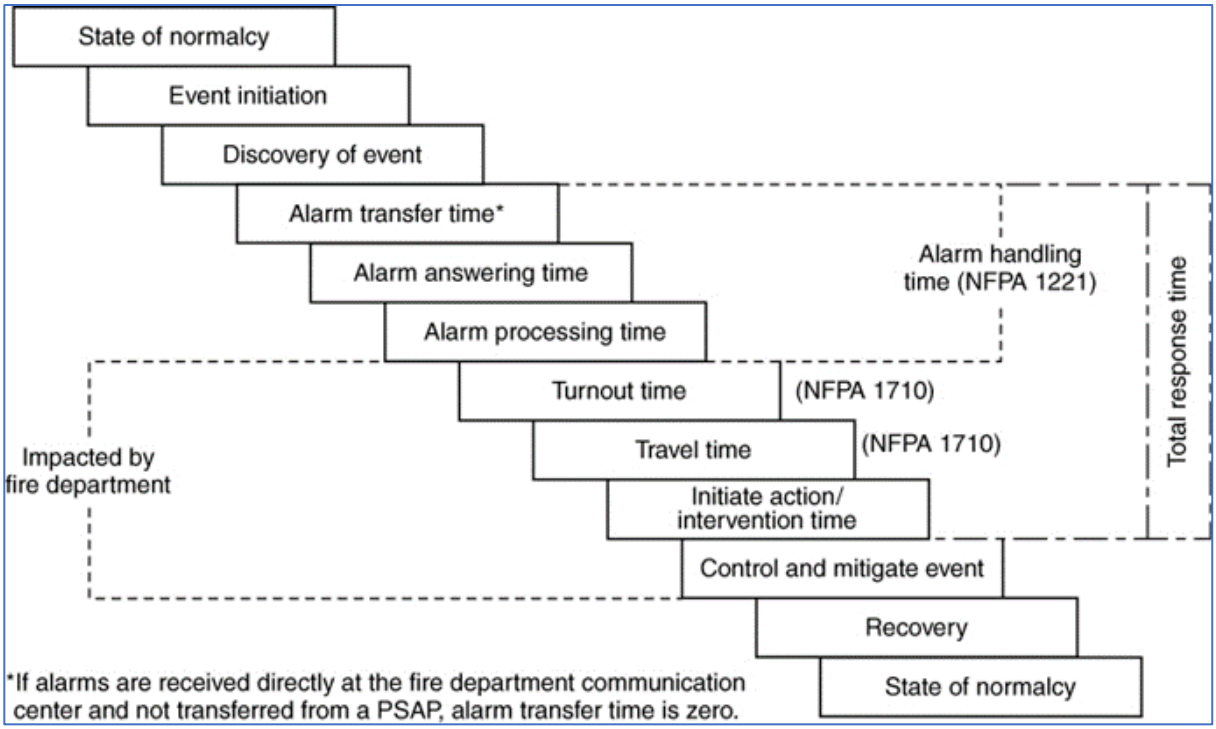


Figure 12: Chain of Events of an Emergency Incident

Alarm handling time falls within the responsibility of York County 911 and is largely out of YAUFR's control. York County 911 serves as both the Public Safety Answering Point (PSAP), where 911 calls are first received, and the fire communications center, therefore there is no alarm transfer time included in the total alarm handling time. One of the agency's Battalion Chiefs serves as the chair of the York County Fire/EMS Communications Workgroup, a committee that advises the 911 Center leadership on issues concerning fire and EMS radio and dispatch issues. Through this continued involvement, YAUFR will be able to maintain some input into system improvements that can reduce alarm handling times.

The agency is directly able to control *Turnout Time*, *Travel Time* (to an extent), *Time to Initiate Action*, and *Time to Control and Mitigate*. *Turnout Time* can be reduced through proper planning and layout of station facilities and utilization of modern station and unit alerting technologies. *Travel Time* is largely impacted by fire station and apparatus locations but can be affected by factors such as traffic congestion and incident volume, which can cause delays in the time it takes to arrive at an incident. The time it takes to initiate action and control an incident is controlled by ensuring that the appropriate apparatus and number of personnel are sent to an incident. The amount of time it takes for all of these resources to arrive on scene can affect the total time needed to control an incident (put out a fire, rescue a trapped victim, etc.).

YAUFR has taken additional steps to help victims move beyond control and mitigation and into the recovery phase, having developed relationships with other agencies, such as the Red Cross, to provide assistance after an emergency. An After the Fire packet was adapted using FEMA templates to provide fire victims with guidance through the days and weeks after the event.

Data Metrics

For the purpose of evaluating operational performance, YAUFR captures extensive data as part of the incident documentation process. There are five critical time events that are recorded for every incident. These times are received from CAD, and are recorded in hours, minutes, and seconds (i.e. 09:20:15). This allows more precision in performance evaluation.

- **Alarm Time**: The time that an incident is created in the CAD system
- **Dispatch Time**: The time that each fire unit is notified to respond to an incident
- **Enroute Time**: The time that each fire unit begins its response (travel) to an incident
- **Arrival Time**: The time that each fire unit arrives at its assigned position at an incident
- **Available Time**: The time that each fire unit is done at an incident and ready for another incident

These event times form the basis for the calculation of the key time metrics that are required to adequately evaluate emergency response performance. These key metrics are alarm handling time, turnout time, travel time, total response time, and overall incident duration. The 2020 edition of NFPA 1710 *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments* serves as a reference for the time standards used in the analysis of alarm handling, turnout, and travel times. While NFPA 1710 is not law, it is recognized as a national standard of performance. All time standards are measured at the 90th percentile. The 90th percentile is the data point at which 90% of the values are smaller. For purposes of this report, 90 percent of the reported times will be equal to or less than the 90th percentile.

Alarm handling time is defined by NFPA as the time interval from the receipt of the alarm at the dispatch center (911 call answered) to the beginning of the transmittal of response information via the County paging systems (alarm dispatched). NFPA 1710 establishes that alarm handling shall be completed with 64 seconds for 90 percent of alarms. Certain alarm handling situations, such as those that require additional questioning to determine location or those that require pre-arrival medical instructions shall be completed within 90 seconds, 90 percent of the time. The majority of the 911 calls placed in YAUFR's primary response area are received directly by the York County 911 Center, therefore the Alarm Transfer Time is zero. The CAD system used by York County 911 is not capable of tracking the time a 911 call is answered by a call taker, therefore, captured alarm handling times begin with the time a call is created in the CAD system. For purposes of this document, YAUFR will utilize the call creation time as the starting point for the alarm handling time.

Turnout time begins at the start of the transmittal of response information (alarm dispatched) and ends when the fire unit begins to travel to the scene (unit enroute). NFPA 1710 establishes a turnout time standard of 60 seconds for emergency medical responses and 80 seconds for fire and special operations responses. The transmittal of the response information is completed by radio transmission given by each responding apparatus.

Travel time begins when a unit is enroute to a scene and ends when that unit arrives on scene. The NFPA 1710 standard for travel time of the first arriving engine at a fire incident is 240 seconds or less, for the second-arriving engine 360 seconds, and for the arrival of the full initial assignment, 480 seconds. Enroute and on scene times are recorded by the Dispatch Center upon receipt of the responding unit's radio transmission. Alternately, the responding units may elect to update their status utilizing the CrewForce iPad app.

Total response time is identified either as Call to Arrival (the sum of the alarm handling, turnout and travel times) or Dispatch to Arrival (the sum of the turnout and travel times). The former metric reflects the time from the

caller's request for assistance to the arrival of fire department resources, the latter metric reflects only the agency's performance, excluding the alarm handling component, which is not directly under the agency's control.

YAUFR captures crew sizes (total personnel) for each responding unit. This number is used in the evaluation of assembling an effective response force (ERF). An ERF is the minimum personnel needed at an incident in order to complete the tasks necessary to control an incident. ERF calculations are the result of a critical task analysis conducted for each category and level of risk. Critical task assignments are defined in operational policies and validated through repeated training evolutions on each shift. Response assignments are developed to ensure adequate resources are available to mitigate an incident.

Additional benchmark times are also collected during an incident. This will assist in calculating the time it takes to complete certain tasks, measure incident outcomes, and gauge the effectiveness of various crew sizes. These times include water on the fire, search for victims complete, victims extricated or rescued, fire out, and hazardous materials spill/leak contained.

Incident Reporting and Dispatch

The York County Department of Public Safety operates the county's 911 Communications Center, which is located in Springettsbury Township. All fire, EMS, and law enforcement resources are dispatched by this center. All 911 calls placed by landline, as well as most calls placed by cell phone, are answered by call takers at the 911 Center. Separate dispatchers are maintained for fire/EMS and police communications, but all units operate on a common radio system and have the ability to communicate as needed.

Calls for service are processed utilizing Tyler Technologies' New World Computer Aided Dispatch (CAD) software. The CAD software interfaces with the county radio, alphanumeric, and voice paging systems. The appropriate Fire/EMS units, according to pre-determined response assignments, are alerted using automated voice dispatches on a dispatch radio talkgroup, messages sent to alphanumeric pagers, third-party cellphone apps, and mobile data terminal apps on apparatus iPads. Once alerted, units communicate with dispatchers on assigned communications talkgroups.

Incident data, including location, assigned units, and incident times, are sent directly from CAD to First Due, YAUFR's records management system. YAUFR personnel complete the report at the end of an incident. The agency has a quality assurance review process in place to ensure accurate incident reporting. All incident documentation is reviewed as part of the QA process. Limited data analysis can be completed within the First Due system. However, incident response data is also exported to both ESRI's ArcGIS public safety Solutions and My Sidewalk, which are used to complete further analysis, including the statistics used in this document.

Critical Time Events

Time is the critical factor in determining the outcome of emergency incidents. The faster an emergency is recognized, and the faster needed resources are notified and respond, the better the potential outcome. Prevention and early mitigation strategies can also help minimize consequences. Such strategies include fire detection and suppression systems, public access AEDs, and community CPR training. This emphasizes the importance of a robust community risk reduction program within an agency.

Fires

Fires will generally develop following predictable stages (Figure 13). Understanding these stages and the risks associated with them can help fire departments develop strategies to more effectively handle these incidents. The

time required for a fire to grow is dependent upon many factors, include the type and amount of available fuel to burn, the amount of ventilation, and countermeasures in place (such as fire alarms and fire sprinklers).

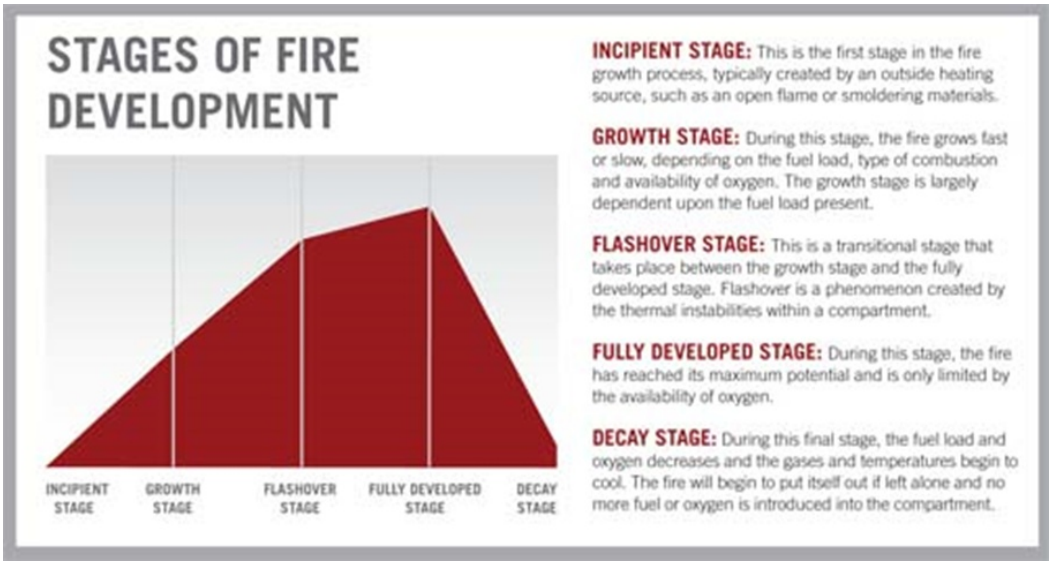


Figure 13: Stages of Fire Development

The initial stage in fire development is pre-flashover, encompassing the incipient and growth phases. This stage occurs immediately following ignition and is identified by its limited size with involvement of only one or a few items. The environment inside the room contains relatively no threat to occupants. In this stage, it should be relatively easy for even an untrained person to extinguish the fire using a portable extinguisher. However, at this stage in the fire's development, there is little or no indication of fire outside the room or compartment. A working detection and alarm system can provide early notification that there is a fire.

As the fire grows, temperatures increase, and smoke and toxic gases accumulate. If a sprinkler system is present, it will activate when the temperature at the ceiling level is high enough to trigger the sprinkler system. The sprinkler system will control and possibly extinguish the fire. If firefighters arrive in these early stages, the fire is more likely to be controlled with less personnel and have a lesser consequence.

Without ventilation or suppression efforts, the fire will reach the flashover stage. Flashover is recognized as the transitional stage where fire conditions change dramatically. The temperatures are significant enough to raise all combustible material to their ignition point and become involved in fire. A transition takes place as the fire becomes fully developed, often in less than a minute. During this stage, the space is untenable and there is no chance of survival. Flashover is the direct result of time and temperature, as fire grows exponentially, essentially doubling itself each minute while in the flashover stage. Flashover can occur in less than 10 minutes from the start of a fire, given the right conditions.

After flashover, fire growth is only limited by fuel and oxygen supply. Temperatures during this stage can commonly reach 1500-1800 degrees Fahrenheit. The entire structure is now at risk. As the fuel and/or the oxygen supply is consumed, the fire will deteriorate until extinguishment or burns itself out. Without early arrival and suppression efforts, the loss will potentially be greater, and the number of resources needed will also increase.

Figure 14 was developed by the National Fire Sprinkler Association to show the relationship between time and fire growth, as well as the points where interventions can make a difference.

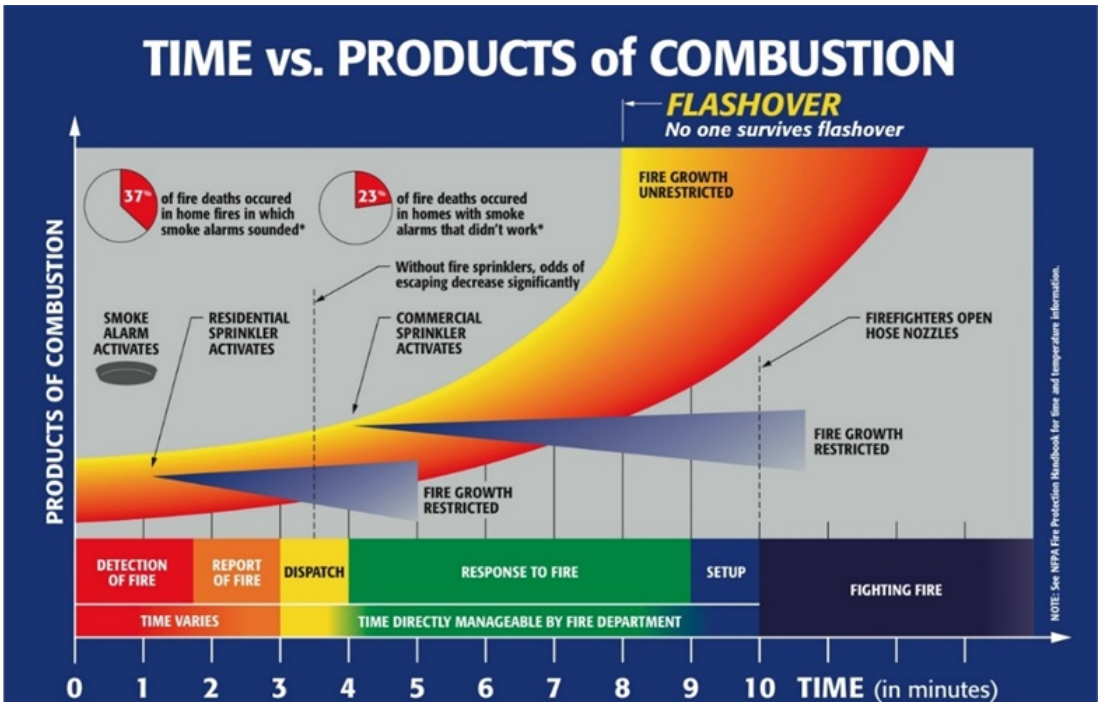


Figure 14: Timeline of Structure Fire Events

Medical Emergencies

Medical emergency outcomes are similarly affected by time. According to the American Heart Association, cardiac arrest survival rates are estimated to be between 10 and 12%. Early access to CPR and defibrillation can help to increase the odds of survival. Survival rates decrease 10% for each minute that CPR is delayed following a cardiac arrest. Brain damage is usually irreversible after ten minutes without oxygen. Early CPR continues delivery of some oxygen to vital organs, and early defibrillation can increase the chances that an irregular heart rhythm can be correct, allowing the heart to continue circulating blood on its own. Figure xx shows this cardiac chain of survival. For these reasons, YAUFR crews are dispatched to assist with all class 1 (most serious) responses, including those that may involve the need for CPR and defibrillation.

