Travis County Emergency Services District No. 6

Community Risk Assessment & Standards of Cover 2023

"COMPASSIONATE COMMITTED SERVICE"

LAKE TRAVIS
FIRE RESCUE

CONTENTS

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INTRODUCTION

In late 2021, the Travis County Emergency Services District No. 6 Board of Commissioners (TCESD6, also referred to in this document as the "District") approved the 2022-2026 Strategic Plan. Included as two main pillars of support for the strategic plan requires a Community Risk Assessment (CRA) and Standard of Coverage (SOC) update to be completed in 2023.

This document blends the CRA and SOC together to better align the known and forecasted demands on the District and its ability to respond to and reduce both loss of life and property. The Board of Commissioner's approval of this document represents the met objectives of:

2022-2026 Strategic Planning – Objective 1.2 – Community Risk Assessment Development

2022-2026 Strategic Planning – Objective 1.2 – Standard of Coverage Update

In addition to meeting the above objectives, this document is the District's effort to align its planning measures with the Center of Public Safety Excellence (CPSE) Standard of Cover 6th Edition guidelines, municipal and county hazard and planning assessments, and other collaborative stakeholder programs and initiatives.

EXECUTIVE SUMMARY & RECOMMENDATIONS

This document is a comprehensive analysis of the community risk profile for the South Lake Travis (Texas) area encompassing the City of Bee Cave, the City of Lakeway, the Village of the Hills, and unincorporated areas of Western Travis County that are within the District's boundaries. To meet the demands of an ever-changing community, the primary focus is on the organization's current and future services that include, but are not limited to:

- Fire Suppression
- Wildfire Fuel Mitigation
- Community Engagement
- Trend Monitoring
- Financial Stability
- Transparent Governance
- Emergency Medical Services
- Code Enforcement
- Public Information
- Public Health initiatives
- Legislative Impacts
- Technology Deployment
- Rescue Operations
- Investigative Services
- Response Performance
- Public Education
- Governmental Relations
- Employee Development

In addition to the community profile and standards of cover data contained within this body of work, this document is a culmination of the following approved documents, both internal and external to the organization, to ensure a more cohesive alignment with our partners as relates to hazards, risk reduction programs, and future funding allocations:

1. The LTFR 2022-2024 Strategic Plan
2. The LTFR 2023 Capital Improvement Plan
3. The LTFR 2023 Facilities Needs Assessment
4. The 2023 Travis County Hazard Mitigation Action Plan
5. The Community Wildfire Protection Plan
6. The City of Lakeway Comprehensive Plan 2020
7. The City of Bee Cave Comprehensive Planning Initiatives (Multiple Years)
8. The Village of the Hills Strategic Plan Report 2020
9. Lake Travis Independent School District Strategic Plan and Demographic Report
10. Leander Independent School District Strategic Plan and Demographic Report

The CRA for the Lake Travis area indicates a need for a multi-faceted approach to public safety and emergency services enhancements. Strategic investments in technology, a focus on human resource development, active intergovernmental collaboration, and a commitment to continual risk reduction are crucial for building resilience against various known and forecasted risks. Continuous evaluation and community engagement are key to adapting these recommendations for the community's long-term benefit and safety.

AUTHORITY AND GOVERNANCE

The District maintains the legal authority to operate within the State of Texas as a political subdivision per statute:

1. The District maintains compliance with statutory requirements for the continued operation of a Texas Government Code Chapter 775 – Emergency Services District.
2. The elected Travis County Commissioners Court appoints qualified community members to serve on the Travis County Emergency Service District No. 6 (TCESD6) Board of Commissioners with the authority to discharge their duties as defined within the parameters of Chapter 775.
3. The District has approved a formal process for officially onboarding commissioners once appointed by the Travis County Commissioners Court.
4. TCESD6 Commissioners comply with annual continual educational requirements by attending specific in-person and remote training.
5. While not required by Chapter 775, TCESD6 assigns one commissioner to represent the District at the Travis County Emergency Services District Commissioner's Council (TCESDCC) throughout the year.
6. The District has maintained excellent relationships with its municipalities, often collaborating on large capital improvement projects, economic development initiatives, and strategic planning efforts.

RECOMMENDATION 1 – MONITOR LEGISLATIVE CHANGES IMPACTING ESDS

Specific to the selection and appointment of ESD commissioners within the State, remain engaged in discussion and legislative initiatives that impact how ESD commissioners are appointed or elected.

RECOMMENDATION 2 – MONITOR LEGISLATIVE CHANGES IMPACTING RELATIONSHIPS WITH MUNICIPALITIES

Specific to how ESDs and municipalities coexist and share funding mechanisms such as ad valorem and sales tax usage. This ensures TCESD6 remains positioned to adapt, monitor, lead, and influence policy proposals and changes.

RECOMMENDATION 3 – ESD AND MUNICIPAL RELATIONSHIPS

Continue to seek new and innovative ways to ensure the community's needs are being met while collectively planning with the municipalities for future growth, economic shifts, and changes in the community's profile.

FUNDING MECHANISMS AND ALLOCATIONS

To continue providing services safely and cost-effectively, the District maintains several planning and forecasting tools to ensure the funding received from the community is properly allocated towards reducing known and forecasted risk, while building the community's resiliency to natural and human-made disasters and emergencies.

1. ESDs are limited to 10 cents per $100.00 valuation on ad valorem property tax. This tax limitation is contained in the State of Texas's State Constitution. Attempts have been made to increase this limit to ensure that ESDs throughout the state have enhanced options for increasing the funding allowances for sustained and improved service delivery.
2. TCESD6 receives voter-approved sales tax funding from within The Village of the Hills and defined areas of Travis County's unincorporated areas within the TCESD6 boundaries. TCESD6 does not collect sales tax from within the City of Bee Cave or Lakeway.
3. TCESD6 maintains all its maintenance, operational costs, and debt services within Chapter 775's funding allowances. It maintains an annual capital improvement plan and annual financial audits.
4. Annual funding allocations and forecasting models are approved each year by the TCESD6 Board of Commissioners after conducting a 'bottom-up' budget request process and evaluation.

RECOMMENDATION 4 – MAINTENANCE AND OPERATION BUDGETING FOR RISK REDUCTION

Continue to examine opportunities to fund programs focused on risk reduction in the following areas:

- Local, state, and federal funding grants for mitigation and response enhancements.
- Explore Public/Private Partnerships (PPPs) to advance current and future risk reduction initiatives.

CHANGING COMMUNITY PROFILE

The data compiled relating to the community's profile reflects several notable areas that create, either directly or indirectly, demands for services, changes in the approaches to mitigating the risks, or expansion of current programming:

1. The number of Skilled Nursing and Independent Care Facilities (SNIFS) has increased as local residents age and desire to remain in the area they have called home for decades. Younger families are seeking options for long-term assisted living for aging parents in various levels of senior care and housing near their main homesteads. Many seniors are downsizing from larger homes.

2. Within the Lake Travis ISD (LTISD), there was a significant increase in younger families enrolling their children in the school district and seeking age-appropriate programs and amenities in the community. Recent data indicates a leveling off in new enrollments in 2023, but an additional high school is needed to serve the current student population, per LTISD officials.
3. Within the Leander ISD (LISD), data reflects a trending decrease in younger children enrolling in LISD schools within the TCESD6 boundaries, specifically in the Steiner Ranch community. LISD is evaluating consolidating elementary and middle schools in the future and considering repurposing an elementary school to serve as an administrative or support facility.
4. The number of residents throughout the District who are working from home has significantly increased due to post-pandemic business operations and delivery options. As a result, specific site-built shared workspace buildings have been built in and around TCESD6 and cater to remote workers. This creates a new challenge for the District as the impact of an incident at a home or a shared workspace has the likelihood of significantly impacting the ability of the population who work remotely to maintain a work environment and earn an income.
5. With the supply and demand of homes, affordability issues, family size shifts, and the aging population choosing to downsize, the self-storage and personalized and independently owned luxury garage/space industry has increased in popularity. At year-end 2019, the United States had 47,539 self-storage facilities on industrial and commercial land parcels. There is more than 1.9 billion square feet of available self-storage in the U.S. The global industry was worth slightly over $48 billion in 2020. These changes have also brought new storage building concepts to the District, requiring the District's Prevention Division to remain at the forefront of the engineering reviews and code enforcement of these buildings.
6. Specifically, in the Northern area of the District (North Battalion), both ISD and real estate data reflect an increase in "empty nesters" who stay in their homes longer after their children have moved out than in previous years.
7. There is data to show the number of adult children who return after a few years of living outside of their last known childhood home has increased slightly. Opinions vary on why this trend occurs, whether related to housing availability/affordability or a changing post-pandemic job market.

RECOMMENDATION 5 – COMMUNITY-FOCUSED RISK REDUCTION PROGRAMMING

1. Improve elderly care outreach focusing on fall reduction, accidental overdoses, environmental exposure, and enhancements to reduce low acuity responses to SNIFS.
2. Increase the public education and outreach in K-12 school programs.
3. Increase public education and outreach towards preparing the community for climatic weather shifts for extreme heat and sustained periods of freezing.
4. Increase public education and outreach on preparing residents for utility instability during unplanned disasters and weather events.
5. Increase public education and community outreach to build resiliency during emergencies.

6. Continue to remain engaged in risk reduction programs focused on reducing overdoses and bridging the communication gap in the Lake Travis community of external harm reduction programs and services.
7. Enhance wildfire mitigation, responses, and long-range planning of Wildland Urban Interface (WUI) policies and practices while remaining engaged in legislative initiatives relating to code changes.
8. Take an active approach to flooding mitigation, responses, and planning for known and repeatedly flooded areas and roads.

RECOMMENDATION 6 – MONITOR AND RESPOND TO DEMAND SHIFTS WITHIN THE COMMUNITIES

1. Ensure public education and risk reduction programs are not only addressing the current challenges in areas where the age of the population is shifting, but also identify emerging trends earlier by continuing to assess available data and capitalizing on the partnerships of other service-driven entities to forecast future demands.
2. Ensure public education and risk reduction are tailored to the specific demographic in areas of varying levels of education attainment, bilingual speakers, special physical and intellectual needs, and cultural differences.

RECOMMENDATION 7 – IDENTIFY CODE ENFORCEMENT ENHANCEMENTS THAT REDUCE COMMUNITY RISK

1. Identify and respond to developing industry trends regulated by the International Fire Code or challenge traditional code enforcement and engineering practices.
2. Ensure prevention staff have the education, training, and tools to operate complex enforcement disciplines, certifications, and code interpretation levels.
3. Seek new and innovative ways to educate the community on risk reduction and resiliency.

RESOURCE DEPLOYMENT AND INCREASED CAPACITY

Based on the data compiled for the Standards of Cover portion of this document, two areas of concern were identified:

- Increased response times and higher insurance rates for portions of the City of Lakeway and Sweetwater subdivision in an area where the District has purchased land for a future station.
- Increased incident volume between Fire Station 602 and Fire Station 603 impacts unit reliability in their immediate response districts and increased response times throughout the District.

1. As identified during the strategic planning process and the facilities needs assessment, 50% of the fire stations are at or beyond efficient capacity. Limited space creates issues when the District requires additional personnel during weather-related emergencies or prevents the District from placing additional units into service in a specific area of demand.
2. While area development is increasing the number of updated and new hydrant systems throughout the District, there are still areas with no hydrants to supply water for fire operations or the capacity of the water supply system is limited. Even when hydrants are available, the District experienced hydrant system failures during winter storm conditions, impacting the local medical center, SNIFS, and some locations that could have served as emergency shelters, should the need arise. The failures led to fire protection systems going "offline" that were in place to protect medically fragile populations.
3. The Emergency Medical Service (EMS) is currently being provided through an interlocal agreement between Travis County and the City of Austin, with Austin/Travis County EMS being the *sole* 9-1-1 provider in the community. Recently, there have been changes in the reliability of some of the EMS units, leading to select units being "browned out" due to crew fatigue or staffing shortages.
4. In 2011, Travis County commissioned an EMS ground study examining the options that Travis County could develop or act on to improve EMS delivery throughout the county. Many options included expanding the Travis County ESD's capabilities to provide enhanced services via squads, cross-staffed advanced life support units, and ground transport units.

RECOMMENDATION 8 – INCREASE THE CAPACITY OF THE EXISTING FIRE STATION LOCATIONS

1. Ensure new and rebuilt fire stations are designed to have future growth space for additional emergency units and their assigned staff. *Note: This recommendation is similar to the 2022-2026 Strategic Plan and the 2023 Facilities Needs Assessment recommendations. In 2023, the Board of Commissioners approved the funding to replace three existing fire stations.*

RECOMMENDATION 9 – BUILD TWO ADDITIONAL FIRE STATIONS, STAFF A THIRD QUINT, ADD TENDERS

1. Build and staff Fire Station 607 off Serene Hills Blvd. The addition of this fire station will improve the response times and insurance ratings for the community living in that portion of the City of Lakeway and Sweetwater subdivision. *Note: The District owns the land for Fire Station 607 at Serene Hills Blvd. in the City of Lakeway and has allocated future funding for operating Fire Station 607.*
2. Build and staff a fire station within the area of Baylor Scott & White Medical Center and Main Street / FM 620. The addition of this fire station will improve response times to the immediate area and *reduce* the demands on Fire Station 602 and Fire Station 603, thus increasing their reliability to service their immediate areas.

3. While adding roads currently approved for construction may improve the coverage somewhat, the District should consider adding a third Quint when funding allows or replacing an Engine with a Quint in certain areas where ladder coverage is light.
4. With water infrastructure concerns and hydrant system failures during natural disasters and weather-related events, the District should add one to two water tenders to provide water supply capacity during incidents in remote areas or during water supply interruptions.

RECOMMENDATION 10 – CONDUCT A FEASIBILITY STUDY OF PROVIDING FIRE-BASED EMS IN THE LAKE TRAVIS COMMUNITY

1. Conduct a feasibility study of providing fire-based EMS in the Lake Travis community and examine partnerships for fire-based EMS with the cities and several local public and private stakeholders. Conceptual fire-based EMS would not replace the current Travis County contractor model per se, but partner with it to lessen the demand on just one sole provider.

2. Improve data collection, incident reporting measurements, and practices. Restructure geographical response zones (by alarm assignment) into smaller response planning zones.

HUMAN RESOURCE DEVELOPMENT

A well-trained and motivated workforce to accomplish many of the risk reduction efforts highlighted in this document requires a team equipped with the necessary education, training, leadership, and work environment to succeed.

RECOMMENDATION 11 – EXPANDING ON WORKFORCE DEVELOPMENT & SAFETY PROGRAMMING

1. Continue developing a firefighter safety culture relating to occupational hazards, physical and mental health, and career longevity.
2. Monitor, evaluate, and expand employee health and wellness programs to ensure employees have access to the appropriate types of care.
3. Provide pathways for higher levels of formal education in areas and disciplines aligned with the District's "Why" - *Compassionate, Committed Service,* and Mission.
4. Conduct periodic evaluations of job descriptions, roles, and responsibilities to ensure positions best align with the organization's direction and services.

TCESD NO. 6 / LAKE TRAVIS FIRE RESCUE HISTORY

In 1963, after wildland fires plagued the community, the Hudson Bend residents secured donated fire equipment from the U.S. Forest Service. Until this, there was no recognized fire protection in the area. By 1974, The Hudson Bend Volunteer Fire Department was formed by men and women from the Lake Travis area.

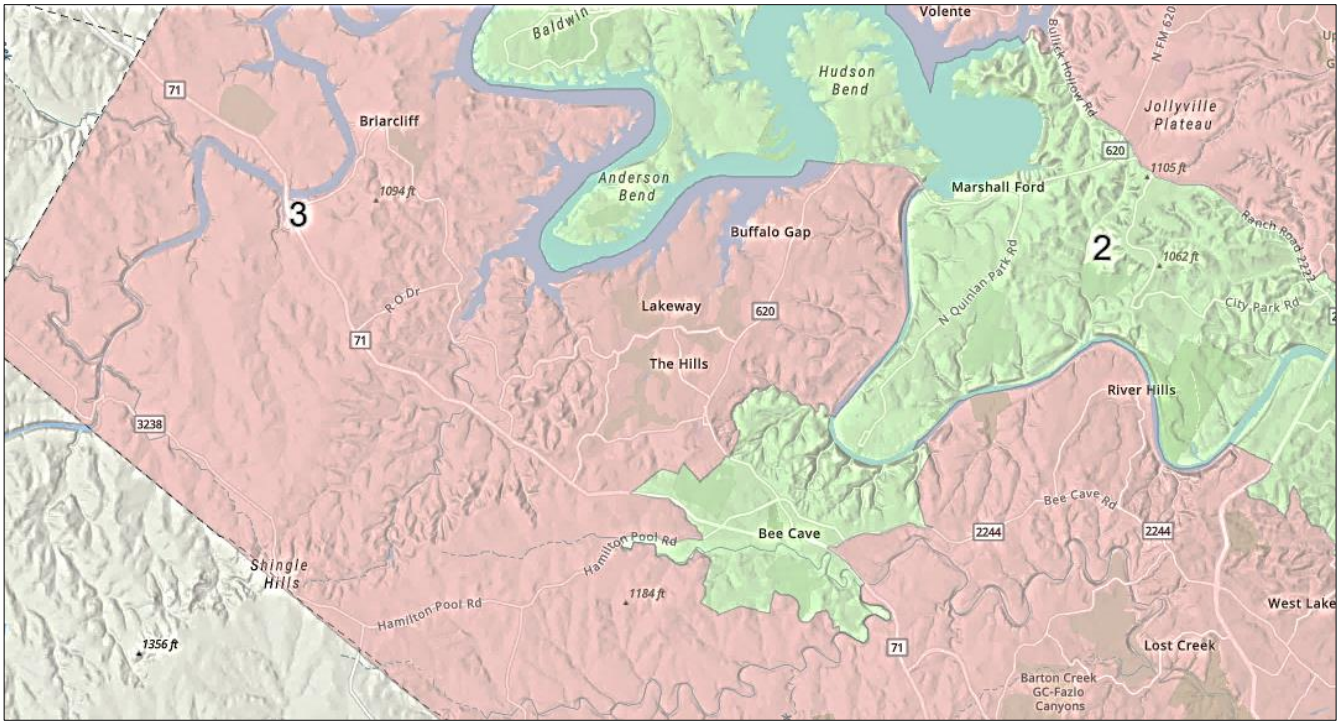
By the mid-to-late '80s, a Rural Fire Prevention District was formed to provide financial funding to the fire department. As time passed, state legislation was crafted, allowing voters to establish a political subdivision to create a Board of Commissioners and a more substantial tax base, as Rural Fire Protection Districts had limited tax amounts.

In 1995, Travis County Emergency Services District No. 6 (TCESD6) was formed, providing the Hudson Bend Fire Department with the financial strength to meet the community's needs. With the increased tax base, the Travis County ESD No. 6 Commissioners could provide Lake Travis residents with career firefighters and state-of-the-art equipment to ensure the level of fire protection was adequate by staffing four stations with two firefighters per engine with a team of volunteer firefighters backing them up.

In 2009, Hudson Bend Fire Department was rebranded as Lake Travis Fire Rescue (LTFR). The fire department now serves just under 80,000 residents who live within its 104 square-mile district. Over time, the District advanced to one of Texas's most progressive ESDs. As the community's population increased, so did the demand for additional services and risk-reduction programs.

GOVERNANCE & BOARD OF COMMISSIONERS

TRAVIS COUNTY PRECINCT 2 AND PRECINCT 3 BOUNDARIES WITHIN TCESD6



TCESD6 is operated under Texas Government Code (TGC) Chapter 775 – Emergency Services District (ESD) and is structured as a political subdivision within the State of Texas. The District converted from a Rural Fire Prevention District (RFPD) authorized in 1988 to an ESD, officially in 1995 by the passage of TGC Chapter 775 and a voter-approved election process.

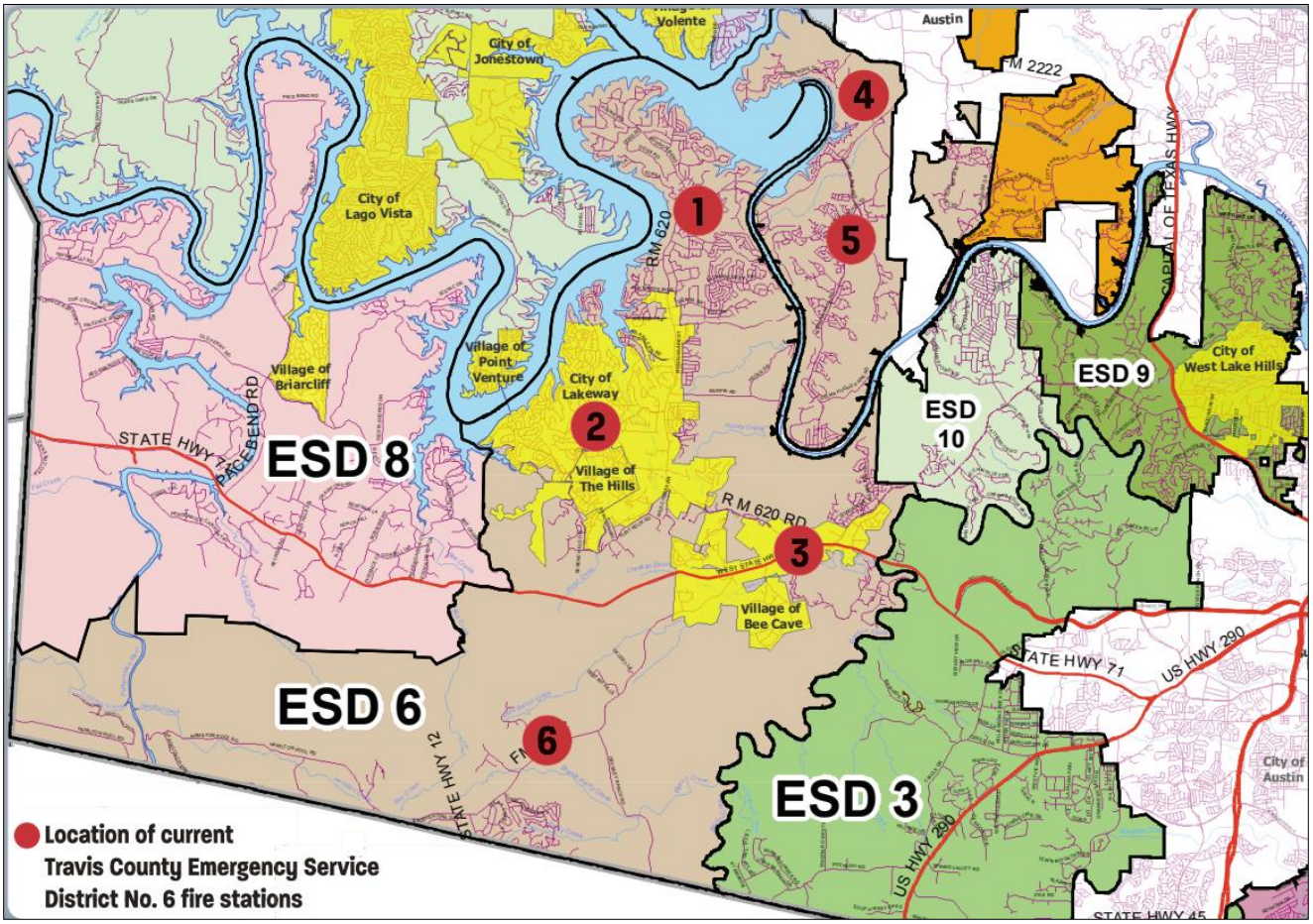
The TCESD6 Board of Commissioners (BOC), comprised of five commissioners, is appointed by an elected county commissioner for each geographic county precinct represented within the ESD's boundaries. Efforts are taken to ensure communities within each precinct are represented equally by appointed board members who own property or businesses within the District's boundaries. TCESD6 operates within Travis County Precinct 2 and Precinct 3.

Once appointed, TCESD6 Commissioners serve staggered two-year appointments. The BOC is structured with an elected president, vice-president, treasurer (bonded), assistant treasurer, and secretary. The BOC convenes regularly scheduled open public meetings once a month.

COMMUNITY SERVED

The District's legal boundaries are established as defined by TGC Chapter 775 and provide all authorities under the code as the Authority Having Jurisdiction (AHJ) within the specifically established geopolitical boundaries. The District comprises 104 square miles of unincorporated and incorporated areas of dynamic topography, including lakes, vast undeveloped areas, heavily populated residential communities, and cities.

TCESD6 OFFICIAL BOUNDARY MAP



TCESD6 2023 POPULATION

Jurisdiction (Non-Extra Jurisdictional Territory)	Population
City of Bee Cave	9,351
City of Lakeway	21,279
Village of The Hills	2,613
Unincorporated Travis County (TCESD6)	45,023
Total	**78,266**

Source: City of Bee Cave, City of Lakeway, The Hills, unincorporated Travis County, Texas, specific to TCESD6 population counts. (January 2023)

THE CITY OF LAKEWAY

Lakeway is a home-rule city located in Travis County, Texas. It is a picturesque suburb situated on the western edge of the metropolitan area of Austin, the state capital. The city is known for its natural beauty, with rolling hills, scenic views, and several nearby lakes, which contribute to its popularity among residents and visitors alike.

Lakeway is primarily a residential community comprising single-family homes, townhouses, and condominiums. Its tranquil atmosphere and relative proximity to Austin attracts many families and retirees. One of the major attractions of Lakeway is Lake Travis, a large reservoir on the Colorado River. The lake provides opportunities for boating, fishing, water sports, and other recreational activities. There are several marinas, parks, and waterfront restaurants along its shores.

The city has a few golf courses and country clubs, making it a popular destination for enthusiasts and those seeking upscale amenities. Lakeway has various parks and green spaces, offering residents and visitors opportunities to hike, picnic, and enjoy the outdoors. The city has access to medical facilities and healthcare services, including hospitals and clinics.

Lakeway offers a range of shopping and dining options, with local boutiques, restaurants, and larger retail centers within driving distance. While Lakeway offers a suburban lifestyle, it is also conveniently close to the Austin metropolitan area's vibrant cultural scene, job opportunities, and entertainment options. Click here for the City of Lakeway's Comprehensive Plan.

THE CITY OF BEE CAVE

The City of Bee Cave is a small home-rule city in Travis County, Texas. The area derived its name from the colonies of Mexican honeybees that lived on the banks of Barton Creek, and Little Barton Creek, which encompassed a large area of Western Travis County. In 1987, the City of Bee Cave administration had its humble, but proud beginning in a nondescript portable building. The City of Bee Cave encompassed a two-square-mile area with 8,800 acres of extraterritorial jurisdiction.

Situated approximately 12 miles west of downtown Austin, The City of Bee Cave is considered a part of the Austin metropolitan area. The city is known for its scenic Hill Country views, recreational opportunities, and thriving community. It is a relatively small city with a tight-knit community. It has experienced steady growth, attracting residents seeking a suburban lifestyle with easy access to nearby urban amenities. The city is characterized by its beautiful Hill Country landscape, rolling hills, greenery, and natural beauty. Residents often enjoy breathtaking views from various vantage points in the area.

The city features Bee Cave Central Park, a popular gathering spot with sports fields, hiking trails, playgrounds, and picnic areas. It provides ample opportunities for outdoor activities and community events.

The city is known for the Hill Country Galleria, a large outdoor shopping complex with a mix of retail stores, restaurants, entertainment options, and office spaces. It serves as a central hub for shopping and socializing in the area. The city is close to Lake Travis, a popular destination for boating, fishing, water sports, and relaxation.

Bee Cave hosts various community events and festivals, bringing residents together and fostering a strong sense of community with a low crime rate.

Click here for the City of Bee Cave's Comprehensive Plan

THE VILLAGE OF THE HILLS

The Village of The Hills is primarily a residential community offering a peaceful and tranquil environment. Many of the properties in the area are single-family homes.

The Village of the Hills is a general-rule municipality home to The Hills Country Club, a prestigious golf and country club known for its championship golf courses and upscale amenities. The club attracts golf enthusiasts and offers various recreational activities. The Village of The Hills is close to Lake Travis, a large reservoir on the Colorado River. The lake provides opportunities for boating, fishing, water sports, and other recreational activities. The Village of The Hills fosters a strong community spirit, and residents often engage in local events and activities.
Click here for the Village of The Hills's Strategic Plan

TRAVIS COUNTY

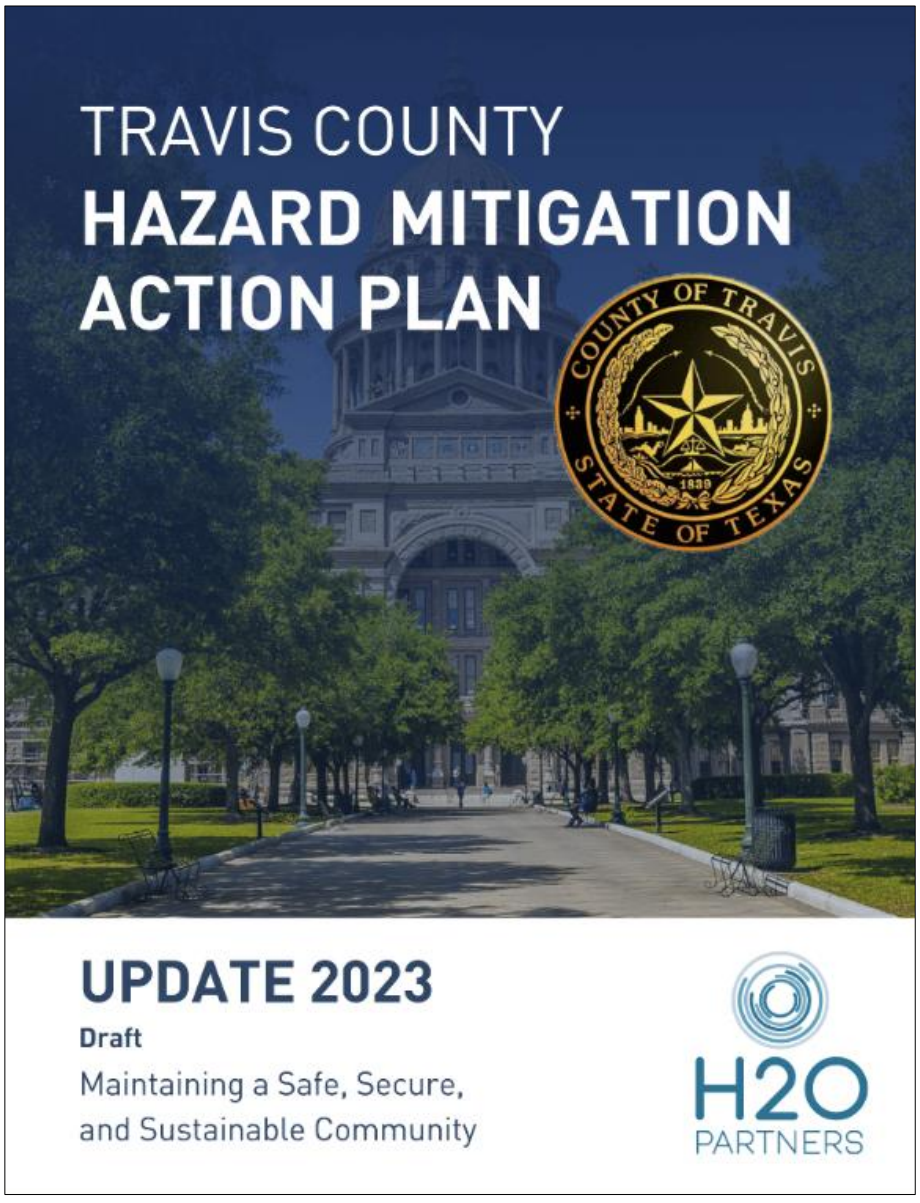
The District services a portion of the unincorporated area of Travis County, Texas. The county seat and largest city within Travis County is Austin. As the capital of Texas, Austin serves as the region's political, cultural, and economic center.

Travis County is densely populated and has experienced significant population growth, thanks to the Austin – Travis County metropolitan area's vibrant economy and diverse job opportunities.

As a county, Travis County operates under a Commissioners Court system. The Commissioners Court is comprised of elected officials, including the County Judge and four Commissioners, who oversee various administrative functions, public services, and budget decisions. Travis County provides a range of services to its residents, including law enforcement, public health, parks and recreational facilities, voter registration, and property tax administration.

Travis County offers many outdoor recreational opportunities, with parks, nature preserves, and green spaces available for hiking, biking, boating, and other activities. The various areas support an environment within Travis County that leads to a diverse economy and a strong presence in the technology, healthcare, education, government, and entertainment sectors. The metropolitan area has earned the nickname "Silicon Hills" due to its thriving tech industry.

TRAVIS COUNTY HAZARD MITIGATION ACTION PLAN PARTICIPATION



Click the Travis County Hazard Mitigation Action Plan above to access the full report.