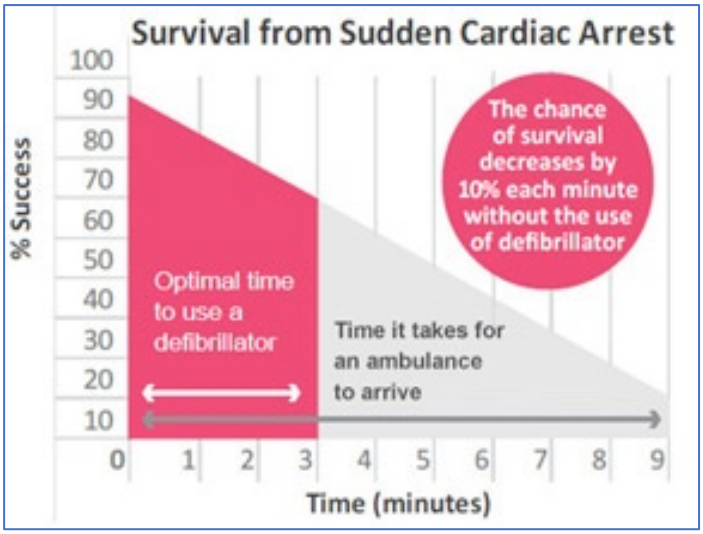


Figure 15: Cardiac Chain of Survival

Agency Staffing Model

YAUFR currently operates from five fire stations, one in Manchester Township, and two each in Springettsbury and Spring Garden Townships. Under the current Charter Agreement, YAUFR does not own any facilities; they are the responsibility of the respective townships. Current fire station buildings are either owned by the legacy volunteer fire companies or one of the charter townships.

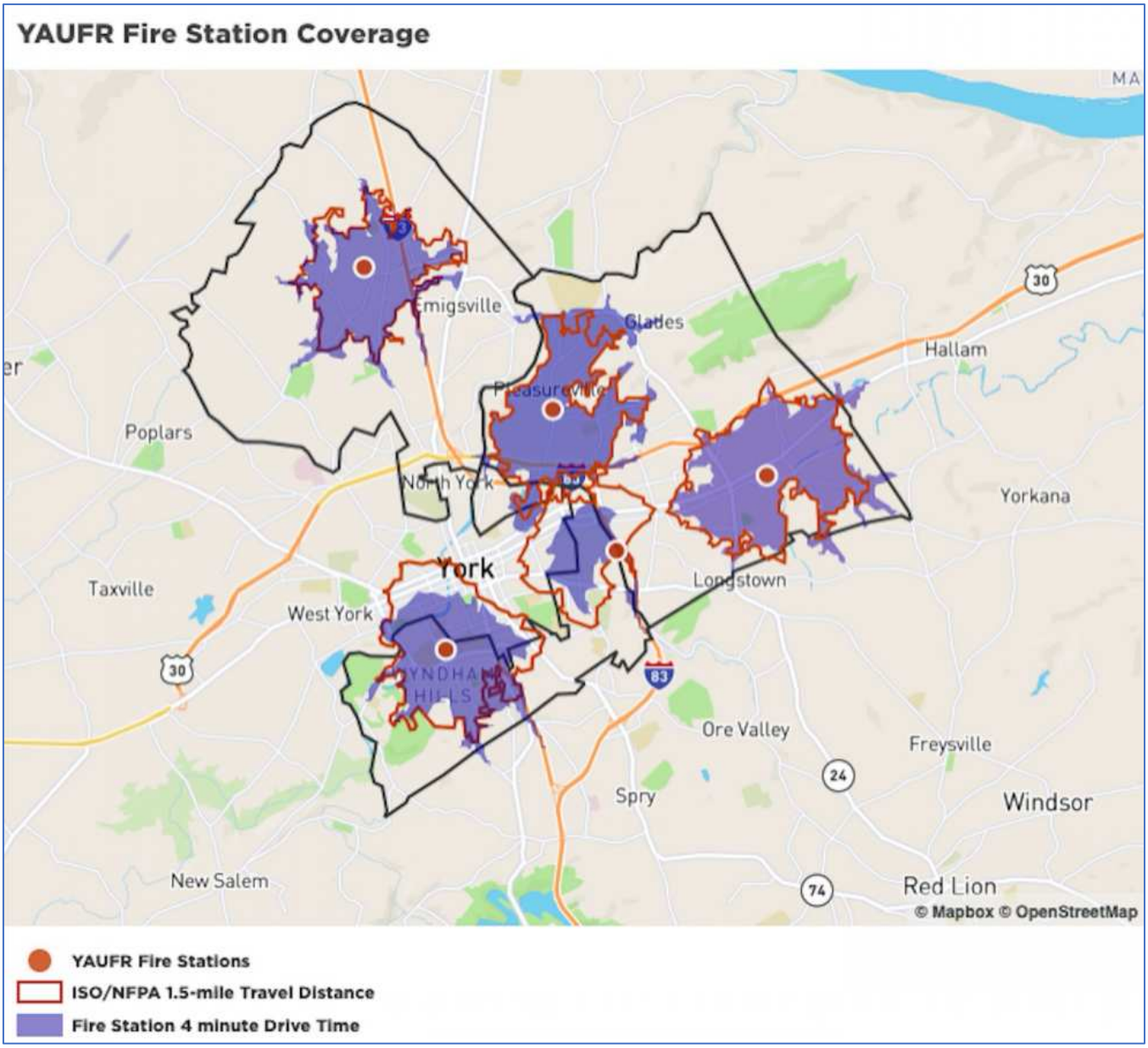
Fire stations are staffed utilizing a three shift, 24/48 style shift schedule. Each shift follows a work schedule of 24 hours on duty, followed by 48 hours off. Members of Local 2377 staff stations 891, 892, 893, and 894, with each shift assigned 11 full-time personnel. Members of Local 3503 staff Station 895, with each shift assigned 6 full-time personnel. Personnel are organized into six crews, each with a minimum of two personnel. Company officers (Lieutenants and Captains) are assigned to each crew, however not every crew on every shift is assigned a company officer. Currently, at least one company officer is on duty per shift. The six crews staff a total of five engine companies, two ladder companies, and a heavy rescue. On-duty personnel cross-staff apparatus at Stations 894 and 895 based on incident type and location. Off-duty personnel can be recalled to staff additional apparatus as needed. Total daily staffing across all five stations ranges between 13 to 17 personnel. A Battalion Chief is assigned to each shift as the shift commander and is not included in the daily staffing totals.

Shift vacancies due to leave are allowed to reduce on-duty company staffing to a minimum of 9 personnel per shift for Local 2377 (Stations 891, 892, 893, and 894), and a minimum of 4 personnel per shift for Local 3503 (Station 895). Should shift vacancies cause the daily staffing to drop below these minimum levels, the YAUFR employs a pool of part-time firefighters who are used to fill vacancies and maintain minimum staffing. Full-time firefighters working overtime shifts are used to fill remaining shift vacancies and maintain minimum staffing. Personnel are typically not permitted to work longer than 48 consecutive hours without at least 8 hours off duty.

Headquarters is located at Station 891 and is home to YAUFR's command and administrative staff. This includes the Fire Chief, a full-time Administrative Director (civilian), a full-time Administrative Assistant, the three shift Battalion Chiefs, and two additional Battalion Chiefs typically assigned to day work Monday through Friday to handle community risk reduction and administrative tasks. Off-duty chief officers are called back to assist as needed during significant incidents.

Station	Address	Staffing	Minimum Staffing	Primary Units
891	50 Commons Drive	3	3	Engine 891, Battalion Chief
892	918 Virginia Ave	3	2	Engine 892
893	2045 N. Sherman St	3	2	Engine 893, Brush 89*
894	421 Wheaton St	3	3	Truck 891, Engine 894*
895	3200 Farmtrail Rd	6	4	Engine 895, Truck 892, Rescue 89*
Total Staffing per Shift:		**18**	**14**	**** denotes cross-staffed unit***

Table 10: Daily Staffing Assignments



Map 23: YAUFR Fire Station Coverage Map

Station District	Protected Area (Sq. Mi.)	Road Miles	Parcels	Assessed Value (2024)
Station 891	8.00	104.79	5703	$1,327,315,186
Station 892	4.50	51.88	2526	$559,341,097
Station 893	8.30	57.87	2804	$572,790,255
Station 894	2.34	48.53	3105	$412,145,274
Station 895	15.85	147.56	8162	$1,727,916,048

Table 11: YAUFR Fire Station Response Area Details

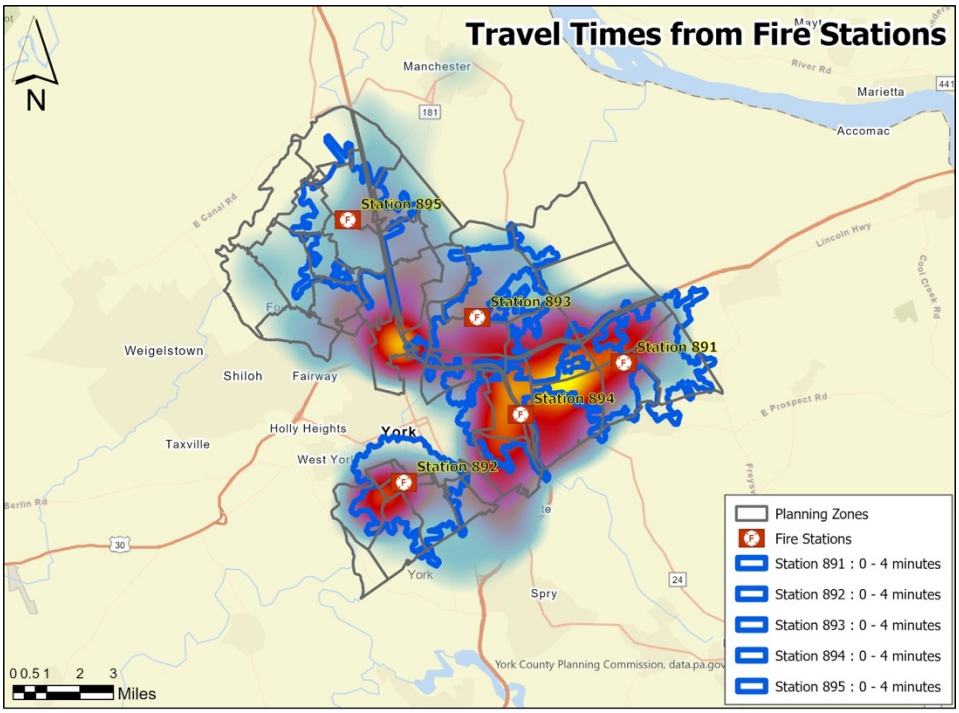
Distribution of Resources

Distribution is defined by the Commission on Fire Accreditation International (CFAI) as the placement of resources, in this case fire stations and apparatus, needed for initial intervention in an incident, such as starting fire suppression efforts or beginning patient care. Distribution is typically expressed as a measure of time or distance covered from the fire station. Proper placement of resources, as well as the degree of availability of those resources, plays a decisive role in travel time and incident outcomes.

In the fire service, there are two standards used as national benchmarks. The National Fire Protection Association (NFPA) standard 1710, which is a national standard for emergency services deployment by career or mostly career fire agencies, establishes a performance benchmark for the first-arriving fire apparatus of 4 minutes 90% of the time. The Insurance Services Office's (ISO) Fire Suppression Rating Schedule (FSRS) rates a community's fire protection, including resource coverage. The ISO standard is that engine companies should be stationed within 1.5 road miles of "built upon" areas, and ladder companies should be stationed within 2.5 miles. The FSRS alternatively allows for a deployment analysis based on the NFPA 1710 standard.

Both NFPA 1710 and ISO's FSRS are national standards, but it is ultimately up to the local officials to determine acceptable performance levels for community emergency services. When assessing resource distribution, it's important to understand the location of existing fire stations compared to risk locations and current service demand. Map 24 shows the coverage of existing YAUFR fire stations based on a 4-minute drive time. Approximately 15 out of the total 39 square miles, or about 38%, of the community is reachable by a YAUFR fire apparatus within 4 minutes.

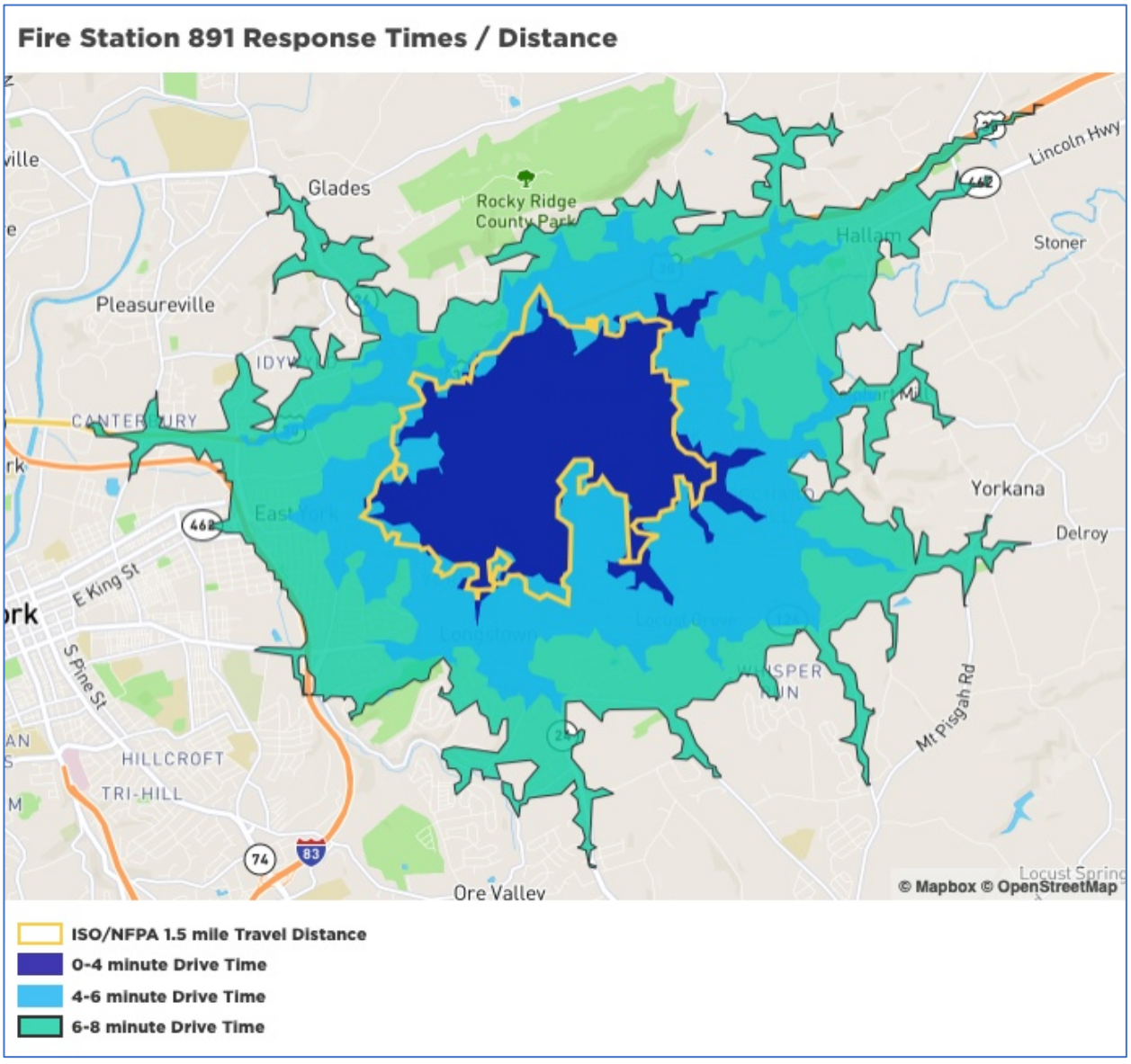
Map 24 also shows the heat map of incident locations over the last 5 years. This shows that a significant portion of the areas of highest demand is reachable by the first-due apparatus within 4 minutes, with the exception of the southern areas of Manchester Township. It is important to note, however, that an increased frequency of overlapping incidents may mean that the first-due crew is not available, in which case it may take longer for a crew to arrive at the scene of an incident. The following pages provide further details about existing fire station coverage within the community.



Map 24: Fire Station 1st-due Coverage Map, with Incident Demand

Station 891: *50 Commons Drive, Springettsbury Township*

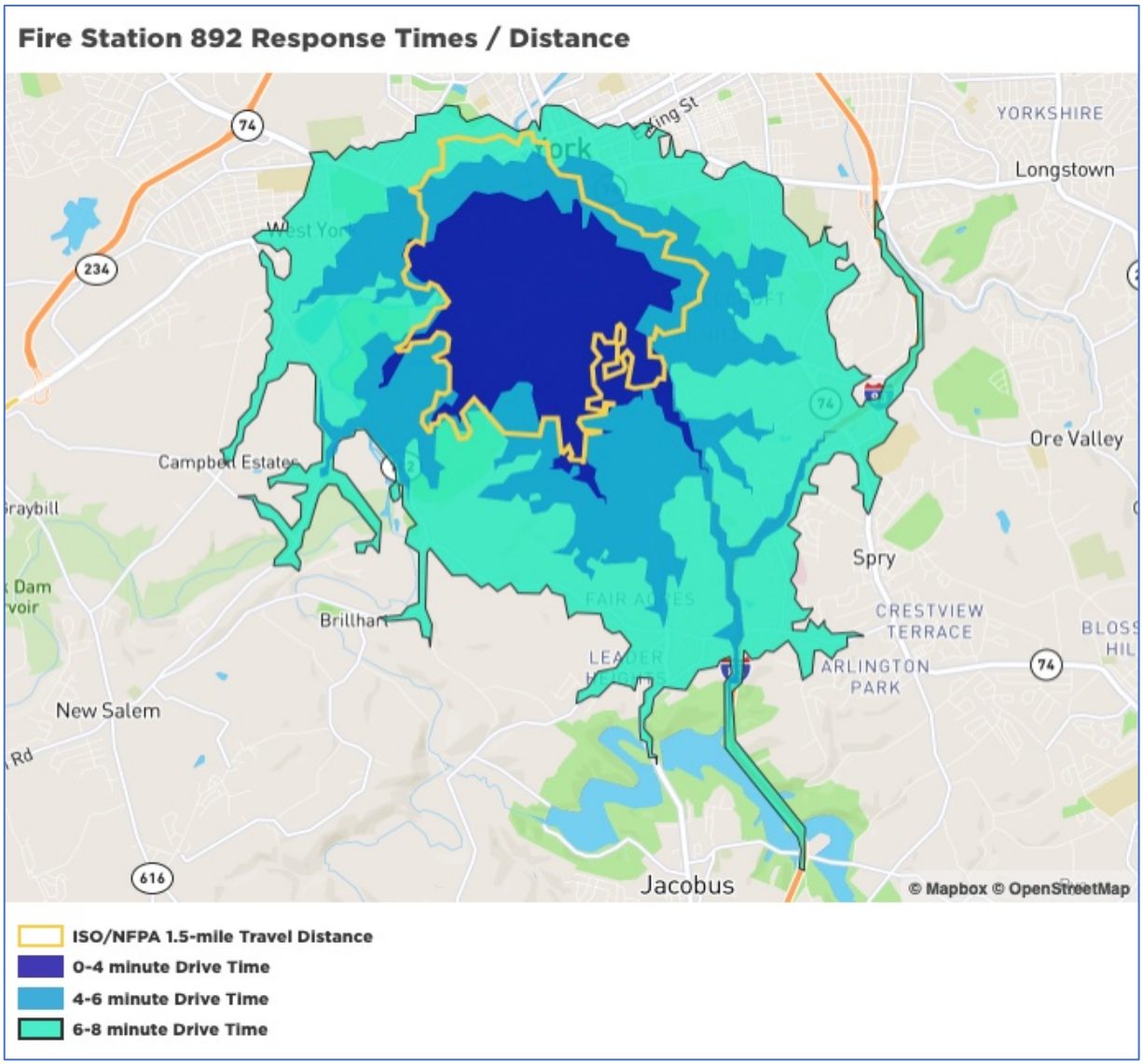
Station 891 serves the southern portion of Springettsbury Township, predominately south of U.S. Route 30. The station is home to YAUFR Headquarters. It houses all command and administrative staff, a single staffed engine company, the shift battalion chief, a utility vehicle, and a traffic control unit. Life Team EMS operates two transport-capable EMS units from this location. Built in 2013 and owned by Springettsbury Township, the station location was moved east by about one mile to better serve development on the east side of Springettsbury Township and reduce coverage area overlap with Station 894. The building is equipped with automatic fire alarm and sprinkler systems. This station provides frequent mutual and automatic aid to Hellam Township, Windsor Township, and Wrightsville Borough.



Map 25: Enhanced Fire Station Coverage Map - Station 891

Station 892: *918 Virginia Avenue, Spring Garden Township*

Station 892 serves the western portion of Spring Garden Township, predominately the South Queen Street Corridor and areas west. The station houses a single staffed engine company. First Capital EMS operates a transport capable EMS unit from this location. This station provides frequent mutual and automatic aid to North Codorus Township, West Manchester Township, York Township, York City, and West York Borough. Station 892 was originally built in 1927 and has exceeded its useful lifespan. It is equipped with an automatic fire alarm system but is not sprinklered. Spring Garden Township has acquired land on Indian Rock Dam Road for construction of a new station, and the new building is currently under design. The current building is owned by Grantley Fire Company; however, the replacement facility will be owned by Spring Garden Township.

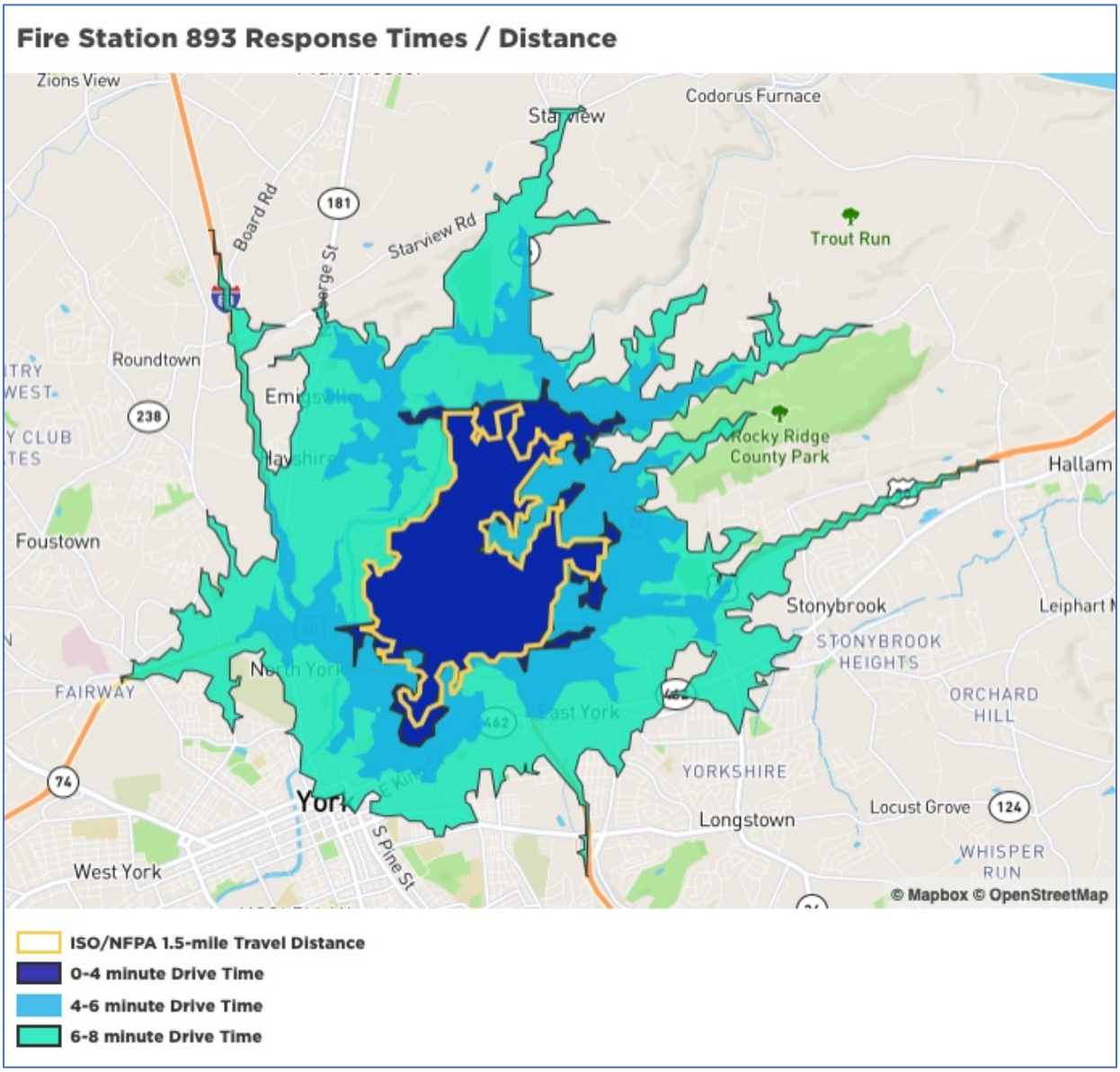


Map 26: Enhanced Fire Station Coverage Map - Station 892

Station 893: *2045 North Sherman Street, Springettsbury Township*

Station 893 serves the northern portion of Springettsbury Township, predominately north of U.S. Route 30, but also serves the Windsor Park area on the northern edge of Spring Garden Township. The station houses a single staffed engine company, a brush unit cross-staffed by the engine crew, a utility unit, and two reserve engines. It was built in 1973 and is fully-sprinklered with a fire alarm system. The building is owned by the Springettsbury Township Volunteer Fire Company. The station provides frequent aid to East Manchester Township and Mount Wolf Borough.

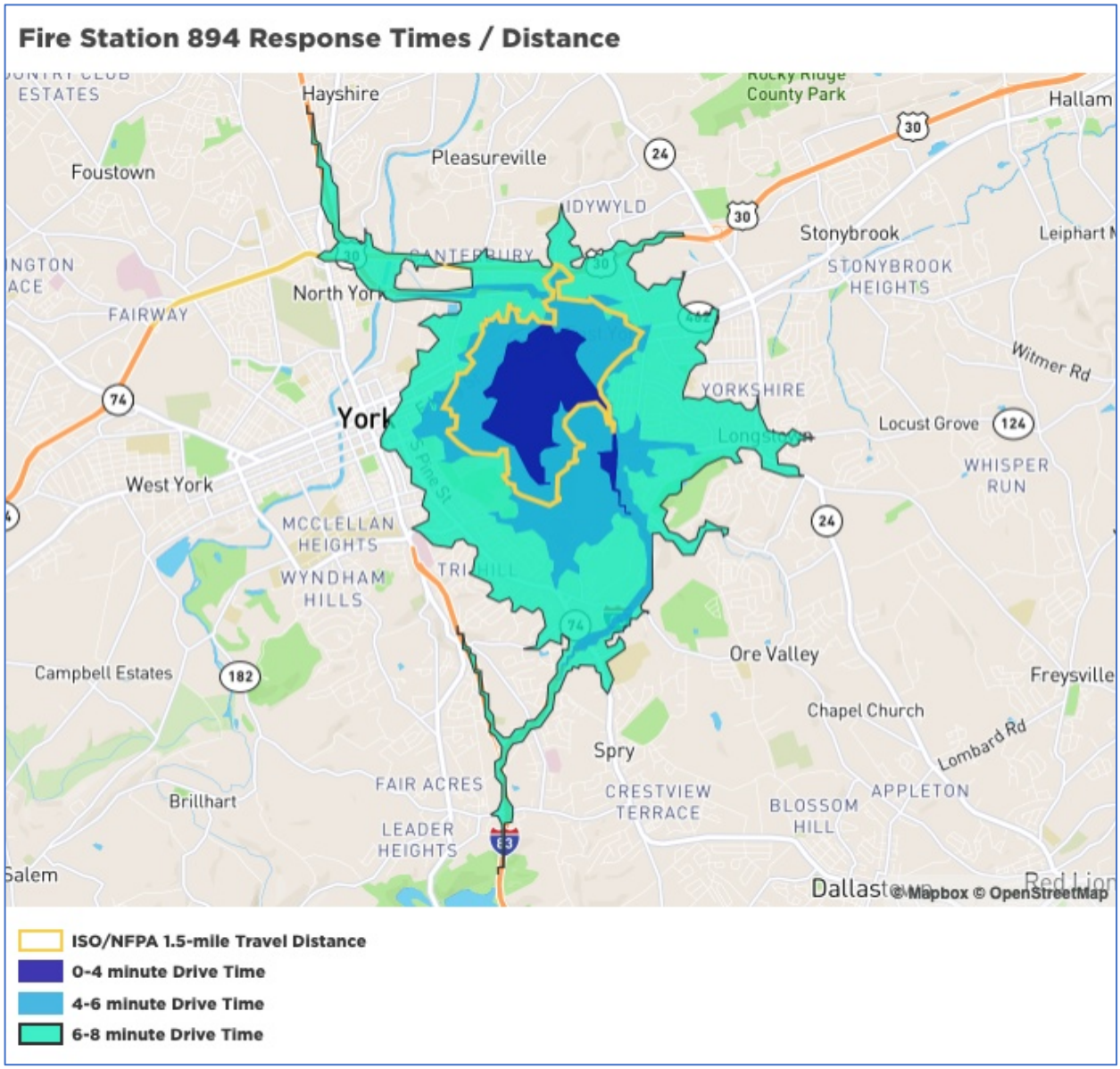
A 2-story central supply building/training tower is located to the rear of the station.



Map 27: Enhanced Fire Station Coverage Map - Station 893

Station 894: *421 Wheaton Street, Spring Garden Township*

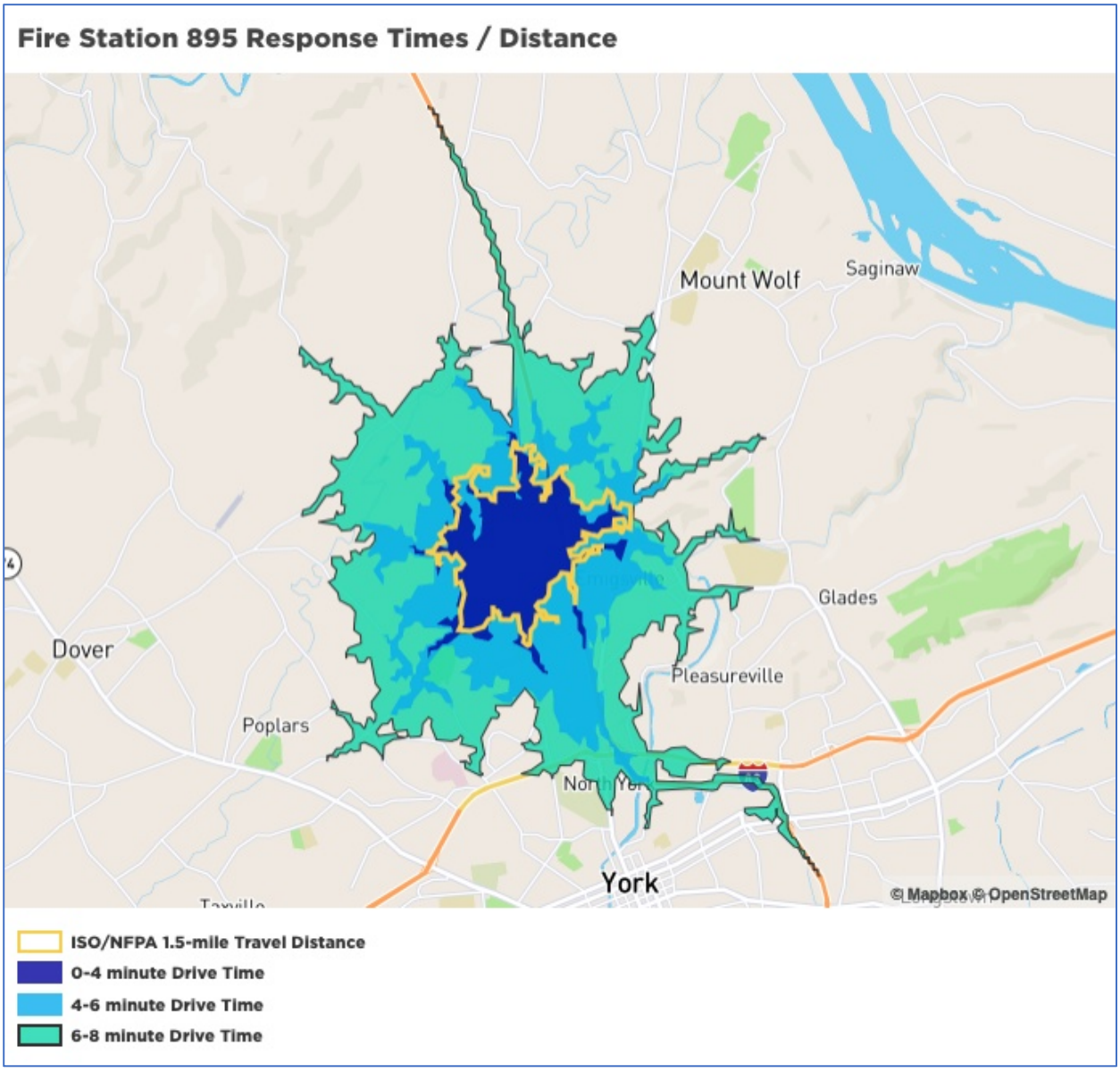
Station 894 serves the eastern portion of Spring Garden Township, as well as a portion of western Springettsbury Township along Interstate 83. The station houses a staffed truck company and an engine that is cross-staffed by the on-duty crew. First Capital EMS occasionally operates a transport-capable EMS unit from this location, but it is not always staffed. Owned by Victory Fire Company, the station was built in 1972. It is equipped with a monitored fire alarm system but is not sprinklered. The station provides frequent mutual and automatic aid to York Township and York City.



Map 28: Enhanced Fire Station Coverage Map - Station 894

Station 895: *3200 Farmtrail Road, Manchester Township*

Station 895 serves all of Manchester Township. It houses a staffed engine company, a staffed truck company, and a heavy rescue cross-staffed by the on-duty crews. Built in 1999, it is owned by Manchester Township and is part of the township municipal complex. The complex has a monitored fire alarm system but is not sprinklered. The station provides frequent aid to Conewago Township, Dover Township, East Manchester Township, West Manchester Township, Dover Borough, Manchester Borough, Mount Wolf Borough, and York City.

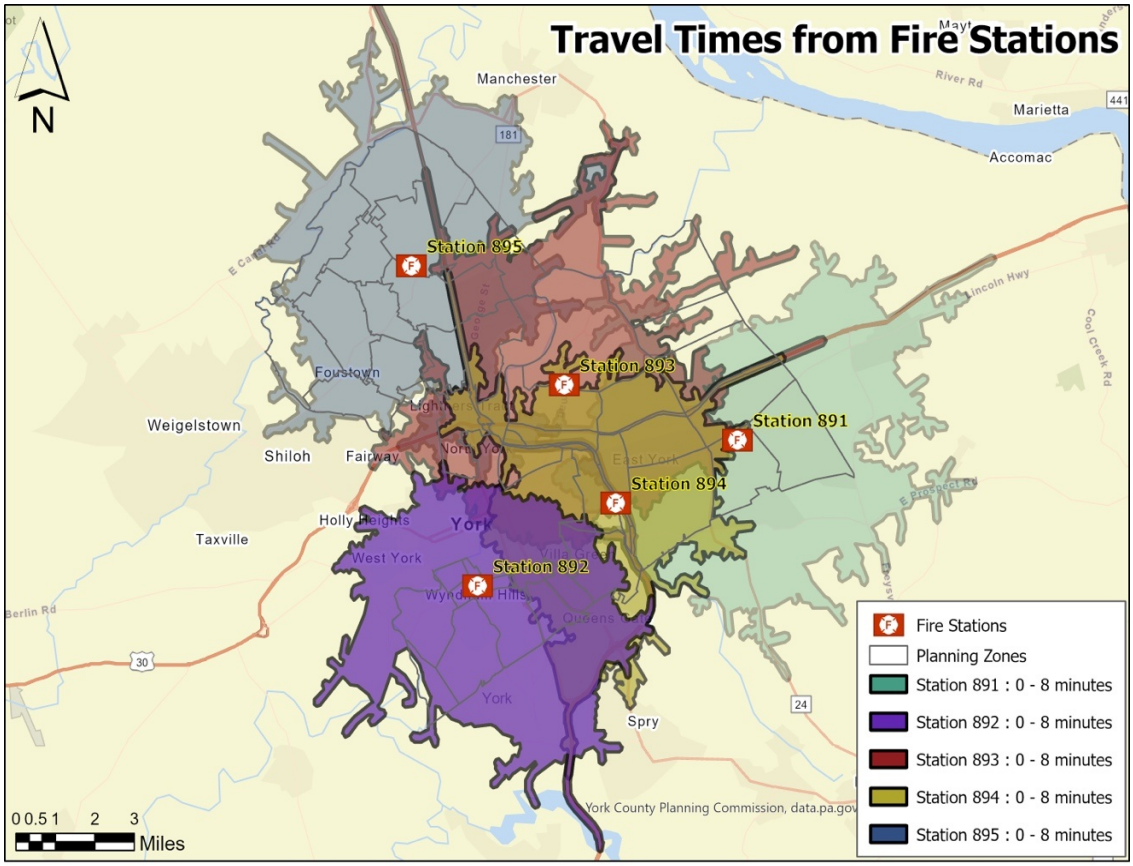


Map 29: Enhanced Fire Station Coverage Map - Station 895

Concentration of Resources

CFAI defines concentration as the location of resources throughout the community served so that an effective response force (ERF) can be assembled on scene within established performance benchmarks. An effective response force is the minimum number of personnel that must reach an incident scene in order to efficiently complete the essential task necessary to mitigate the incident. The ERF is determined through critical tasking for each incident type. Additional information on critical tasking and ERFs is contained elsewhere in this document.