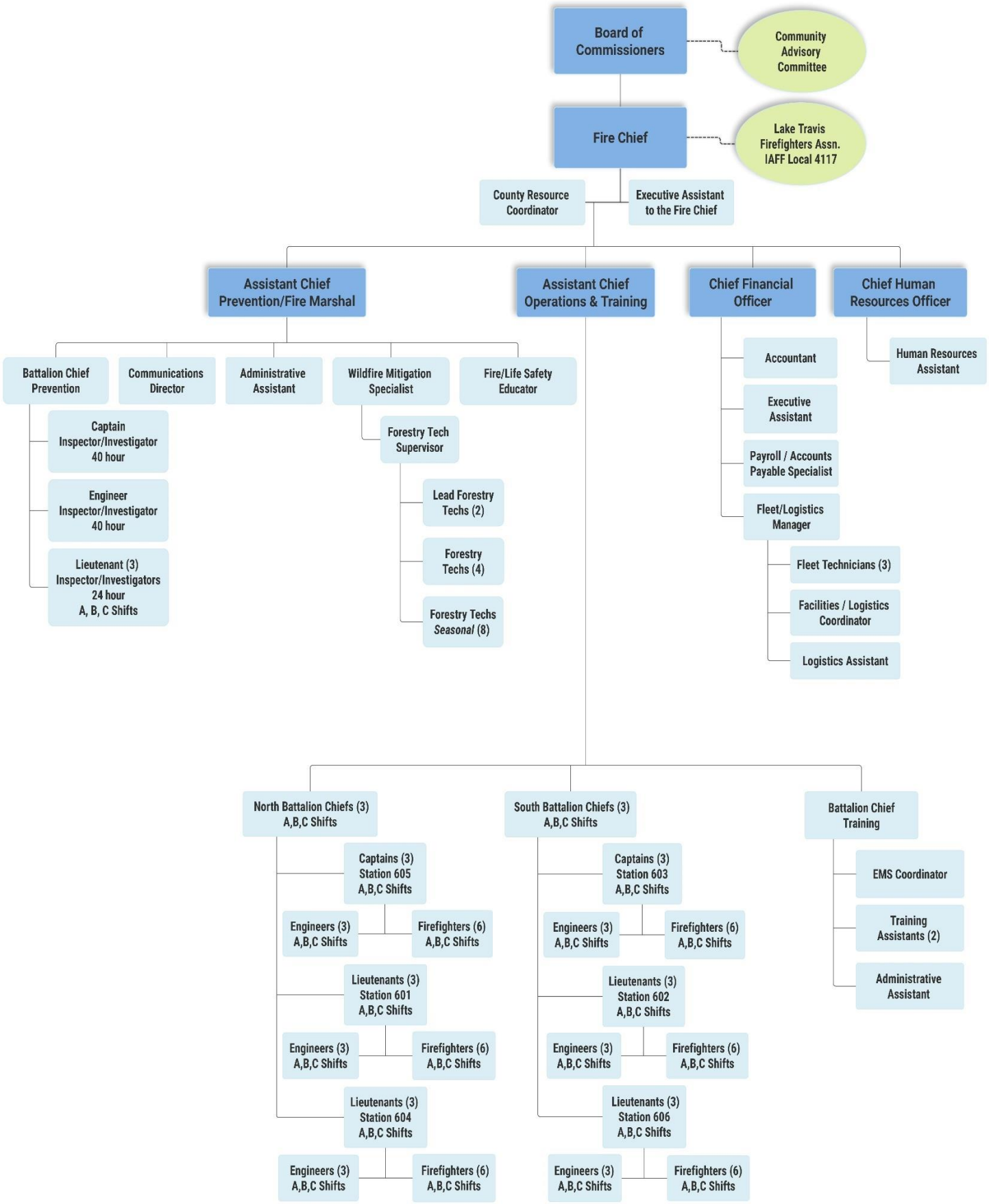
Between 2022 and 2023, TCESD6 participated in the Travis County Hazard Mitigation Action Plan (TCHMAP) in a collaborative effort to align the CRA and SOC with other participating agencies. This effort also provides TCESD6 with the ability to seek federal funding for community risk reduction and mitigation projects.

SECTION 2 – AGENCY PROFILE, PROGRAMS, AND SERVICES

APPROVED ORGANIZATION CHART AND STRENGTH

In October of each year, the BOC reviews and approves the organizational chart aligning with the authorized and budgeted headcount. Full-time positions are evaluated throughout the year with a formal budget request for changes to the number of positions starting in May each year. This is in preparation for the annual budget proposals to the BOC in September.

Sworn Staff	Budgeted	Civilian Staff	Budgeted
Fire Chief	1	Chief Financial Officer	1
Assistant Fire Chief	2	Chief Human Resources Officer	1
Battalion Chief	8	Communication Director	1
Captain	8	Administrative Support Staff	6
Lieutenant	16	Logistics/Fleet Services	5
Engineer	20	Wildfire Mitigation Specialist	1
Firefighter	54	Fuels Management	15
Total	**109**	County Resource Coordinator	1
		Accountant	1
		EMS Coordinator	1
		Community Educator	1
		Total	**34**


Board of Commissioners
Community Advisory Committee
Fire Chief
Lake Travis Firefighters Assn. IAFF Local 4117
County Resource Coordinator
Executive Assistant to the Fire Chief
Assistant Chief Prevention/Fire Marshal
Assistant Chief Operations & Training
Chief Financial Officer
Chief Human Resources Officer
Battalion Chief Prevention
Communications Director
Administrative Assistant
Wildfire Mitigation Specialist
Fire/Life Safety Educator
Captain Inspector/Investigator 40 hour
Engineer Inspector/Investigator 40 hour
Lieutenant (3) Inspector/Investigators 24 hour A, B, C Shifts
Forestry Tech Supervisor
Lead Forestry Techs (2)
Forestry Techs (4)
Forestry Techs Seasonal (8)
Accountant
Executive Assistant
Payroll / Accounts Payable Specialist
Fleet/Logistics Manager
Fleet Technicians (3)
Facilities / Logistics Coordinator
Logistics Assistant
Human Resources Assistant
North Battalion Chiefs (3) A,B,C Shifts
South Battalion Chiefs (3) A,B,C Shifts
Battalion Chief Training
Captains (3) Station 605 A,B,C Shifts
Engineers (3) A,B,C Shifts
Firefighters (6) A,B,C Shifts
Lieutenants (3) Station 601 A,B,C Shifts
Engineers (3) A,B,C Shifts
Firefighters (6) A,B,C Shifts
Lieutenants (3) Station 604 A,B,C Shifts
Engineers (3) A,B,C Shifts
Firefighters (6) A,B,C Shifts
Captains (3) Station 603 A,B,C Shifts
Engineers (3) A,B,C Shifts
Firefighters (6) A,B,C Shifts
Lieutenants (3) Station 602 A,B,C Shifts
Engineers (3) A,B,C Shifts
Firefighters (6) A,B,C Shifts
Lieutenants (3) Station 606 A,B,C Shifts
Engineers (3) A,B,C Shifts
Firefighters (6) A,B,C Shifts
EMS Coordinator
Training Assistants (2)
Administrative Assistant

ADMINISTRATION DIVISION

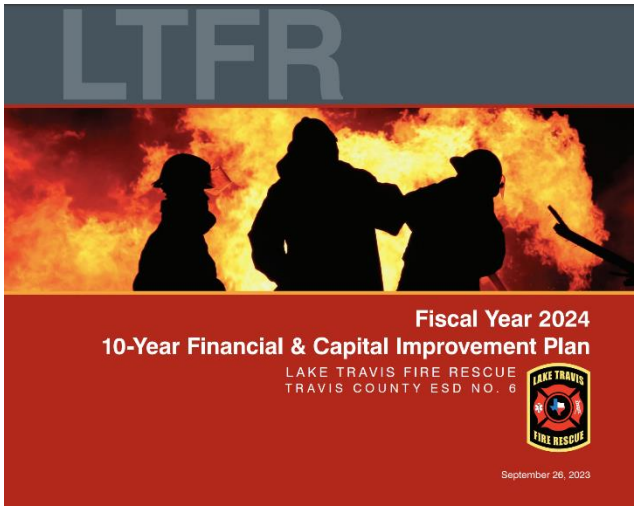
The Administration Division manages personnel, payroll, benefits, labor relations, record keeping, and equal employment matters. The Division also administers fire department recruitment, hiring, and promotions; designs and implements human resources non-operational policies and diversity training. The Chief Financial Officer implements and manages the District's overall budget and forecasts the next fiscal year's ad-valorem tax rate. The Division also oversees the District's finance and accounting functions, including the annual financial audit.

OFFICE OF THE FIRE CHIEF/CHIEF EXECUTIVE OFFICER

The Fire Chief/Chief Executive Officer is appointed by the BOC. The Fire Chief services at the discretion of the BOC and is responsible for developing the District's strategic vision, overseeing the organization's overall performance, and implementing community-centric programs that reduce the overall risk of incidents and natural disasters through improved safety engineering and firefighter health and safety programs.

FINANCE

The Finance Department is under the direction and oversight of the Chief Financial Officer (CFO). The CFO is responsible for ensuring accounting practices comply with government accounting standards contained under The Government Accounting Standards Board (GASB). In addition to ensuring compliance and preparing the District for annual third-party audits, the CFO is responsible for ensuring the annual Maintenance & Operation (M&P) budget is aligned with the approved Capital Improvement Plan (CIP).



Click the Capital Improvement Plan image above to access the full document.

ACCOUNTS PAYABLE & PAYROLL

Accounts Payable (AP) & Payroll (PR) are vital elements of the Finance Department within the Administration Division. To ensure accounts payable match the day-to-day operating costs of purchasing services, equipment, and supplies, AP aligns charges with work/repair requests, invoices for approved services, equipment and supplies, and contractual cost/fee obligations.

PR ensures scheduled payroll payments are made in accordance with state and federal requirements in addition to labor contracts and District policies.

HUMAN RESOURCES

The Human Resources Department is under the direction and oversight of the Chief Human Resources Officer who is responsible for handling all matters relating to recruiting, promotions, employee recognition, compensation and benefit management, employee investigations, and general workforce management.

COMMUNICATIONS

The District employs a full-time Director of Communications to oversee the District's strategic and crisis communication planning efforts, marketing, public information requests, social media engagement, and on-scene public information coordination.

LABOR & MANAGEMENT

LTFR's sworn personnel are represented by the International Association of Fire Fighters Local 4117 (L4117). In 1999, L4117 was the first ESD labor force to successfully organize within the State of Texas. L4117 gained voter-approved Chapter 174 collective bargaining rights in 2006. Within the Collective Bargaining Agreement (CBA), the District and labor maintain two joint labor/management working committees that assess, evaluate, and make recommendations to the Fire Chief on topics of firefighter health, safety, and wellness in addition to policy updates to both the General Operations and Emergency Operations Manual.

INFRASTRUCTURE AND TECHNOLOGY (IT) SERVICES

IT services are provided via a third-party contractor and serve the needs of the District by both in-person and remote collaboration and enhancements. IT services and products include, but are not limited to:

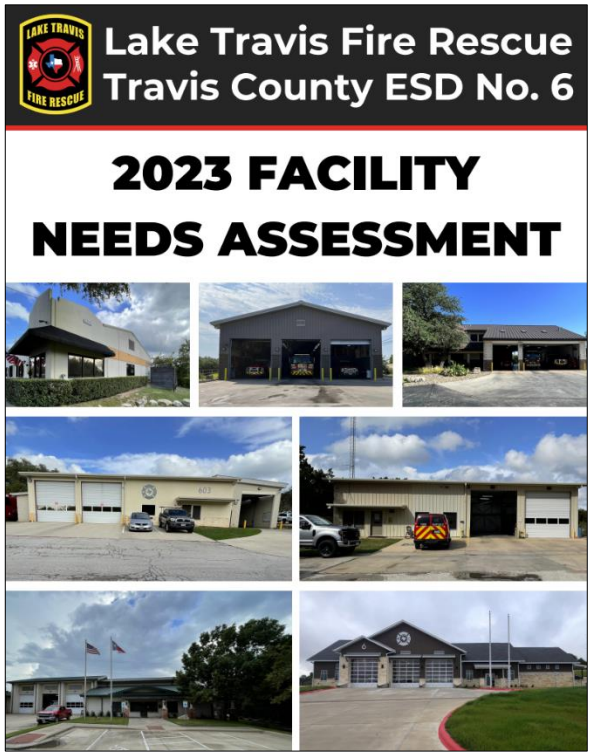
- District-wide telephone system
- Wi-Fi infrastructure
- Hardware and support services
- Software and support services
- Long-term IT needs forecasting

LOGISTICS & FACILITIES

The Logistics Division is responsible for procurement, storage, tracking, and dissemination of equipment and supplies in addition to scheduling and coordinating service and repairs at all District owned and/or operated facilities.

In 2023, LTFR published the District approved Facility Needs Assessment, which included a full needs assessment of current station conditions, design elements, an internal employee survey of the stations and facility offerings. The report also contained long-term planning recommendations that including, but not limited to:

1. The complete replacement of three existing fire stations.
2. The design and build of a dedicated fleet services facility.
3. The design and build of a dedicated training center.
4. The design and build of a larger logistics warehouse.
5. The design and build of additional office, meeting, and flex-space areas at LTFR Headquarters.
6. The design and build of additional space for the Wildfire Fuel Mitigation program.



Click the 2023 Facility Needs Assessment above for access to the full document.

FLEET MANAGEMENT

In 2022, LTFR began its own in-house fleet services program to decrease the out-of-service times of front-line apparatus and vehicles, control costs, and ensure all required maintenance intervals are being met consistently. The services are also extended via interlocal agreements with neighboring agencies. The District's annual fleet replacement schedule forecasts vehicle and apparatus replacements and repair costs.

COMMUNITY ADVISORY COUNCIL/COMMUNITY EDUCATION FORUM

LTFR is privileged to have a very supportive and engaged community. The LTFR Community Advisory Council (CAC) and the LTFR Community Education Forum (CEF) have been instrumental in ensuring LTFR remains connected to the many thriving communities it serves and the growing number of local civic, non-governmental, and community-based organizations. The TCESD6 Board of Commissioners hosts quarterly meetings with members of the CAC and CEF tailored to presenting LTFR's programs and challenges while continuing to seek input to its services and operation. The BOC applies the information it receives during the quarterly meetings to build on its service goals. Input and data captured from the CAC, CEF, and a 2019 online community survey have been included in the strategic planning process and are reflected in the plan's goals and objectives.

FIRE PREVENTION DIVISION & RISK REDUCTION

The Prevention Division is under the leadership and guidance of the Assistant Fire Chief of Prevention/Fire Marshal. Fire Prevention provides services such as plan reviews and permit issuance, fire code enforcement, annual inspections of commercial occupancies, and statistical reporting. LTFR Fire Prevention Division conducts and assists in origin and cause investigations of all fires within the District. The Fire Prevention Division also oversees LTFR's Fuels Mitigation program, which helps promote and reduce fuel loads throughout the District. LTFR has one of Texas's only Fuel Mitigation Teams, which includes one Wildfire Mitigation Specialist and a full-time mitigation crew. The Fire Prevention Division oversees all fire public education initiatives and community risk reduction activities. The LTFR Director of Communications works closely with the Fire Prevention Division to ensure a message of fire safety is available throughout the community via social media outlets.

ARSON INVESTIGATION, FIRE CAUSE & DETERMINATION

The District's arson investigators are sworn peace officers who conduct, process, and investigate emergency scenes when there is suspicion of possible arson or devices that may have been involved in a fire, hazardous material release, or terroristic concern or threat. TCESD6 investigates fire cases within all the municipalities in the District and assists the Travis County Fire Marshal's Office with fire investigations within the unincorporated areas of the District.

CODE ENFORCEMENT

The Prevention Division oversees fire code enforcement and focuses on enforcing and educating the community on the laws, codes, and ordinances of the fire code. The District enforces the International Fire Code in all municipalities and unincorporated areas of Travis County, Texas, within the geographical boundaries of TCESD6.

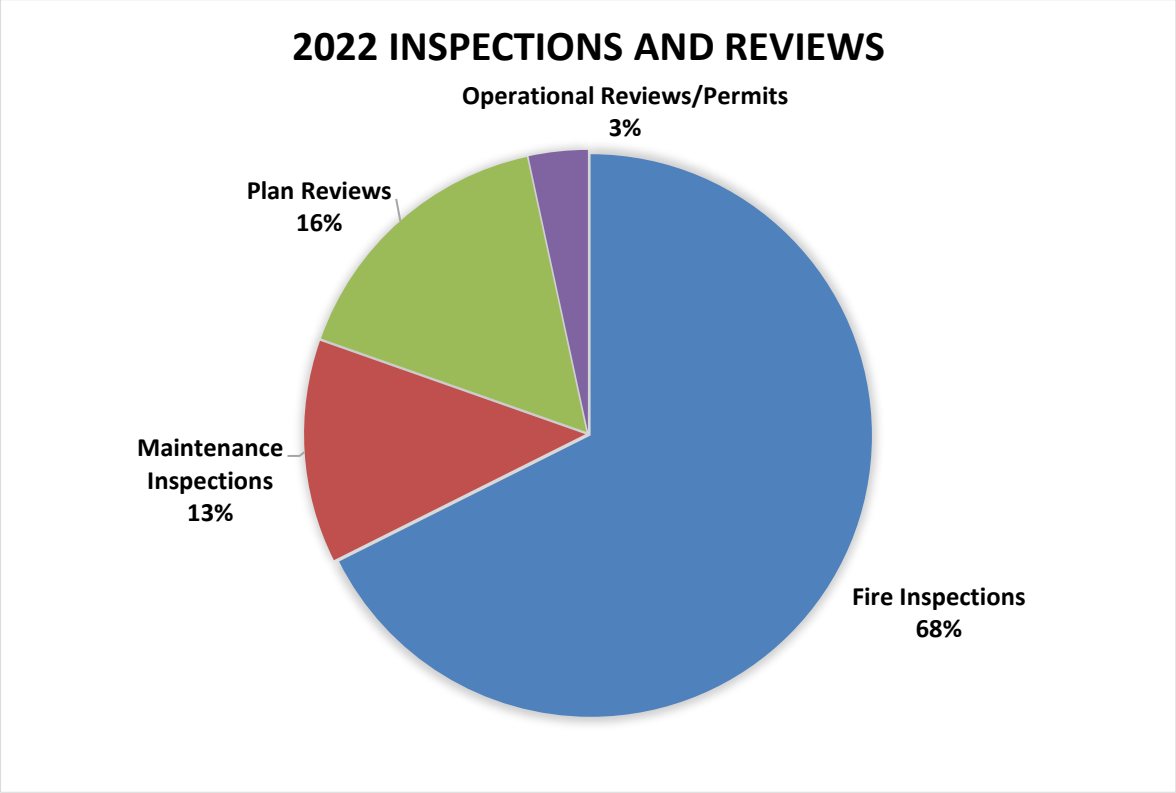
Reference Links:

City of Bee Cave 2015 IFC Adoption Ordinance	TCESD6 Ordinance 2019-1	TCESD6 Fire Protection Criteria Manual
Static Water Tank Details	Fire Watch Rules	Fee Schedule

INSPECTIONS, PERMITTING, AND REVIEWS

The Prevention Division conducts inspection and permitting services to include:

- Alternative fire Suppression Review and Inspections
- Automatic Fire Sprinkler Systems Inspections and Testing
- Commercial Propane Installations
- Daycare/Private School Inspections
- Defensible Space Inspections
- Fire Alarm System Reviews and Inspections
- Fire Finals and Re-Inspections
- Fire Pump Acceptance Test/Re-Inspections
- Fireworks Displays 1.3G (Texas Occupations Code Chapter Sec. 2154.206
- Hazardous Materials (IFC Sect. 105.6.21) Fireworks Stand Inspections
- Health Care Facility Annual Licensing Inspections (Hospital, Clinic, Assisted Living)
- Home Inspections (Foster & Adoption)
- Open Burnings (IFC Sect. 307.2)
- Per tent “Mass Gathering” (As defined in Texas Health & Safety Code Sec. 751.002)
- Site and Building Reviews
- Static Water Tank Review and Inspections



Fire Inspections	Maintenance Inspections	Plan Reviews	Operational Reviews/Permits
3,254	615	781	163

The District coordinates plan reviews and engineering consultation to a third-party who works with the Prevention Division and provides a cloud-based platform for plan submission, review, comments, and approvals/denials. The system also provides the public with free access to review public information relating to submissions and permitting.

COMMUNITY RISK REDUCTION PROGRAMS & TRAINING

The Community Risk Reduction (CRR) is the identification and prioritization of risks, threats and hazards followed by the implementation and evaluation of strategies to lessen their impact. The District continually evaluates the community's risk and designs programs tailored to the demands and needs of our population. The following is a list of the programs annually funded and supported.

FIRST AID COURSES

LTFR provides American Heart Association First Aid courses. These courses are designed for anyone with limited or no medical training for first aid basics for the most common first aid emergencies, how to recognize them, how to call for help and how to perform life-saving skills.

CARDIOPULMONARY RESUSCITATION (CPR) CLASSES

LTFR offers several options. If a certificate is needed or there is a desire to learn how to do CPR, Take 10 CPR is a great way to accomplish that. Take 10 CPR teaches how to perform uninterrupted, high-quality chest compressions and review the basic steps of operating an Automated External Defibrillator (AED).

STOP THE BLEED® CLASSES

Stop the Bleed training provides the ability to recognize life-threatening bleeding and act quickly and effectively to control the bleeding with three quick techniques.

FIRE EXTINGUISHER TRAINING

LTFR provides on-site fire extinguisher training for residential and commercial businesses using portable training aids.

RESIDENTIAL HOME FIRE INSPECTIONS

LTFR provides free in-home residential fire inspections. This includes free on-site consultation of any safety concerns or threats. In addition, the District provides inspection services at State regulated rehabilitation/transition treatment centers and foster, adult, and elderly care homes.

SAFETY SQUAD (K-5TH EDUCATION)

The Safety Squad is a public education group comprised of highly energetic firefighters that teach life and fire safety lessons to all area elementary school children from K-5th grade. The Safety Squad, which began in 2005, utilizes popular movie characters and music to catch students' attention during the performance. Annually, the Safety Squad reaches approximately 10,000 students in the LTFR coverage area. The Safety Squad has performed its program across the United States and has become a highly recognizable program in fire education.

SMOKE ALARM PROGRAM

Each Engine and Quint Company is equipped to replace smoke alarm batteries or install a new smoke alarm if one is not present in a residential room. This provides any resident in the community an immediate fix to lacking a smoke alarm or batteries. There is no cost for this service.

FIREWISE COMMUNITIES®

Firewise Communities Firewise USA® is a voluntary program that provides a framework to help neighbors get organized, find direction, and take action to increase the ignition resistance of their homes and community. The District works with community leadership to help tailor the program to the identified needs and provide guidance on improving community participation.

WILDFIRE HOME RISK ASSESSMENTS/HOME IGNITION ZONE ASSESSMENTS

LTFR offers free home risk assessments to help the community prepare for wildland fires. The program focuses on home hardening, creating a defensible space, and preparing residents with a plan for evacuation and sheltering in place.

READY SET GO PROGRAM®

The RSG! Program® provides tools and resources for fire departments to use as they help residents understand their wildland fire risk and actions individuals can take to reduce that risk. Engaging in this dialogue is particularly important for the fire service as national studies have shown that firefighters are uniquely respected in their communities and can project a trusted voice to the public preparedness appeal. They can also explain what fire resources are available during an event and the role individuals play in preparedness and early evacuation – if called for by their local officials – to increase the safety of residents and first responders.

WARNCENTRALTEXAS.ORG

The Capital Area Council of Governments and its partners offer an emergency notification system to residents of Central Texas. Registering with *WarnCentralTexas* allows local officials to contact their communities by phone, email, and text during times of disasters or public safety events. Residents can sign up for alerts and messaging at https://warncentraltexas.org/.

FIRE ADAPTIVE COMMUNITIES

The National Wildfire Coordinating Group defines a fire-adapted community as "a human community consisting of informed and prepared residents collaboratively planning and taking action to coexist with wildland fire safely." More fully, fire-adapted communities are knowledgeable, engaged communities where actions of residents and agencies about infrastructure, buildings, landscaping, and the surrounding ecosystem lessen the need for extensive protection actions and enable the communities to accept fire as part of the surrounding landscape safely. Because every community is unique, their steps and strategies to improve their wildfire resilience will vary from place to place.

FIRE SAFETY TRAILER

The District deploys a state-of-the-art fire simulation trailer that is a training platform for all ages. The unit is equipped with the latest safety messaging, kitchen and cooking safety props, and severe weather preparation training.

PUBLIC SAFETY DAY

Annually, the District collaborates with our public safety partners to host an engaging community event. Public Safety Day encourages the public to come together in one location to connect with the various organizations serving the community. This event typically draws an average of 500-700 attendees each year.

RESIDENTIAL FIRE SPRINKLERS

The District took delivery of a side-by-side home fire sprinkler demo trailer on May 1, 2023. Thanks to the generosity of the National Fire Sprinkler Association (NFSA), LTFR can effectively showcase the life-saving and property-preserving benefits of home fire sprinklers. This trailer is not exclusive to TCESD6, but accessible to any department in our region.

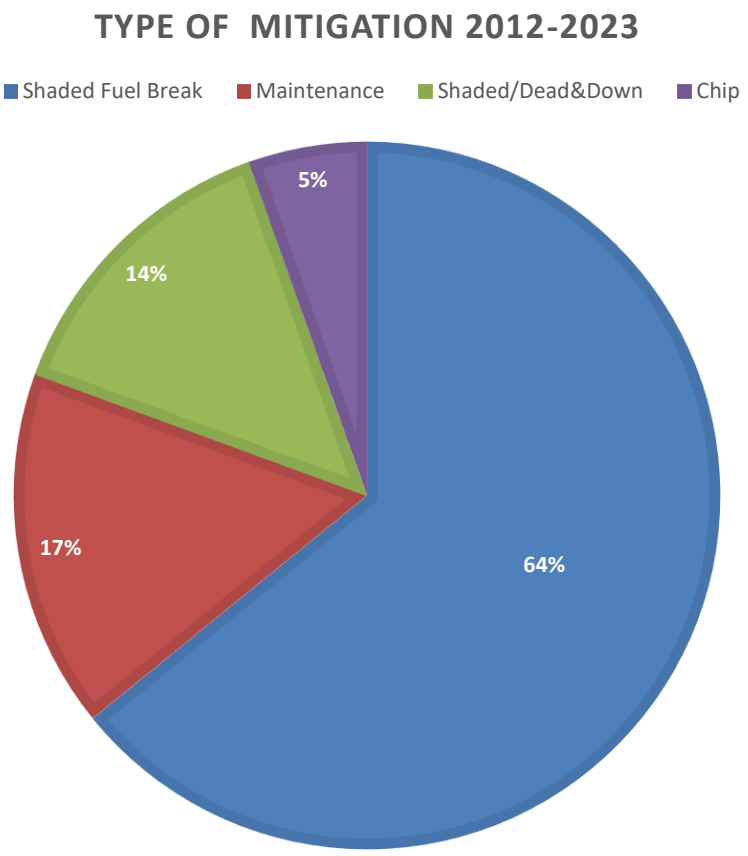
WILDFIRE FUEL MITIGATION

After the historic wildland fires of 2011, the District approved a program to strategically mitigate the threat of wildfires. The Fuels Management Program was started in early 2012 to treat targeted areas of our District with a specific prescription for fuel mitigation. This prescription calls for installing shaded fuel breaks and prescribed burning. A shaded fuel break is by prescription, set by the United States Fish and Wildlife Service and/or the entity the project is for. The focus on shaded fuel breaks is to reduce the amount of available fuel to burn while encouraging a canopy to grow, and the shade will eventually assist in keeping maintenance costs down and lessen the intensity of a wildfire when one occurs.

TCESD6 actively participates in developing and maintaining the Community Wildfire Protection Plan (CWPP).

Click here for to review the Community Wildfire Protection Plan in its entirety.

TYPES OF FUEL MITIGATION CONDUCTED 2012-2023



TOTAL ACRES OF TARGETED MITIGATION 2012-2023

Type of Mitigation	Acres Mitigated
Shaded Fuel Break	217.7
Maintenance	55.73
Shaded/Dead & Down	47.53
Chip In Place	18.39
***Total Acres Mitigated**	***339.35***

**Mechanical cutting is only permitted six months out of the year due to bird habitat regulations.*

From 2012 to mid-2017, the Fuels Mitigation Team operated seasonally for six months out of the year until becoming full time in late 2017.

OPERATIONS DIVISION

The Operations Division is under the leadership and guidance of the Assistant Fire Chief of Operations and Training. The Operations Division of LTFR provides fire suppression and rescue, emergency medical services as well as other all-risk emergency services.

FIRE SUPPRESSION

Fire services are provided by six staffed fire stations located throughout the District. Each station is equipped with an engine or quint and one brush truck. Select stations staff a Battalion Chief, search and rescue vehicles, rescue boats, spill response trailers, all-terrain vehicles, reserve apparatus, and rehabilitation vehicles. Emergency responses use Computer Aided Dispatch (CAD) to assign the closest unit(s) to an incident based on the unit's immediate location and capabilities using an established Automatic Aid Agreement (AAA) and regionally adopted operational protocols.

MEDICAL FIRST RESPONSE

Medical first response is provided by cross-trained firefighters at the basic life support (BLS) and advanced life support levels (ALS) utilizing both Advanced Emergency Medical Technician and certified and licensed paramedics.

WILDFIRE

Wildfire responses are coordinated in and around the District through an Auto Aid Agreement (AAA) with surrounding agencies both in Travis and Williamson County. Firefighters are trained using the National Wildfire Coordinating Group curriculum and standards in addition to the Texas Commission on Fire Protection requirements for certification.

MARINE

Marine firefighting is provided from both land and water with the use of a specially designed fire boat equipped with pumping capabilities along with its ability to service as a rescue platform.

RESCUE

Rescue capabilities are staffed at each station with cross-trained fire fighters and paramedics. Rescue disciplines include technical rescue, collapse, cave, rescue swimmers for both still water and swift water conditions, and heavy machinery and vehicle rescue.

HAZARDOUS MATERIAL RESPONSES

LTFR maintains all fire suppression certified personnel to the minimum Hazardous Material Operations Level. Many employees are also trained to the Hazard Material Technician Level. Additionally, Fire Station 604 maintains and operates a spill containment trailer with supplies for both land and water-based spills. Travis County maintains a contract for service with the City of Austin Fire Department for additional hazardous material responses and consultation.

COMBINED TRANSPORTATION & EMERGENCY COMMUNICATION CENTER (CTECC)

LTFR contracts dispatch services through an interlocal agreement (ILA) with the City of Austin Fire Department. The ILA is a negotiated agreement that provides shared resources for 9-1-1 call-taking, dispatching, channel monitoring, Computer Aided Dispatch (CAD) interfaces via mobile data computers, station alerting and programming, consultation, and support for technical challenges. These services are delivered out of CTECC.

CTECC also houses the Austin/Travis County Emergency Management Center, which serves as the area's main Emergency Operations Center (EOC). CTECC is located at 5010 Old Manor Road, Austin, Texas 78723. A secondary back up dispatch location is maintained, which is smaller than CTECC, and provides core services as a redundant measure to ensure a backup system is always maintained.

PUBLIC SAFETY ANSWERING POINTS (PSAP)

There are two PSAPs that operate within TCESD6. The City of Lakeway maintains a PSAP that serves the City of Bee Cave, City of Lakeway, and the Village of The Hills. The unincorporated areas of Travis County are operated with a separate PSAP answering point located at CTECC. The City of Lakeway PSAP processes calls to the Lakeway Police Department and simultaneously routes to CTECC if it is a fire, rescue, or EMS related incident.

GREATER AUSTIN/TRAVIS COUNTY REGIONAL RADIO SYSTEM

The purpose of the Greater Austin/Travis County Regional Radio System (GATRRS) is to provide highly reliable voice radio communications for public safety and public service organizations in Austin and Travis County. GATRRS is a partnership between the City of Austin (managing partner), Travis County, The University of Texas at Austin, and the Austin Independent School District. LTFR is a participant and user of the GATTRS through a monthly and annual subscription fee.

EMERGENCY MANAGEMENT

The District partners with the cities of Bee Cave, Lakeway, and the Village of the Hills Emergency Manager on emergency management functions in addition to assisting Travis County with resources, consultation, and planning initiatives.

COUNTY RESOURCE COORDINATOR

LTFR staffs a dedicated position to coordinate and liaise among Travis County Emergency Services Districts, Travis County, and the municipalities of Bee Cave, Lakeway, and The Hills.

TRAINING DIVISION

The Training Division is led by a Battalion Chief who reports to the Assistant Fire Chief of Operations and Training and designs, delivers, and audits training and development for all uniformed personnel.

FIRE & RESCUE

Rescue capabilities are staffed at each station with cross-trained firefighters, EMTs, Advanced EMTs, and paramedics. Rescue disciplines encompass a wide range of specialties, such as technical rescue, collapse rescue, cave rescue, rescue swimming for both still water and swift water scenarios, as well as heavy machinery and vehicle rescue.

EMS

The District's Clinical Care Coordinator oversees EMS training. The District provides basic and advanced level support training, certification, continuing education hours, and consultation.

SECTION 3 - COMMUNITY PROFILE

A community risk profile is a comprehensive assessment and analysis of potential risks and hazards faced by our community. It is a systematic approach used by governments, organizations, and agencies to identify, understand, and prioritize risks that may impact the community's well-being, safety, and resilience.

The community profile is comprised of the following elements:

Identify Hazards: Identify various natural, technological, and human-made hazards that could potentially affect the community. Hazards can include natural disasters like floods, earthquakes, wildfires, as well as human-made risks such as industrial accidents or disease outbreaks.

Assess Vulnerabilities: Evaluate the vulnerabilities and exposure of the community to those identified hazards. Vulnerabilities can be related to infrastructure, population density, socioeconomic factors, health, and emergency response capabilities.