Map 30 shows the concentration coverage from existing YAUFR fire stations. Coverage is depicted using 8-minute drive times from each station. NFPA 1710 establishes a benchmark of 10 minutes 30 seconds 90% of the time for assembly of a complete response assignment. Allowance for dispatch call processing and turnout times leaves units with 8 minutes available to meet this benchmark. The overlap of 8-minute travel time coverage shows where there can be a reasonable expectation that apparatus responding from their stations will reach a scene within 8 minutes.



Map 30: YAUFR Fire Station Coverage, 8-minute Response Coverage

The concentration coverage map shows that the central areas of the YAUFR community have sufficient overlap by three stations in the areas of highest incident demand density. Outlying areas of the community do not have overlapping coverage. However, for structure fire responses, at least one neighboring fire agency will be dispatched to provide automatic aid support. This automatic aid response will improve concentration of resources; however, these fire stations are not all continuously staffed, resulting in longer turnout times, which directly affects overall response time.

Historical Agency Activity

Incident Activity

This section provides an overview of YAUFR's incident response activity during the period 2020 through 2024. The following graphs depict total incident response activity to all jurisdictions, except where otherwise indicated.

Figure 16 shows the total incidents per year for the last 5 years. 2024 marked the first time YAUFR reach 5,000 incidents in a year. 2020 saw a significant drop in total incidents, predominately due to stay-at-home recommendations issued in the early stages of the COVID-19 pandemic. Incident activity decreased over an approximately 80-day period, however returned to normal levels during the summer months. To gain a better understanding of incident activity within the YAUFR community, the graph also shows the number of incidents per year excluding aid given incidents. Figure 16 shows a comparison of the monthly incident volume for each of the last five years.

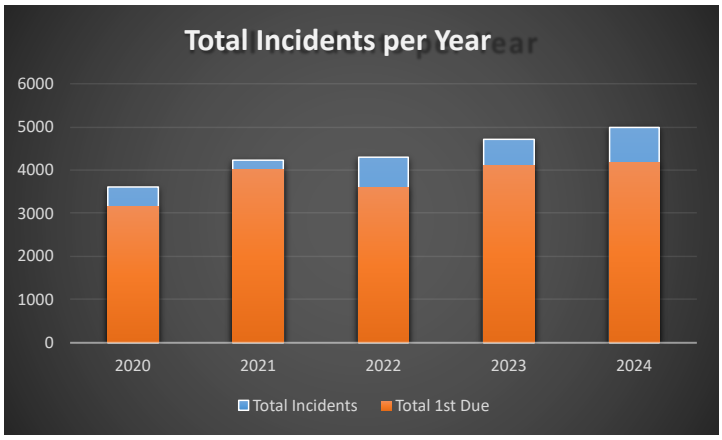


Figure 16: Annual Total Incident Responses: Total vs. YAUFR 1st-Due

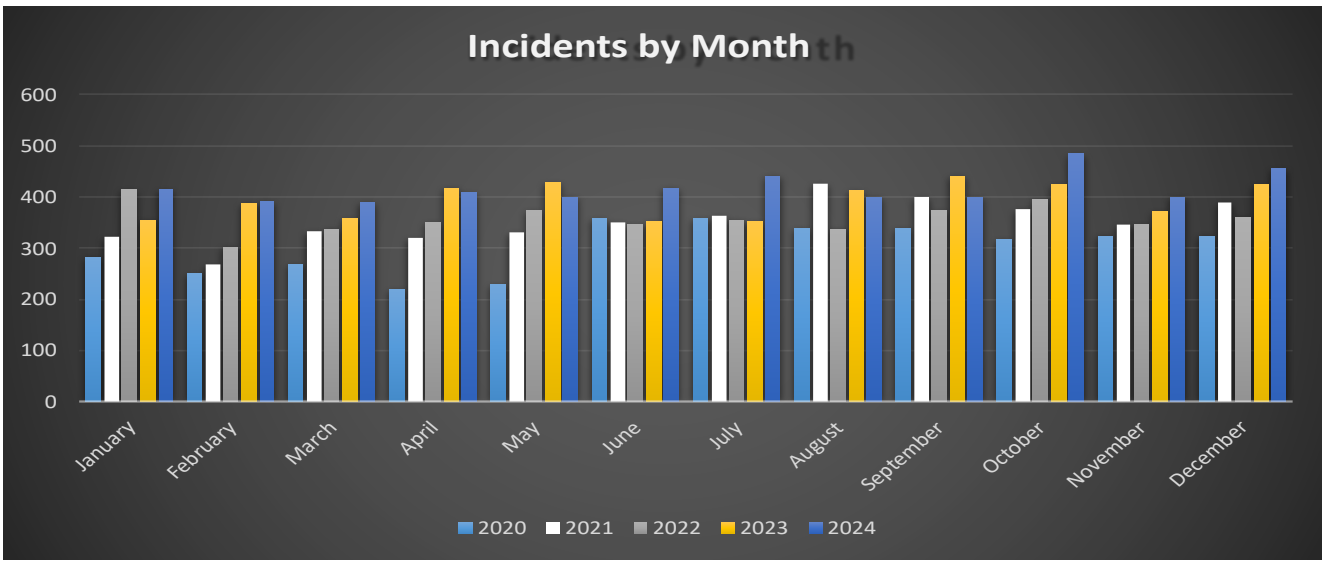


Figure 17: Monthly Incident Totals by Year: 2020 - 2024

It is not uncommon for YAUFR to handle one or more simultaneous incidents. Simultaneous incidents impact reliability by depleting available resources and extending travel times to incidents, as the primary response unit for that area may be committed to another incident, in which case the next-closest unit will be sent, typically from a fire station farther away. Figure 17 shows the number of simultaneous incidents monthly compared to the total number of incidents. The overall annual percentage of simultaneous incidents increased from 37.89% in 2020 to 48.84% in 2024. This highlights the need to ensure YAUFR commits only the resources necessary to mitigate an

incident, ensuring other resources are available for the overlapping service demand. Adequate staffing on each unit reduces the total number of units that must be sent to achieve an effective response force.

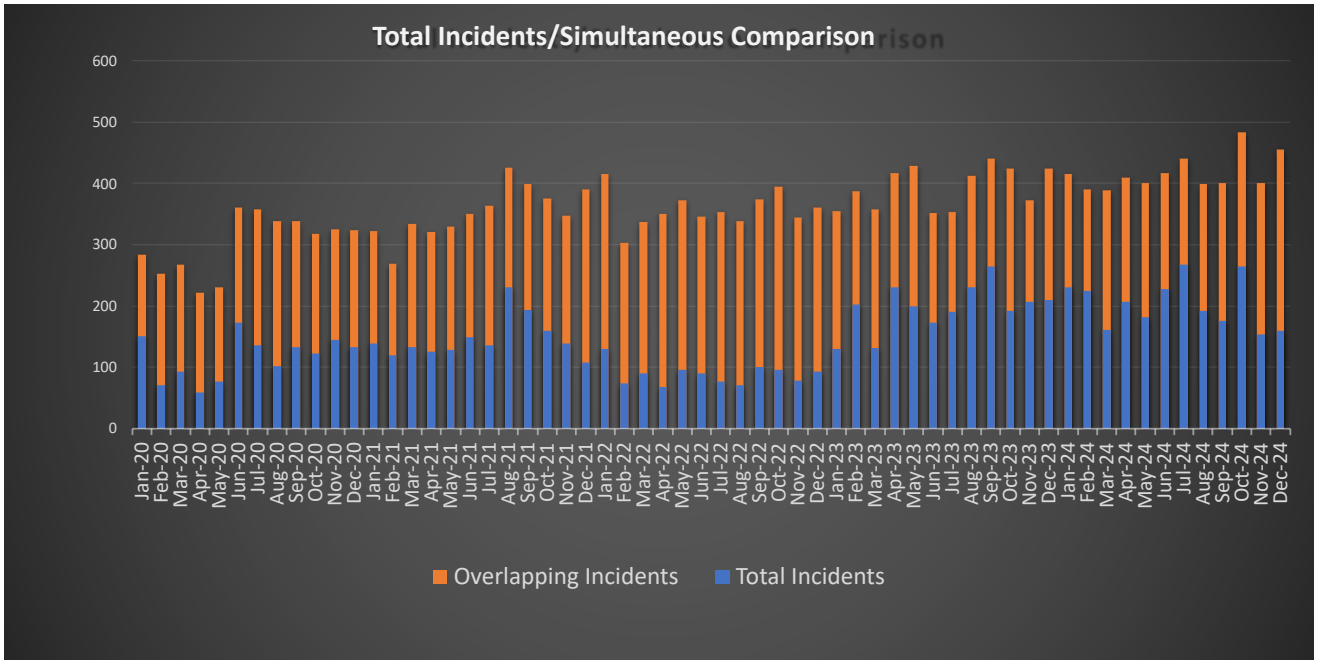


Figure 18: Overlapping Incidents as Compared to Total Incidents

Figure 18 shows the number of simultaneous (overlapping) incidents compared to the overall number of incidents per month over the last five years. Figure 19 shows the impact on response times to incidents as the number of overlapping incidents increases. Factors that influence the effect include the length of the initial incident and the time between simultaneous incident dispatch. When multiple units are anticipated to be committed to an incident for extended durations, usually longer than one-hour, surrounding agencies will be called in to backfill the stations with no resources. Command staff also have the ability to recall off-duty personnel to staff reserve apparatus. Once these measures are in place and vacant stations are again staffed, response times will be reduced.

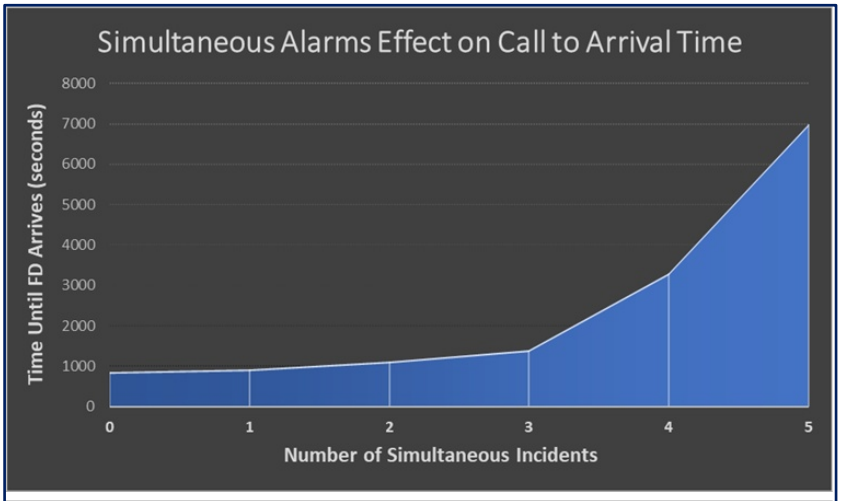


Figure 19: Impact of Simultaneous Alarms on First Unit Arrival Time

Figure 20 demonstrates the service demand levels by hour of day and day of week. For the period 2020-2024, peak demand occurs Monday through Friday between 11:00am and 5:00pm. The color gradient highlights demand levels from low (lighter colors) to high (darker colors).

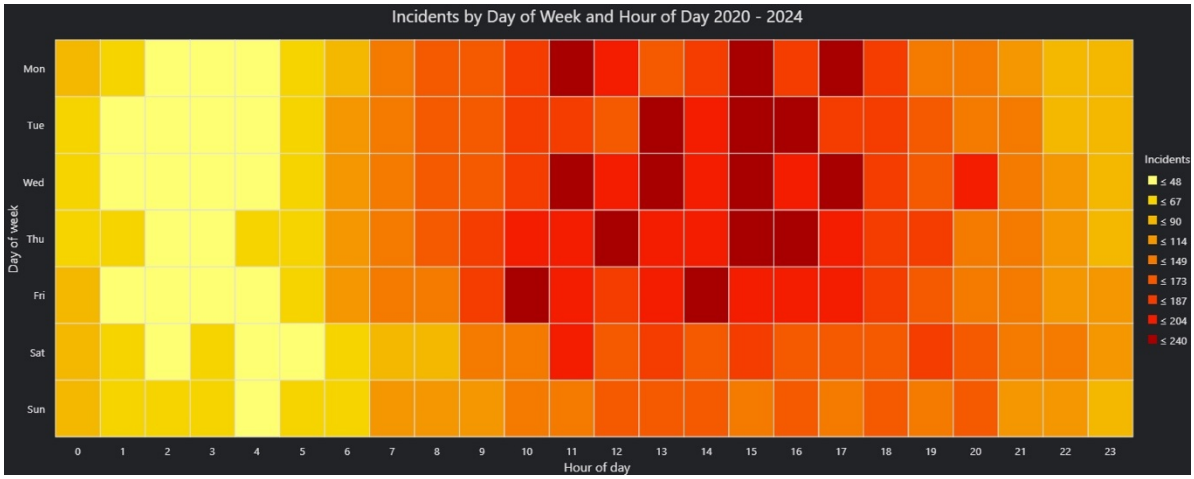
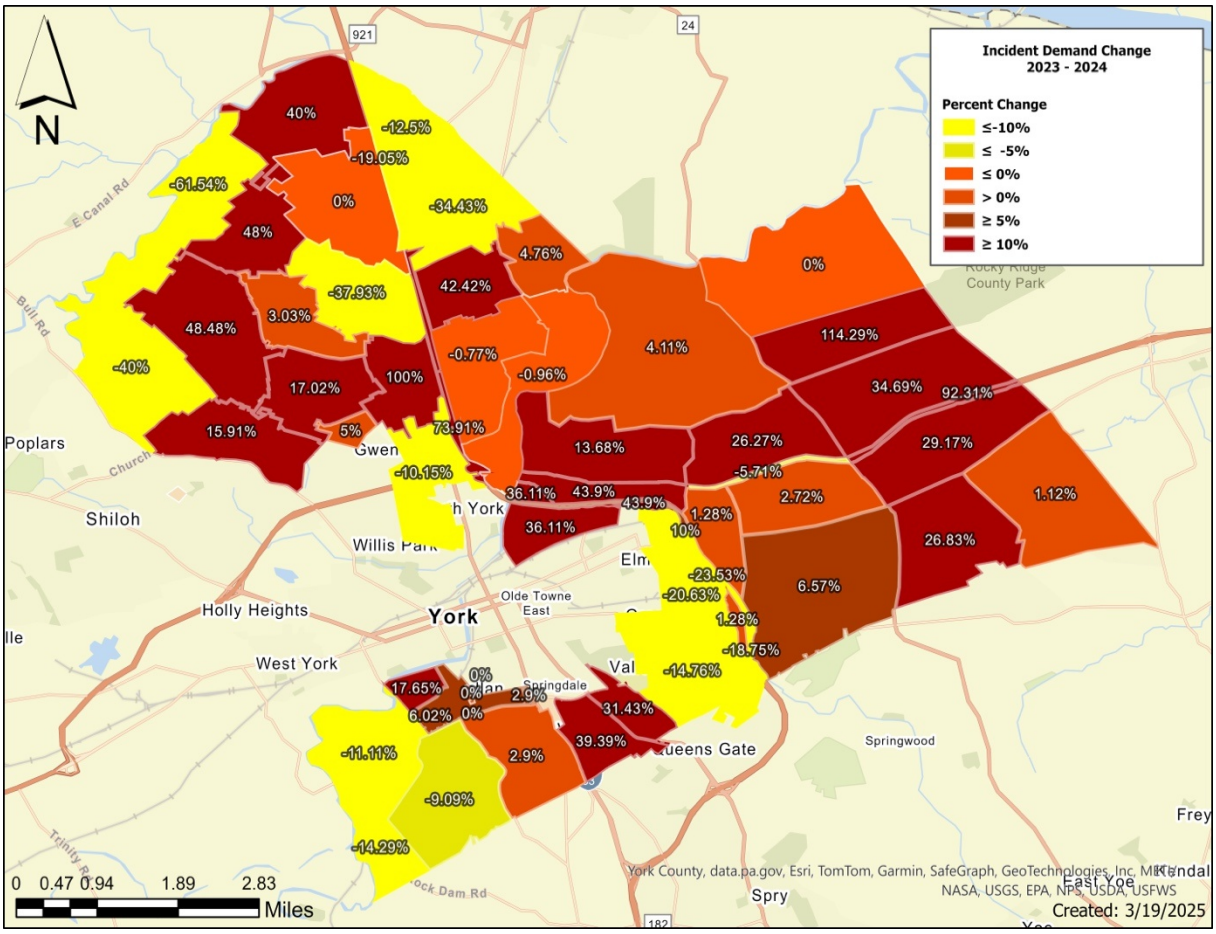


Figure 20: Incident Demand by Hour and Day of Week

Map 31 shows the change in demand, by response zone, between 2023 and 2024.



Map 31: Change in Response Demand by Zone

Crew utilization rate, also referred to as the unit hour utilization (UHU), is used to evaluate the workload of in-service crews to determine both their availability for response, as well as ensuring appropriate work-rest cycles to combat fatigue. While there is no current standard for maximum utilization rates, a range of 25% - 30%, as derived from NFPA and ICMA data, has commonly been viewed as the maximum range before additional resources should be considered, although some research has indicated the rate could be closer to 15%. When crew utilization increases, personnel often have insufficient time to complete other necessary duties, including incident documentation, training, pre-fire planning, and conducting public education programs. Utilization rates of YAUFR crews have been monitored over the period 2020-2024. Workload has remained less than 10% for each crew every year. Although 2023 showed a significant increase in the time crews were committed, utilization rates dropped again in 2024. This indicates that while YAUFR's workload has continued to increase, the overall duration of incidents has not necessarily increased. Figure 21 shows the average annual unit hour utilization rate for each YAUFR company for the period 2020 through 2024.

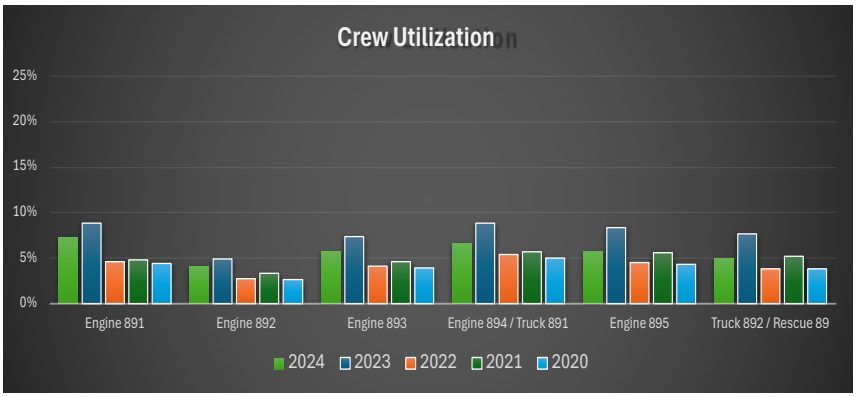


Figure 21: Unit Hour Utilization Rates 2020-2024

Non-Incident Activity

While incident response is a core mission of any emergency service agency, a proactive agency incorporates programs aimed at preventing incidents or reducing their consequence. YAUFR has an extensive community risk reduction program that incorporates public education, pre-incident planning, and code compliance efforts. The current public education efforts cover a range of fire and non-fire topics, across all age groups. Figure 22 shows the total number of public education programs delivered annually for the last six years. 2019 data is included in this chart to depict pre-COVID demand and better illustrate program activity trends. With the exception of a sharp decline in 2020, likely due to the COVID-19 pandemic, the total delivered programs have increased each year. This is a result of an expanded range of public education programs and topics, increased community demand, and enhanced program marketing by the agency.

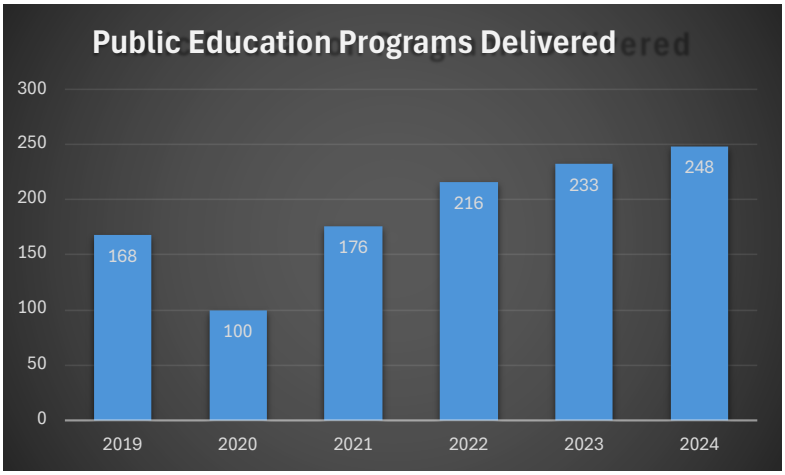


Figure 22: Public Education Activity

Public education programs are broken down within the records management system into one of nine categories:

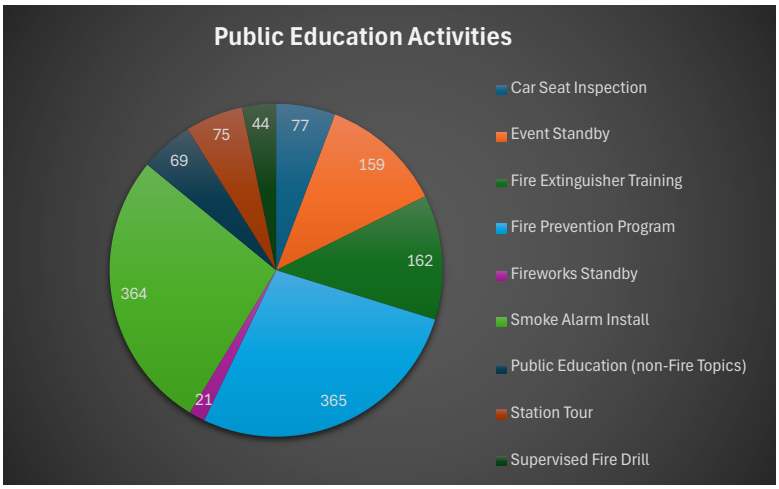


Figure 23: Public Education Programs by Type 2020-2024

- Fire prevention programs encompass the traditional fire safety topics, such as home escape plans, home fire drills, what to do when your clothes catch fire, etc. These are most-commonly delivered to school-aged children.
- Non-fire topics include fall prevention, bicycle or swimming safety, severe weather awareness, basic first aid, and CPR. Many of these programs are delivered to older children and adults.
- Fire extinguisher training is typically delivered to the employees of businesses and includes a review of facility safety plans, including notification of the fire department and ensuring the area is evacuated.
- Fire station tours are typically delivered for younger children and include basic fire safety education talks, show and tell of fire apparatus and equipment, and allows opportunity for adults to ask questions about fire department operations.
- Smoke Alarm and Fire Education (SAFE) program. Originally funded by a FEMA Fire Prevention and Safety grant and called PRIDE (Proactive Residential Information Distribution Effort), it began as a smoke alarm and fire safety education distribution program that saw YAUFR personnel visit every residence in the response area to ensure occupants received fire prevention literature and had at least one working smoke alarm. This category has evolved to include any distribution or installation of smoke and/or CO alarms, batteries, and educational materials. YAUFR has partnered with the Red Cross to continue this program, which has allowed for greater distribution of smoke alarms.
- Event standbys include any large gathering, such as a festival or block party, where YAUFR personnel are present. These details allow for informal engagement with community members, often including discussion of public education topics and fire department response. There is often no pre-established agenda, and attendance is generally under-counted, resulting in an underreporting of audience size of the overall public education program.
- Supervised fire drills commonly occur at schools, businesses, and care facilities. YAUFR personnel observe and time building evacuations, making notes of potential problems with orderly exits or accountability of occupants outside the building. This feedback is shared with the facility to improve their emergency plans.
- Fireworks standbys occur when a permit is obtained for a professional fireworks display. Personnel are assigned to ensure that embers do not ignite fires in the vicinity and that the public is kept a safe distance away from the launch area. These displays are often part of larger events and do allow for informal discussion with the public.
- Car seat inspections ensure that parents and caregivers are familiar with the proper methods of installing child safety seats, as well as follow state laws for child passenger safety. A number of YAUFR personnel are certified child passenger safety technicians, and the program is delivered in conjunction with Safe Kids of Central Pennsylvania.

Figure 23 shows the distribution of public education programs delivered by YAUFR personnel over the last five years. Traditional fire safety education and the smoke alarm program account for the majority of the programs. However, a strengthened relationship with Safe Kids of Central Pennsylvania has offered expanded program delivery and access to new programs and resources.

As the number of public education programs expands, the reach into the community grows. Figure 24 shows the estimated annual audience size of the combined public education program. However, it should be noted that the audience size at large gatherings is generally estimated, likely resulting in an underreporting of the program's reach. Figure 25 shows the approximate distribution of the audience across age groups.

In addition to public education programs, pre-fire planning and ensuring compliance with applicable codes can help to reduce the frequency of incidents and minimize consequences of incidents should they occur. Pre-fire planning helps familiarize agency personnel with buildings, particularly target hazards, so they can understand the specific risks an occupancy may contain, as well as knowing the location of important fire service features, such access points, Knox Box location, and sprinkler connections.

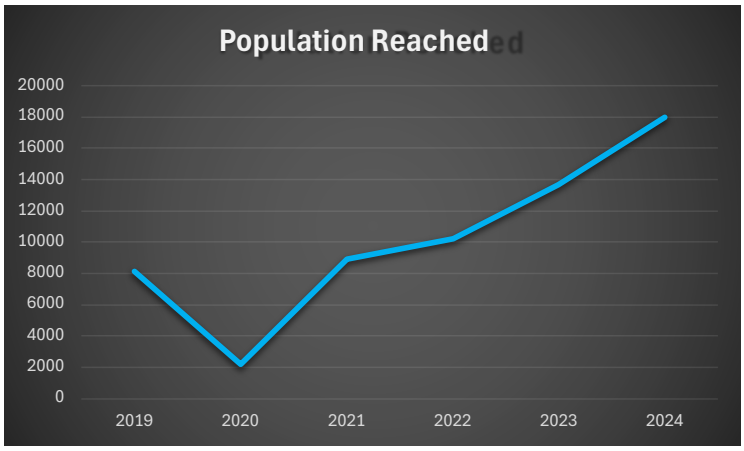


Figure 24: Cumulative Audience of Public Education Programs

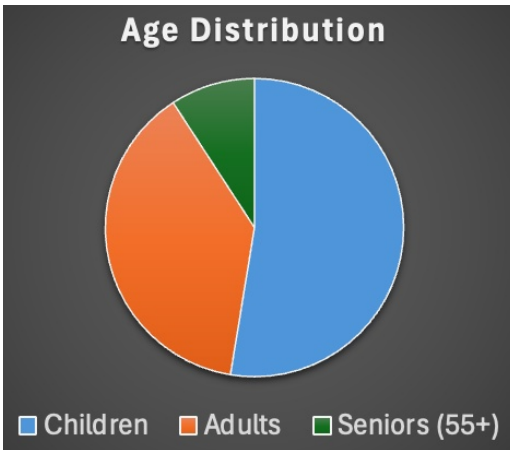


Figure 25: Public Education Audience by Age

Pre-fire planning is conducted for all commercial occupancies annually, although crew availability does not always allow for all buildings to be completely reviewed. First priority is to ensure that target hazards and critical infrastructure, as identified in the records management system, are reviewed and updated as needed. Annual preplans are conducted by on-duty personnel. Preplans are also conducted by command staff when an occupancy is inspected, typically after construction, renovation, or change of occupant. Figure 26 shows the preplan activity that occurred over the last 5 years. Records management system changes in both 2019 and 2023 impacted the ability to complete and record

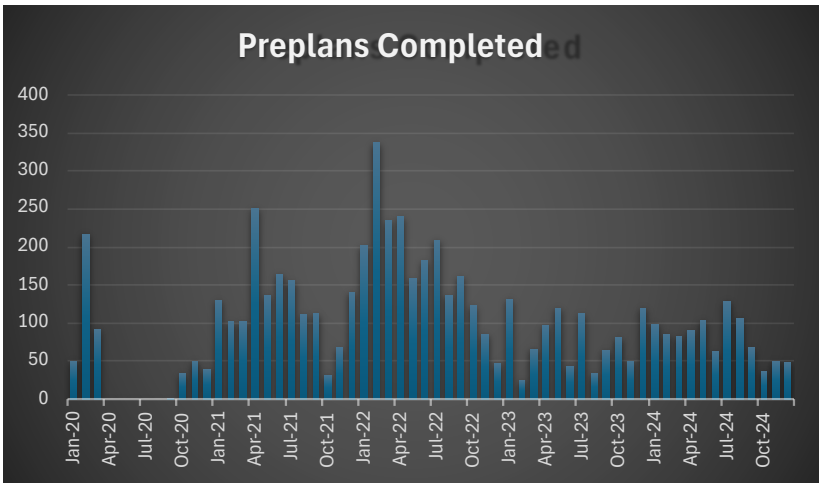


Figure 26: Preplan activity 2020 - 2024

preplans during those years as processes were refined and personnel learned use of the new systems. COVID-19 restrictions curtailed detailed onsite preplanning during much of 2020.

Commercial occupancy inspections help to ensure that occupancies remain compliant with fire and life safety codes, and that fire alarm, sprinkler, and other building systems are maintained. YAUFR does not currently have a regular life safety inspection program. Inspections are only conducted upon request, when a complaint is received, or when crews observe potentially unsafe conditions during or after an emergency response. YAUFR is, however, actively involved in the building construction and renovation processes. Command staff review building plans and provide comments and recommendations to the building code officials prior to the issuance of permits.

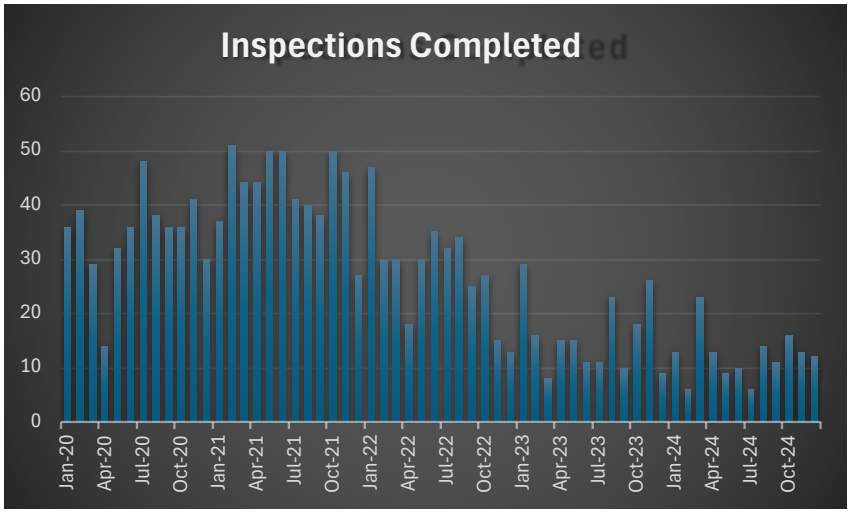


Figure 27: Inspection Activity 2020 - 2024

Agency personnel also assist with permit-related inspections involving fire or life safety systems, as well as final occupancy inspections. The final inspection process incorporates a new pre-fire plan of the building or occupancy and offers the opportunity to develop or review emergency plans with the building or business owners. Figure 27 shows the total number of inspections conducted monthly over the last five calendar years. In 2025, YAUFR revised the pre-incident planning process to include a fire safety survey to be conducted by on-duty crews. Identified issues are flagged for follow-up inspection by other personnel or township officials, as needed.

Evaluation of Service Delivery

Benchmarks – Performance Objectives

Measuring agency performance includes establishing performance benchmarks, or performance objectives. Simply put, they are the desired performance. Benchmarks are an established standard to which current performance levels are compared. This comparison between performance objectives and actual performance is the basis for delivery of incident response. Benchmarks are developed for each category and classification of risk, as the number of resources needed varies. Benchmark performance statements have been developed to reflect desired service delivery, reported at the 90th percentile, in accordance with CFAI requirements.

Prior to 2019, YAUFR did not have established performance benchmarks. Informally, response performance was compared to the NFPA 1710 national standard. Benchmarks, however, should be somewhat realistic. Comparison of actual performance to benchmarks allows for the development of a performance improvement plan. If the performance gap is too great, it is difficult to develop an improvement plan that is realistically attainable. For this reason, YAUFR adopted benchmarks based on the average performance levels for 2019. These benchmarks will be reviewed and revised with stakeholder input during future strategic planning processes. Table 12 shows YAUFR's established performance benchmarks used in the evaluation of service delivery in this document.

Performance Benchmarks								
Risk Category	Risk Level	ERF	Alarm Handling	Turnout Time	First Arriving Travel Time	ERF Travel Time	First Arriving Total Time	ERF Total Time
Fire	High	17	2:00	1:30	5:00	16:10	8:30	19:40
Fire	Moderate	7	3:00	1:30	6:00	7:30	10:30	12:00
Fire	Low	3	4:00	1:30	6:30	6:30	12:00	12:00
EMS	High	9	2:00	1:30	5:00	7:30	8:30	11:00
EMS	Moderate	7	3:00	1:30	6:00	8:30	10:30	13:00
EMS	Low	2	4:00	1:30	6:30	6:30	12:00	12:00
Rescue	High	13	2:00	1:30	5:00	8:10	8:30	11:40
Rescue	Moderate	7	3:00	1:30	6:00	8:30	10:30	13:00
Rescue	Low	2	4:00	1:30	6:30	6:30	12:00	12:00
HazMat	High	18	2:00	1:30	5:00	8:10	8:30	11:40
HazMat	Moderate	7	3:00	1:30	6:00	8:30	10:30	13:00
HazMat	Low	2	4:00	1:30	6:30	6:30	12:00	12:00

Table 12: YAUFR Performance Benchmarks

Baseline Performance

Baseline performance reflects actual service delivery levels, which are then compared to performance benchmarks to identify service delivery gaps. Baseline performance is also reported for each category and classification of risk and is reported at the 90th percentile, in accordance with CFAI requirements. The 90th percentile is used, as it reflects how YAUFR is performing a majority of the time, as opposed to an average, which reflects how the agency performs half the time.