Prioritize Risks: Prioritize the identified risks based on their potential impact and likelihood of occurrence. This helps in allocating resources efficiently and focusing on the most critical areas for risk reduction and disaster preparedness.

Support Planning and Preparedness: The risk profile provides valuable information for emergency planning, response strategies, and preparedness measures. It allows stakeholders to develop targeted interventions and programs to mitigate risks and enhance community resilience.

Data-Driven Decision Making: A community risk profile relies on data, scientific analysis, and expert input to provide an objective basis for decision-making. This ensures that resources are directed where they are most needed.

Engage Stakeholders: The process of creating a risk profile involves engaging with various stakeholders, including community members, local authorities, emergency services, and other relevant organizations. This fosters a collaborative and inclusive approach to risk management.

Creating a community risk profile is an ongoing process, as risks and circumstances may change over time. It requires regular updates and adjustments to reflect new data, changing demographics, and emerging threats.

POPULATION GROWTH & DEMOGRAPHICS

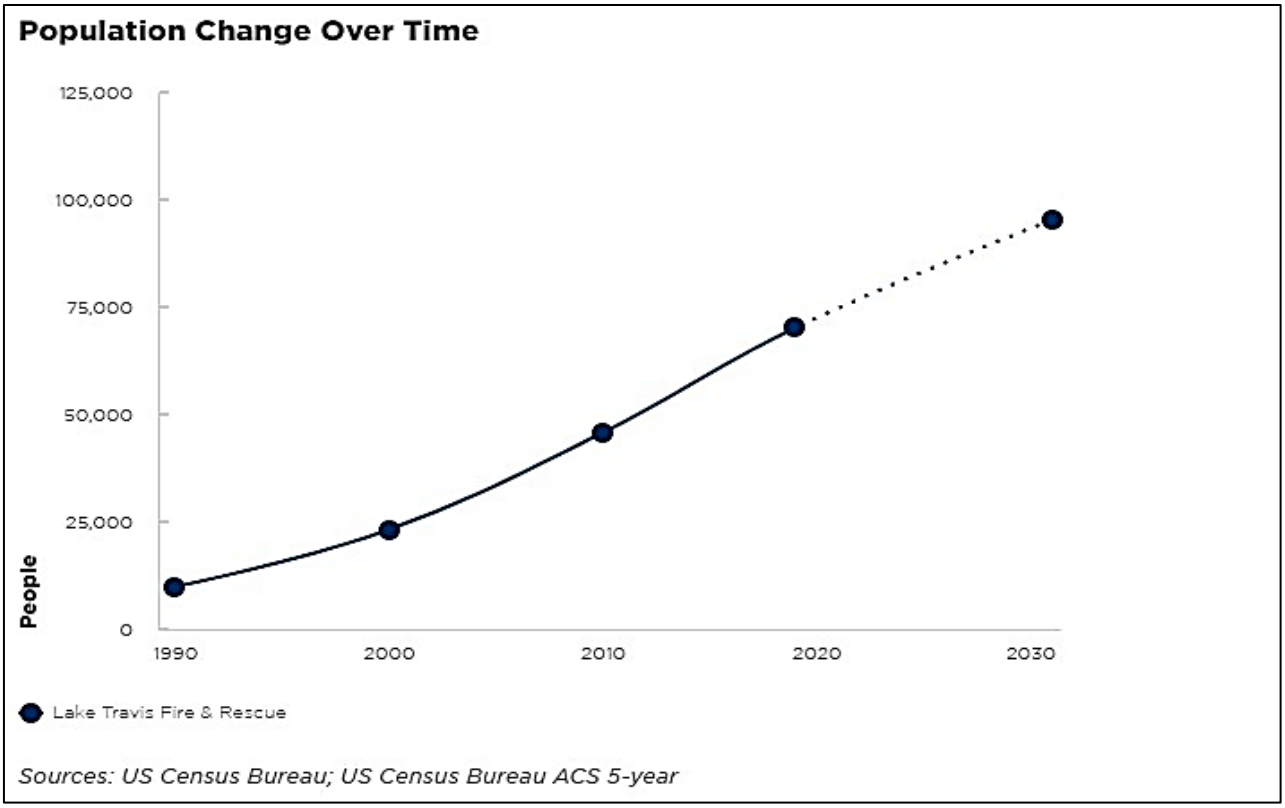
The Austin metropolitan area, which includes Travis County and small cities outside the City of Austin, has been one of the fastest-growing regions in the United States. It consistently ranks among the top cities for population growth. This growth has been driven by a combination of factors, including job opportunities, a desirable quality of life, and a business-friendly environment.

Austin's booming technology sector, often referred to as "Silicon Hills," has and continues to attract tech companies and startups, creating a robust job market. Companies like Dell, Samsung, Tesla, Google, Apple, and many others expanded their presence in the area, leading to an influx of highly skilled workers. While the Lake Travis communities have relatively limited industrial space for large plants, many of the employees that lead and work at the larger technology choose to live and raise their families in the Lake Travis area.

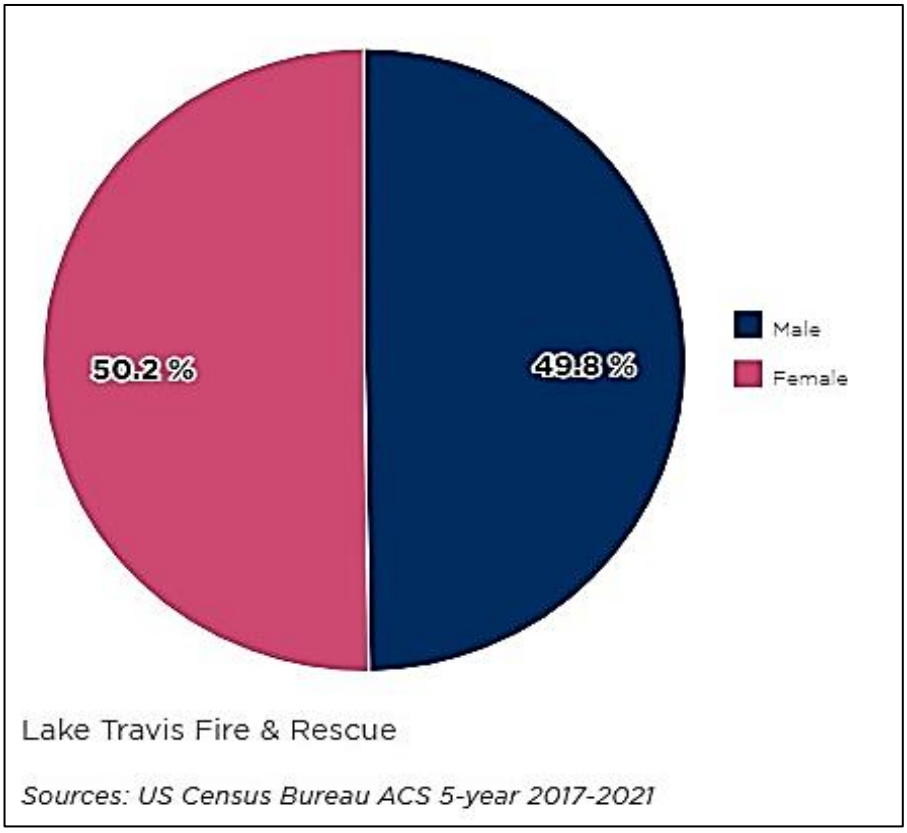
In recent years, the Austin area’s vibrant culture, outdoor recreational opportunities, music scene, and a relatively lower cost of living compared to some other tech hubs, attracts people seeking a high quality of life. The surge in population has placed pressure on the housing market, leading to rising home prices and increased demand for housing. With an increase in population through the central Texas region, both the cost of affordable housing and traffic congestion have impacted the Lake Travis area.

The following information has been compiled from the District’s participation in the Craig 1300® National Fire Protection Agency program. The data is used to forecast demand, demographic shifts, social presence, and population changes over a given period. The District also uses this information to tailor community programs, emergency personnel training, and community risk reduction initiatives.

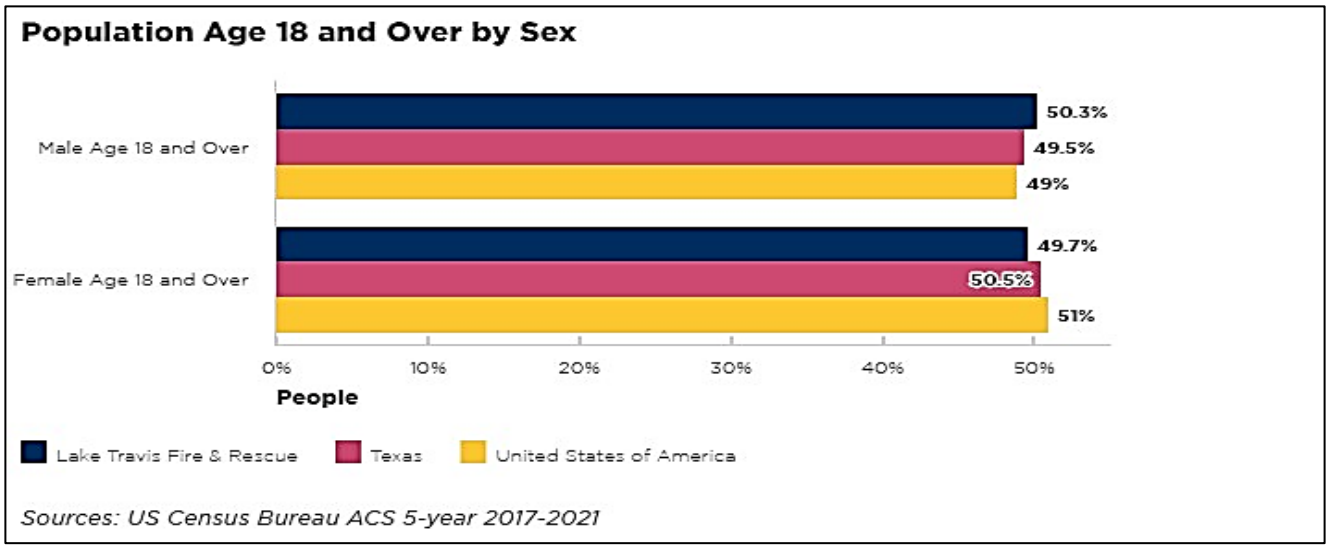
POPULATION CHANGE OVER TIME



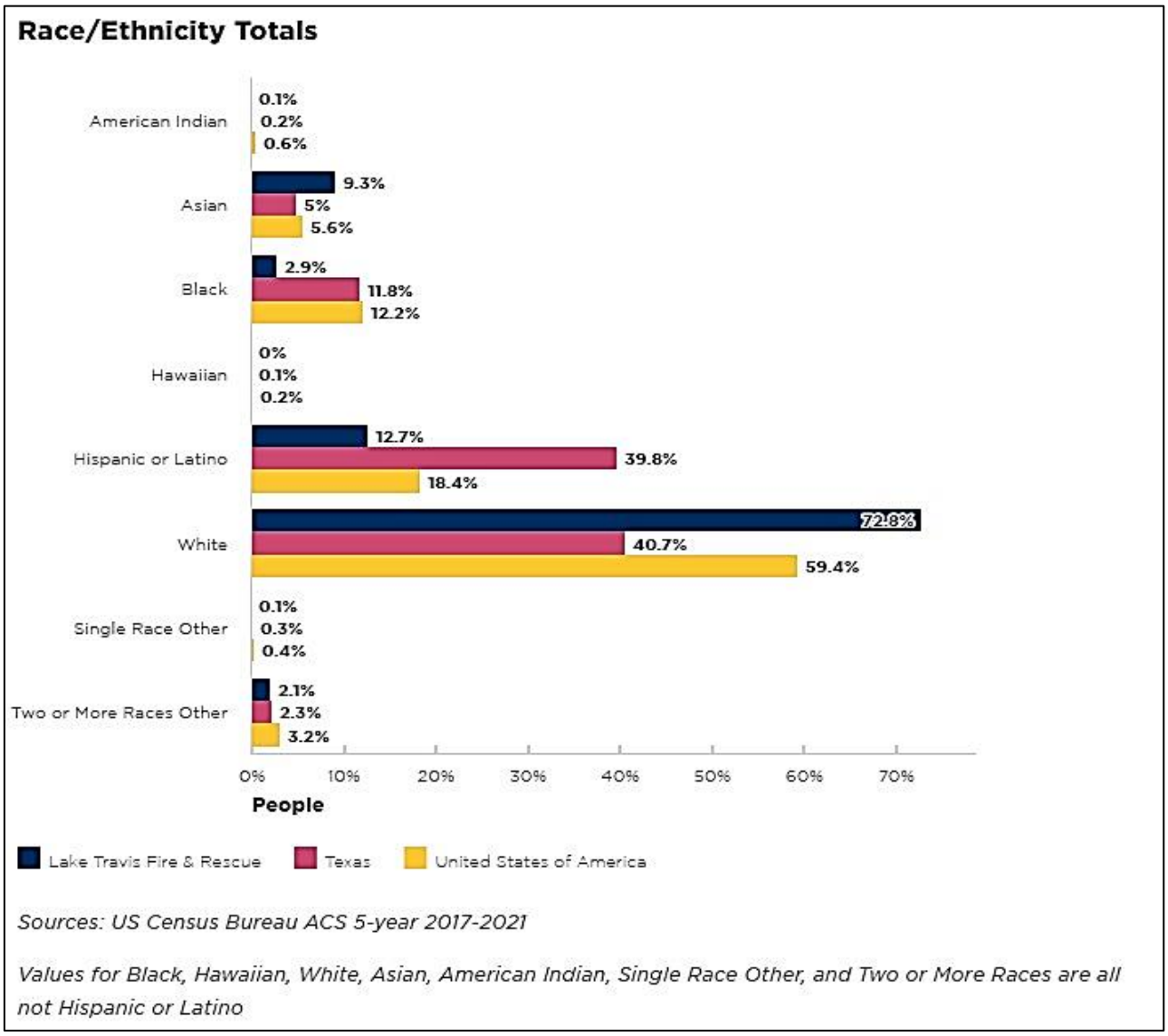
MALE & FEMALE POPULATION



POPULATION AGE 18 AND OVER BY SEX



RACE/ETHNICITY TOTALS



Sources: US Census Bureau ACS 5-year 2017-2021

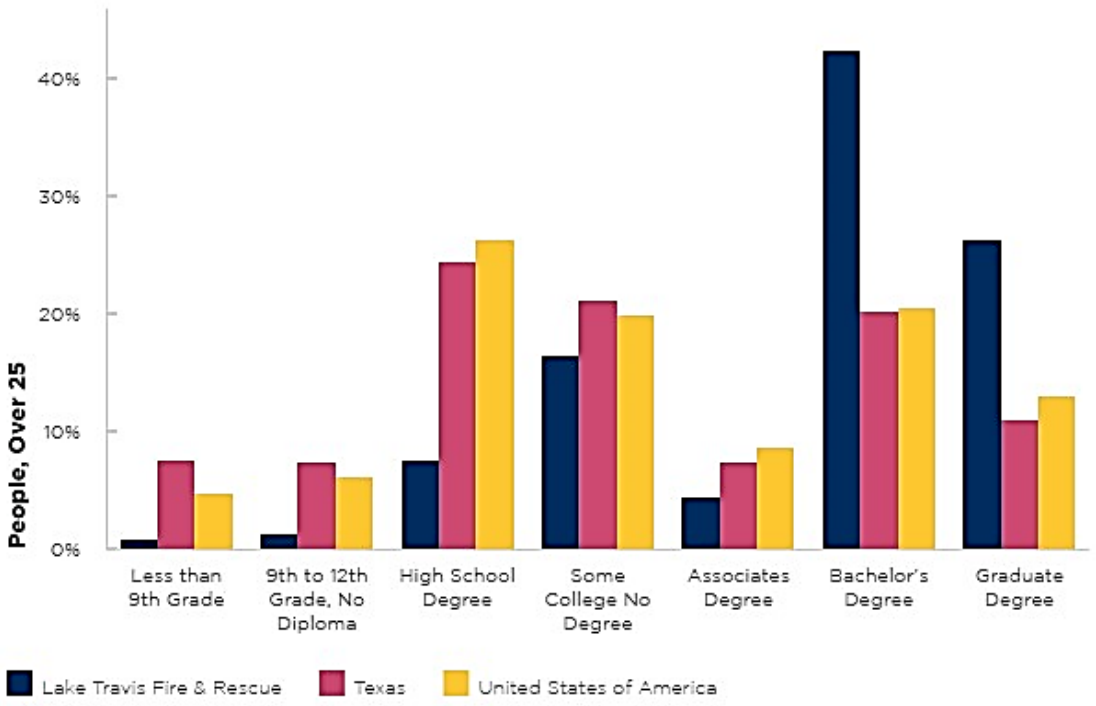
Values for Black, Hawaiian, White, Asian, American Indian, Single Race Other, and Two or More Races are all not Hispanic or Latino

HIGHEST LEVEL OF EDUCATIONAL ATTAINMENT

The relationship between educational attainment and safety is multifaceted. Education often leads to greater awareness of health and safety practices. People with higher education are more likely to understand and adhere to health guidelines, safety regulations, and have better access to healthcare services. This understanding can lead to safer behaviors and lifestyles.

There is a strong correlation between education and economic stability. Higher educational attainment usually leads to better job prospects and higher income, which can reduce poverty and its associated risks. Economic stability brought about by education can contribute to safer living environments and reduced stress levels associated with financial insecurity. Education further enhances critical thinking skills, enabling individuals to make informed decisions and assess risks effectively. This skill is crucial in identifying potential dangers and avoiding hazardous situations.

Highest Level of Educational Attainment



Sources: US Census Bureau ACS 5-year 2017-2021

OUR GENERATIONS

The community includes people of all ages. Each generation requires different services and has different needs. This section provides insight into the generational makeup of the community to better understand who lives in the District.

Median Age

44
Lake Travis Fire & Rescue

35
Texas

38
United States of America

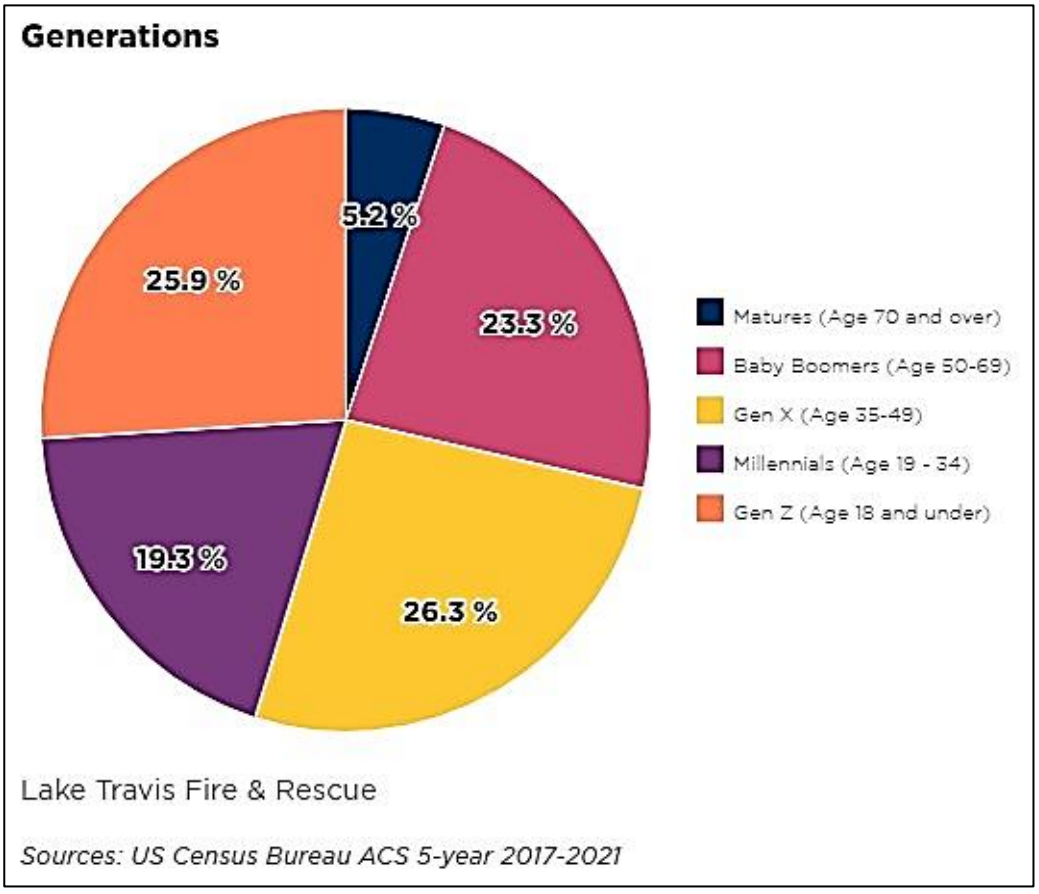
Age Dependency Ratio

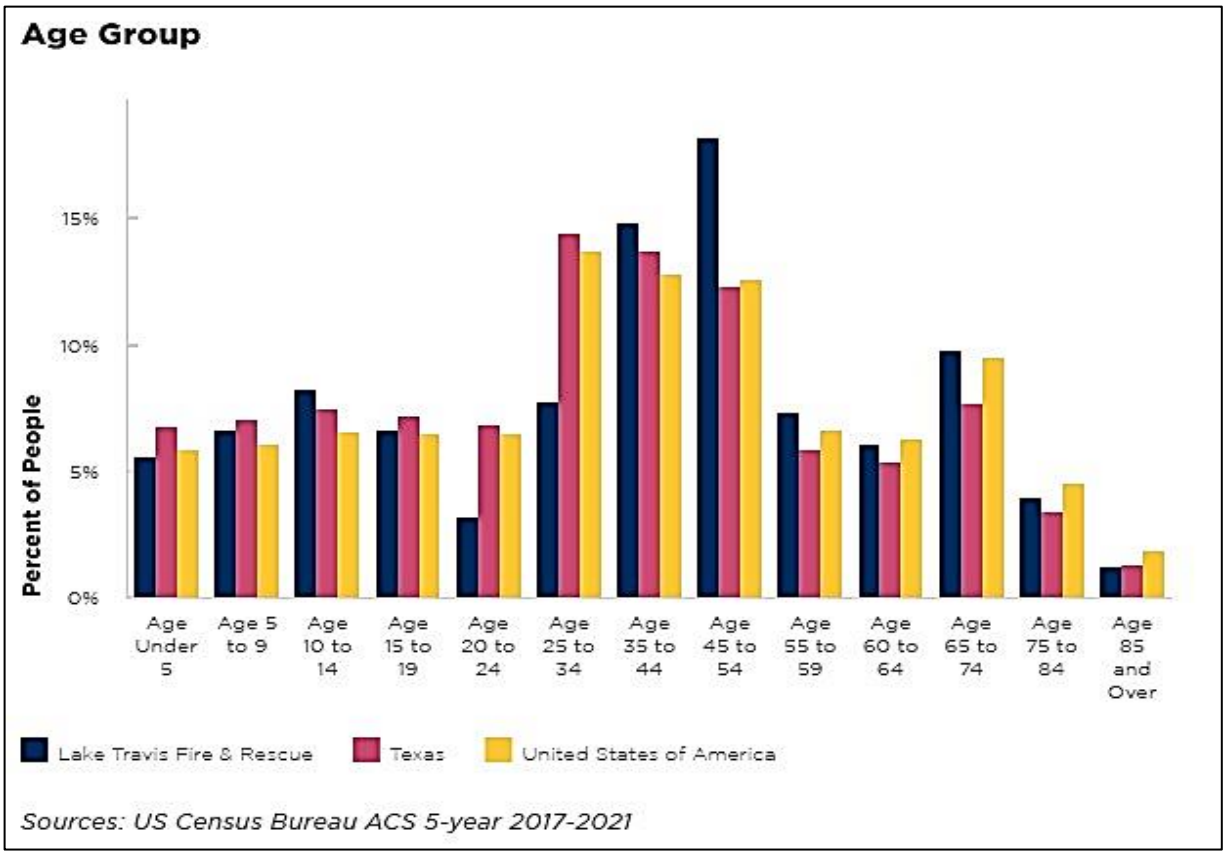
73%
Lake Travis Fire & Rescue

62%
Texas

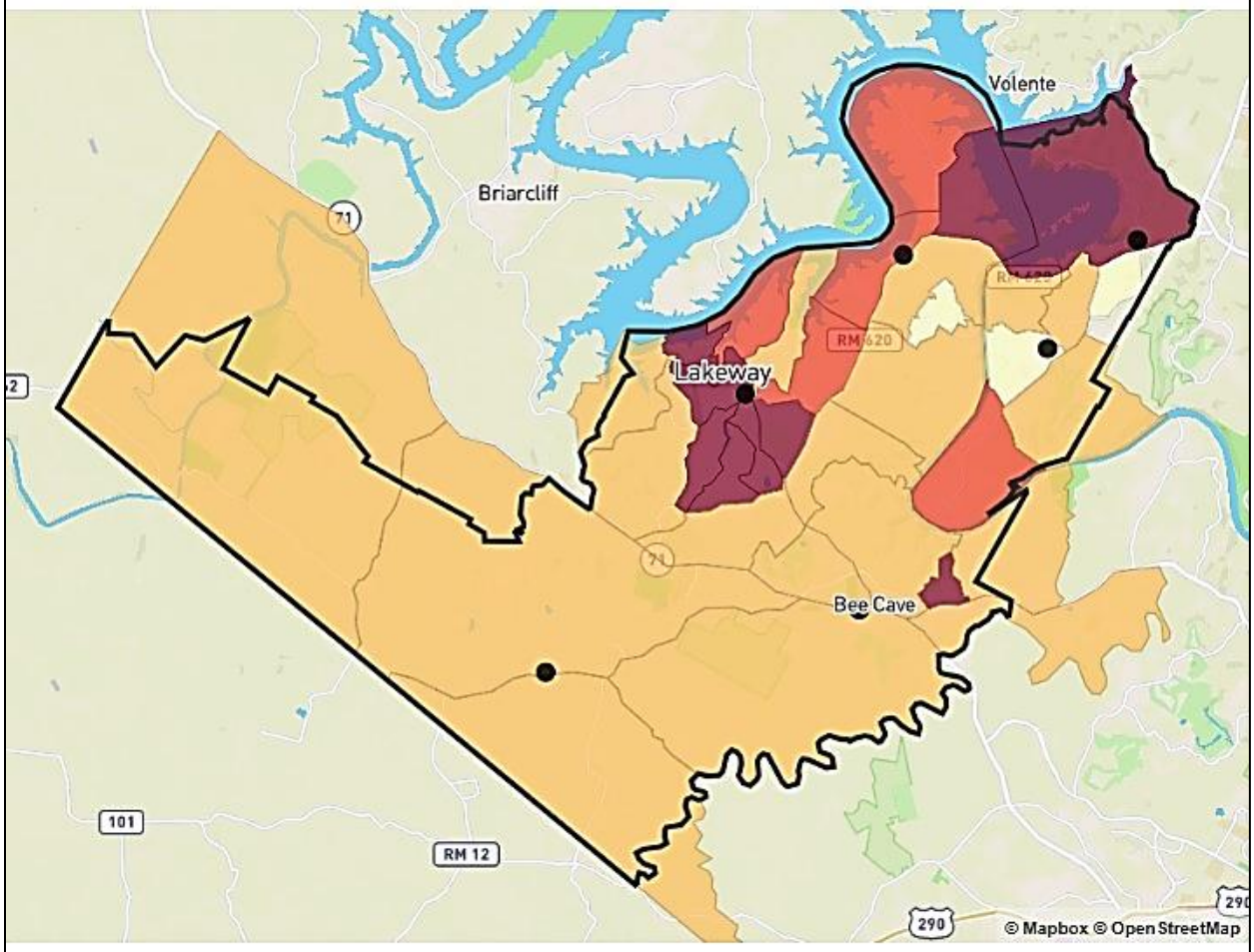
63%
United States of America

Sources: US Census Bureau ACS 5-year 2017-2021


Generations
5.2 %
23.3 %
26.3 %
19.3 %
25.9 %
Matures (Age 70 and over)
Baby Boomers (Age 50-69)
Gen X (Age 35-49)
Millennials (Age 19 - 34)
Gen Z (Age 18 and under)
Lake Travis Fire & Rescue
Sources: US Census Bureau ACS 5-year 2017-2021


Age Group
Percent of People
15%
10%
5%
0%
Age Under 5
Age 5 to 9
Age 10 to 14
Age 15 to 19
Age 20 to 24
Age 25 to 34
Age 35 to 44
Age 45 to 54
Age 55 to 59
Age 60 to 64
Age 65 to 74
Age 75 to 84
Age 85 and Over
Lake Travis Fire & Rescue
Texas
United States of America
Sources: US Census Bureau ACS 5-year 2017-2021

Median Age



Sources: US Census Bureau ACS 5-year 2017-2021

WHERE WE ARE FROM

Not everyone in the community was born here. Those coming to the District from other regions may have different educational and cultural backgrounds. This might mean they have specific needs that must be met. By understanding residents' geographic backgrounds, the District can enhance the ability to anticipate and effectively accommodate potential language and cultural barriers.

NATIVE/FOREIGN BORN POPULATION

Native Born Population

88.4%
Lake Travis Fire & Rescue

83%
Texas

86.4%
United States of America

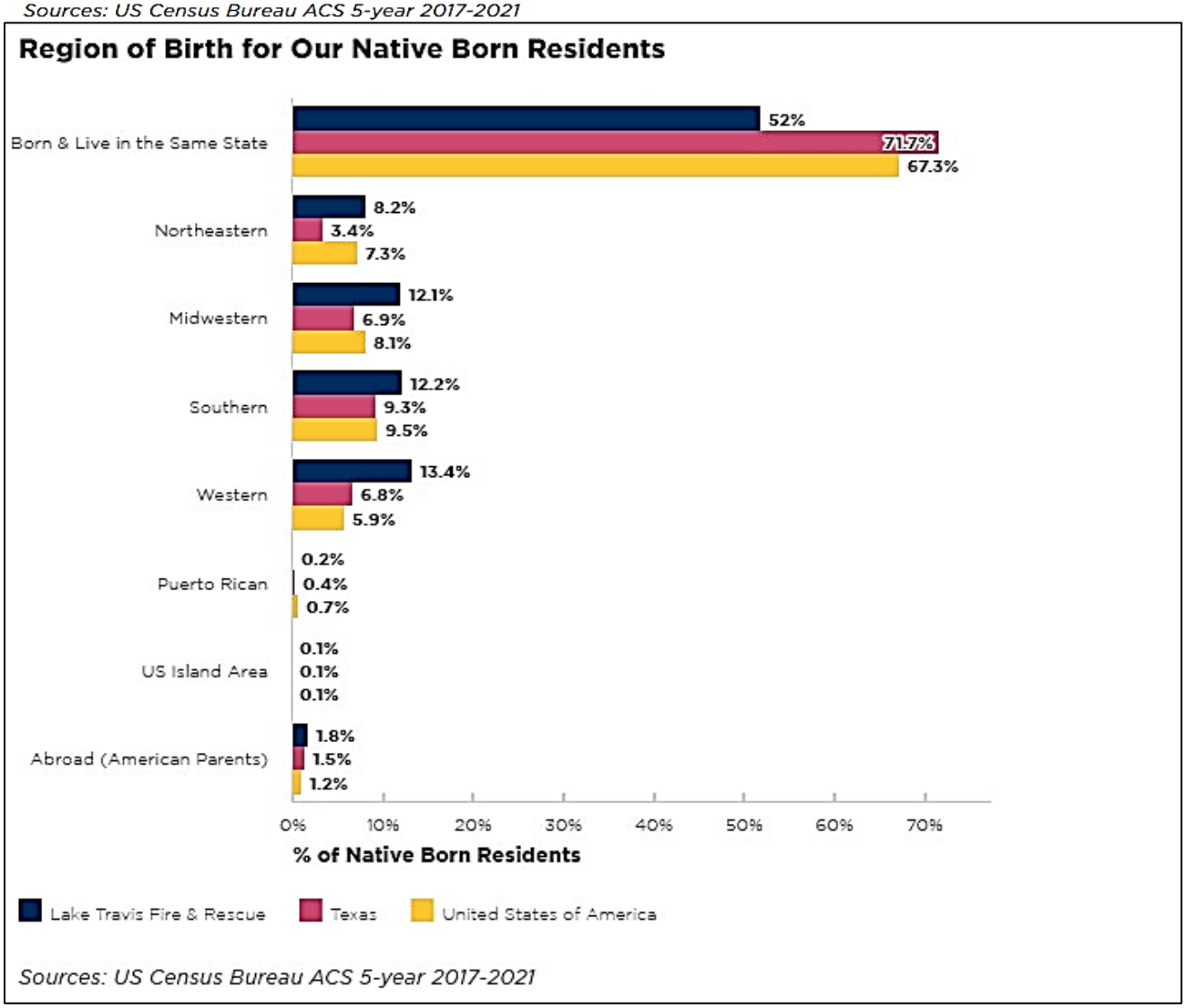
Foreign Born Population

11.5%
Lake Travis Fire & Rescue

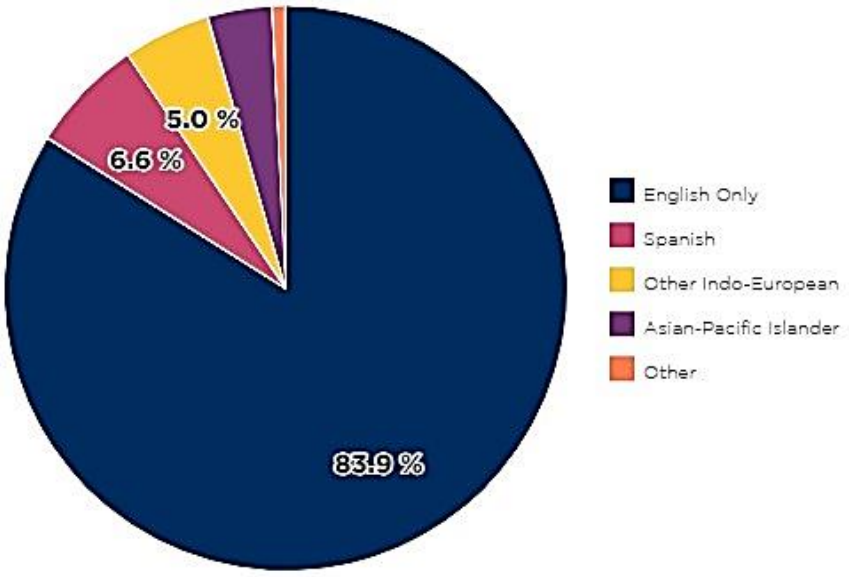
17%
Texas

13.6%
United States of America

Sources: US Census Bureau ACS 5-year 2017-2021



Language Spoken at Home



Lake Travis Fire & Rescue

Sources: US Census Bureau ACS 5-year 2017-2021

NEW RESIDENTS

Some of the residents have lived in the same house for generations. Others might be new to the community. Identifying how long residents have lived in the same residence or in the community provides insight into possible services or needs they may have.