The CFAI requirements also allow for a distinction in performance between urban and rural areas. While there are some areas within the YAUFR community that visually could be considered rural in character, the U.S. Census Bureau, in the 2020 Census data, has classified the greater-York area as an urban area, to include the townships

that YAUFR serves. Given this distinction, the continued growth in many of the outer areas of the community, and the distribution of resources, YAUFR has chosen to report all baseline performance as Urban.

Qualification of Data

Baseline performance is calculated only for incidents occurring within the YAUFR primary response area. Incidents in which aid is provided to surrounding agencies are excluded.

Reporting of baseline performance is done for emergency responses only. If a unit's response mode is recorded as anything other than an emergent response, its times are excluded from the performance measurement. This includes any apparatus with a response mode reported as non-emergent, downgraded from emergency to non-emergent, or upgraded from non-emergent to emergent.

If a responding unit does not reach the scene (i.e. the unit does not have a recorded arrival time, or is marked as cancelled), its times are excluded from the baseline distribution and/or concentration performance calculations. Turnout time is calculated using all dispatched units with a recorded enroute time, regardless of whether or not they reached the scene.

Chief officers are excluded from the calculation of first arriving (distribution) times. The reason for this exclusion is that chief officers can assume command or safety functions, but do not directly initiate mitigation efforts, such as fire suppression or rescue.

Utility and support vehicles are not included in baseline performance calculations. Most of these support units are not directly part of the mitigation efforts. Traffic and some utility units respond to provide assistance with traffic control around an incident. Utility units also often respond with non-qualified personnel who operate in a support capacity (i.e. personnel rehab), respond non-emergent, or have a significantly extended turnout time.

Aiding resources are included in performance evaluations. YAUFR's records management system is capable of receiving these unit times from CAD and incorporating them into the incident documentation.

Outliers Policy

Outliers are data points that are far outside of the normal distribution curve. YAUFR has established an outlier policy that removes the longest ~1% of times from baseline performance calculations, those that are outside 3 times the standard deviation of the mean time. This prevents stray data points from substantially skewing the 90th percentile value and subsequent interpretation of performance data. As outliers typically represent errors in data, the list of removed outliers is reviewed monthly to identify potential errors in recording of times. True data entry errors are corrected, and performance calculations updated to ensure the most accurate baseline data.

Why the 90th Percentile?

Averages are a good measurement for mathematically normal (symmetrical) distributions of data. Normal distributions have an average that falls in the middle of records and looks like a nice even hill when graphed. However, incident times do not have a normal distribution. Instead, times result in right-skewed asymmetrical distributions of data. When graphed, response times have a large mountain towards the left with a long tail to the right. This type of distribution has a poor quality of analysis when using average as a measurement that is heavily affected by outliers and longer response times. Average also implies a measurement of half the performance, rather than a majority of service. Figure 28 provides a visual representation of normal versus asymmetrical data curves.

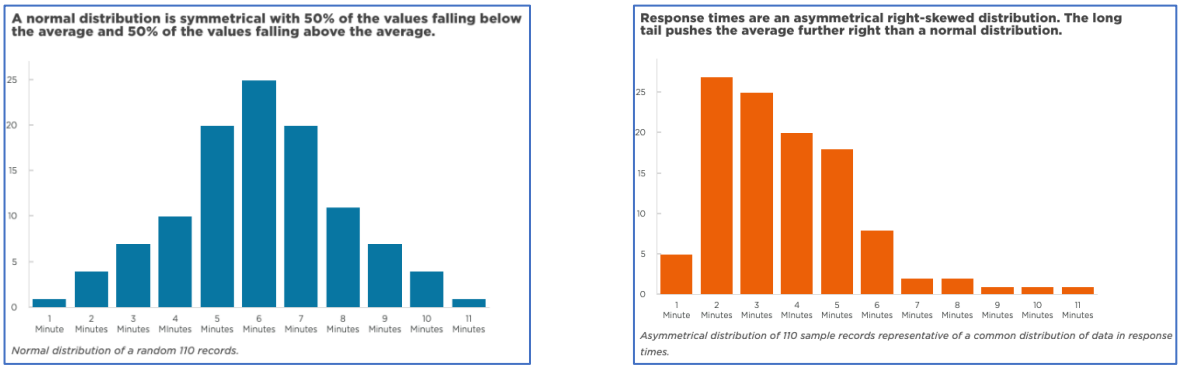


Figure 28: Normal Data Distribution Curve vs. Asymmetrical Data Curve

Using percentiles is an industry standard for calculating response times, as it indicates the level of service a community can expect for the majority of incidents. Reporting times at the 90th percentile is a requirement of CFAI. Many response times will be shorter than the 90th percentile, and only 10% of response times will be longer. Response times are first cleaned for outliers, filtered according to the established exclusion criteria, then ordered shortest to longest. From the remaining dataset, the 90th percentile is calculated for each incident time category. For example, in the sample dataset of 10 turnout times shown in figure 29, the 9th record is the 90th percentile.

Sample Turnout Time Dataset

Order	Turnout Time Sample
1	0:30
2	0:42
3	0:53
4	0:57
5	1:14
6	1:19
7	1:26
8	1:34
9	**1:43 *90th Percentile**
10	1:52

Figure 29: Sample Dataset

The following pages review YAUFR's established performance benchmarks and baseline performance for the five-year period spanning 2020 through 2024. Benchmarks are the established performance targets for each measured response time segment, while baseline performance is the actual time recorded for that segment, measured at the 90th percentile. Performance gaps are the difference between baseline and benchmark performance and are used to identify areas of success and/or in need of improvement. The performance evaluation is broken down by risk category and classification. The critical task analysis is also included for each section.

Global Performance Benchmarks

The following benchmark performance statements apply to all response categories.

- The Turnout Time for all incidents across all risk categories and classifications, shall be 1 minute 30 seconds (1:30) 90% of the time.
- For 90% of all low-risk incidents across all risk categories, the Alarm Handling Time by York County 911 shall be 4 minutes 0 seconds (4:00).
- For 90% of all moderate-risk incidents across all risk categories, the Alarm Handling Time by York County 911 shall be 3 minutes 0 seconds (3:00).
- For 90% of all high-risk incidents across all risk categories, the Alarm Handling Time by York County 911 shall be 2 minutes 0 seconds (2:00).

Fire Incidents - Low Risk

Low risk fire incidents include outside incidents such as brush or trash fires, investigation of smoke in the area, or alarms where there may be a potential for, but no report of a fire. These low-risk incidents are typically handled by a single crew of 2-3 personnel and are often mitigated quickly.

FIRE - Critical Task Analysis	
Low Risk Fire	
Critical Task	Personnel
Command/Safety*	1
Fire Attack or Assessment	1
Pump Operations / Backup*	1
TOTAL ERF:	3
*indicates shared task	

Benchmark Performance Statement

For all low-risk fire incidents, YAUFR shall deploy at least one apparatus, equipped with a crew of not less than two personnel, capable of pumping at least 1250 gallons of water per minute. The crew shall be capable of establishing command, assessing the scene, and commencing mitigation operations as outlined in YAUFR General Orders. The first apparatus and full ERF shall arrive within 8 minutes 0 seconds from dispatch, 90% of the time.

Baseline Performance Statement

For the period 2020-2024, 2,898 low-risk fire incidents were evaluated. A full ERF was assembled on 2,866 of these incidents. The first apparatus arrived within 10 minutes 9 seconds from dispatch, 90% of the time. The full ERF was assembled in 10 minutes 18 seconds from dispatch, 90% of the time.

Fire - Low Risk 90th Percentile Baseline Perfomance			Total 2020-2024	2024	2023	2022	2021	2020
Alarm Handling	Call Pick-up to Dispatch	Urban	04:22	04:13	04:07	04:35	04:44	04:16
Turnout Time	Turnout Time 1st Unit	Urban	02:39	02:38	02:36	02:43	02:38	02:42
Travel Time	Travel Time 1st Unit *Distribution*	Urban	06:45	07:27	06:28	06:31	06:40	07:13
	Travel Time ERF *Concentration*	Urban	06:54	07:36	06:36	06:34	06:41	07:32
Total Response Time	Total Response Time 1st Unit *Distribution*	Urban	10:09	11:10	10:13	08:28	09:31	11:56
		# of Calls	*n=2898*	*n=811*	*n=781*	*n=542*	*n=764*	*n=850*
	Total Response Time ERF *Concentration*	Urban	10:18	11:14	10:15	08:39	09:42	11:56
		# of Calls	*n=2866*	*n=799*	*n=774*	*n=539*	*n=754*	*n=831*

Performance Gaps

For all low-risk fire incidents, a performance gap of 22 seconds over the benchmark was recorded for Alarm Handling, 1 minute 9 seconds over the benchmark for Turnout, 2 minutes 9 seconds over the benchmark for First Arriving time, and 2 minutes 18 seconds over the benchmark for ERF time.

Fire Incidents - Moderate Risk

Moderate risk fire incidents include vehicle and mobile property or equipment fires, as well as investigation of smoke or smoke odors inside a building. Moderate-risk incidents are typically handled by two or three crews and a shift supervisor (7-11 personnel) and are typically cleared within one hour.

FIRE - Critical Task Analysis	
Moderate Risk Fire	
Critical Task	Personnel
Command/Safety*	1
Fire Attack / Hoseline*	2
Air Monitoring / Tools	2
Support	1
Pump Operator	1
TOTAL ERF:	7
*indicates shared task	

Benchmark Performance Statement

For all moderate-risk fire incidents, YAUFR shall deploy at least two apparatus, capable of pumping at least 1250 gallons of water per minute, and a shift supervisor, for a total of 7 personnel. The crew shall be capable of establishing command, assessing the scene, and commencing mitigation operations as outlined in YAUFR General Orders. The first apparatus shall arrive within 7 minutes 30 seconds from dispatch, 90% of the time, with the full ERF arriving within 9 minutes 0 seconds from dispatch 90% of the time.

Baseline Performance Statement

For the period 2020-2024, 465 moderate-risk fire incidents were evaluated. A full ERF was assembled on 376 of these incidents. The first apparatus arrived within 10 minutes 32 seconds from dispatch, 90% of the time. The full ERF was assembled in 12 minutes 12 seconds from dispatch, 90% of the time.

Fire - Moderate Risk 90th Percentile Baseline Perfomance			Total 2020-2024	2024	2023	2022	2021	2020
Alarm Handling	Call Pick-up to Dispatch	Urban	05:20	05:46	05:03	04:57	05:47	05:33
Turnout Time	Turnout Time 1st Unit	Urban	02:42	02:52	02:35	02:35	02:34	02:39
Travel Time	Travel Time 1st Unit ***Distribution***	Urban	07:09	07:28	07:14	06:46	06:37	07:25
	Travel Time ERF ***Concentration***	Urban	09:50	09:49	10:16	09:39	08:49	09:15
Total Response Time	Total Response Time 1st Unit ***Distribution***	Urban	10:32	11:41	10:18	09:01	09:27	13:12
		# of Calls	*n=465*	n=121	n=142	*n=89*	*n=113*	*n=151*
	Total Response Time ERF ***Concentration***	Urban	12:12	12:59	12:56	10:47	11:25	14:15
		# of Calls	*n=376*	n=100	n=112	*n=75*	*n=89*	*n=118*

Performance Gaps

For all moderate-risk fire incidents, a performance gap of 2 minutes 20 seconds over the benchmark was recorded for Alarm Handling, 1 minute 12 seconds over the benchmark for Turnout, 3 minutes 2 seconds over the benchmark for First Arriving time, and 3 minutes 12 seconds over the benchmark for ERF time.

Fire Incidents - High Risk

High risk fire incidents include structure fires and aircraft incidents. High-risk incidents are typically handled by seven crews and a shift supervisor (17-22 personnel). These are low frequency, high risk incidents that deplete all on-duty resources, often requiring several hours to clear.

FIRE - Critical Task Analysis	
High Risk Fire	
Critical Task	Personnel
Command	1
Safety	1
Primary Attack Line*	2
Backup Attack Line*	2
Ladders / Ventilation*	2
Utilities / Forcible entry*	1
Search / Rescue*	2
RIT	2
Pump Operator / Water Supply	2
Aerial Operator	2
TOTAL ERF:	17
*indicates shared task	

Benchmark Performance Statement

For all high-risk fire incidents, YAUFR shall deploy at least five engines, capable of pumping at least 1250 gallons of water per minute each, two ladder companies, and a shift supervisor, for a minimum total of 17 personnel. The crews shall be capable of establishing command, assessing the scene, and commencing mitigation operations as outlined in YAUFR General Orders. The first apparatus shall arrive within 6 minutes 30 seconds from dispatch, 90% of the time, with the full ERF arriving within 17 minutes 40 seconds 90% of the time.

Baseline Performance Statement

For the period 2020-2024, 322 high-risk fire incidents were evaluated. A full ERF was assembled on 44 of these incidents. The first apparatus arrived within 17 minutes 42 seconds from dispatch, 90% of the time. The full ERF was assembled in 14 minutes 42 seconds from dispatch, 90% of the time.

Fire - High Risk 90th Percentile Baseline Perfomance			Total 2020-2024	2024	2023	2022	2021	2020
Alarm Handling	Call Pick-up to Dispatch	Urban	10:38	10:45	10:31	09:05	11:28	09:40
Turnout Time	Turnout Time 1st Unit	Urban	2:58	02:54	03:00	03:19	02:49	02:49
Travel Time	Travel Time 1st Unit ***Distribution***	Urban	12:42	15:46	12:20	12:25	11:37	10:50
	Travel Time ERF ***Concentration***	Urban	12:50	12:24	11:23	12:50	12:14	10:49
Total Response Time	Total Response Time 1st Unit ***Distribution***	Urban	17:42	19:26	18:14	15:24	15:04	19:18
		# of Calls	*n=322*	*n=79*	*n=84*	*n=63*	*n=96*	*n=96*
	Total Response Time ERF ***Concentration***	Urban	14:42	14:36	14:42	13:33	14:39	14:08
		# of Calls	*n=44*	*n=13*	*n=15*	*n=7*	*n=9*	*n=2*

Performance Gaps

For all high-risk fire incidents, a performance gap of 8 minutes 38 seconds over the benchmark was recorded for Alarm Handling, 1 minute 28 seconds over the benchmark for Turnout, 11 minutes 12 seconds over the benchmark for First Arriving time, and 2 minutes 58 seconds under the benchmark for ERF time.

EMS Incidents - Low Risk

Low risk EMS incidents include medical assists and vehicle crashes without the need for extrication/disentanglement of patients. Low-risk incidents are typically handled by a single crew (2-3 personnel) and are typically cleared within 30 minutes. Due to the high frequency of these incidents, their risk scoring classifies as moderate risk; however, due to the relatively low consequences and impact on the agency, they are evaluated as low risk.

EMS - Critical Task Analysis	
Low Risk EMS	
Critical Task	Personnel
Command / Safety / Documentation	1
Patient Assessment / Treatment	1
TOTAL ERF:	2

Benchmark Performance Statement

For all low-risk EMS incidents, YAUFR shall deploy at least one apparatus with a crew of at least 2 personnel. The crew shall be capable of establishing command, assessing the scene, and initiating or assisting with patient care as outlined in YAUFR General Orders. The first apparatus shall arrive within 8 minutes 0 seconds from dispatch, 90% of the time, with the full ERF arriving within 8 minutes 0 seconds from dispatch, 90% of the time.

Baseline Performance Statement

For the period 2020-2024, 6,198 low-risk EMS incidents were evaluated. A full ERF was assembled on 6,058 of these incidents. The first apparatus arrived within 10 minutes 53 seconds from dispatch, 90% of the time. The ERF was assembled in 10 minutes 48 seconds from dispatch, 90% of the time.

EMS - Low Risk 90th Percentile Baseline Perfomance			Total 2020-2024	2024	2023	2022	2021	2020
Alarm Handling	Call Pick-up to Dispatch	Urban	06:27	06:26	05:58	06:30	06:43	08:25
Turnout Time	Turnout Time 1st Unit	Urban	02:58	03:02	03:02	02:54	02:50	02:49
Travel Time	Travel Time 1st Unit *Distribution*	Urban	06:38	06:52	06:35	06:19	06:34	06:44
	Travel Time ERF *Concentration*	Urban	06:43	06:52	06:39	06:25	06:48	06:55
Total Response Time	Total Response Time 1st Unit *Distribution*	Urban	10:53	11:50	11:29	08:11	10:07	15:24
		# of Calls	*n=6,198*	*n=1,833*	*n=1,727*	*n=1,121*	*n=1,517*	*n=1,366*
	Total Response Time ERF *Concentration*	Urban	10:48	11:28	11:19	08:15	10:20	15:26
		# of Calls	*n=6,058*	*n=1,780*	*n=1,675*	*n=1,106*	*n=1,497*	*n=1,358*

Performance Gaps

For all low-risk EMS incidents, a performance gap of 2 minutes 27 seconds over the benchmark was recorded for Alarm Handling, 1 minute 28 seconds over the benchmark for Turnout, 2 minutes 53 seconds over the benchmark for First Arriving time, and 2 minutes 48 seconds over the benchmark for ERF time.

EMS Incidents - Moderate Risk

Moderate risk EMS incidents include searches for missing persons on land. Moderate-risk incidents are typically handled by two or three crews and a shift supervisor (5-10 personnel) and are typically cleared within 1-2 hours. These are low-frequency events. It should be noted that these often begin as law enforcement events, with non-emergency responses by fire and EMS personnel and therefore are not typically evaluated for response performance.

Rescue - Critical Task Analysis	
Moderate Risk Rescue	
Critical Task	Personnel
Command/Safety	1
Search or Extrication*	2
Patient Care & Removal*	2
*indicates often a shared task	
TOTAL ERF:	5

Benchmark Performance Statement

For all moderate-risk EMS incidents, YAUFR shall deploy at least two apparatus and a shift supervisor, for a total of 5 personnel. The crew shall be capable of establishing command or unified command and assisting with search for and removal of victims. The first apparatus shall arrive within 7 minutes 30 seconds from dispatch, 90% of the time, with the full ERF arriving within 10 minutes 0 seconds from dispatch, 90% of the time.