Median Year Moved into Housing Unit

2014
Lake Travis Fire & Rescue

2014
Texas

2012
United States of America

Percent of Residents that Lived in Same House Over Past Year

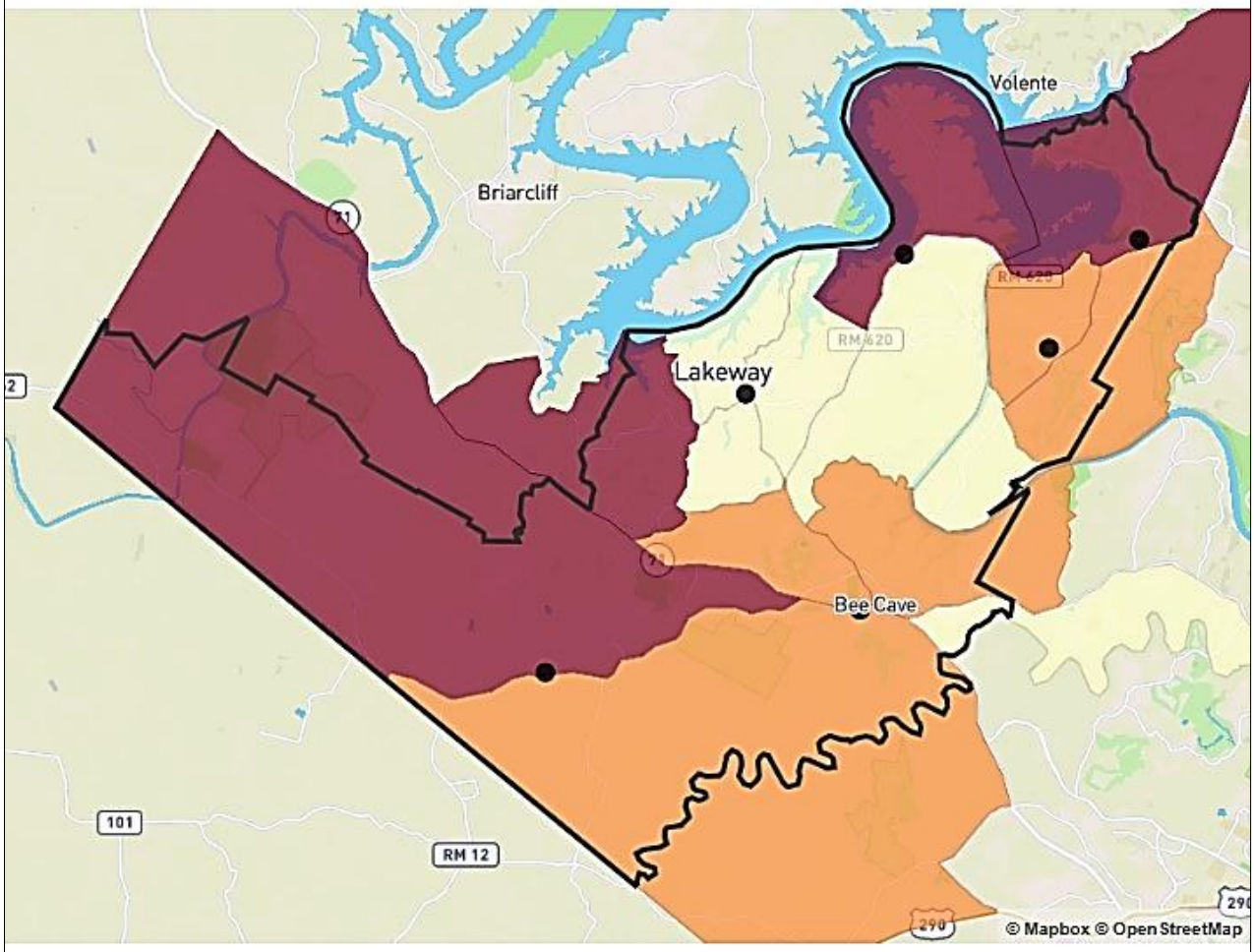
85.5%
Lake Travis Fire & Rescue

85.1%
Texas

86.6%
United States of America

Sources: US Census Bureau ACS 5-year 2017-2021

Households & Population That Moved Recently



Lake Travis Fire & Rescue

Fire Station

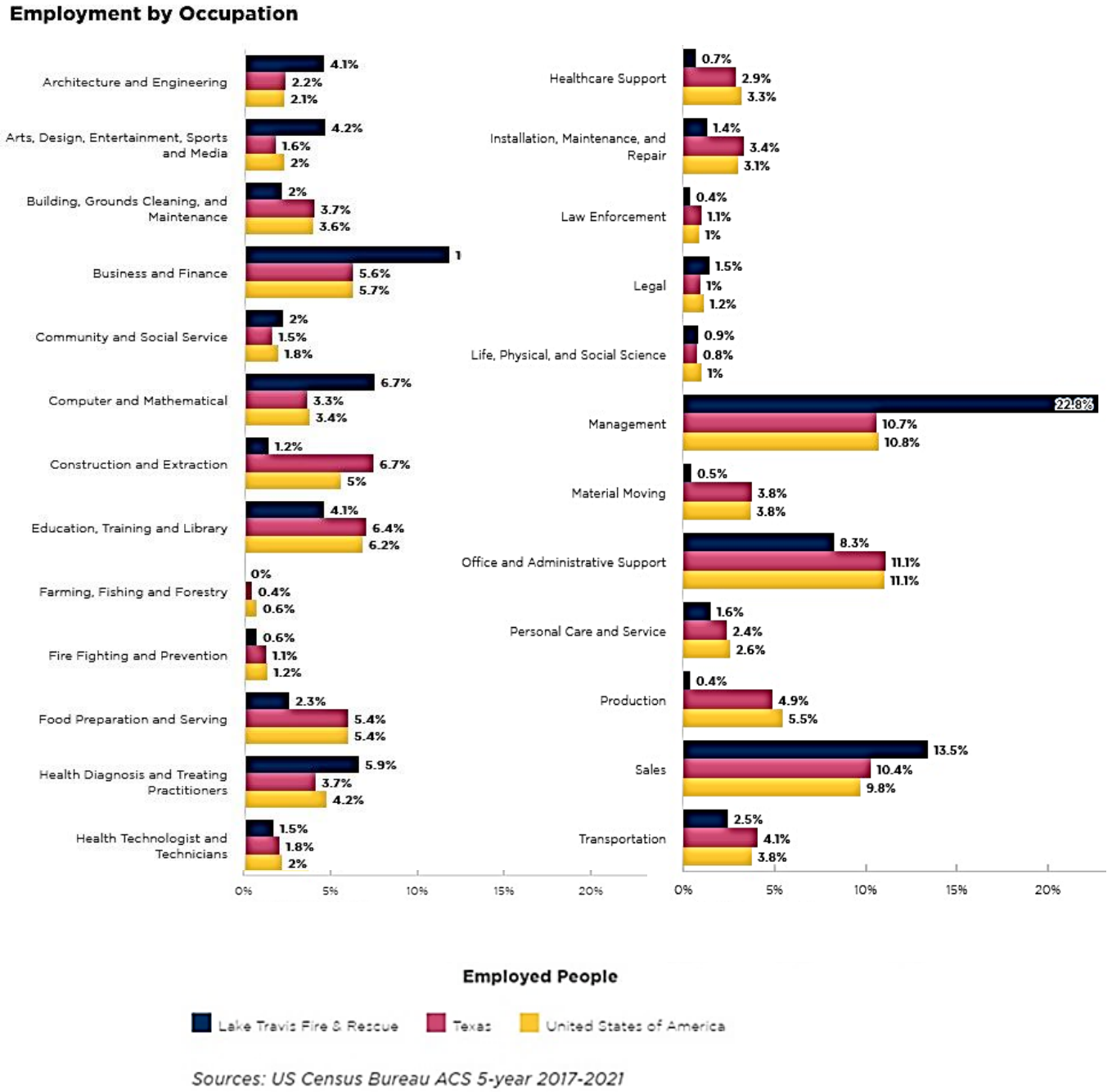
Households That Recently Moved To Current Location (2015 or Later)

- 3% - <8%
- 8% - <14%
- 14% - 19%

Sources: US Census Bureau ACS 5-year 2017-2021

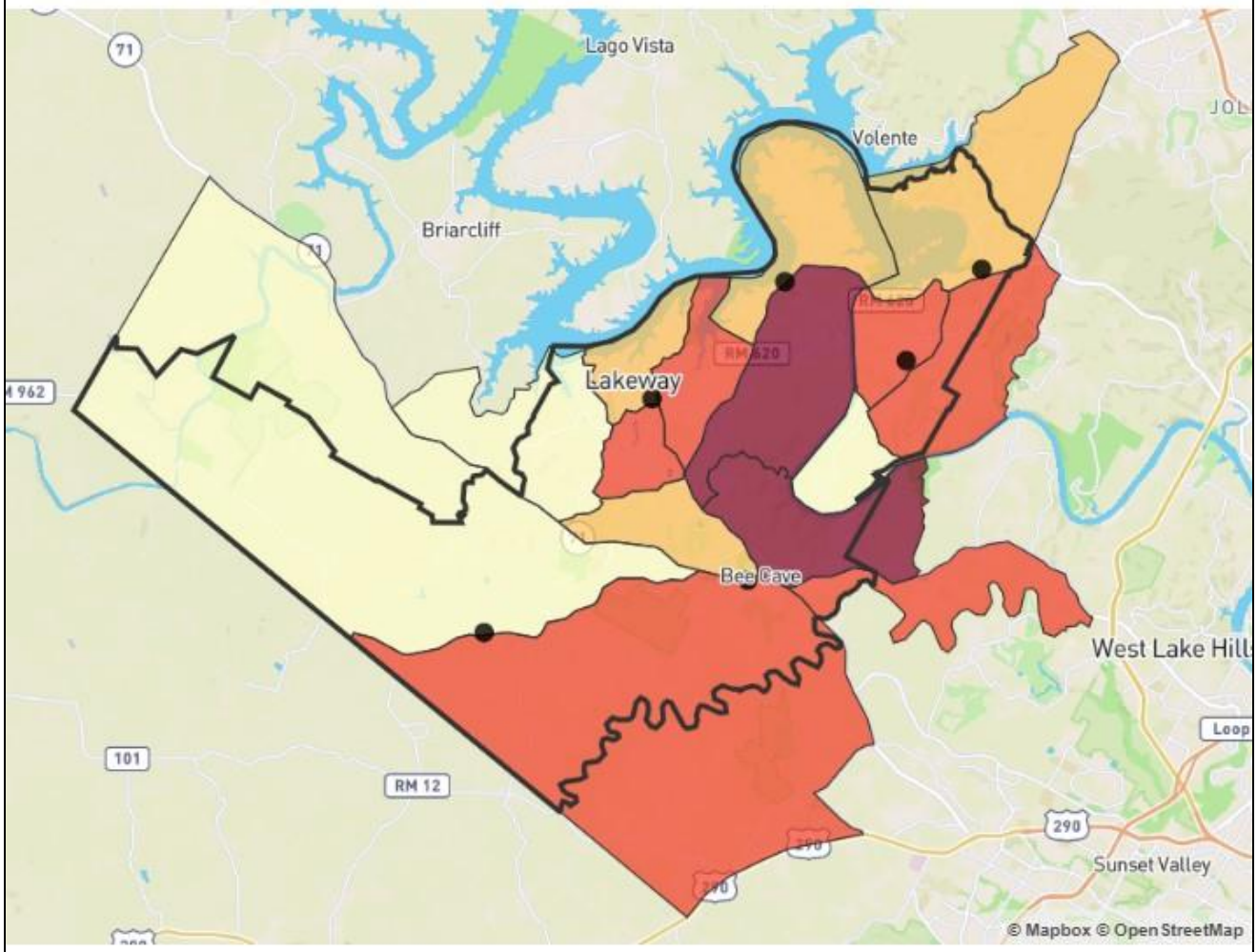
WHERE WE WORK

The District's residents work in a variety of occupations unique to the community. Non-residents also come to the community for work. This information helps the District understand where people are during the workday and what jobs and industries exist here.



Sources: US Census Bureau ACS 5-year 2017-2021

Workers Based Upon Workplace Location



Lake Travis Fire & Rescue

Fire Station

Daytime Worker Population

- 356 - <852
- 852 - <1,455
- 1,455 - <2,252
- 2,252 - 2,312

Sources: CTPP 2012-2016

INCOME

Residents in the community have various income brackets, with a relatively small percentage living below the poverty rate. Lack of adequate income can hinder the ability to have sufficient fire preventative products within the home. Knowing this, TCESD6 can prioritize the resources to ensure sufficient education is offered to those households living at or below the poverty rate.

Median Household Income

$146,936
Lake Travis Fire & Rescue

$67,321
Texas

$69,021
United States of America

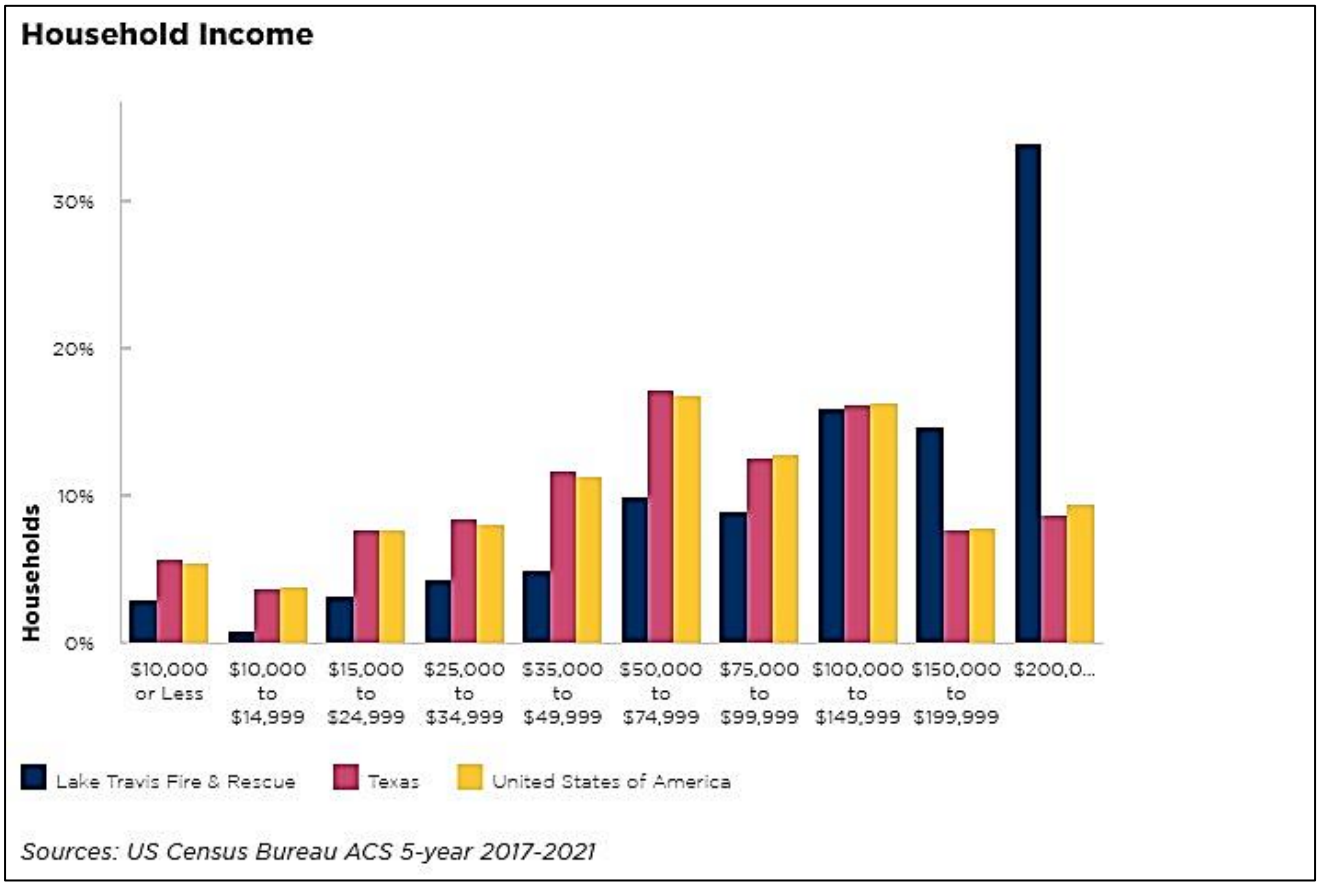
Poverty Rate

5%
Lake Travis Fire & Rescue

14%
Texas

12%
United States of America

Sources: US Census Bureau ACS 5-year 2017-2021



OUR HOMES

Many of TCESD6 calls for service will occur in a home. By making residents safer in their homes, we can help ensure a higher quality of life. This section provides insight into where the population lives, the types of homes they reside in, and the people that reside within those homes.

Current Housing Units

29,168

Lake Travis Fire & Rescue

11,433,880

Texas

Housing Units in 2010

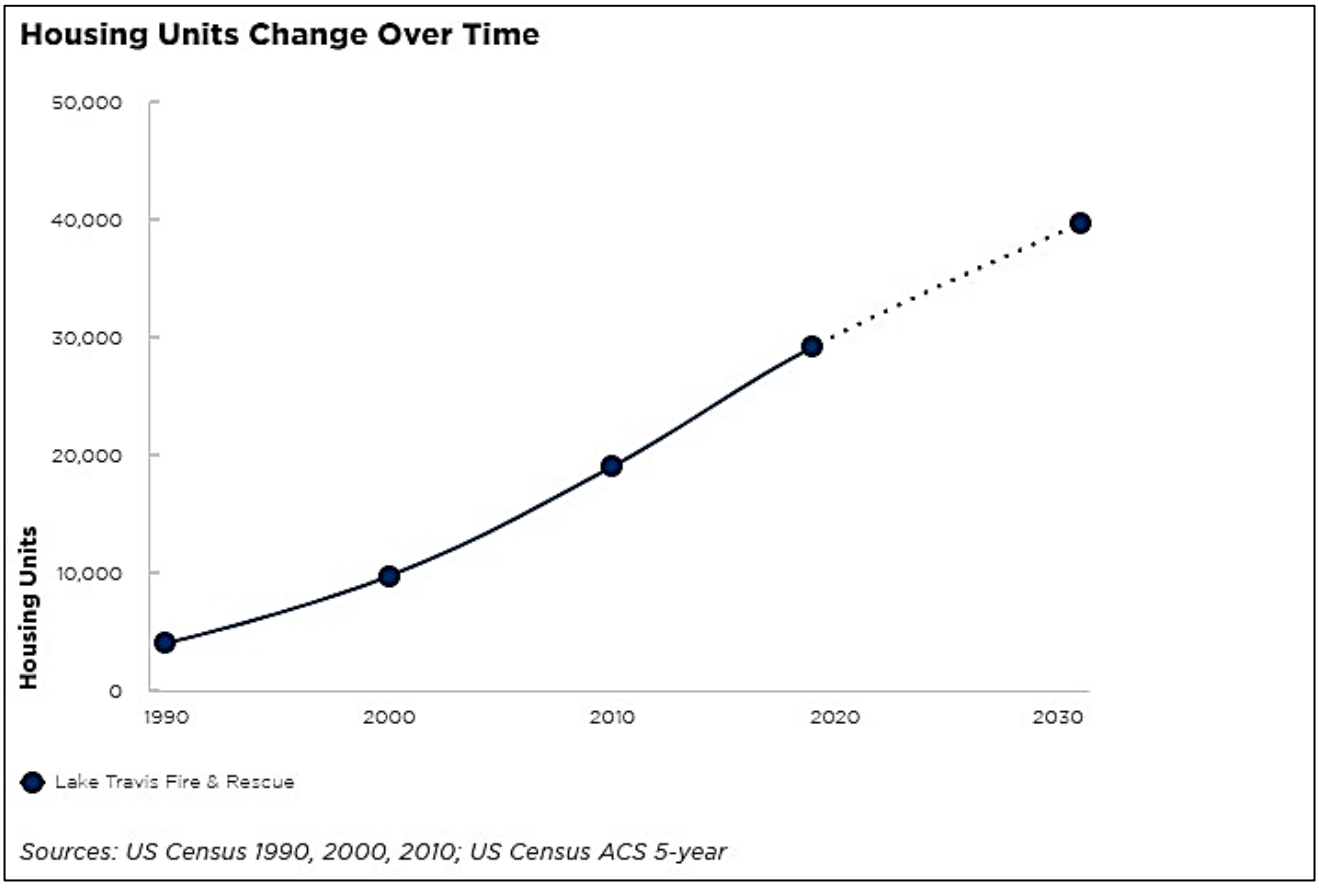
19,013

Lake Travis Fire & Rescue

9,977,436

Texas

Sources: US Census Bureau 2010; US Census Bureau ACS 5-year 2017-2021



HOUSING TYPES

The community is comprised of both rented and owned housing units. Each type presents different needs and risks for the residents.

Owner Occupied Housing Units

78%
Lake Travis Fire & Rescue

62%
Texas

65%
United States of America

Renter Occupied Housing Units

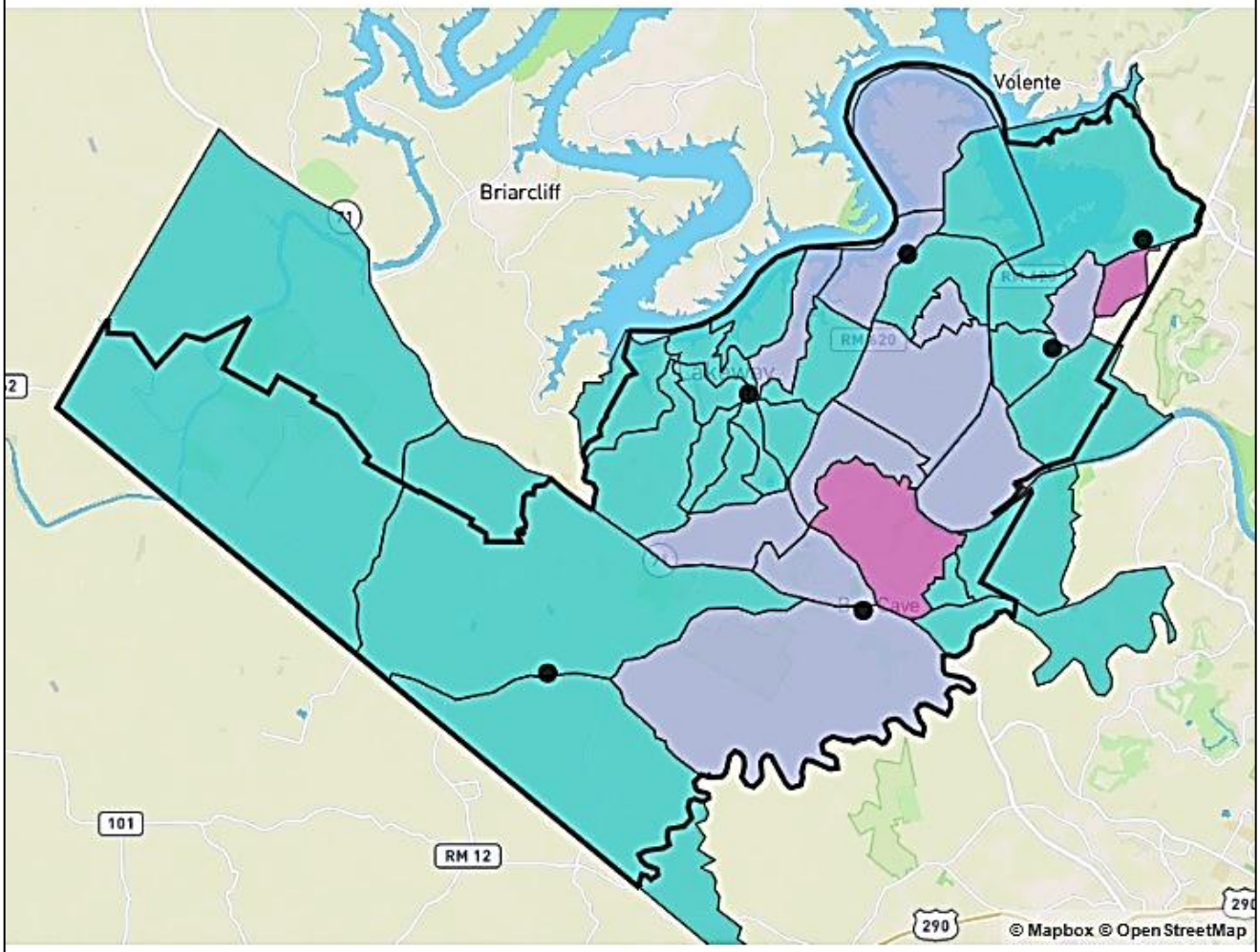
22%
Lake Travis Fire & Rescue

38%
Texas

35%
United States of America

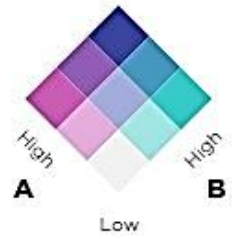
Sources: US Census Bureau ACS 5-year 2017-2021

Percent Renter and Owner Occupied Housing Units



Lake Travis Fire & Rescue

Fire Station



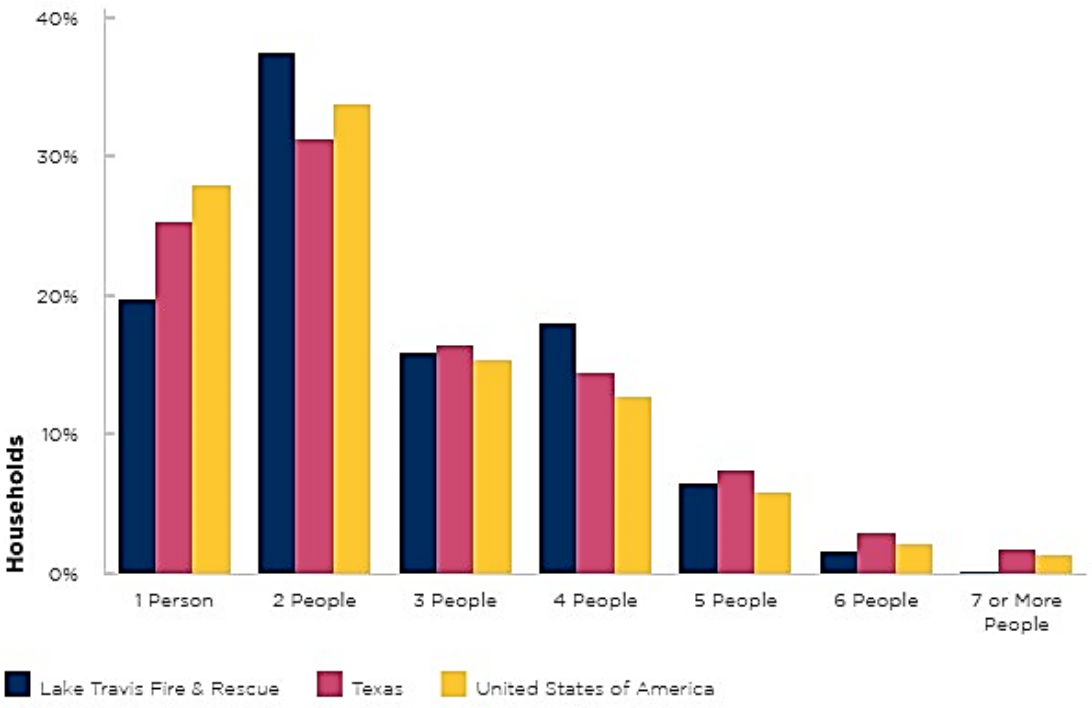
A Renter Occupied

B Owner Occupied

Sources: US Census Bureau ACS 5-year 2017-2021

Areas of bright teal have a greater percent of owners while areas of bright pink have a greater percentage of renters. Purple areas are more even makeup of owners and renters.

Household Size



Sources: US Census Bureau ACS 5-year 2017-2021

Family Households

74%
Lake Travis Fire & Rescue

69%
Texas

65%
United States of America

Nonfamily Households

26%
Lake Travis Fire & Rescue

31%
Texas

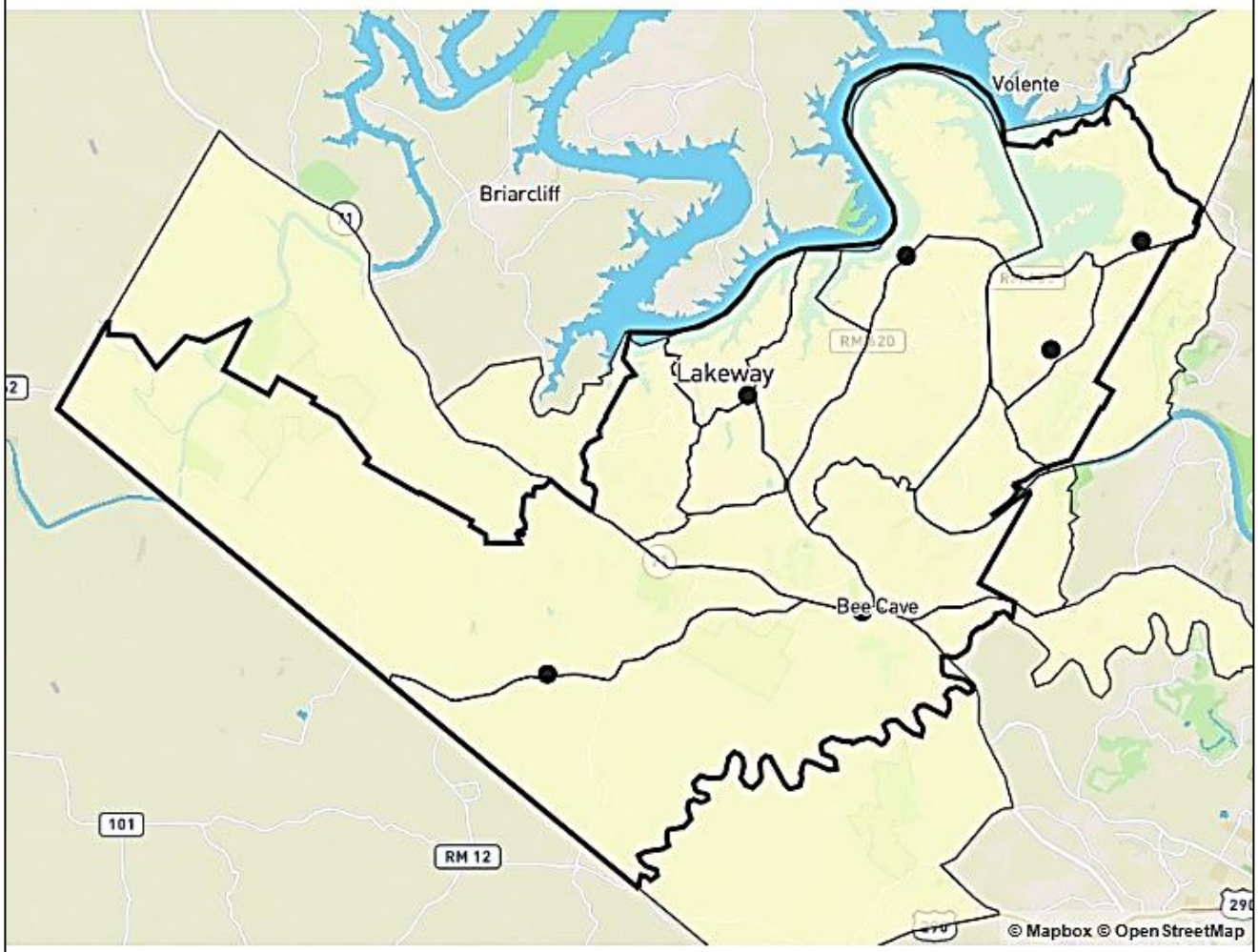
35%
United States of America

Sources: US Census Bureau ACS 5-year 2017-2021

SOCIAL VULNERABILITIES

Understanding the challenges faced by those in the community can help the District better assist the people it serves. Vulnerability comes in many forms: economic, health, educational, social, and environmental. These sections offer comprehensive insights into the community's social vulnerabilities, identifying factors that could potentially increase their susceptibility to emergencies.