Baseline Performance Statement

For the period 2020-2024, 1 moderate-risk EMS incident was evaluated. A full ERF was not assembled on this incident. The first apparatus arrived within 4 minutes 3 seconds from dispatch, 90% of the time.

EMS - Moderate Risk 90th Percentile Baseline Perfomance			Total 2020-2024	2024	2023	2022	2021	2020
Alarm Handling	Call Pick-up to Dispatch	Urban	03:25	----	----	03:25	----	----
Turnout Time	Turnout Time 1st Unit	Urban	01:24	----	----	01:24	----	----
Travel Time	Travel Time 1st Unit ***Distribution***	Urban	02:39	----	----	02:39	----	----
	Travel Time ERF ***Concentration***	Urban	----	----	----	----	----	----
Total Response Time	Total Response Time 1st Unit ***Distribution***	Urban	04:03	----	----	04:03	----	----
		# of Calls	*n=1*	*n=0*	*n=0*	*n=1*	*n=0*	*n=0*
	Total Response Time ERF ***Concentration***	Urban	----	----	----	----	----	----
		# of Calls	*n=0*	*n=0*	*n=0*	*n=0*	*n=0*	*n=0*

Performance Gaps

For the period 2020-2024, YAUFR had a statistically insignificant number (1) of moderate-risk EMS responses to accurately study this data. For the single moderate-risk EMS incident, a performance gap of 0 minutes 25 seconds over the benchmark was recorded for Alarm Handling, 0 minute 6 seconds under the benchmark for Turnout, 3 minutes 27 seconds under the benchmark for First Arriving time, and the incident did not assemble an ERF.

EMS Incidents - High Risk

High risk EMS incidents are considered mass-casualty events. These are typically dispatched as another incident type, such as vehicle crash with injuries or active assailant incidents. Moderate-risk incidents are typically handled by three or more crews (9+ personnel) and a shift supervisor and are typically cleared within 1 to 2 hours.

EMS - Critical Task Analysis	
High Risk EMS	
Critical Task	Personnel
Command/Safety	1
Triage Officer	1
Treatment Officer	1
Transportation Officer	1
Patient Care & Movement	5
TOTAL ERF:	9

Benchmark Performance Statement

For all high-risk EMS incidents, YAUFR shall deploy at least four apparatus and a shift supervisor, for a total of 9 personnel. The crew shall be capable of establishing command, assessing the scene, initiating or assisting with patient care, and establishing a command structure to manage patient treatment and transport. The first apparatus shall arrive within 6 minutes 30 seconds from dispatch, 90% of the time, with the full ERF arriving within 9 minutes 0 seconds from dispatch, 90% of the time.

Baseline Performance Statement

For the period 2020-2024, 1 high-risk EMS incident was evaluated. A full ERF was assembled on this incident. The first apparatus arrived within 3 minutes 34 seconds from dispatch, 90% of the time. The ERF was assembled in 13 minutes 12 seconds from dispatch, 90% of the time.

EMS - High Risk 90th Percentile Baseline Perfomance			Total 2020-2024	2024	2023	2022	2021	2020
Alarm Handling	Call Pick-up to Dispatch	Urban	04:01	04:01	----	----	----	----
Turnout Time	Turnout Time 1st Unit	Urban	02:08	02:08	----	----	----	----
Travel Time	Travel Time 1st Unit ***Distribution***	Urban	03:34	03:34	----	----	----	----
	Travel Time ERF ***Concentration***	Urban	13:12	13:12	----	----	----	----
Total Response Time	Total Response Time 1st Unit ***Distribution***	Urban	05:42	05:42	----	----	----	----
		# of Calls	*n=1*	*n=1*	*n=0*	*n=0*	*n=0*	*n=0*
	Total Response Time ERF ***Concentration***	Urban	13:12	13:12	----	----	----	----
		# of Calls	*n=1*	*n=1*	*n=0*	*n=0*	*n=0*	*n=0*

Performance Gaps

For the period 2020-2024, YAUFR had a statistically insignificant number (1) of high-risk EMS responses to accurately study this data. For the single high-risk EMS incident, a performance gap of 2 minutes 1 seconds over the benchmark was recorded for Alarm Handling, 0 minute 38 seconds over the benchmark for Turnout, 2 minutes 56 seconds under the benchmark for First Arriving time, and 4 minutes 12 seconds over the benchmark for ERF time.

HazMat Incidents - Low Risk

Low-risk hazardous materials incidents include small spills of petroleum-based products, such as from a vehicle, outside gas leaks, and unknown hazmat investigations or alarms. Low-risk incidents are typically handled by a single crew (2-3 personnel) and are typically cleared within 30 minutes.

Haz-Mat - Critical Task Analysis	
Low Risk Haz-Mat	
Critical Task	Personnel
Command / Safety	1
Investigation / Mitigation	1
TOTAL ERF:	2

Benchmark Performance Statement

For all low-risk hazmat incidents, YAUFR shall deploy at least one apparatus with a total of 2 personnel. The crew shall be capable of establishing command, assessing the scene, and commencing investigation or mitigation operations as outlined in YAUFR General Orders. The first apparatus shall arrive within 8 minutes 0 seconds from dispatch, 90% of the time, with the full ERF arriving within 8 minutes 0 seconds 90% of the time.

Baseline Performance Statement

For the period 2020-2024, 164 low-risk hazmat incidents were evaluated. A full ERF was assembled on 159 of these. The first apparatus arrived within 11 minutes 51 seconds from dispatch, 90% of the time. The ERF was assembled in 12 minutes 7 seconds from dispatch, 90% of the time.

Haz Mat - Low Risk 90th Percentile Baseline Perfomance			Total 2020-2024	2024	2023	2022	2021	2020
Alarm Handling	Call Pick-up to Dispatch	Urban	08:19	09:17	06:02	07:50	07:29	08:44
Turnout Time	Turnout Time 1st Unit	Urban	02:39	02:54	02:38	02:18	02:07	03:10
Travel Time	Travel Time 1st Unit ***Distribution***	Urban	07:13	06:47	06:38	07:34	07:59	08:21
	Travel Time ERF ***Concentration***	Urban	07:58	06:47	06:41	07:18	10:03	08:40
Total Response Time	Total Response Time 1st Unit ***Distribution***	Urban	11:51	12:49	11:51	08:34	10:29	16:00
		# of Calls	*n=164*	*n=47*	*n=48*	*n=34*	*n=35*	*n=148*
	Total Response Time ERF ***Concentration***	Urban	12:07	12:22	11:51	08:34	12:28	16:10
		# of Calls	*n=159*	*n=45*	*n=47*	*n=32*	*n=35*	*n=146*

Performance Gaps

For all low-risk hazmat incidents, a performance gap of 4 minutes 19 seconds over the benchmark was recorded for Alarm Handling, 1 minute 9 seconds over the benchmark for Turnout, 3 minutes 51 seconds over the benchmark for First Arriving time, and 4 minutes 7 seconds over the benchmark for ERF time.

HazMat Incidents - Moderate Risk

Moderate risk hazmat incidents include carbon monoxide emergencies and gas leaks inside a building. Moderate-risk incidents are typically handled by two or three crews and a shift supervisor (7-10 personnel) and are typically cleared within an hour.

Haz-Mat - Critical Task Analysis	
Moderate Risk Haz-Mat	
Critical Task	Personnel
Command / Safety	1
Investigation / Air Monitoring	2
Mitigation	2
Support Operations	2
TOTAL ERF:	7

Benchmark Performance Statement

For all moderate-risk hazmat incidents, YAUFR shall deploy at least two apparatus and a shift supervisor, for a total of 7 personnel. The crew shall be capable of establishing command, assessing the scene, and commencing mitigation operations as outlined in YAUFR General Orders. The first apparatus shall arrive within 7 minutes 30 seconds from dispatch, 90% of the time, with the full ERF arriving within 10 minutes 0 seconds from dispatch, 90% of the time.

Baseline Performance Statement

For the period 2020-2024, 381 moderate-risk hazmat incidents were evaluated. A full ERF was assembled on 119 of these. The first apparatus arrived within 11 minutes 14 seconds from dispatch, 90% of the time. The full ERF was assembled in 14 minutes 3 seconds from dispatch, 90% of the time.

Haz Mat - Moderate Risk 90th Percentile Baseline Perfomance			Total 2020-2024	2024	2023	2022	2021	2020
Alarm Handling	Call Pick-up to Dispatch	Urban	05:46	05:49	05:22	04:06	05:40	05:26
Turnout Time	Turnout Time 1st Unit	Urban	02:55	03:19	02:41	02:25	02:52	02:52
Travel Time	Travel Time 1st Unit ***Distribution***	Urban	07:40	07:03	07:13	08:09	07:26	07:57
	Travel Time ERF ***Concentration***	Urban	11:54	12:01	11:09	12:43	11:!8	09:34
Total Response Time	Total Response Time 1st Unit ***Distribution***	Urban	11:14	11:01	10:50	10:17	12:10	14:49
		# of Calls	*n=381*	*n=126*	*n=113*	*n=62*	*n=80*	*n=69*
	Total Response Time ERF ***Concentration***	Urban	14:03	14:38	13:59	13:37	12:57	12:59
		# of Calls	*n=119*	*n=41*	*n=34*	*n=20*	*n=24*	*n=16*

Performance Gaps

For all moderate-risk hazmat incidents, a performance gap of 2 minutes 46 seconds over the benchmark was recorded for Alarm Handling, 1 minute 25 seconds over the benchmark for Turnout, 3 minute 44 seconds over the benchmark for First Arriving time, and 4 minutes 3 seconds over the benchmark for ERF time.

HazMat Incidents - High Risk

High-risk hazmat incidents include leaks and spills of hazardous materials that typically require specialized protective clothing and equipment to mitigate, or of significant quantity of materials released. High-risk incidents are typically handled by four crews, a shift supervisor, and the York County Haz-Mat Team (19-23 personnel) and are typically cleared in greater than one-two hours.

Haz-Mat - Critical Task Analysis	
High Risk Haz-Mat	
Critical Task	Personnel
Command / Safety	1
Haz-Mat Group Supervisor	1
Haz-Mat Entry / Operations	8
Support Operations	8
TOTAL ERF:	18

Benchmark Performance Statement

For all high-risk hazmat incidents, YAUFR shall deploy at least four apparatus and a shift supervisor, for a total of 10 personnel. The York County Hazardous Materials Response Team will also respond as part of the response, as part of an automatic dispatch. The crews shall be capable of establishing command, assessing the scene, and commencing mitigation operations as outlined in YAUFR General Orders. The first apparatus shall arrive within 6 minutes 30 seconds from dispatch, 90% of the time, with the full ERF arriving within 9 minutes 40 seconds from dispatch, 90% of the time.

Baseline Performance Statement

For the period 2020-2024, 2 high-risk hazmat incidents were evaluated. A full ERF was assembled on both incidents. The first apparatus arrived within 5 minutes 42 seconds from dispatch, 90% of the time. The ERF was assembled in 12 minutes 14 seconds from dispatch, 90% of the time.

Haz Mat - High Risk 90th Percentile Baseline Perfomance			Total 2020-2024	2024	2023	2022	2021	2020
Alarm Handling	Call Pick-up to Dispatch	Urban	05:50	1:51	04:40	05:48	05:09	00:37
Turnout Time	Turnout Time 1st Unit	Urban	01:51	00:20	00:40	01:37	01:02	00:05
Travel Time	Travel Time 1st Unit ***Distribution***	Urban	05:42	04:11	04:02	03:56	05:42	00:00
	Travel Time ERF ***Concentration***	Urban	08:03	----	08:03	----	----	----
Total Response Time	Total Response Time 1st Unit ***Distribution***	Urban	08:53	07:22	07:22	06:18	09:29	00:42
		# of Calls	*n=15*	*n=3*	*n=4*	*n=4*	*n=4*	*n=1*
	Total Response Time ERF ***Concentration***	Urban	12:14	----	12:14	----	----	----
		# of Calls	*n=2*	*n=0*	*n=2*	*n=0*	*n=0*	*n=0*

Performance Gaps

For the period 2020-2024, YAUFR had a statistically insignificant number (2) of high-risk hazmat responses to accurately study this data. For all high-risk hazmat incidents, a performance gap of 3 minutes 50 seconds over the benchmark was recorded for Alarm Handling, 0 minute 21 seconds over the benchmark for Turnout, 0 minutes 48 seconds under the benchmark for First Arriving time, and 2 minutes 34 seconds over the benchmark for ERF time.

Technical Rescue Incidents - Low Risk

Low-risk rescue incidents include persons locked into rooms, elevator alarm investigations, and persons in need of rescue from a potentially hazardous situation, but otherwise uninjured. Low-risk incidents are typically handled by a single crew (2-3 personnel) and are typically cleared within 30 minutes.

Rescue - Critical Task Analysis	
Low Risk Rescue	
Critical Task	Personnel
Command / Safety	1
Patient Assessment / Hazard Mitigation	1
TOTAL ERF:	2

Benchmark Performance Statement

For all low-risk rescue incidents, YAUFR shall deploy at least one apparatus with a minimum crew of 2 personnel. The crew shall be capable of establishing command, assessing the scene, and commencing mitigation operations as outlined in YAUFR General Orders. The first apparatus shall arrive within 8 minutes 0 seconds from dispatch, 90% of the time, with the full ERF also arriving within 8 minutes 0 seconds from dispatch, 90% of the time.

Baseline Performance Statement

For the period 2020-2024, 8 low-risk rescue incidents were evaluated. A full ERF was assembled on all incidents. The first apparatus arrived within 4 minutes 53 seconds from dispatch, 90% of the time. The ERF was assembled in 10 minutes 31 seconds from dispatch, 90% of the time.

Rescue - Low Risk 90th Percentile Baseline Perfomance			Total 2020-2024	2024	2023	2022	2021	2020
Alarm Handling	Call Pick-up to Dispatch	Urban	05:11	03:50	05:11	02:34	----	02:12
Turnout Time	Turnout Time 1st Unit	Urban	01:29	00:49	01:08	01:29	----	00:42
Travel Time	Travel Time 1st Unit ***Distribution***	Urban	04:53	04:37	00:58	04:21	----	03:34
	Travel Time ERF ***Concentration***	Urban	04:51	04:37	00:58	04:21	----	03:34
Total Response Time	Total Response Time 1st Unit ***Distribution***	Urban	10:31	10:01	06:28	05:50	----	06:28
		# of Calls	*n=8*	*n=5*	*n=2*	*n=1*	*n=0*	*n=1*
	Total Response Time ERF ***Concentration***	Urban	10:31	10:01	06:28	05:50	----	06:28
		# of Calls	*n=8*	*n=5*	*n=2*	*n=1*	*n=0*	*n=1*

Performance Gaps

For the period 2020-2024, YAUFR had a statistically insignificant number (8) of low-risk rescue responses to accurately study this data. For all low-risk rescue incidents, a performance gap of 1 minutes 11 seconds over the benchmark was recorded for Alarm Handling, 0 minute 1 seconds under the benchmark for Turnout, 2 minutes 31 seconds over the benchmark for First Arriving and ERF time.

Technical Rescue Incidents - Moderate Risk

Moderate risk rescue incidents include vehicle crashes with entrapment, elevator rescues, vehicles into structures, and drownings/water rescues in swimming pools. Moderate-risk incidents are typically handled by two or three crews and a shift supervisor (7-10 personnel) and are typically cleared within an hour.

Rescue - Critical Task Analysis	
Moderate Risk Rescue	
Critical Task	Personnel
Command/Safety	1
Search or Extrication	4
Patient Care & Removal	2
TOTAL ERF:	7

Benchmark Performance Statement

For all moderate-risk rescue incidents, YAUFR shall deploy at least three apparatus, with minimum crews of 2 personnel each, and a shift supervisor, for a total of 7 personnel. The crew shall be capable of establishing command, assessing the scene, accessing and stabilizing a patient, and performing extrication/rescue operations as outlined in YAUFR General Orders. The first apparatus shall arrive within 7 minutes 30 seconds from dispatch, 90% of the time, with the full ERF arriving within 10 minutes 0 seconds from dispatch, 90% of the time.

Baseline Performance Statement

For the period 2020-2024, 104 moderate-risk rescue incidents were evaluated. A full ERF was assembled on 56 of these. The first apparatus arrived within 9 minutes 14 seconds from dispatch, 90% of the time. The total response time for the ERF was assembled in 14 minutes 30 seconds from dispatch, 90% of the time.

Rescue - Moderate Risk 90th Percentile Baseline Perfomance			Total 2020-2024	2024	2023	2022	2021	2020
Alarm Handling	Call Pick-up to Dispatch	Urban	08:35	05:13	08:35	06:56	09:19	06:49
Turnout Time	Turnout Time 1st Unit	Urban	02:21	02:02	02:21	01:53	02:40	02:59
Travel Time	Travel Time 1st Unit *Distribution*	Urban	05:45	05:45	04:04	05:07	05:42	03:43
	Travel Time ERF *Concentration*	Urban	11:43	11:04	12:27	10:37	11:13	11:15
Total Response Time	Total Response Time 1st Unit *Distribution*	Urban	09:14	11:00	08:37	07:00	08:29	11:45
		# of Calls	*n=104*	*n=27*	*n=23*	*n=22*	*n=32*	*n=28*
	Total Response Time ERF *Concentration*	Urban	14:30	15:33	14:30	1:17	12:30	16:13
		# of Calls	*n=56*	*n=14*	*n=16*	*n=12*	*n=14*	*n=16*

Performance Gaps

For all moderate-risk rescue incidents, a performance gap of 5 minutes 35 seconds over the benchmark was recorded for Alarm Handling, 0 minutes 51 seconds over the benchmark for Turnout, 1 minutes 44 seconds over the benchmark for First Arriving time, and 4 minutes 30 seconds over the benchmark for ERF time.

Technical Rescue Incidents - High Risk

High-risk rescue incidents include complex or technical rescues, such as high-angle, confined space, water, or trench rescues. High-risk incidents are typically handled by five crews and a shift supervisor and are typically cleared in greater than one hour.

Rescue - Critical Task Analysis	
High Risk Rescue	
Critical Task	Personnel
Command	1
Safety	1
Rescue Group Supervisor	1
Rescue / Extrication	4
Support Operations	2
Patient Care & Movement	2
TOTAL ERF:	11

Benchmark Performance Statement

For all high-risk rescue incidents, YAUFR shall deploy at least five apparatus, with minimum crews of 2 personnel each, and a shift supervisor, for a total of 11 personnel. The crew shall be capable of establishing command, assessing the scene, and commencing mitigation operations as outlined in YAUFR General Orders. The first apparatus shall arrive within 6 minutes 30 seconds from dispatch, 90% of the time, with the full ERF arriving within 10 minutes 0 seconds from dispatch, 90% of the time.

Baseline Performance Statement

For the period 2020-2024, 25 high-risk rescue incidents were evaluated. A full ERF was assembled on 4 of those incidents. The first apparatus arrived within 9 minutes 46 seconds from dispatch, 90% of the time. The ERF was assembled in 11 minutes 26 seconds from dispatch, 90% of the time.

Rescue - High Risk 90th Percentile Baseline Perfomance			Total 2020-2024	2024	2023	2022	2021	2020
Alarm Handling	Call Pick-up to Dispatch	Urban	06:11	04:07	02:54	04:31	10:22	09:14
Turnout Time	Turnout Time 1st Unit	Urban	01:27	01:19	01:19	01:16	01:24	02:45
Travel Time	Travel Time 1st Unit ***Distribution***	Urban	08:58	07:50	01:32	04:08	07:13	03:20
	Travel Time ERF ***Concentration***	Urban	10:44	----	----	09:32	10:44	----
Total Response Time	Total Response Time 1st Unit ***Distribution***	Urban	09:46	09:01	05:49	05:35	09:53	10:28
		# of Calls	*n=25*	*n=3*	*n=3*	*n=3*	*n=16*	*n=9*
	Total Response Time ERF ***Concentration***	Urban	11:26	----	----	10:09	11:26	----
		# of Calls	*n=4*	*n=0*	*n=0*	*n=1*	*n=3*	*n=0*

Performance Gaps

For the period 2020-2024, YAUFR had a statistically insignificant number (4) of high-risk rescue responses to accurately study this data. For all high-risk rescue incidents, a performance gap of 4 minutes 11 seconds over the benchmark was recorded for Alarm Handling, 0 minute 3 seconds under the benchmark for Turnout, 2 minutes 28 seconds over the benchmark for First Arriving, and 1 minutes 26 seconds over the benchmark for ERF time.

Performance Impacts

Baseline data reflects actual agency performance over the previous 5 years. Performance gaps are determined based on the established benchmarks. For this initial Standard of Cover, benchmarks were determined using average performance data for the period of one year. Moving forward, benchmarks will be revised based on this initial evaluation of performance, using input obtained during the strategic planning process.

It is, however, important to consider factors that may have influenced both data collection and agency performance evaluation.

- At the start of 2019, YAUFR switched to a new records management system (RMS). The system did not begin tracking aiding unit data until about May 2019. Prior to that, aiding unit times were approximated. This may have resulted in skewed response times for part of the year.
- Another RMS switch occurred at the start of 2023, due to a vendor acquisition. This resulted in a few minor changes to data collection methods, particularly in the format of data exports for baseline performance calculations. While this likely did not impact performance calculations, it was worth noting.
- York County 911 uses a single CAD system for dispatching fire, police, and EMS. Call received times are recorded based on the receipt of the first 911 call. For some incidents, the need for fire department resources is not realized until later in an incident, resulting in an artificial increase in some alarm handling times.
- York County 911 experienced a severe staffing shortage during the time period 2019 through 2022. Staffing at times dropped as low as 40% of authorized strength, often resulting in a single dispatcher covering both fire and EMS for the entire county. At maximum staffing, 5 dispatchers would normally handle these functions. As a result, temporary dispatch protocol changes were enacted that resulted in fewer resources sent on some incident types. This likely increased overall ERF response times. The staffing situation did not truly improve until 2023.
- In mid-2022, York County 911 implemented fire dispatch protocols. The standardized workflow for call processing resulted in dramatically increased alarm handling times. As this implementation was state-mandated, it may be necessary to revise alarm handling benchmarks in the future.
- Some datasets are very small. Data sets of less than 10 are considered not statistically relevant, as one or two unusually long response times may not be identified as outliers and may skew 90th percentile times, resulting in an inaccurate assessment of high-risk HazMat, as well as low and high-risk Rescue incidents.
- In 2021, response assignments were revised to include automatic aid from the closest neighboring agencies on high-risk incidents. Aid response order was based on travel time and historical turnout time performance, as many of these resources are not staffed by in-station personnel. In 2023, York City Fire Department notified YAUFR that it would no longer provide automatic aid on first alarm assignments. As the only neighboring career-staffed agency, it negatively impacted many high-risk responses by forcing the use of units that were farther away and not always staffed.
- YAUFR does not provide transport-level EMS. Primary EMS services are provided through municipal contract with outside agencies. This limits full access to EMS-related data, including complete patient care data, patient outcomes, and patient dispositions.

Compliance Methodology

The Community Risk Assessment – Standards of Cover (CRA-SOC) should never be considered a finished document. As part of YAUFR's ability to meet current and future expectations and demand, there must be a process in place to monitor, assess, and report the ability of the existing systems to meet expected outcomes. This process must be able to identify and prioritize any remedial actions necessary to maintain and improve levels of service to the community, while also accounting for changes in the community and its expectations. As such, YAUFR has implemented a formalized plan to ensure this document remains current and that the agency continues to offer a level of service in compliance with established performance objectives.

Compliance Team

The compliance team consists of the YAUFR command and administrative staff, including the fire chief, battalion chiefs, administrative director, and administrative assistant. Each of these positions serves as a category manager, responsible for one or more of the programs and functions contained within the CFAI accreditation model. Each category manager has developed a team of personnel across all ranks, and in some cases outside agencies, that continually review agency performance as it relates to their assigned areas. Additional personnel are assigned duties within the compliance process.

Establish and Review Measures of Performance

- Consider the needs and expectations of the communities served.
- Review the performance measures to be recorded and how often they should be reviewed.

Evaluate Performance

- Agency performance will be reviewed against the established performance objectives.
- Identify gaps between expected outcomes and actual performance.
- Evaluate changes in risk within each response zone.
- Conduct formal program and activity appraisals.

Develop Compliance Strategies

- Utilize a SWOT analysis to ensure current capabilities are in line with the external environment.
- Identify immediate actions that can close performance gaps.
- Identify resources that can or should be reallocated.
- Identify alternative service delivery methods.
- Maximize existing resources.
- Create budget estimates for implementation of strategies and conduct cost-benefit analysis.
- Develop and implement a plan of action.

Communicate Expectations

- Explain performance measures and evaluation methods to personnel.
- Provide appropriate training and direction.
- Empower personnel to identify potential process modifications.
- Provide mechanisms for feedback from personnel.

Validate Compliance

- Develop and deploy tools to evaluate company and overall performance.

Adjust and Repeat the Process

- Conduct reviews to ensure that implemented changes maintain or improve service delivery.
- Adjust performance standards as needed based on recommendations.

Per-Incident Compliance

In order to ensure accurate data entry, select company officers are assigned incident documentation quality assurance duties. All incident data is reviewed to ensure accurate and consistent data entry. Inaccurate incident reports are referred back to the member completing the report for proper completion.

In accordance with YAUFR General Order 3-11, Command Staff complete operational reviews of selected complex or unusual incidents. These reviews evaluate the compliance of each incident with performance benchmarks, document outcomes of the indigent, report deviations from standard operations, and identify trends in service delivery challenges and successes. Operational reviews become part of the incident documentation, and operational reports will be published and available to all personnel.

Monthly Compliance

Service level performance is measured and reported on a monthly basis. Agency performance includes both emergency and non-incident activity. Performance is reported to internal and external audiences, using multiple channels. All data is reviewed and verified by the compliance team. Data reviewed includes:

- Turnout times, agency-wide and by unit,
- Incident response workload, agency-wide, by station, and by unit,
- Service demand by response zone
- Incident consequences, including fire loss and casualties,
- Aid use and performance.
- Baseline performance by risk category and classification,
- Non-incident activity by program,
- Commercial occupancy changes and notable development activity.

Monthly data is derived from activity reports submitted by battalion chiefs on their assigned program areas, as well as data extracted from the YAUFR records management system. Category managers review the information for their assigned areas. Incident response data is interpreted by an external vendor that provides baseline performance tables for command staff review monthly, as well as a list of outlier data, as identified in the YAUFR outlier policy. Data outliers are reviewed by the QA team. Data entry errors are corrected and resubmitted for analysis, and other outliers are categorized and reported to Command Staff for further review.

Agency performance is reported in a monthly report provided to the YAUFR Commission, as well as to the managers of each charter township. Performance data contained in these reports is for the previous month, the current year to date, as well a comparison to the previous calendar year to date. Significant or notable outcomes are also provided in the monthly report. Performance dashboards are displayed on monitors in each fire station, with dashboard information also provided on the YAUFR website. Baseline, benchmark, and other response and community data is also available on a public fire performance dashboard website, maintained by an outside vendor and linked to the YAUFR website.

Quarterly Compliance

Mandatory quarterly officer meetings are conducted, including all chief and company officers, as well as the Administrative Director. Officers provide updates on their assigned functional areas, with discussion on any need for policy changes or updates. A report is also provided on data outliers, identifying areas for concern with consistent data entry mistakes or inaccuracies, as well as discussion on potential actions to be taken to reduce extended incidents times.

Mid-Year Program Appraisals

Every June/July, command staff conduct a mid-year appraisal of operational programs. This includes a review of the anticipated goals and objectives for each program and anticipation of activity and accomplishments that will occur for the remainder of the calendar year. This review is intended to develop budget requests for the coming budget year.

Annual Compliance

YAUFR publishes an annual report and planning guide. These documents serves as an activity report and performance review to all internal and external stakeholders. It also serves as the annual review of both the CRA-SOC and the strategic plan. The report contains the following information:

- Operational program appraisals,
- Updated SWOT analysis, highlighting any changes,
- Review of goals and objectives, highlighting progress toward meeting each, as well as any added,
- Operational performance, service demand, outputs, and outcomes,
- External agency relationships (including aid given/received),
- Baseline performance tables,
- Anticipated programs needs and budgetary concerns.

The report is prepared and submitted to the YAUFR Commission no later than March of each year. It is also submitted to each of the charter townships, made available to agency personnel, posted to social media accounts, and added to the YAUFR website.

Standards of Cover Compliance

The YAUFR CRA-SOC will be reviewed annually and shall be completely rewritten not more than every five years unless significant changes within the community or the agency appear to warrant complete revision sooner. Forecast changes that may drive earlier revisions include construction of a replacement for Fire Station 892 on Indian Rock Dam Road and the addition of a sixth fire station on the west side of Manchester Township.

Plan for Maintaining and Improving Performance

Continuous Improvement Strategy

The Compliance Team will assess the agency's deployment strategies and performance for all emergency and non-emergency operations against the risks in the community. Baseline performance will be compared to established benchmarks and community expectations. When performance gaps, deficiencies and/or inefficiencies are identified, they will be reported to the Fire Chief's office. Strategies will be developed to address the gaps, along with a plan of implementation and budget implications. Identified inadequacies or negative trends will be reported to both the YAUFR Commission and the affected municipality.

Evaluation of Current Performance Gaps / Performance Improvement Recommendations

Short-Term Recommendations (within the next 12 months)

- This document is a first edition for YAUFR, created after the completion of the current strategic plan. The performance benchmarks used to calculate performance gaps in this document were developed using 5-year averages of response time components. The anticipated next strategic planning process should include a stakeholder discussion on revision of these benchmarks for subsequent CRA-SOC editions.
- Provide additional training to QA reviewers to identify and correct data entry errors, and to ensure incident documentation reflects response anomalies, such as emergency versus non-emergent responses and units not responding from their assigned quarters.
- Review and revise radio communications protocols to ensure responding units report on-scene arrival at the point they initiate critical tasks, as opposed to waiting until they are able to report a scene size up. There is often a time gap between when the first-arriving unit arrives in the area and initiates water supply or similar functions, versus when the unit reports on scene. Water supply is one of the identified critical tasks, and units should report on scene at that time, rather than waiting until they can provide a visual size up of the scene.
- Complete the implementation of the outlier review program. The purpose of outlier review is to capture outliers that result from data errors and categorize true outliers to identify trends.
- Ensure that data entry errors are corrected, and baseline performance is recalculated.
- Re-visit and re-validate critical tasking and response assignments to ensure there is no over deployment of resources. This may reduce ERF arrival times and increase capacity to handle simultaneous alarms.
- Initiate another periodic review of aiding agency performance, with a focus on turnout times. Aiding units that are closer to an incident but not regularly staffed may hurt response performance. Staffed units that must travel from a bit farther away may arrive sooner than the closer units.
- Revise response order of aiding units to account for changes in performance, positive or negative.
- Conduct a review of non-incident workload and determine typical portion of a shift dedicated to those tasks. This information will be used in conjunction with crew utilization rates to ensure sufficient time is available for completion of these tasks, as well as ensuring adequate work-rest cycles.
- Implement additional fire prevention strategies to minimize risks, particularly within commercial occupancies.

Mid-Range Recommendations (next 1-2 years)

- Work with York County Department of Public Safety (YCDPS) to improve alarm handling times. This shall include participation in review of current CAD system performance and recommendation for upgrade or replacement of the system, based upon the review.
- Work with YCDPS to review dispatch protocol questionnaires to reduce alarm handling times and ensure proper resource assignments.
- Work with the York County Fire Chiefs Association and YCDPS to implement countywide pre-alerts for high-priority incidents to ease unit alarm handling and unit turnout time.
- Discuss with bargaining units the potential for alternate work schedules that could allow for changes in deployment strategies to better handle responses during peak demand times.
- Conduct an analysis on EMS deployment to determine if there is sufficient capacity to handle incidents within the response area. This must include improvements to data supplied to the charter townships by third-party EMS agencies.

Long-Range Recommendations (next 3-5 years)

- Work with neighboring agencies and municipalities to explore opportunities to share resources and services, up to and potentially including additional primary service area(s).
- Continue to analyze response trends and work with the YAUFR Commission to ensure resource allocation meets the needs of the community.

Appendix A – Occupancy Risk Scoring

This section provides detail on the risk scoring methodology for pre-planned occupancies. The risk profile is calculated within the YAUFR records management system within each occupancy record. The risk scoring methodology uses the Occupancy Vulnerability Assessment Profile (OVAP) tool to classify target hazards on a scale of 1 to 5, with 1 being the lowest risk property, 4 being the highest based on calculated score, and 5 being reserved for special hazards as determined by YAUFR personnel during the pre-fire planning process.

<15	Low
15 - <40	Moderate
40 - <60	High
60+	Very High
Manual Selection (Hazmat)	Moderate to Extreme

The OVAP tool analyzes the following:

- Building Size: Number of stories above and below grade, and total square footage,
- Construction Type
- Needed Fire Flow: The gallon of water per minute needed to extinguish a large fire in the building.
- Is the Needed Fire Flow available?
- Occupant Load: How many people are allowed to be in the building at maximum occupancy?
- Occupant Mobility: Do the occupants sleep, are they able to exit on their own, are they restrained?
- Is there a Fire Alarm present for occupants?
- Is there a fire sprinkler system in the building, and is it maintained?
- Are the exits compliant with life safety codes?
- Are life safety inspections conducted at the facility?
- What type of activity occurs inside? Is there controlled access, group activity, are the occupants transient?
- How familiar is the agency with the occupancy, or similar occupancies?
- How readily can fire crews control a fire in the building? Could it spread to other buildings?
- What hazards are found in the building?
- How combustible are the contents in the building?
- What is the impact to the community if the building is lost?

Appendix B – Insurance Services Office (ISO) Evaluation

The Insurance Services Office (ISO) evaluates public fire-protection services and classifies a communities' ability to suppress fires. Fire protection is rated on a scale of 1 (best) to 10 (essentially no protection). The evaluation of a community's fire suppression capability includes an assessment of the dispatch center (weighted at 10% of the total score), fire department staffing, deployment, apparatus, and equipment (weighted at 50%), and the water supply system (weighted at 40%). YAUFR was last reviewed by ISO in 2022 and was given a rating of 3/3X in 2023. This was unchanged from its previous rating in 2018, but the overall score increased from 72.53 to 79.43, just shy of being rated as a Class 2. Figure 29 shows the summary of the current ISO evaluation.

FSRS Feature	Earned Credit	Credit Available
Emergency Communications		
414. Credit for Emergency Reporting	3.00	3
422. Credit for Telecommunicators	2.90	4
432. Credit for Dispatch Circuits	2.70	3
440. Credit for Emergency Communications	8.60	10
Fire Department		
513. Credit for Engine Companies	6.00	6
523. Credit for Reserve Pumpers	0.50	0.50
532. Credit for Pump Capacity	3.00	3
549. Credit for Ladder Service	4.00	4
553. Credit for Reserve Ladder and Service Trucks	0.24	0.50
561. Credit for Deployment Analysis	4.42	10
571. Credit for Company Personnel	7.76	15
581. Credit for Training	6.74	9
730. Credit for Operational Considerations	2.00	2
590. Credit for Fire Department	34.66	50
Water Supply		
616. Credit for Supply System	26.40	30
621. Credit for Hydrants	3.00	3
631. Credit for Inspection and Flow Testing	6.40	7
640. Credit for Water Supply	35.80	40
Divergence	-4.04	--
1050. Community Risk Reduction	4.41	5.50
Total Credit	79.43	105.50

Figure 29: YAUFR ISO Scores 2023