Housing and Transportation Social Vulnerability Within the State



Lake Travis Fire & Rescue
Fire Station

Social Vulnerability Index Within the State

- 0 - <0.2
- 0.2 - <0.4
- 0.4 - <0.6
- 0.6 - <0.8
- 0.8 - 1

Sources: CDC ASTDR SVI 2020

This dataset represents the relative housing and transportation social vulnerability of a census tract/county, ranking them against all census tracts/counties within a state. The values are percentile rankings on a scale from 0 to 1, where values near 1 indicate high housing and transportation social vulnerability and values near zero indicate low housing and transportation social vulnerability.

UNEMPLOYMENT IN THE COMMUNITY

Unemployment can precipitate a significant shift in a family's circumstances, which could prompt a reassessment of priorities. Things like changing batteries in a fire alarm, refilling necessary prescriptions, or even finding safe housing, may take a backseat to basic necessities. People who are unemployed also might not seek medical care when needed until it becomes an emergency. The following unemployment data values are from the US Census ACS 5-year estimates and do not reflect the impact of COVID-19.

Unemployment Rate

3%
Lake Travis Fire & Rescue

5.4%
Texas

5.5%
United States of America

Sources: US Census Bureau ACS 5-year 2017-2021

Unemployment Rate are civilian unemployed population age 16 and over divided by the total civilian labor force age 16 and over.

WHERE DO OUR RESIDENTS WORK?

Commuters traveling to and from work create a lot of traffic in a community. When people live and work in the same area, it may foster a greater sense of belonging, which can strengthen Community Risk Reduction initiatives. This section provides details about residents' commutes to work.

Commute Mean Travel Time

31
Minutes
Lake Travis Fire & Rescue

27
Minutes
Texas

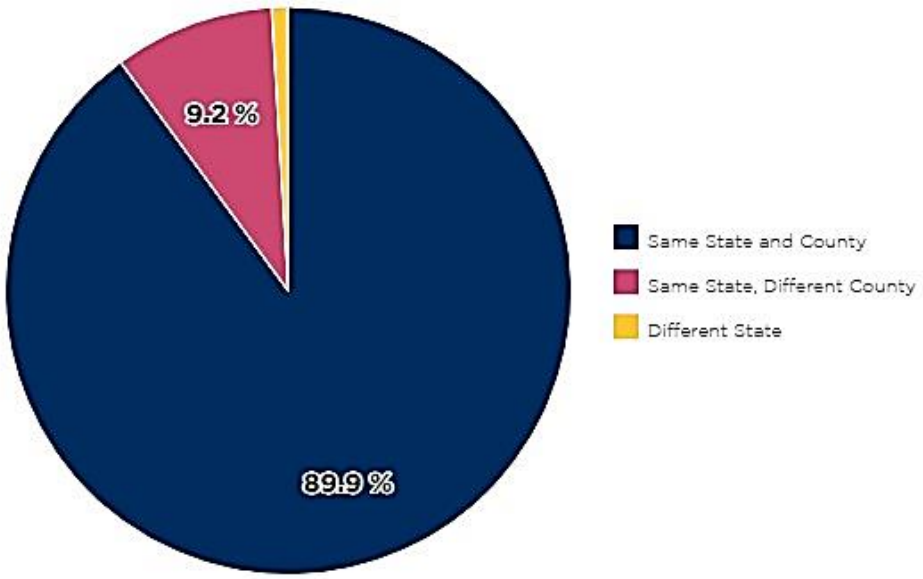
Work Location Same as Where Workers Live

0.9%
Working Population
Lake Travis Fire & Rescue

0.8%
Working Population
Texas

Sources: US Census Bureau ACS 5-year 2017-2021

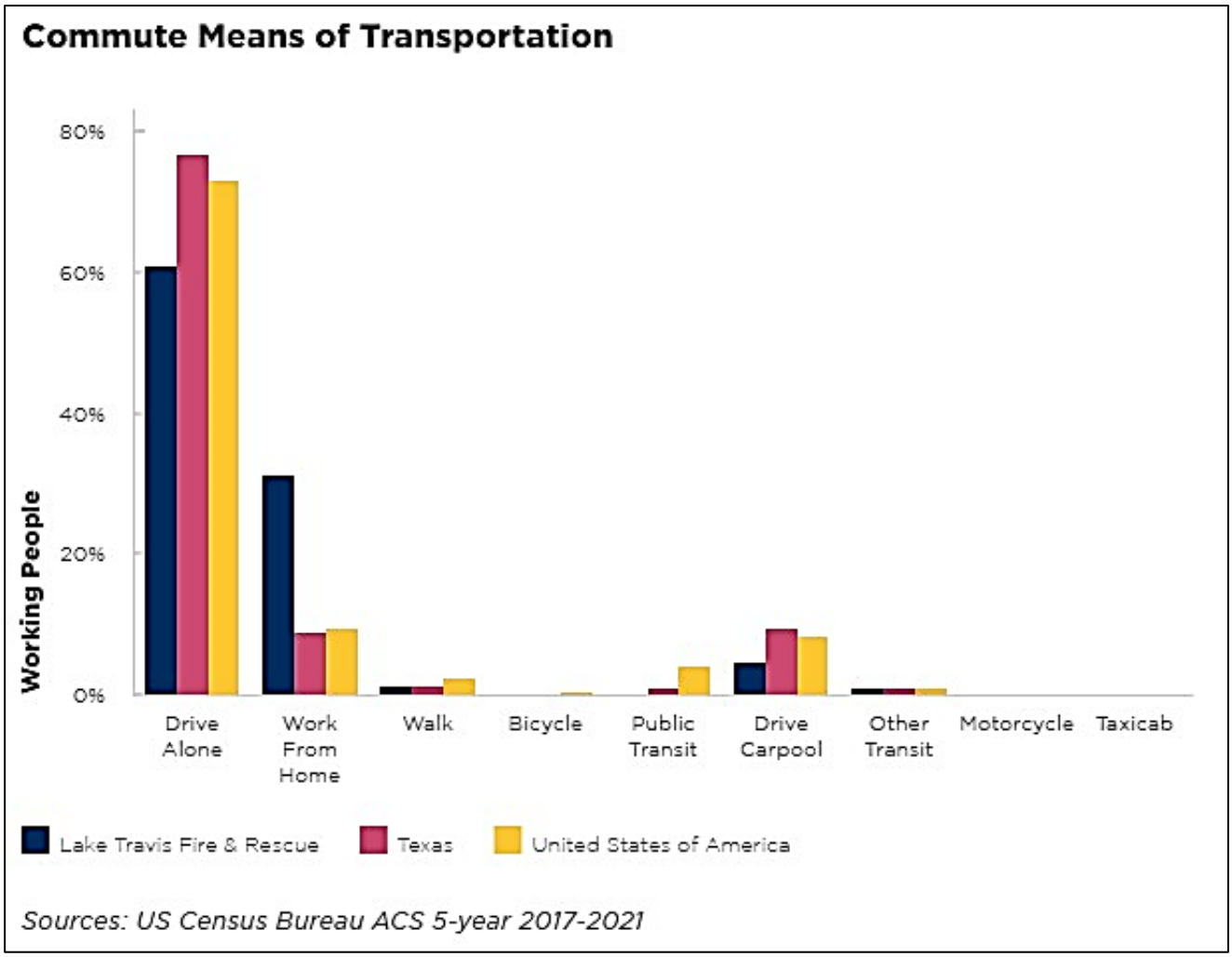
Work Location Relative to Residence Location



Lake Travis Fire & Rescue

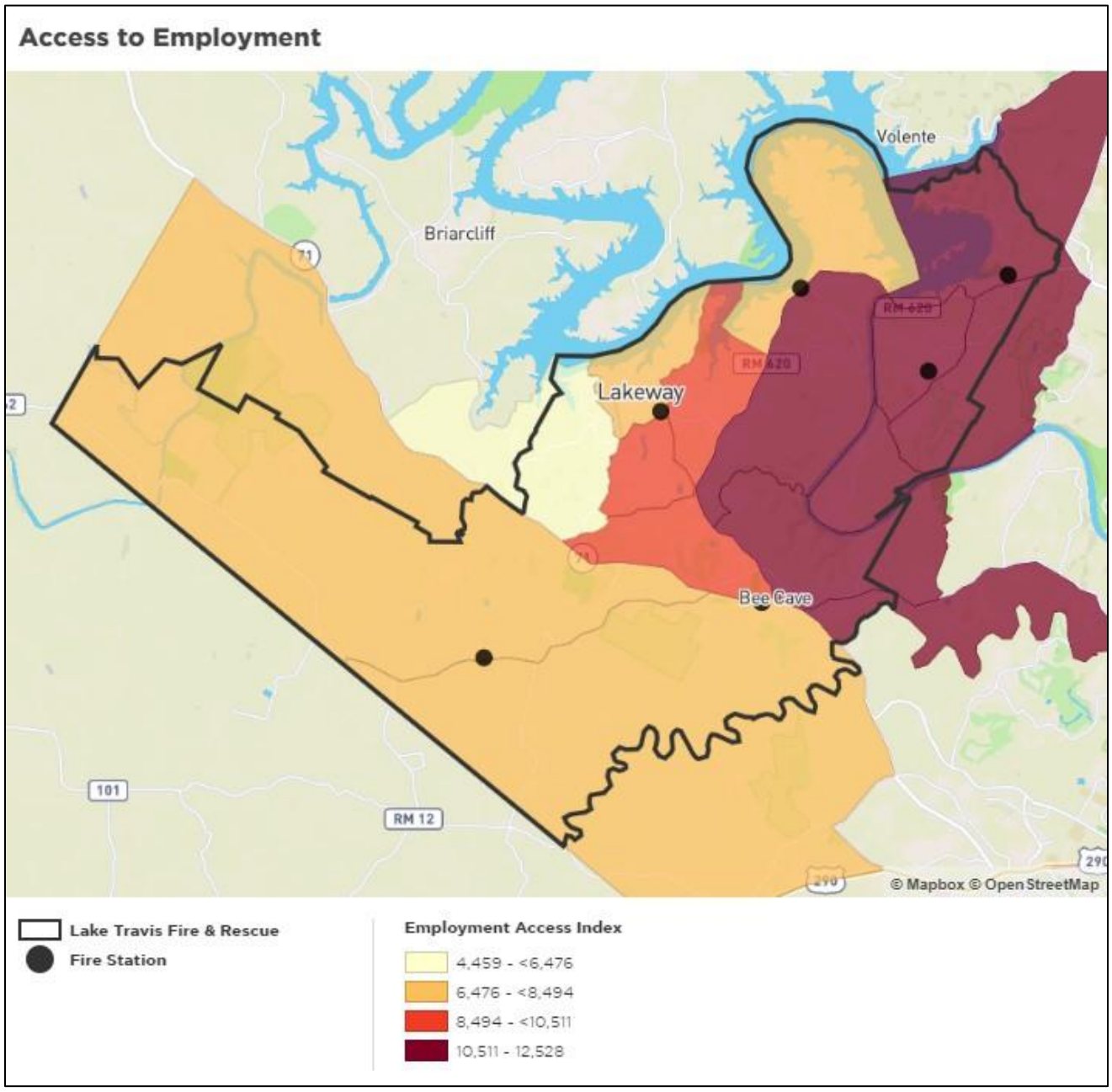
Sources: US Census Bureau ACS 5-year 2017-2021

Steiner Ranch Wildland Fire
September 4, 2011


Commute Means of Transportation
80%
60%
40%
20%
0%
Working People
Drive Alone
Work From Home
Walk
Bicycle
Public Transit
Drive Carpool
Other Transit
Motorcycle
Taxicab
Lake Travis Fire & Rescue
Texas
United States of America
Sources: US Census Bureau ACS 5-year 2017-2021

EMPLOYMENT ACCESS INDEX

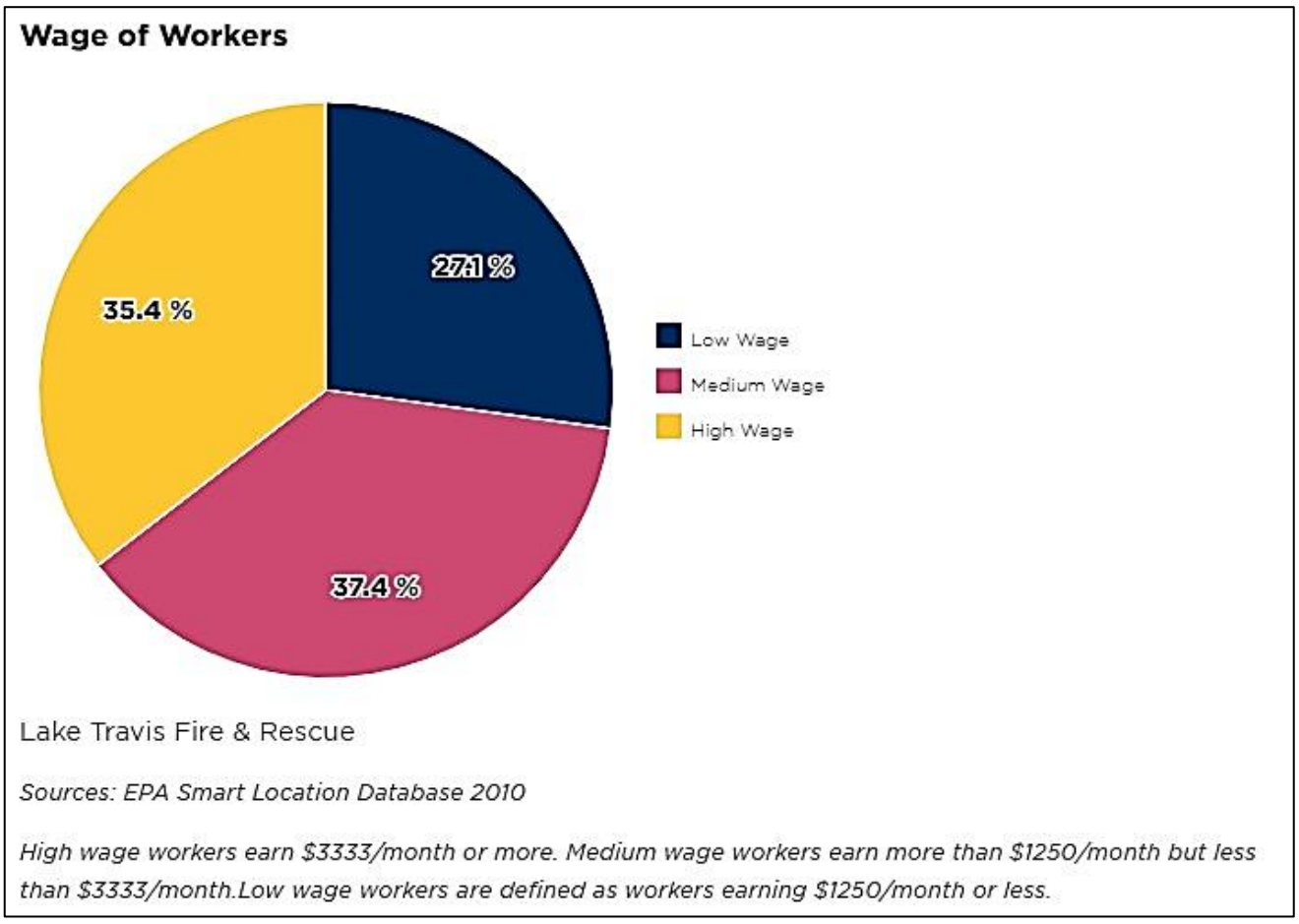
The Employment Access Index is a handy resource used to visualize the distance to areas with a high concentration of jobs. It is calculated as the summation of the total number of jobs divided by the distance in square miles to those jobs. The higher the index, the greater the degree of the job opportunities in a given area.



Sources: US HUD & DOT LAI V3.0 2016

WHAT KIND OF JOBS EXIST IN OUR COMMUNITY?

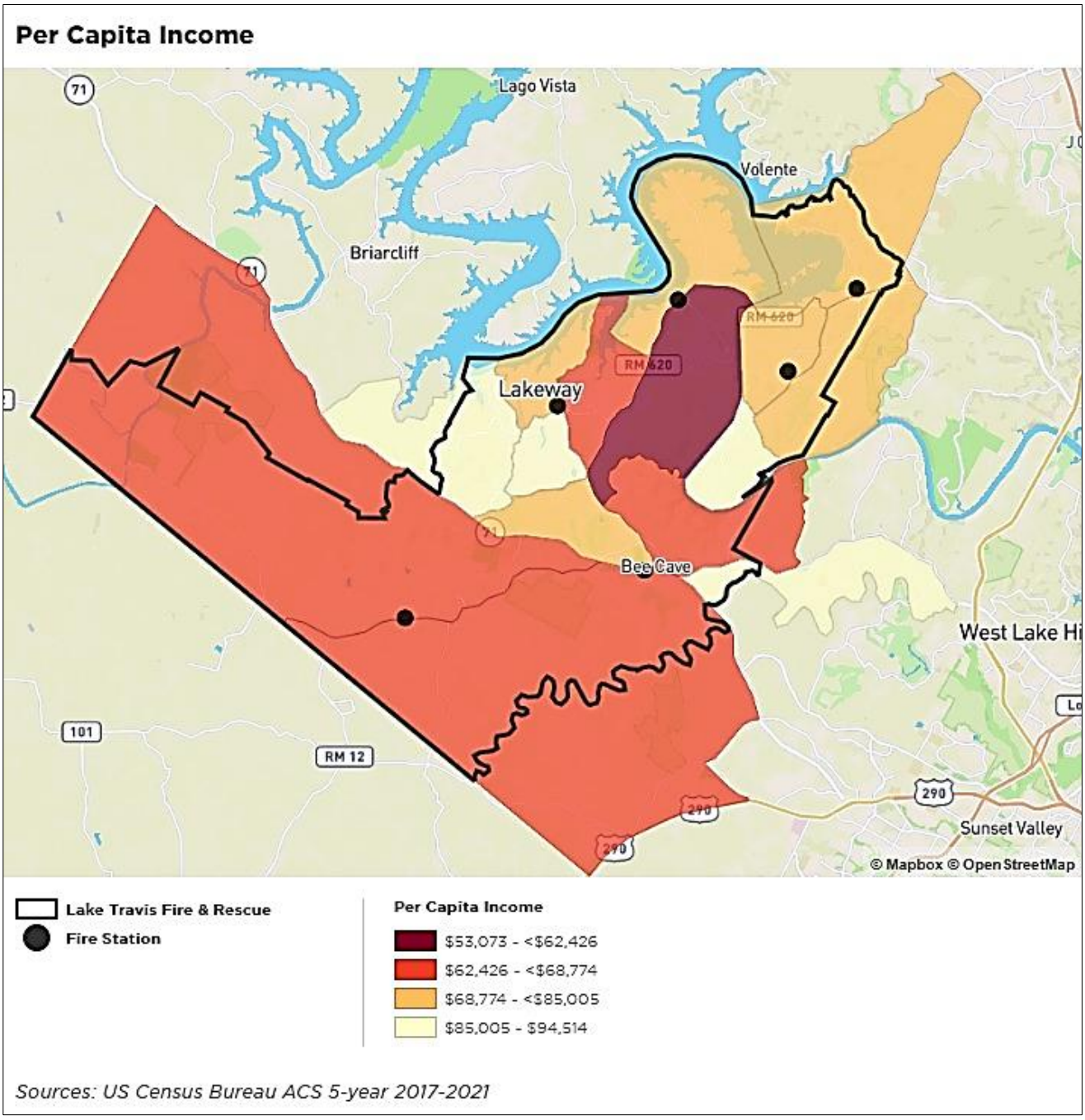
Middle-skill jobs usually require workers to have significant training. These jobs include plumbers, electricians, construction, and administrative positions. Often, the starting wage is a living wage. Some of those workers are responsible for ensuring our homes and work are safe. Per capita, income is the total income in an area divided by the number of people living there.



Lake Travis Fire & Rescue

Sources: EPA Smart Location Database 2010

High wage workers earn $3333/month or more. Medium wage workers earn more than $1250/month but less than $3333/month.Low wage workers are defined as workers earning $1250/month or less.



POVERTY AND AFFORDABILITY

Poverty risk factors are often related to a lack of access to resources. Poverty is correlated with lower levels of health. Residents living in poverty may not have access to health clinics, health insurance, or healthy food. Additionally, when the cost of living in a community is high, and a large portion of a household's income is dedicated to meeting basic needs, residents become limited in their choices regarding safety. For example, a family may forego the approved car seat to keep the lights on at home. Since poverty and affordability limit access to resources and make residents more vulnerable, it is important to understand poverty in our community so that safety advocates can meet residents where they are.

People Below Poverty Level

5%
Lake Travis Fire & Rescue

14%
Texas

13%
United States of America

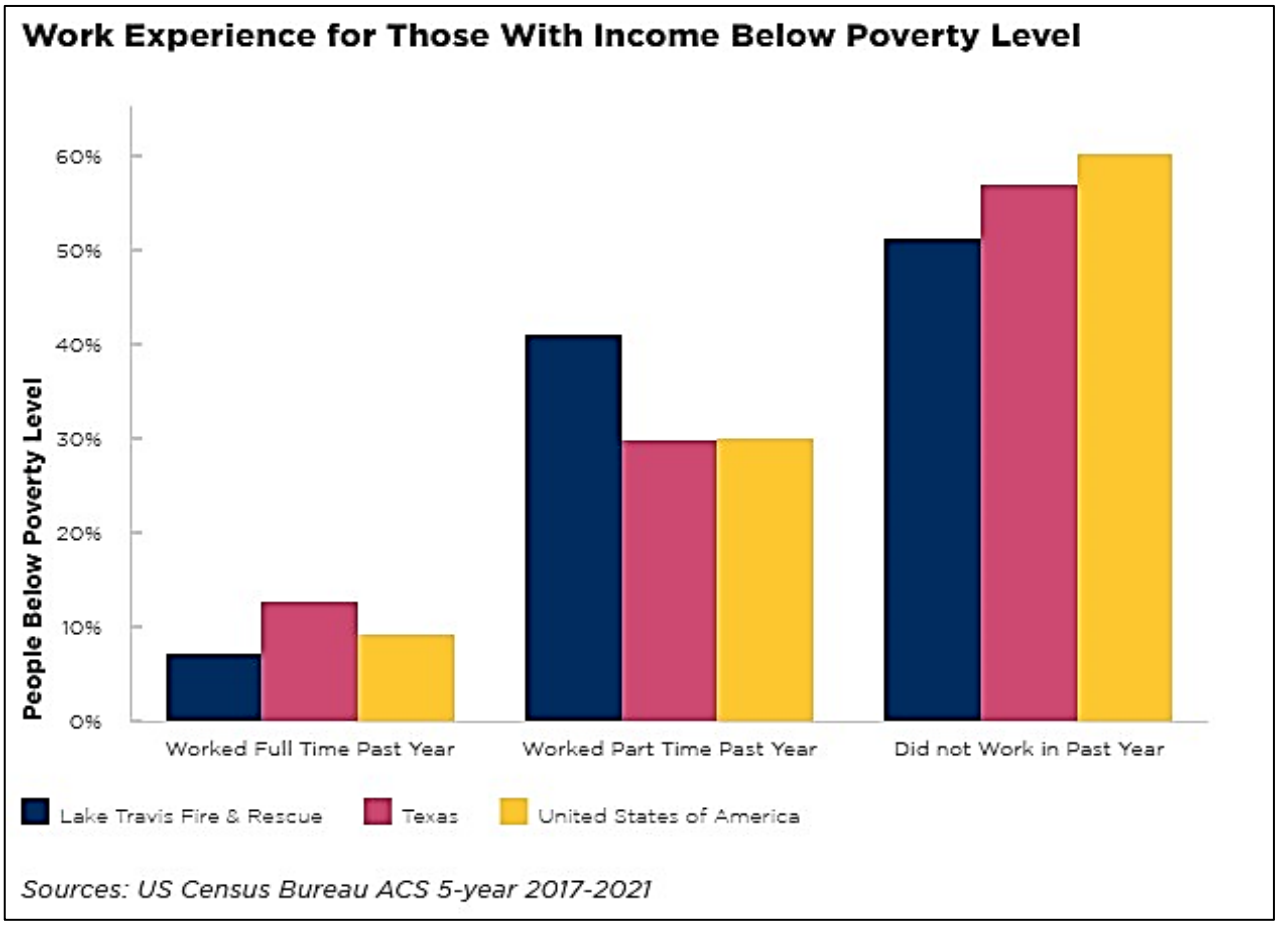
Families Below Poverty Level

5%
Lake Travis Fire & Rescue

11%
Texas

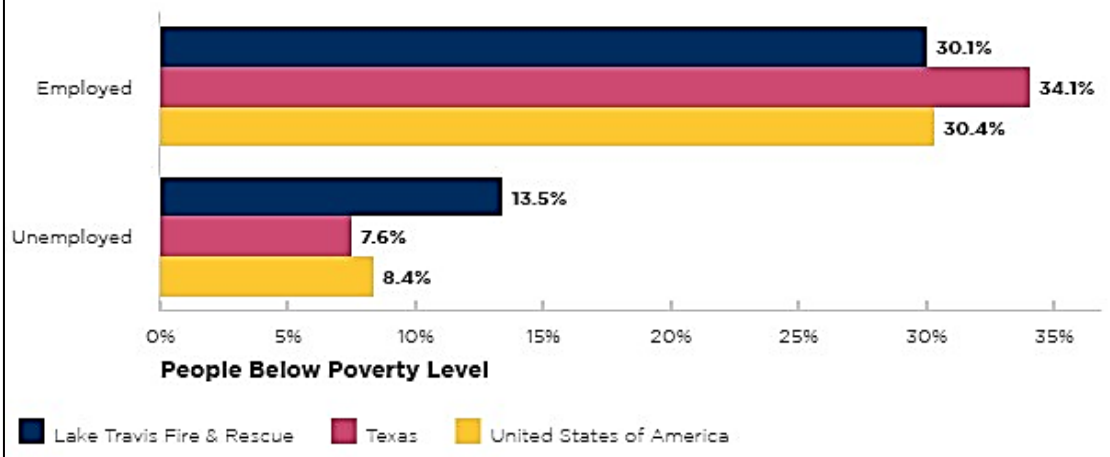
9%
United States of America

Sources: US Census Bureau ACS 5-year 2017-2021



Income is strongly linked to the quality of life. While income is not the only indicator of vulnerability, it is a good overall indicator of the financial well-being of a community.

Below Poverty Level by Employment Status



Sources: US Census Bureau ACS 5-year 2017-2021

Median Household Income

$146,936
Lake Travis Fire & Rescue

$67,321
Texas

$69,021
United States of America

Income Inequality (Gini Index)

0.4
Lake Travis Fire & Rescue

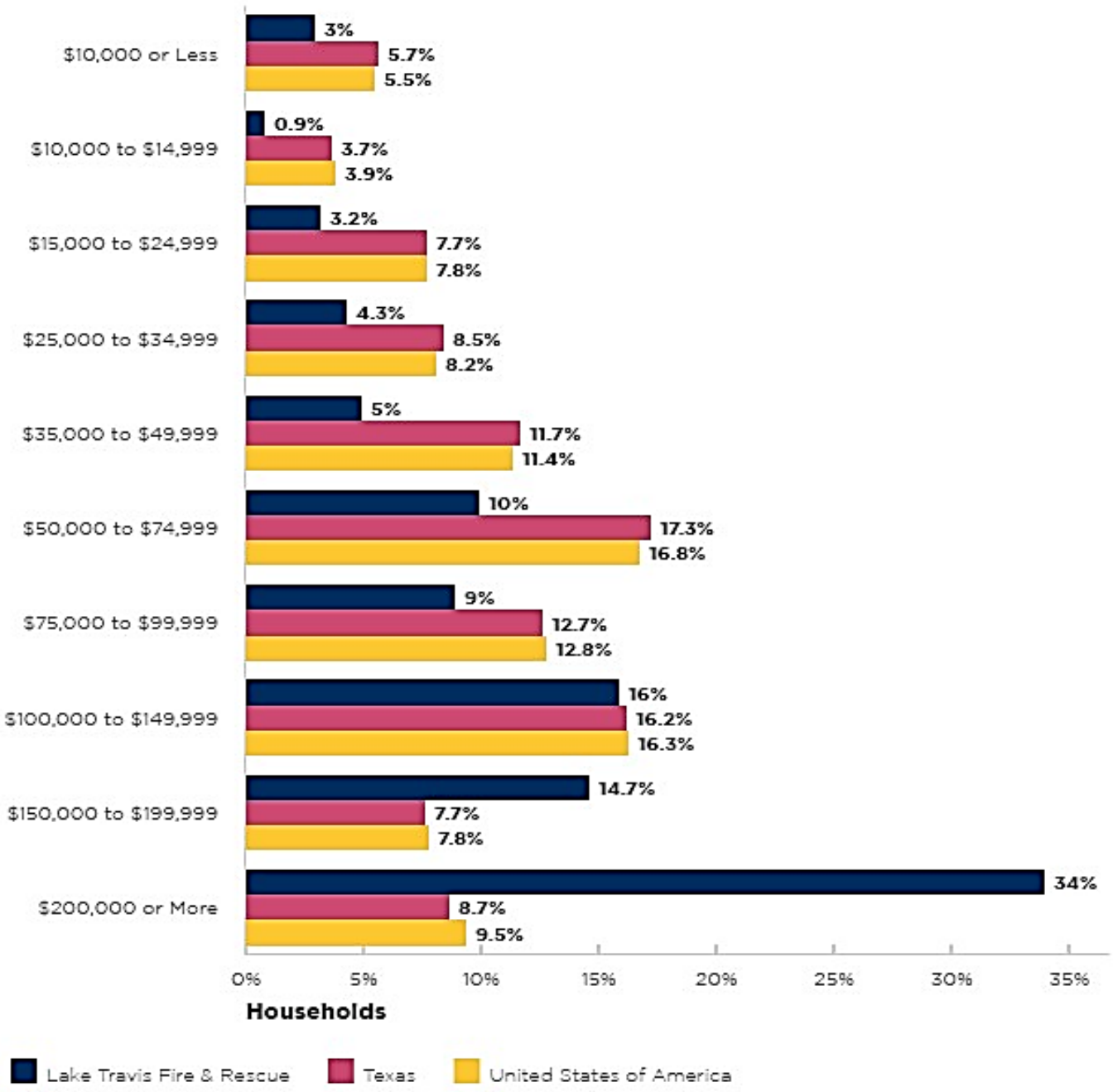
0.5
Texas

0.5
United States of America

Sources: US Census Bureau ACS 5-year 2017-2021

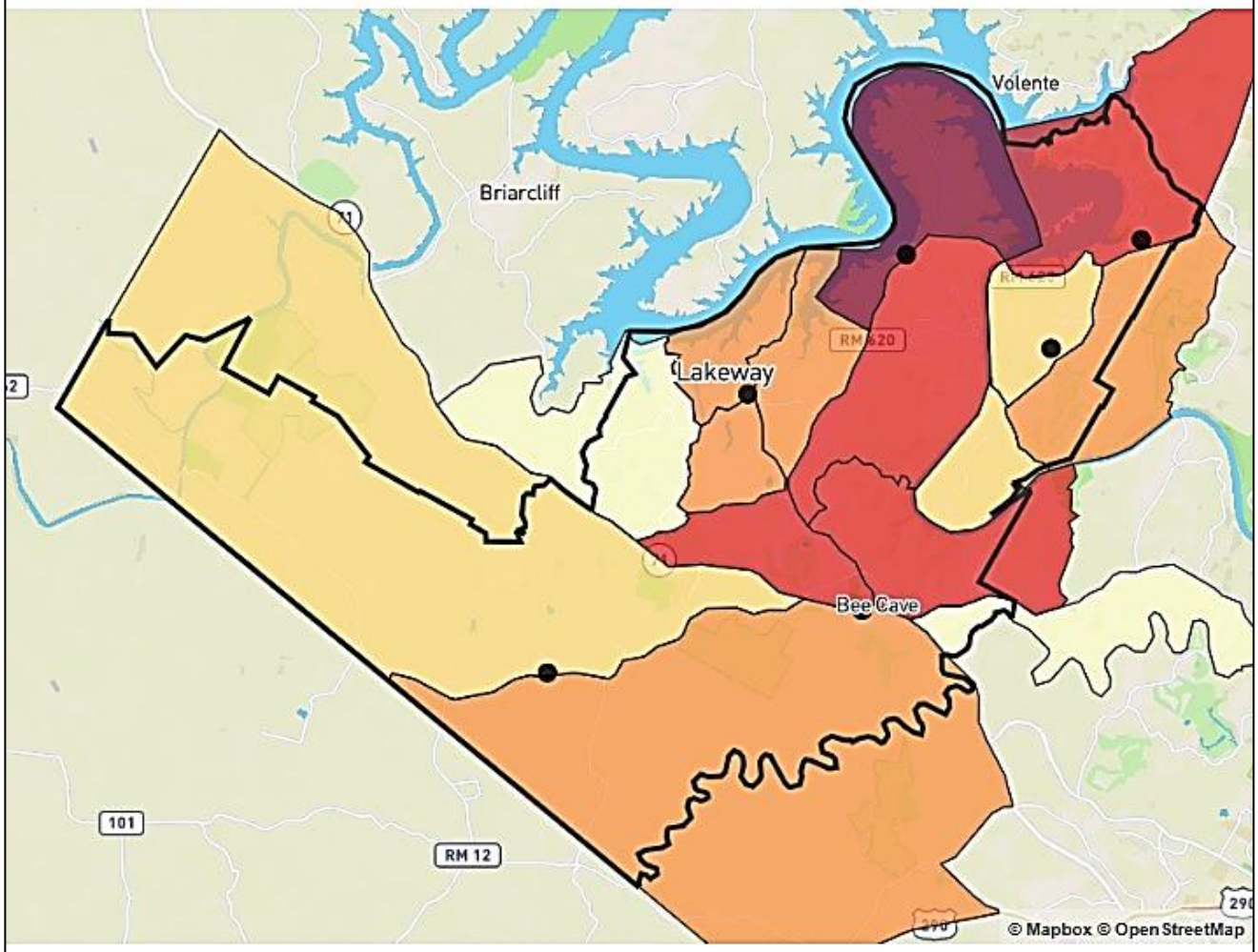
The Gini Index is a measure of income inequality. The values range from 0 to 1, with values near 1 being high inequality and values near 0 being low inequality.

Household Income



Sources: US Census Bureau ACS 5-year 2017-2021

Median Household Income



Lake Travis Fire & Rescue

Fire Station

Median Household Income

- $84,405 - <$102,183
- $102,183 - <$131,657
- $131,657 - <$182,557
- $182,557 - <$219,837
- $219,837 - $238,333

Sources: US Census Bureau ACS 5-year 2017-2021

AFFORDABILITY

Housing can be one of the largest expenses a person or family can face. Income tells only one part of the financial narrative of our residents. The cost of housing provides more insight. Households not traditionally considered below poverty may struggle financially when they live in high-cost areas. When residents must spend a larger percentage of income on securing housing, other needs may become difficult to meet.

Homeowners Spending 30% or More on Housing Costs

26%
Lake Travis Fire & Rescue

21%
Texas

22%
United States of America

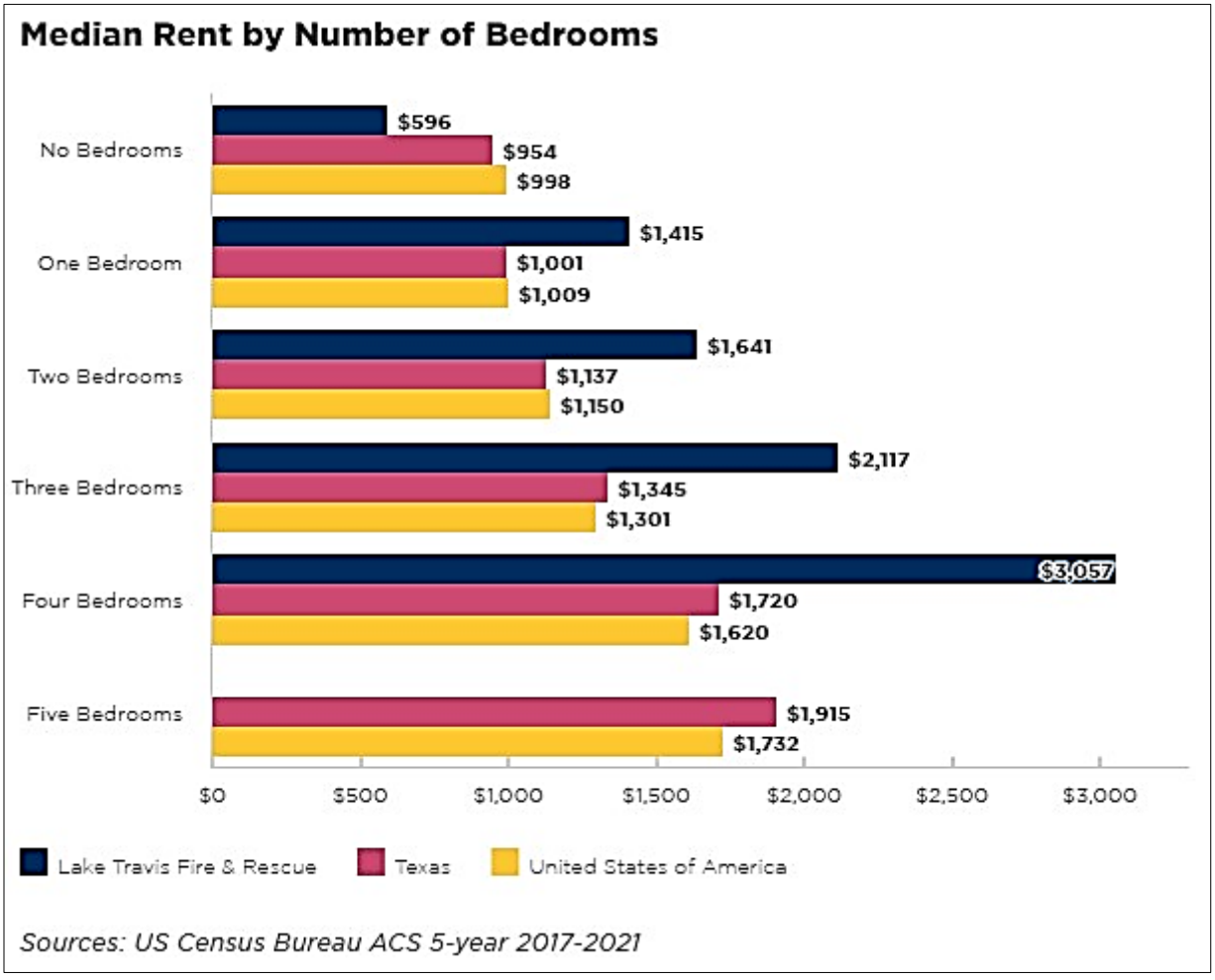
Renters Spending 30% or More on Housing Costs

47%
Lake Travis Fire & Rescue

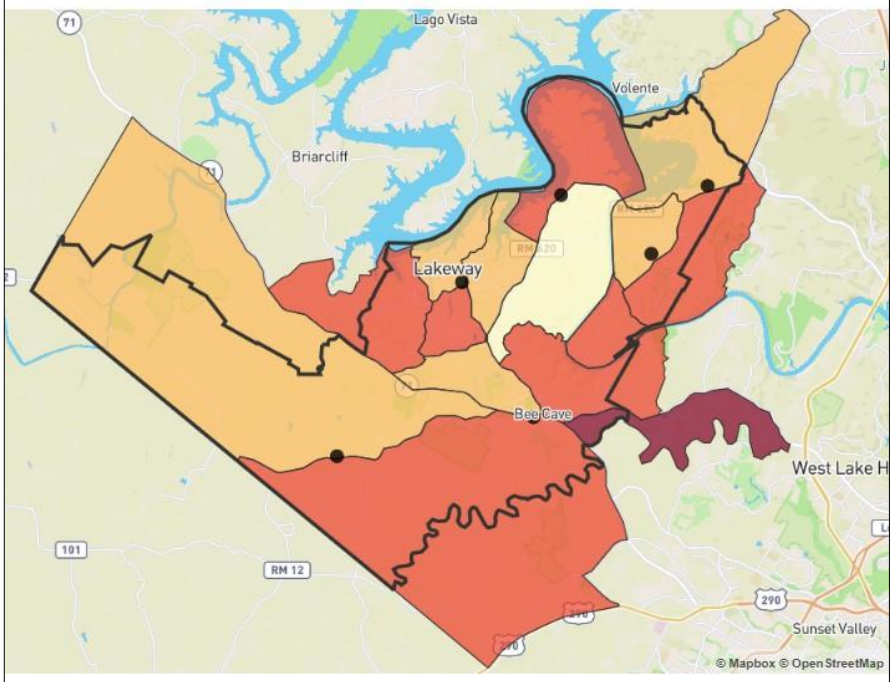
45%
Texas

46%
United States of America

Sources: US Census Bureau ACS 5-year 2017-2021



Median Home Value

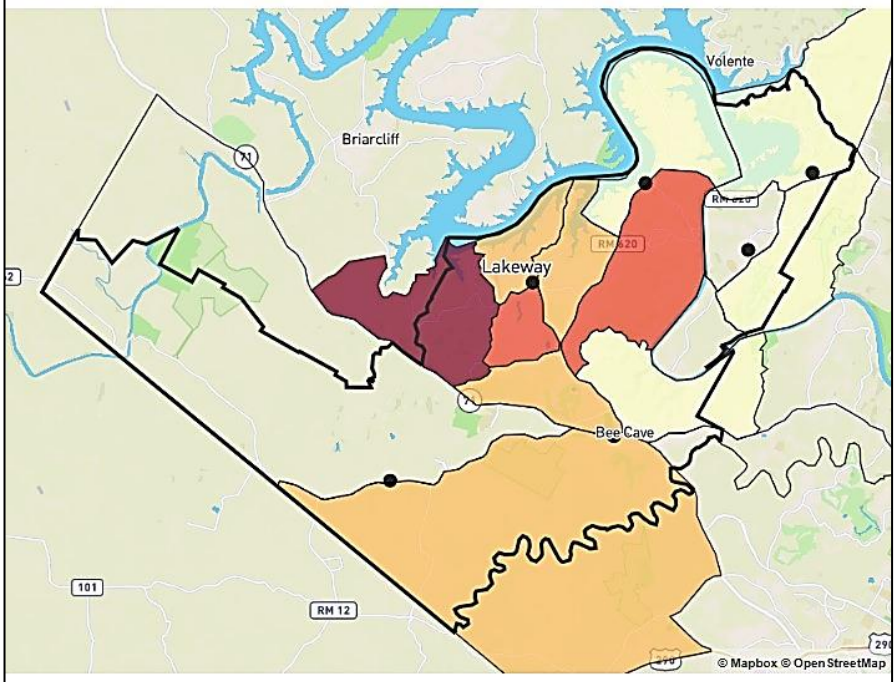


Lake Travis Fire & Rescue
Fire Station

Median Home Value
$374,000 - <$474,500
$474,500 - <$600,100
$600,100 - <$887,300
$887,300

Sources: US Census Bureau ACS 5-year 2017-2021

Median Rent Price



Lake Travis Fire & Rescue
Fire Station

Median Rent
$1,394 - <$1,695
$1,695 - <$2,341
$2,341 - <$3,471
$3,471

Sources: US Census Bureau ACS 5-year 2017-2021

DEPENDENT POPULATION

Dependents, residents who are either children or the elderly, may be at greater risk for and during an emergency. By understanding the vulnerability of our residents, we can both plan for services and engage partners already providing direct assistance programs.

Age dependency ratios explain how many dependents there are for every 100 people of working age in an area. When adult workers leave, children and elderly may remain at home. This section is useful for uncovering where daytime emergencies affecting those more vulnerable populations could occur.

Population Under 18

26%
Lake Travis Fire & Rescue

26%
Texas

23%
United States of America

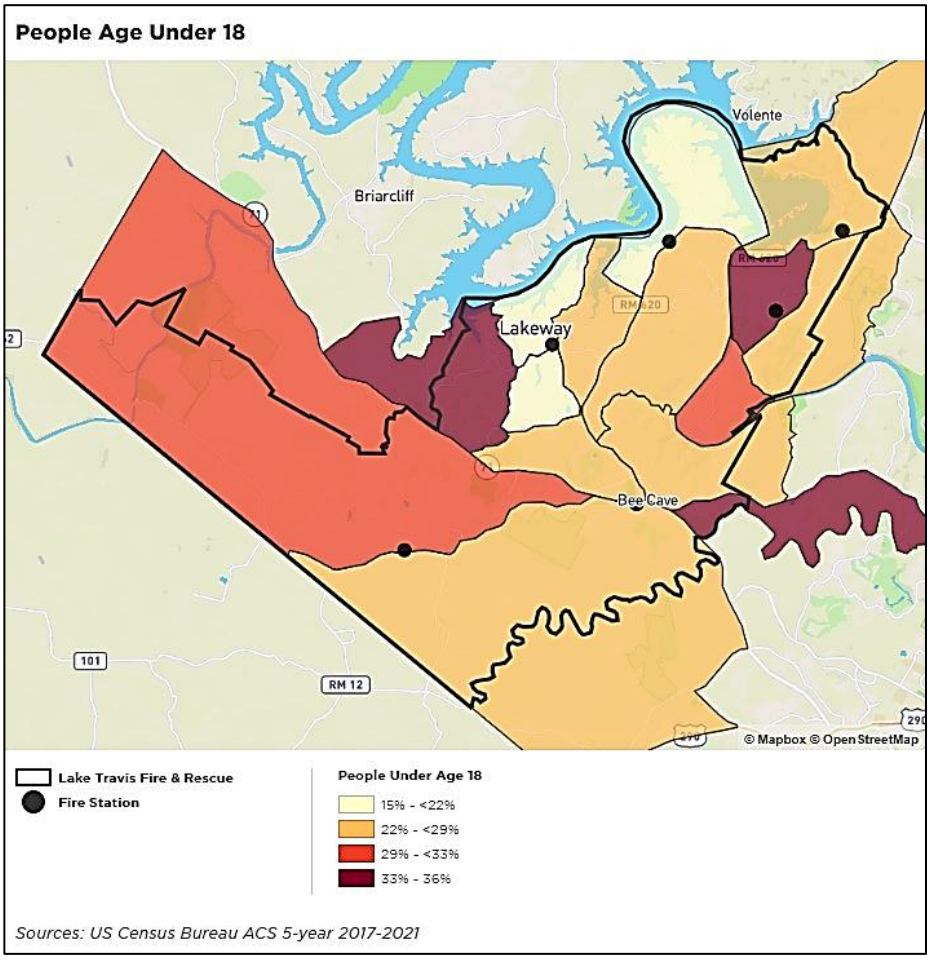
Population 65 and Over

15%
Lake Travis Fire & Rescue

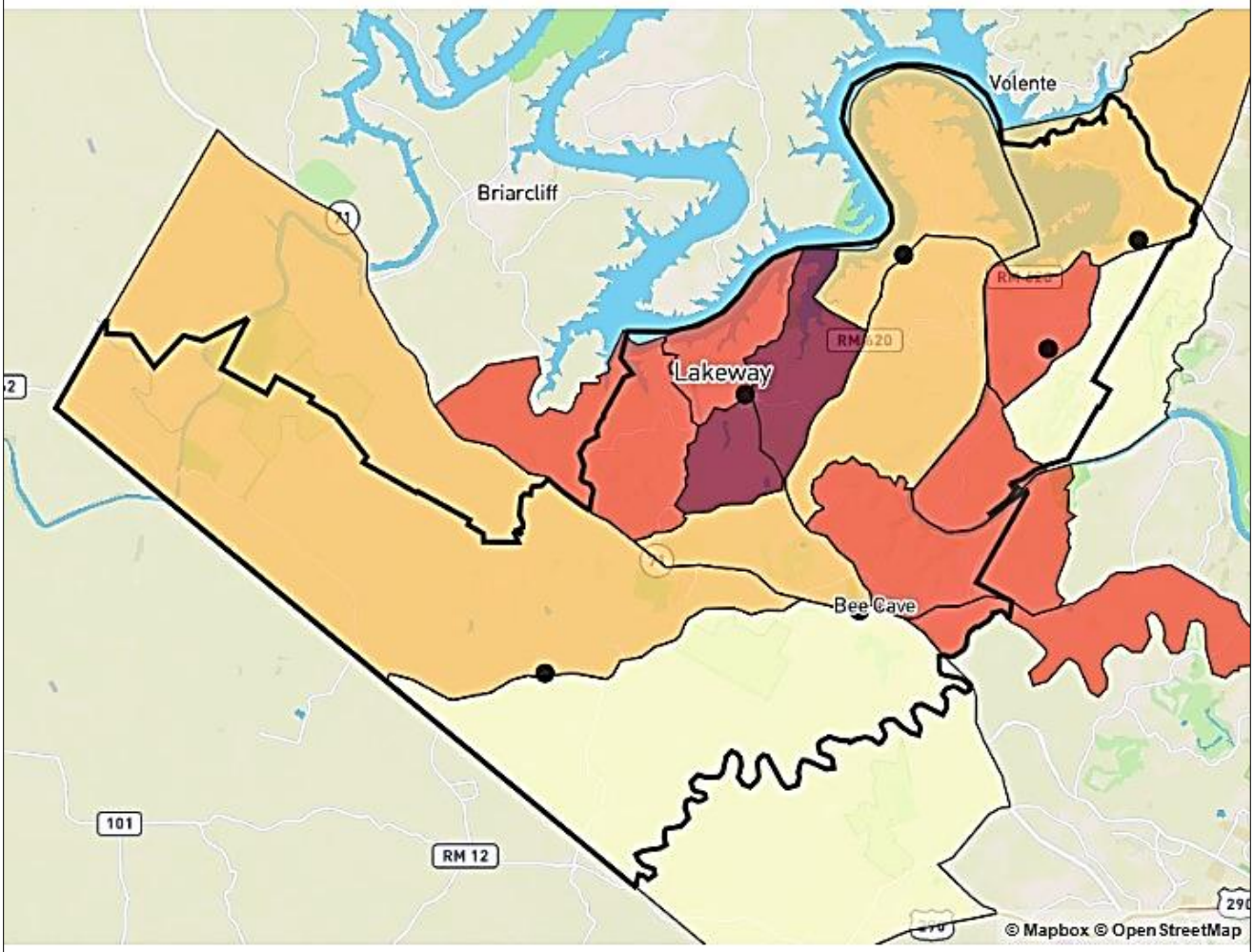
13%
Texas

16%
United States of America

Sources: US Census Bureau ACS 5-year 2017-2021



Dependency Ratios



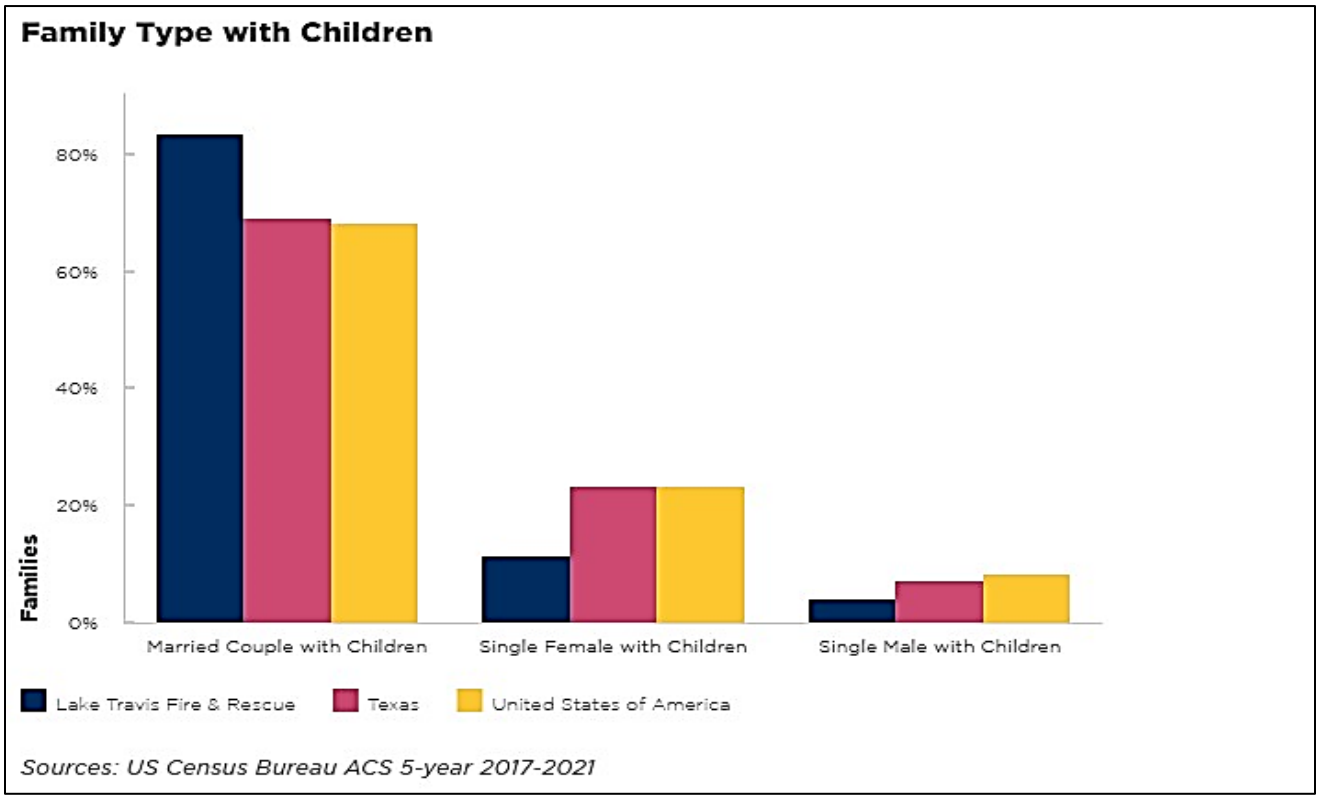
Lake Travis Fire & Rescue
Fire Station

Age Dependency Ratio
54% - <60%
60% - <71%
71% - <101%
101% - 103%

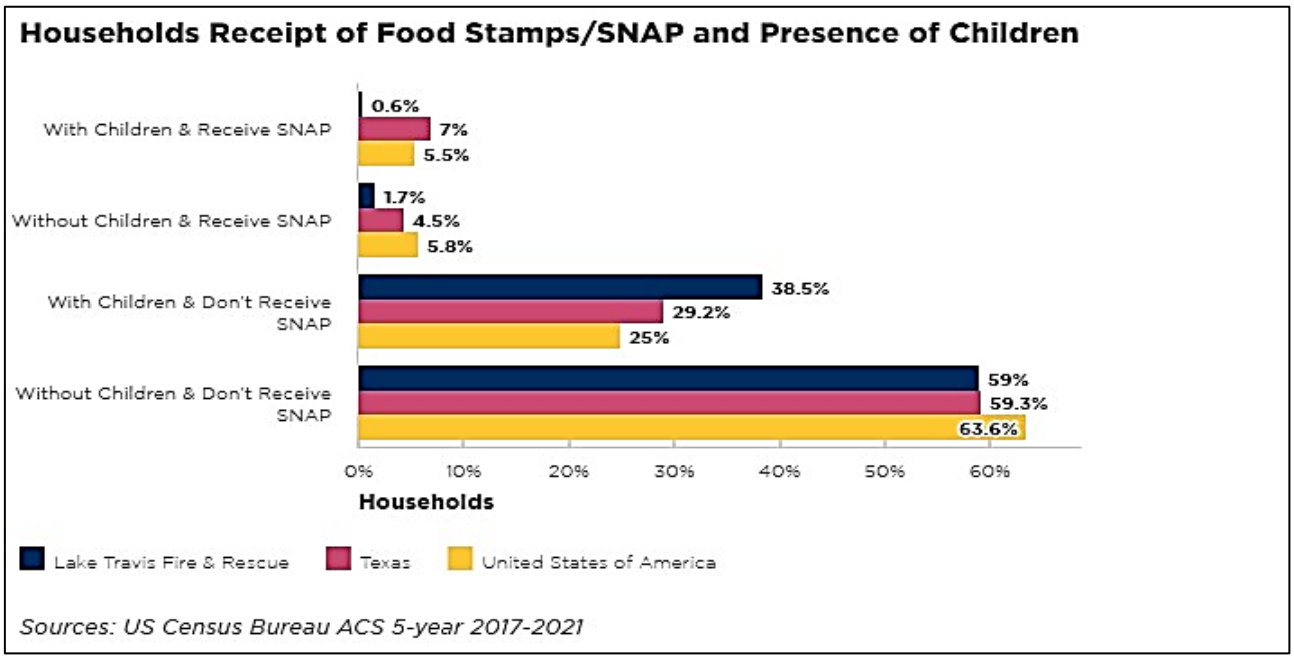
Sources: US Census Bureau ACS 5-year 2017-2021

HOW VULNERABLE ARE OUR CHILDREN?

In high poverty and low-income areas, paying a babysitter or daycare can be beyond a family's means. Some children in those families may be left without supervision. Without supervision, children may cause more fires or emergency situations.

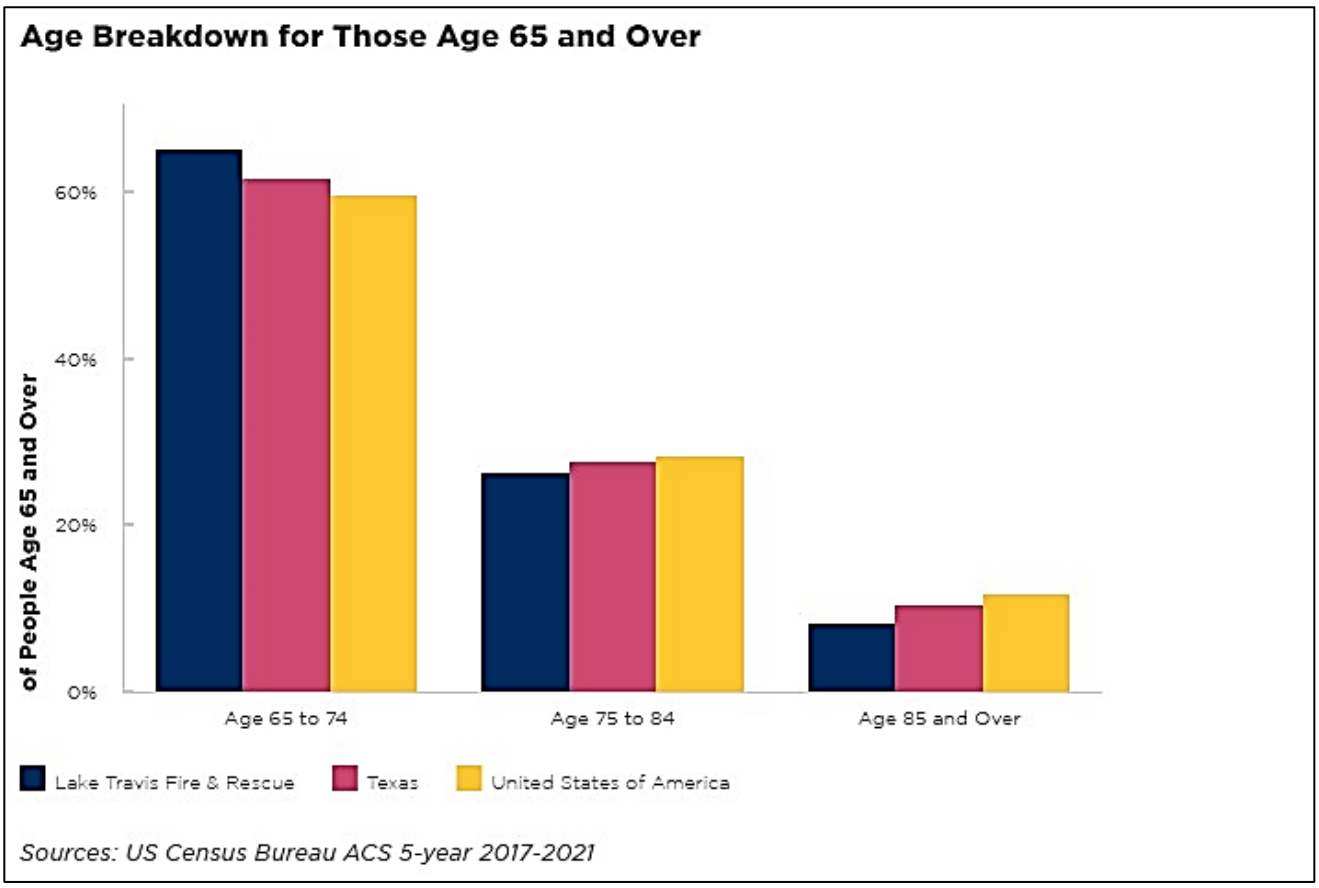


The Census Bureau defines a family household as one that “includes a householder and one or more people living in the same household who are related to the householder by birth, marriage, or adoption. All people in a household who are related to the householder are regarded as members of her or his family."



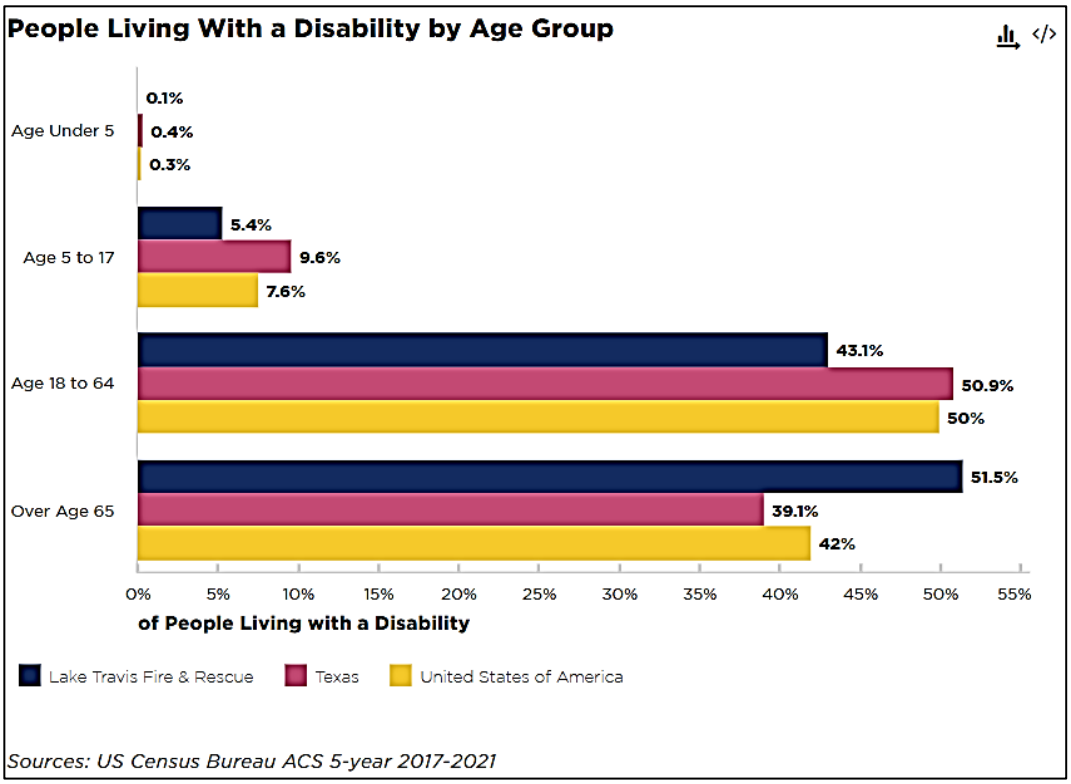
HOW VULNERABLE ARE THE ELDERLY?

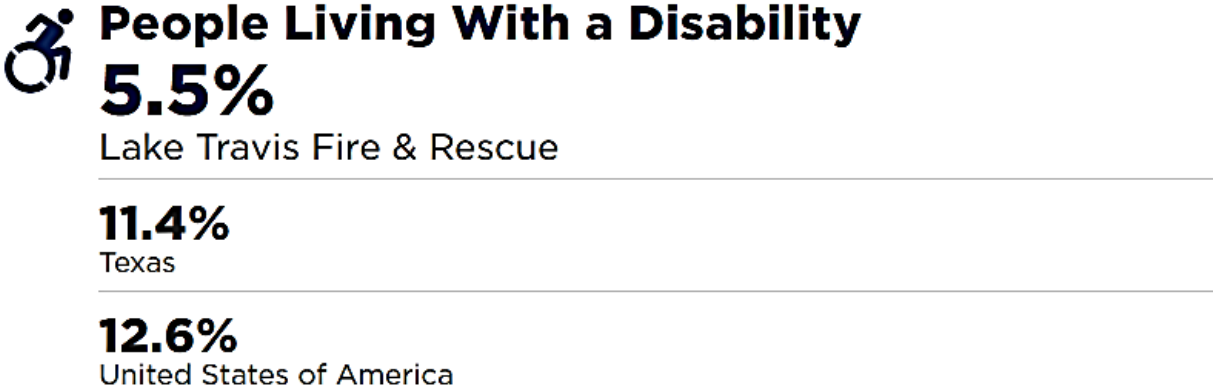
With age often comes mobility challenges and reduced hearing and eyesight. These factors may increase the risk of our elderly residents being killed in a fire or hurt in their own homes. These residents could have a harder time notifying authorities about an emergency or leaving a dangerous situation. Prevention and response times can make a difference in situations like these. Identifying where our elderly residents live is a first step to improving outcomes.



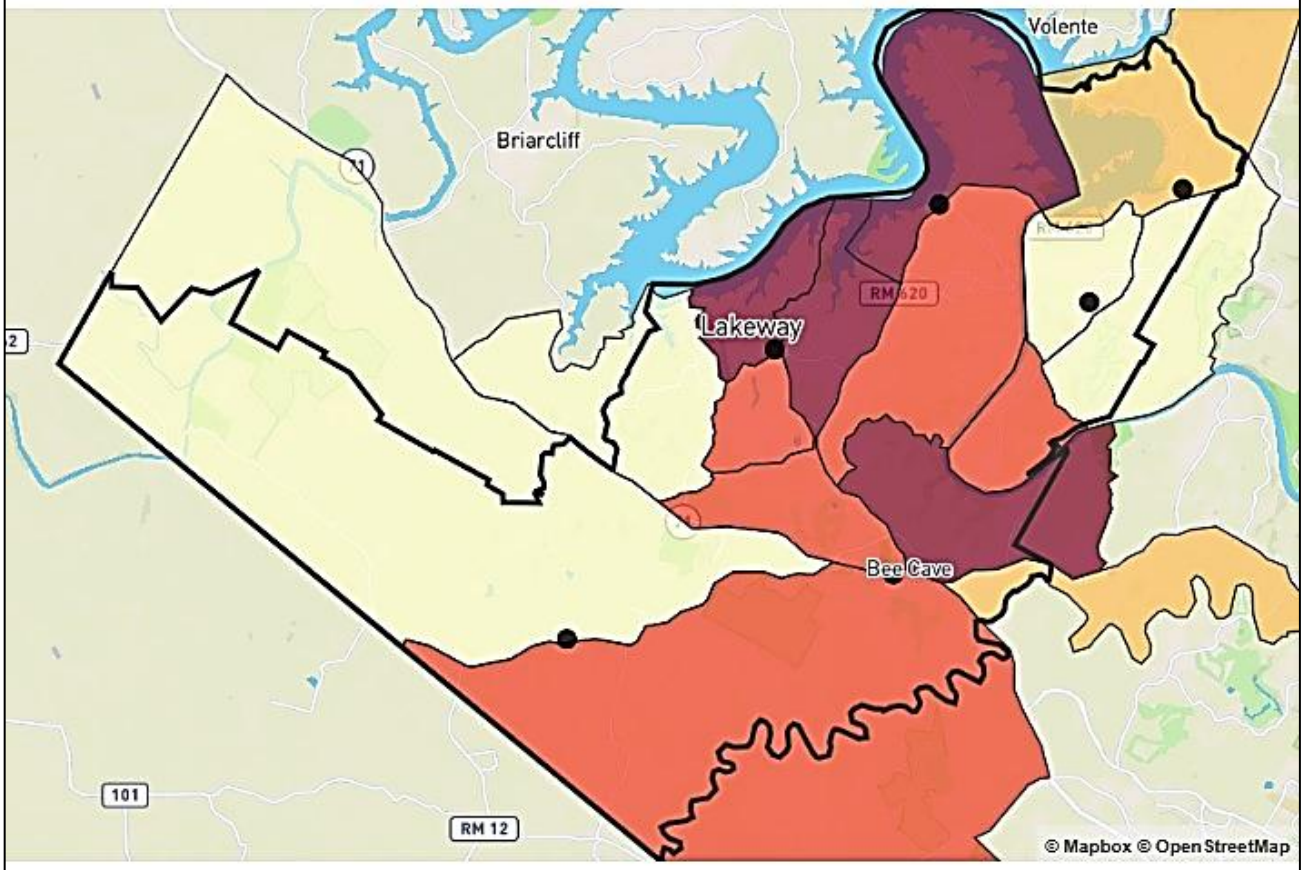
DISABILITIES

People with disabilities live in every community. In fact, more than 43 million Americans have a disability, and the population of the group of Americans with disabilities is constantly changing. At any moment, a community member could become part of this group, for a short or long time. Some categories of disabilities include mobility, visual, hearing, speech, and cognitive, and some people can have multiple disabilities at once. It's crucial to recognize the varying levels of risk for people with disabilities and understand how these conditions might affect an individual's capability to recognize and react in an emergency situation. Disabilities can be temporary or permanent, apparent or hidden, and therefore assumptions about whether people have disabilities should be avoided.





People Living With a Disability



Lake Travis Fire & Rescue

Fire Station

People Living With a Disability

- 2.2% - <3.9%
- 3.9% - <5.7%
- 5.7% - <7.9%
- 7.9% - 9.4%

Sources: US Census Bureau ACS 5-year 2017-2021

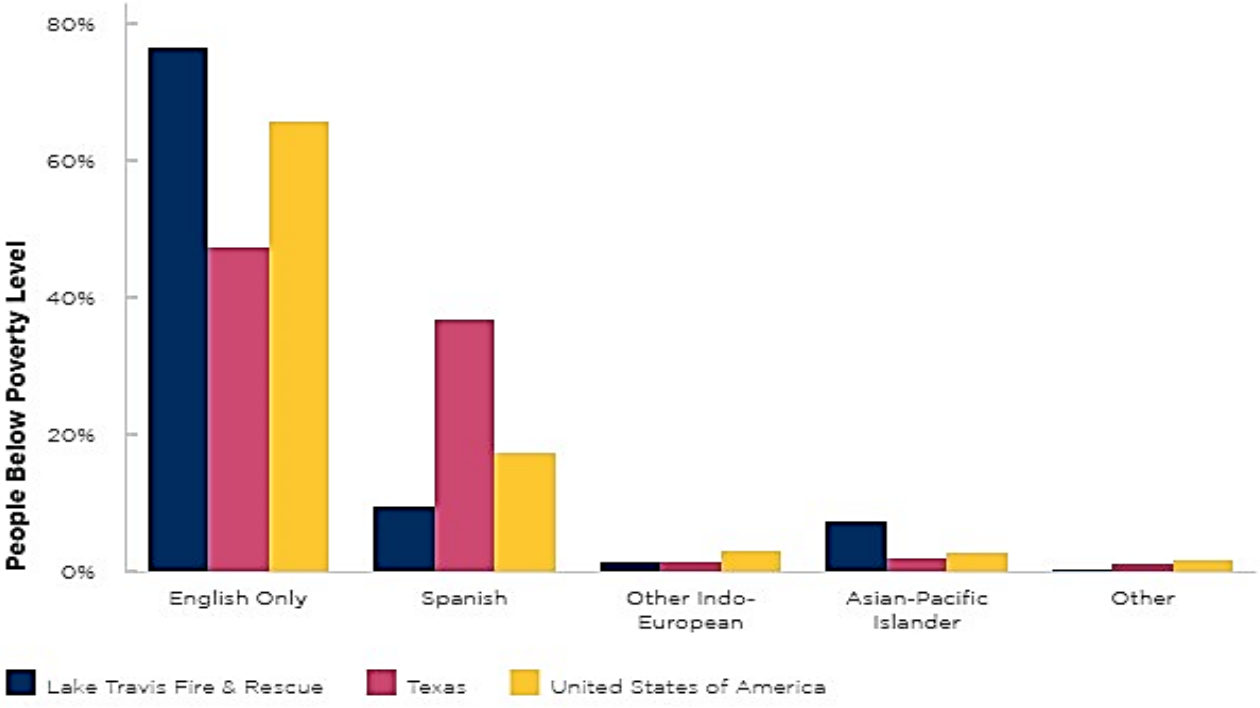
LANGUAGE ISOLATION

Providing emergency services and prevention education can become complicated when trying to serve non-English speaking residents. This section shows where there are high rates of language isolation to identify where non-English efforts are best concentrated, and which languages might be needed. This understanding will not only increase successful prevention educational efforts, but it could result in better outcomes during an emergency. While current data reflects only a 1% rating of language isolation within the District's service area compared to the State and throughout the nation, it is important to ensure options are available for all residents to receive messages in a form that they can comprehend.

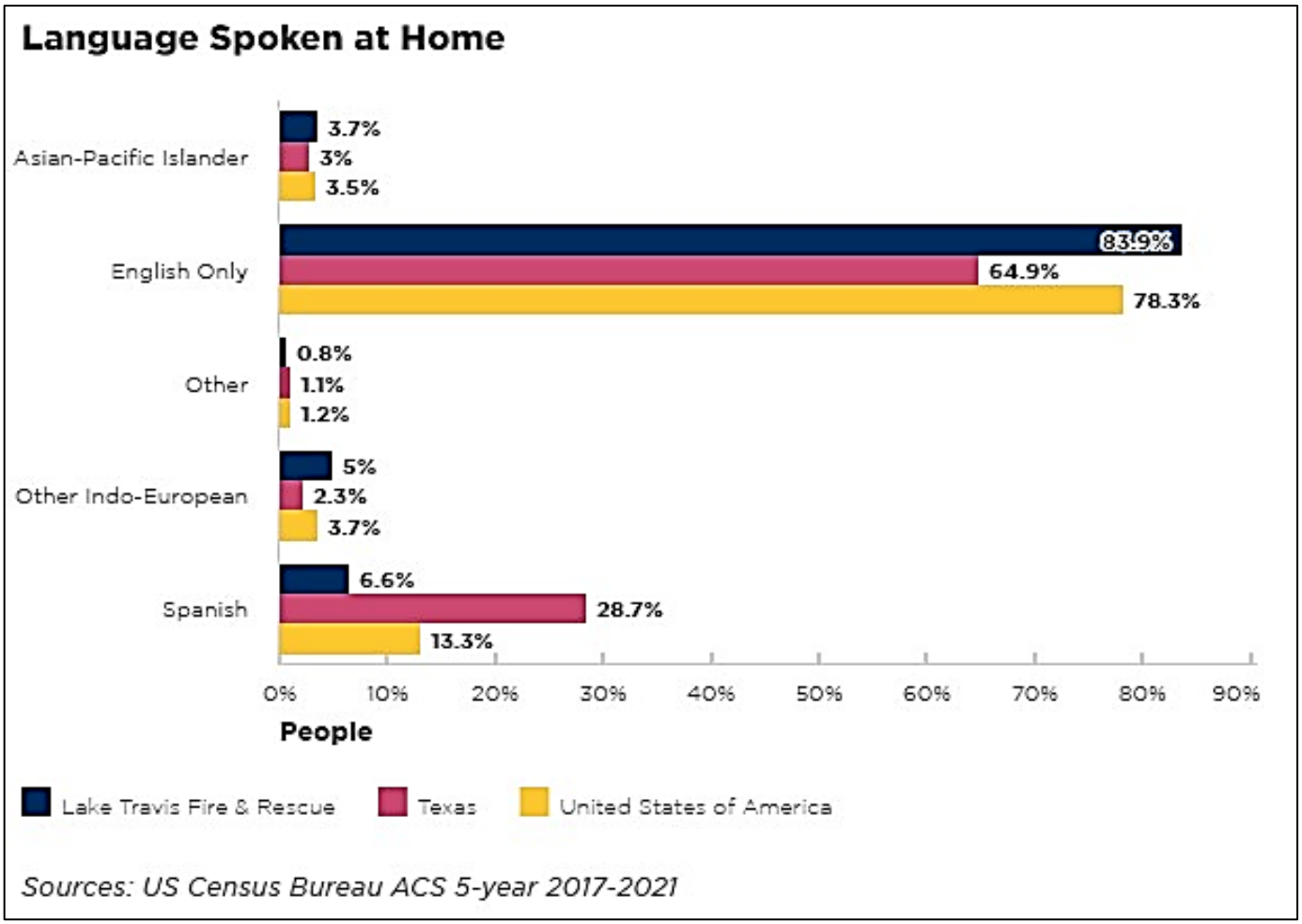
Households Experiencing Language Isolation	People with Limited Spoken English
1% Lake Travis Fire & Rescue	**2.9%** Lake Travis Fire & Rescue
7% Texas	**13.1%** Texas
4% United States of America	**8.2%** United States of America

Sources: US Census Bureau ACS 5-year 2017-2021

People Below Poverty Level by the Language They Speak at Home



Sources: US Census Bureau ACS 5-year 2017-2021



LOW EDUCATIONAL ATTAINMENT

Educational levels impact income levels, and a lower income can lead to restricted access to resources, which can leave residents vulnerable. Lower educational levels also result in less exposure to a variety of perspectives and opportunities, which adds challenges to adverse situations. Additionally, educational levels influence a community's literacy rate. Knowledge of a community's literacy rate is critical for reaching all populations in that community and communicating safety messages to them.

Percent High School Educated

98%
Lake Travis Fire & Rescue

85%
Texas

89%
United States of America

Percent College Educated

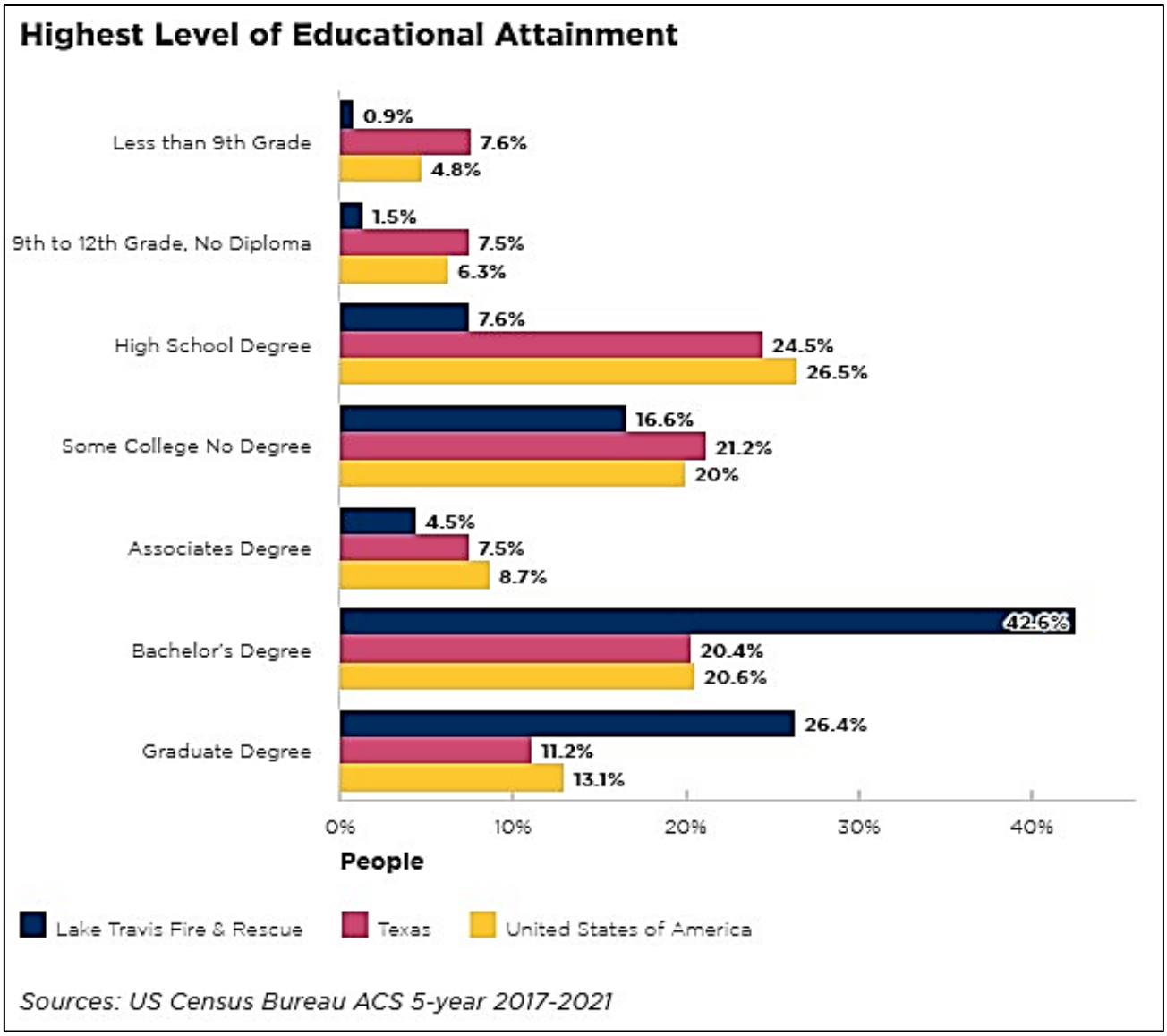
69%
Lake Travis Fire & Rescue

32%
Texas

34%
United States of America

Sources: US Census Bureau ACS 5-year 2017-2021

Percent High School Educated includes anyone who earned a high school diploma, GED or equivalent credential, or higher level of educational attainment.Percent College Educated includes anyone who earned a bachelor's degree, master's degree, professional school degree, or doctorate.



BUILT ENVIRONMENT

Members of a community often trust that the built environment around them is safe, stable, and reliable. Unfortunately, there are hazards inherent to or exacerbated by our built environment. First responders know this. They are trained to respond to hazardous materials incidents, they frequently conduct building inspections, and are on the front lines when something goes awry with local infrastructure. Therefore, it's important for the District to know where and when incidents in our built environment occur, who they impact, and to what degree. This section provides information on the community's infrastructure. Understanding the utilities that support or threaten the community, how people and goods move from place to place, and how and where hazardous materials are transported and stored are important factors in a CRA.

AGE OF RESIDENTAL STRUCTURES

Older homes can pose several challenges. They can lack structural integrity, have unsafe wiring, and often don't comply with the most up-to-date building codes. Older homes can also pose hazards to the health of residents. The District saw its largest period of newly built residential structures between 1990 to 2009.

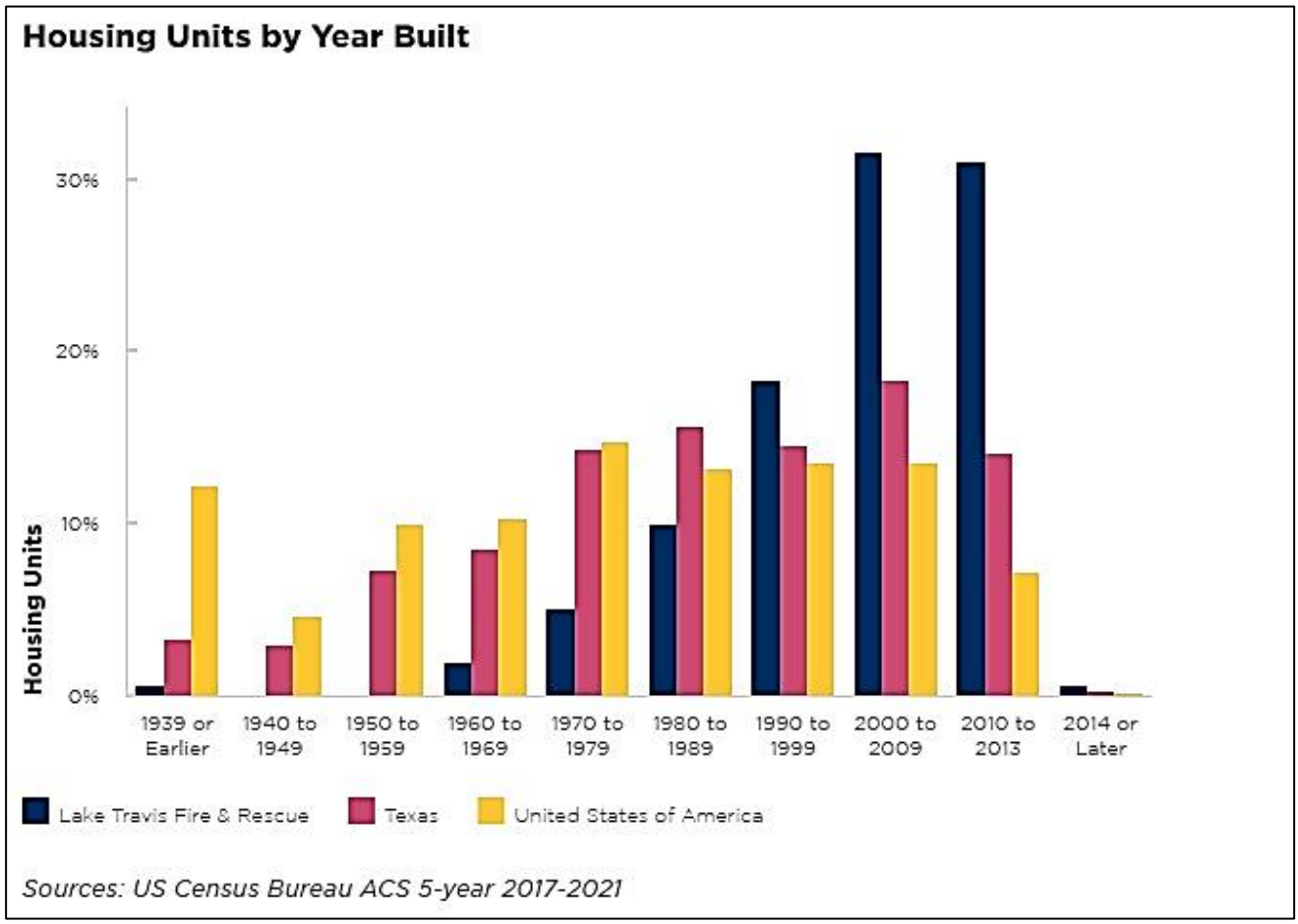
Median Building Age

2003
Lake Travis Fire & Rescue

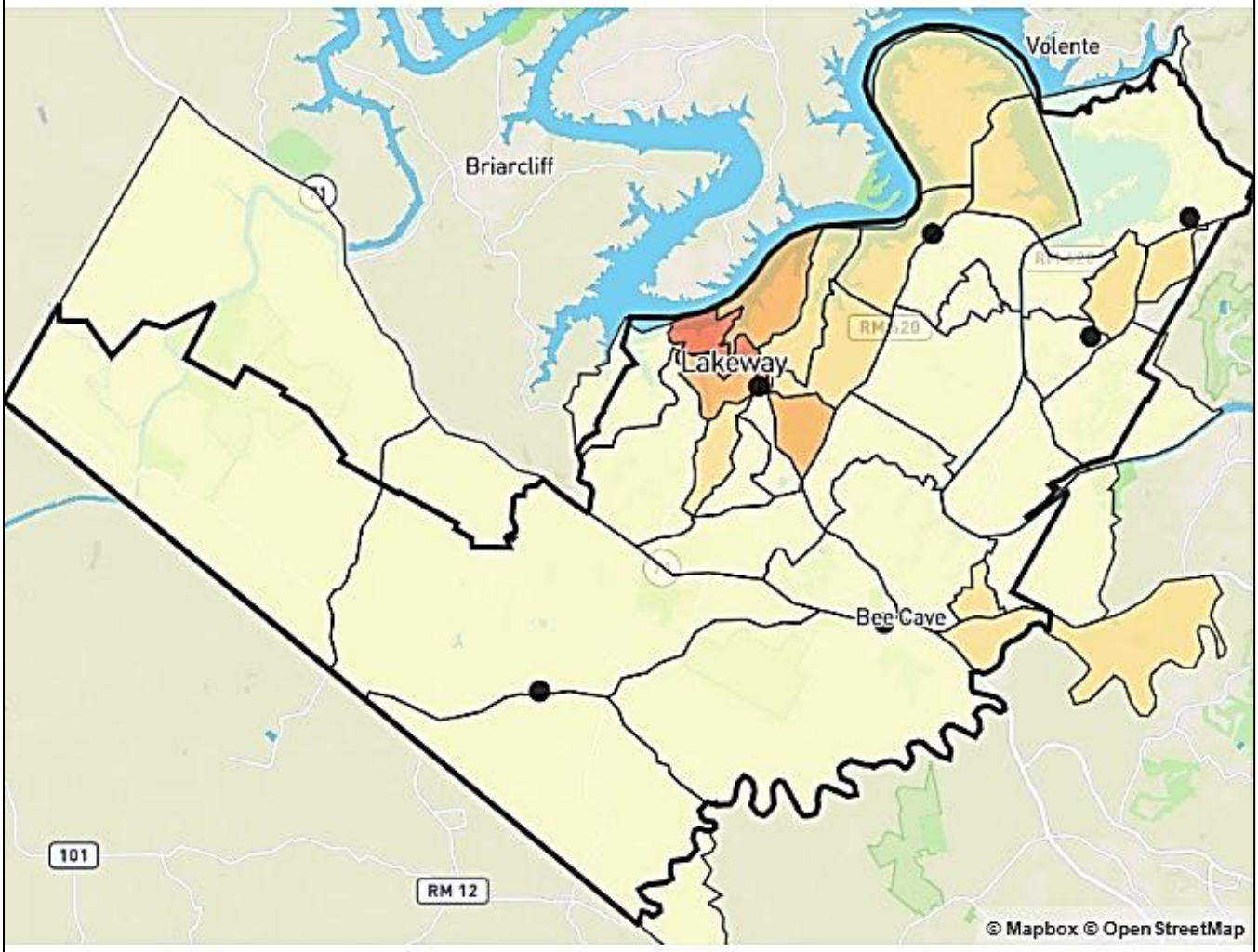
1988
Texas

1979
United States of America

Sources: US Census Bureau ACS 5-year 2017-2021



Median Home Age



Lake Travis Fire & Rescue

Fire Station

Median Home Age

- Before 1960
- 1960 - <1970
- 1970 - <1980
- 1980 - <1990
- 1990 - <2000
- After 2000

Sources: US Census Bureau ACS 5-year 2017-2021

WHEN DOES OCCUPANCY CREATE HAZARDS?

Overcrowding can happen when households facing poverty try to reduce the cost of housing by increasing the number of residents. A housing unit is categorized as overcrowded when more than one person per room lives there. The number of residents living in a single housing unit can increase risk and complicate rescue efforts. The density of housing structures can also increase the danger of a fire affecting more than one structure.

On the other side of the spectrum, vacant homes don't have anyone to watch over them, so a fire or other incident may go unnoticed until it's too late. Vacant homes may even be the target of arson. Knowing where each of these factors occur may help minimize loss of life and property.

Overcrowded Housing Units

1%
Lake Travis Fire & Rescue

5%
Texas

3%
United States of America

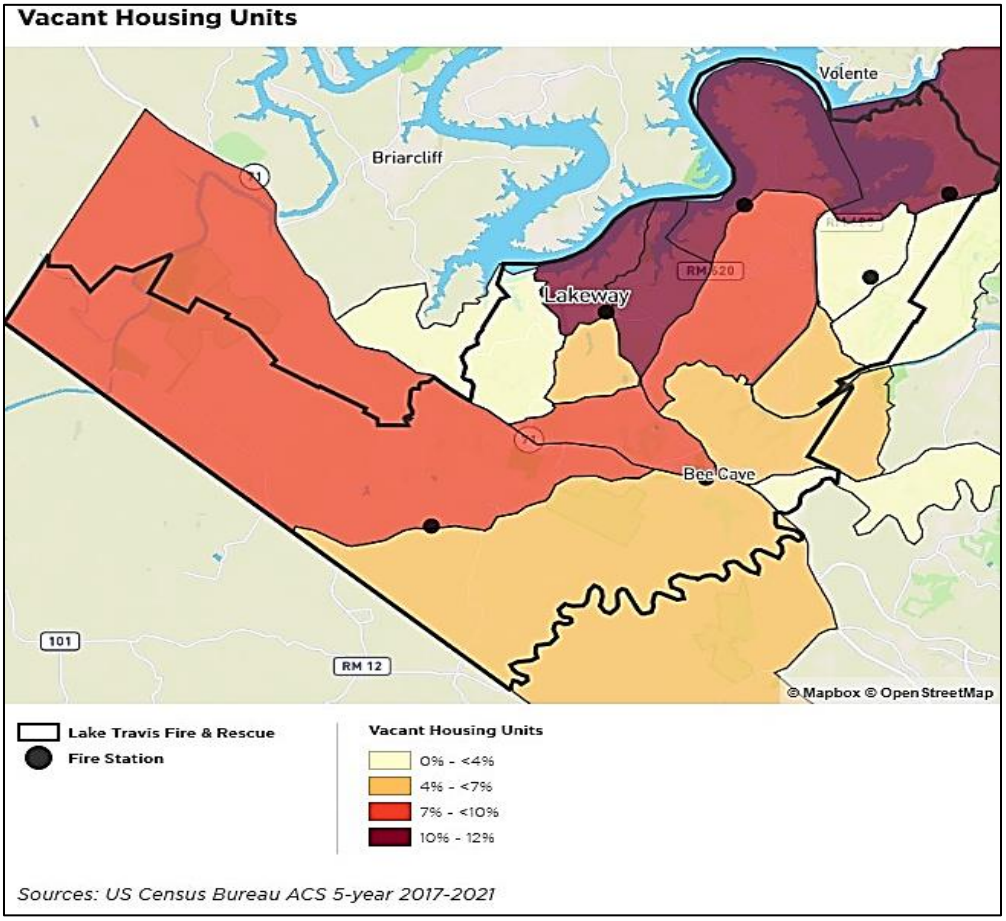
Vacant Housing Units

6%
Lake Travis Fire & Rescue

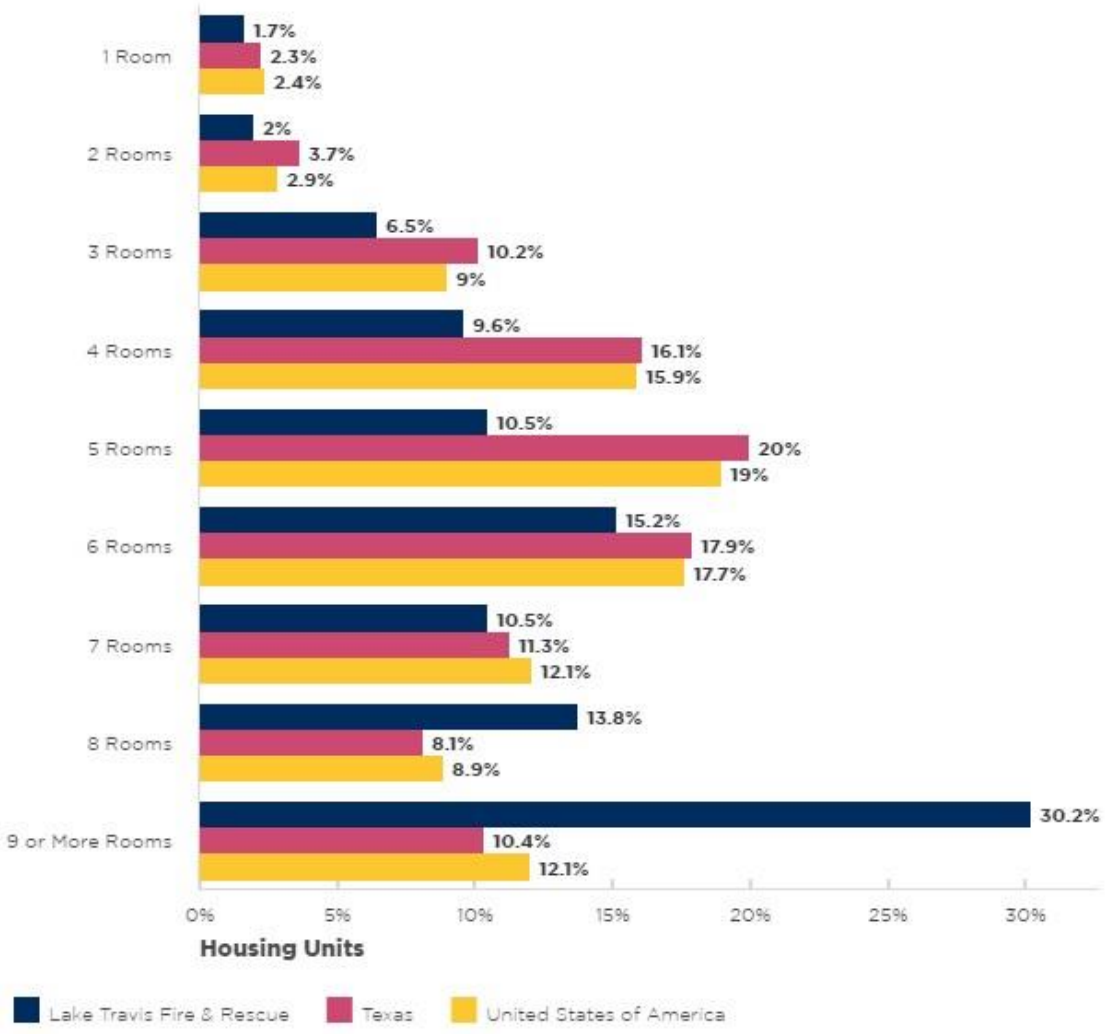
10%
Texas

11%
United States of America

Sources: US Census Bureau ACS 5-year 2017-2021



Housing Units by Number of Rooms



Sources: US Census Bureau ACS 5-year 2017-2021

Average Renter Household Size

2.4
People
Lake Travis Fire & Rescue

2.5
People
Texas

2.4
People
United States of America

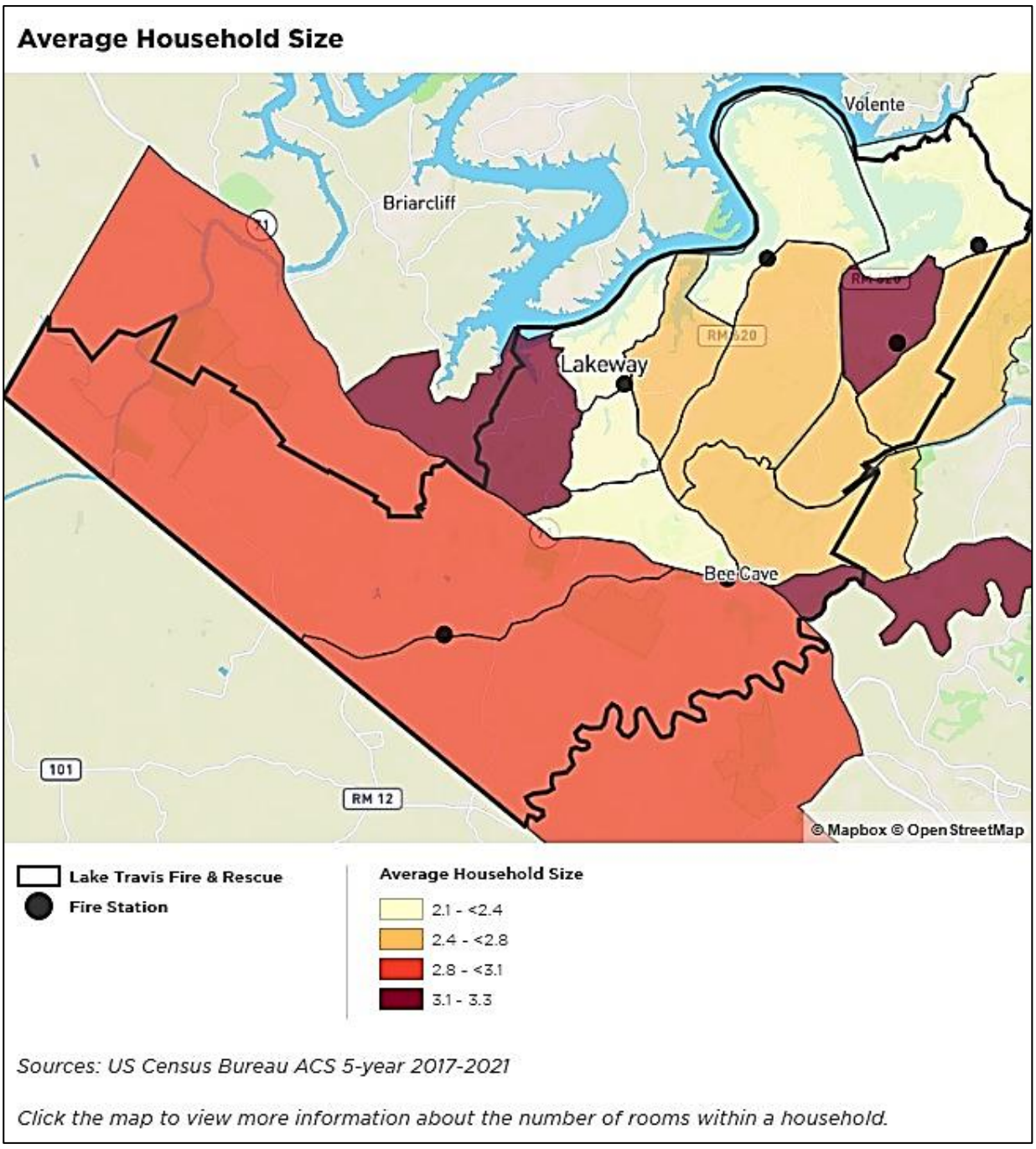
Average Owner Household Size

2.7
People
Lake Travis Fire & Rescue

2.9
People
Texas

2.7
People
United States of America

Sources: US Census Bureau ACS 5-year 2017-2021



WHAT KINDS OF PROPERTIES ARE PRESENT IN THE COMMUNITY?

People who live in rented housing units are often prevented from making significant updates to wiring or implementing other major safety precautions. Renters must rely on the property owner to ensure proper safety measures are taken. At the same time, property owners have little control over their tenants' potential risky behaviors. In addition, there may be more than one housing unit in a single building, whether rented or owned, adding even more uncontrollable factors to a home and any necessary emergency response. This section details the distribution of rented and owned homes in our community.

Owner Occupied
78%
of Housing Units
Lake Travis Fire & Rescue

62%
of Housing Units
Texas

65%
of Housing Units
United States of America

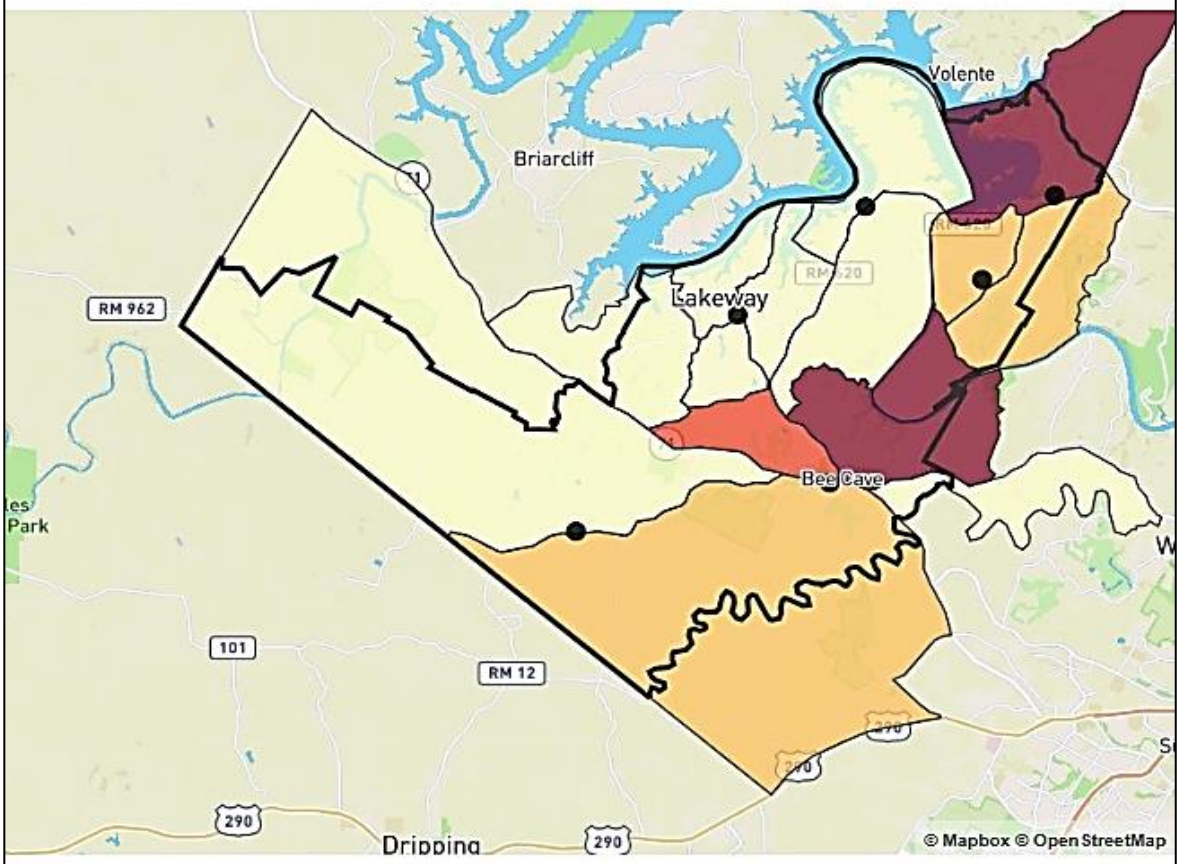
Renter Occupied
22%
of Housing Units
Lake Travis Fire & Rescue

38%
of Housing Units
Texas

35%
of Housing Units
United States of America

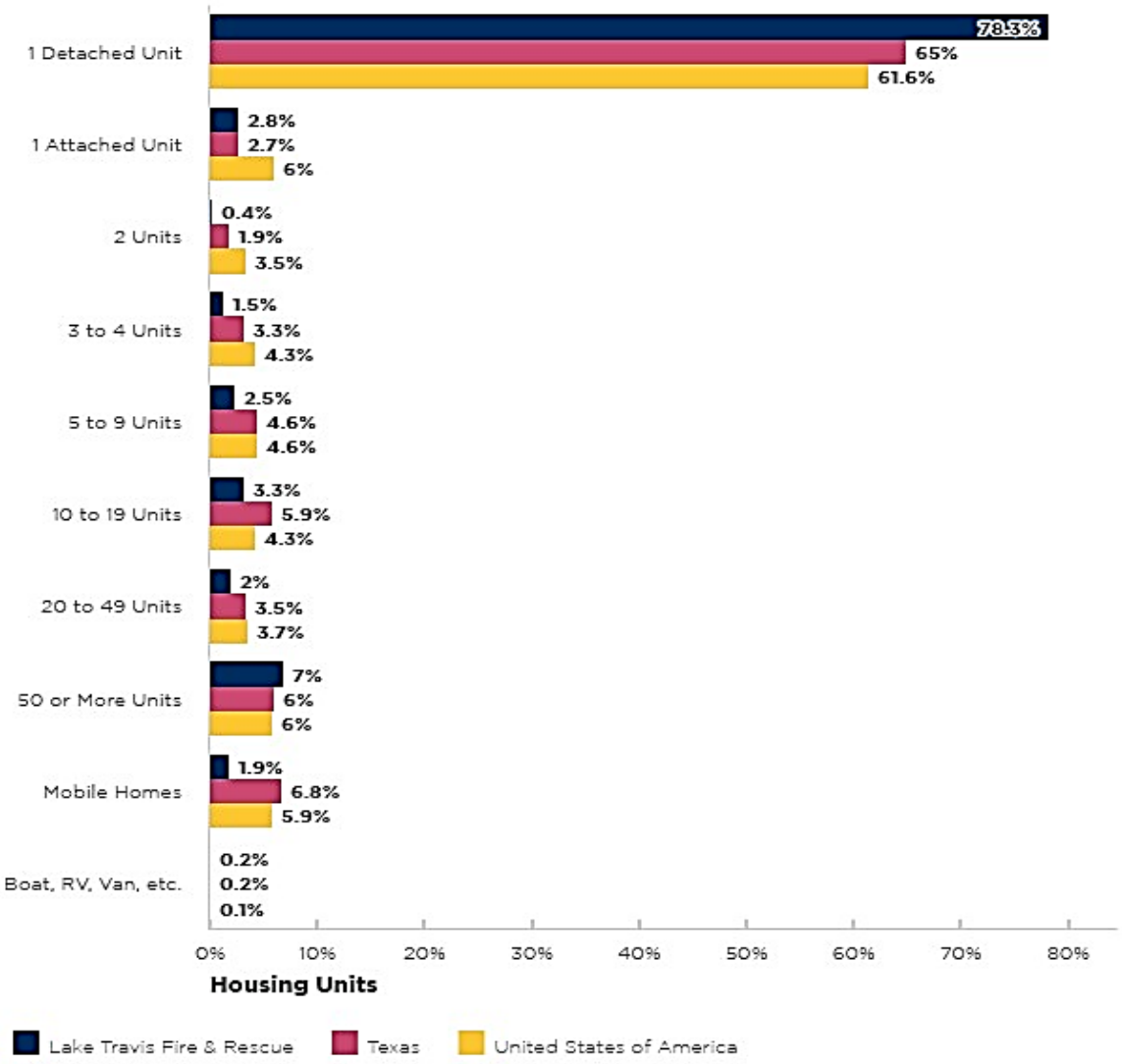
Sources: US Census Bureau ACS 5-year 2017-2021

Structures with 50 or More Units



Sources: US Census Bureau ACS 5-year 2017-2021

Housing Units by the Number of Units in the Structure



Sources: US Census Bureau ACS 5-year 2017-2021

Detached means there is open space on all sides, or the house is joined only to a shed or garage. Attached means that the house is joined to another house or building by at least 1 wall that goes from ground to roof. Examples include row houses and townhouses.

BUILDING CONDITIONS

By understanding community properties, we can better plan for emergencies and the total amount of protected buildings in our community.

Total Properties

30,810
properties
Lake Travis Fire & Rescue

13,294,741
properties
Texas

155,062,594
properties
United States of America

Building Median Year Built

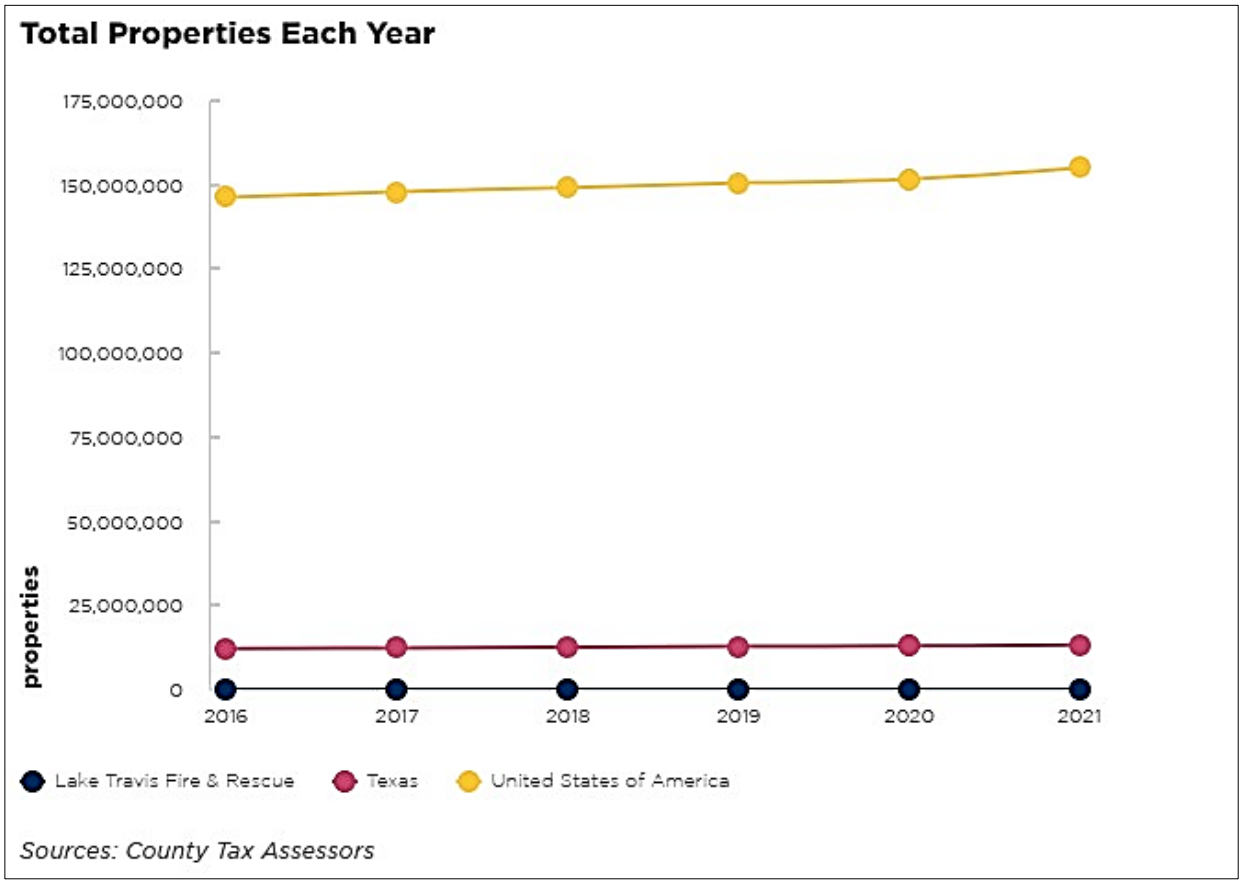
2002
year
Lake Travis Fire & Rescue

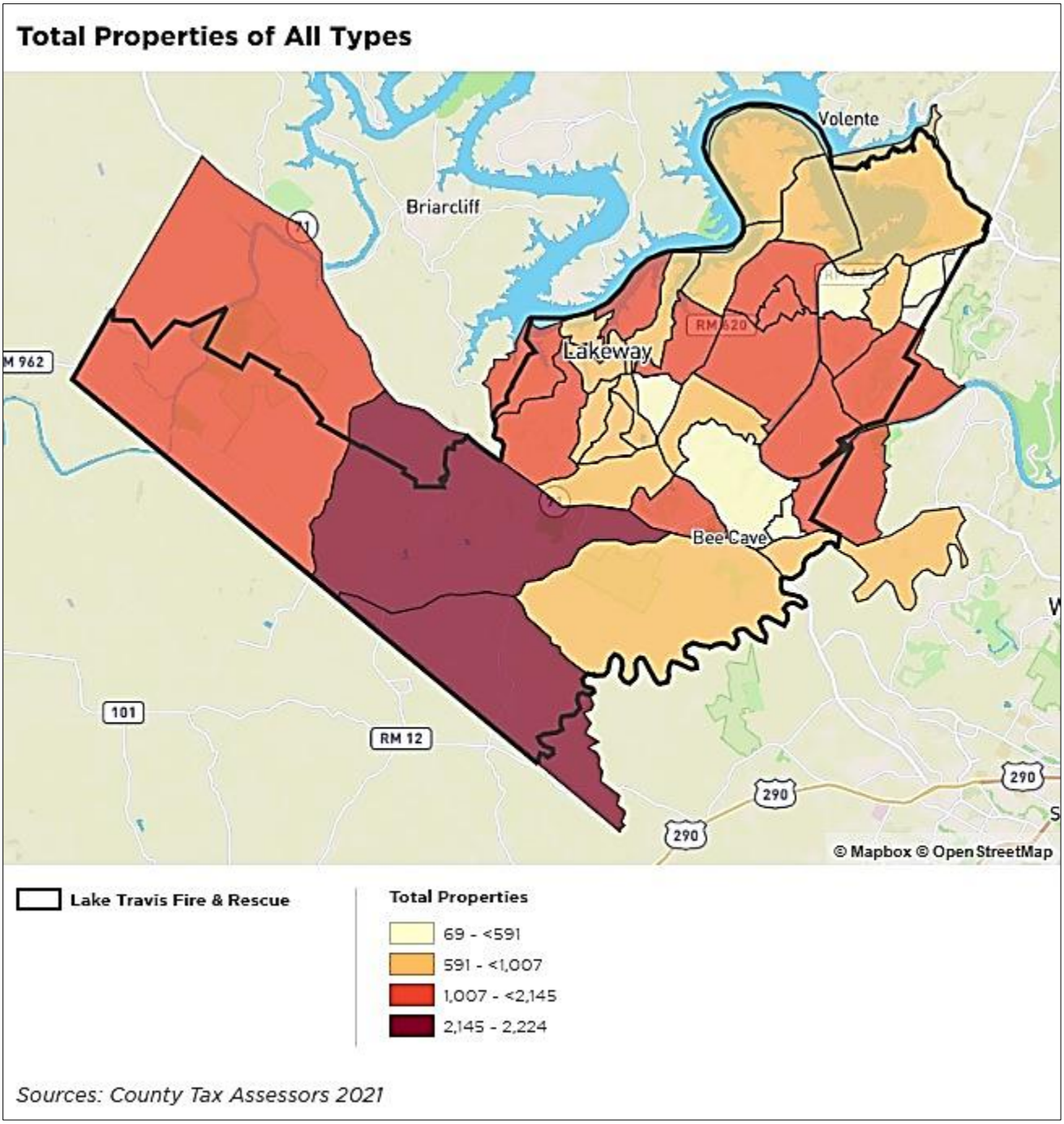
1984
year
Texas

1974
year
United States of America

Sources: County Tax Assessors 2021

This includes properties of all types reported to tax assessors.

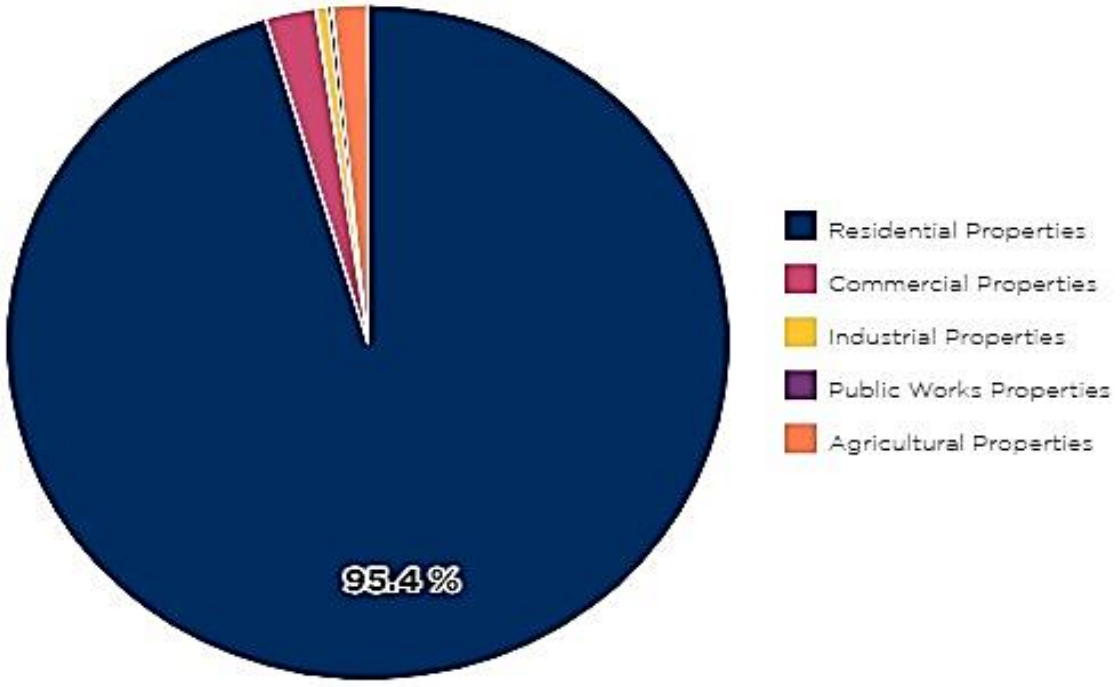




WHAT KINDS OF PROPERTIES ARE PRESENT IN THE COMMUNITY?

Different types and sizes of properties pose different risks and unique needs. In some communities, the type and size affect fire safety requirements and inspection planning. This section helps to understand the breakdown of all properties in the community and where residential versus nonresidential buildings exist.

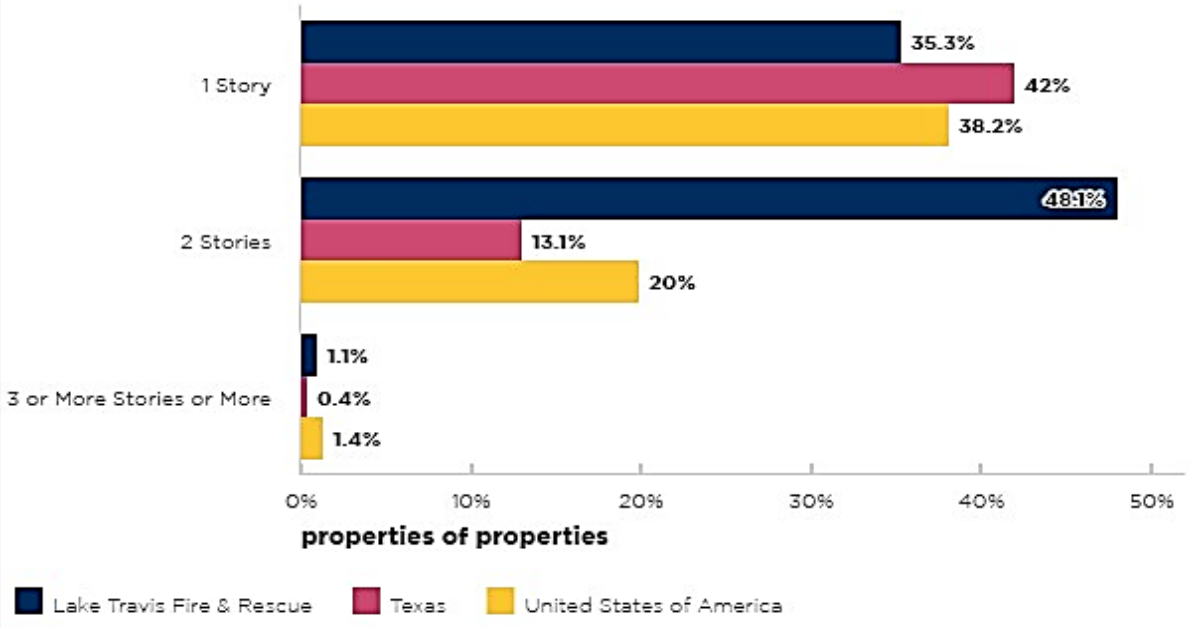
Properties by Property Type



Lake Travis Fire & Rescue

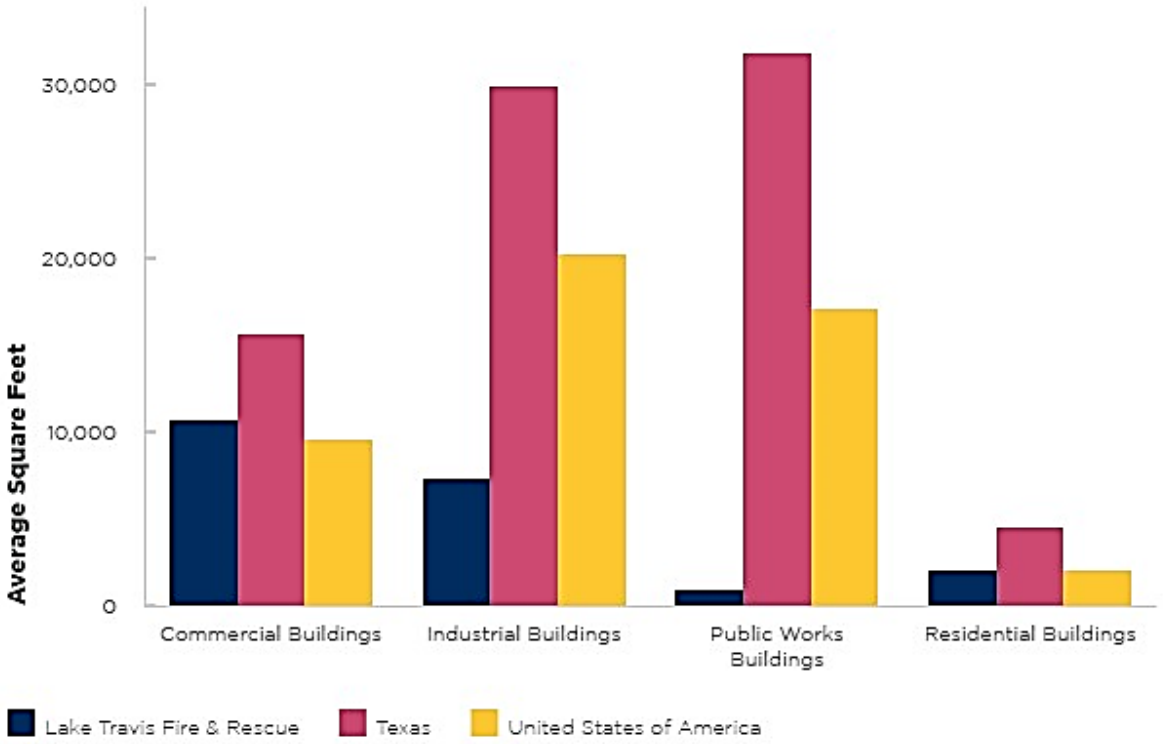
Sources: County Tax Assessors 2021

Number of Stories in Properties



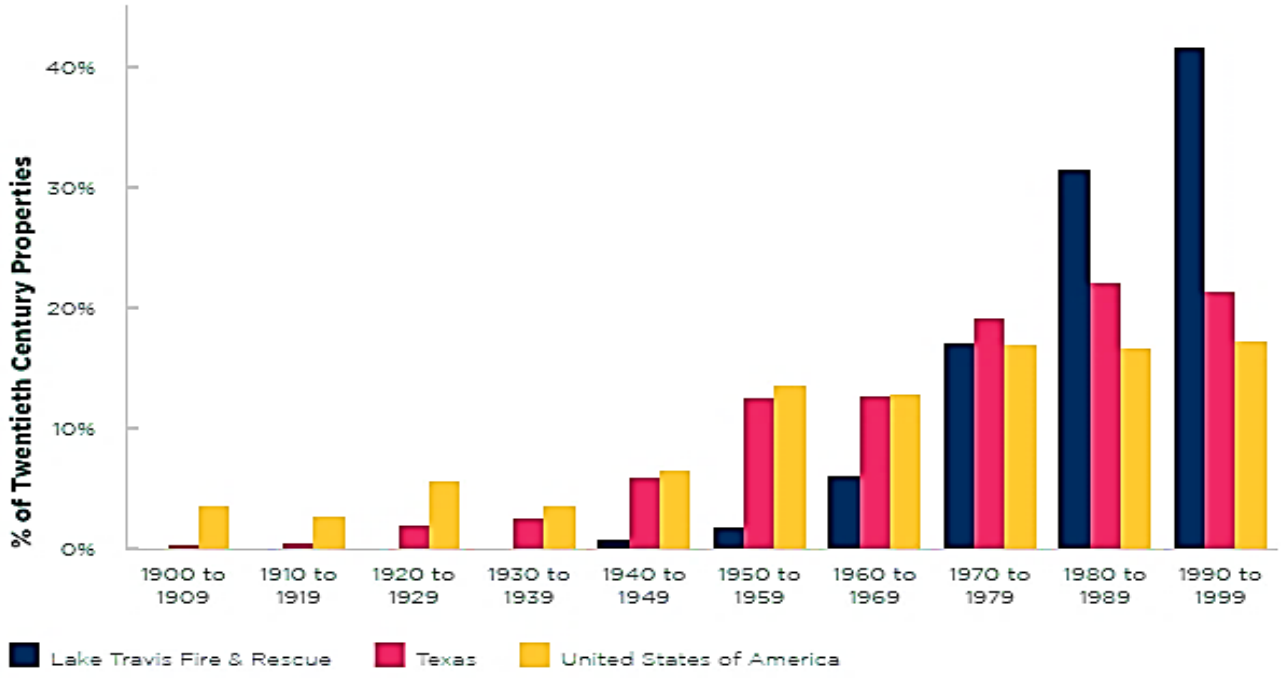
Sources: County Tax Assessors 2021

Average Ground Floor Size by Property Type

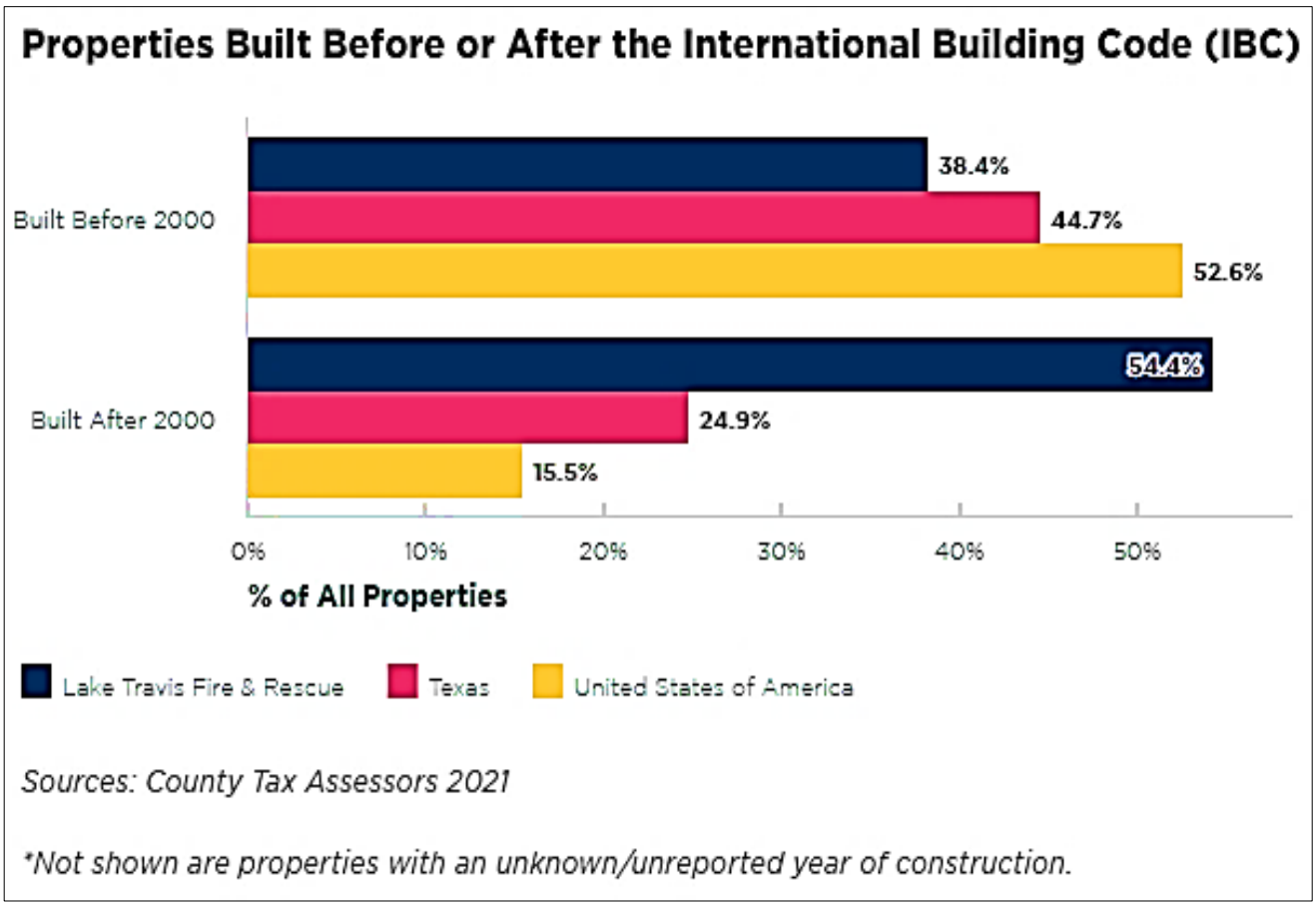


Sources: County Tax Assessors 2021

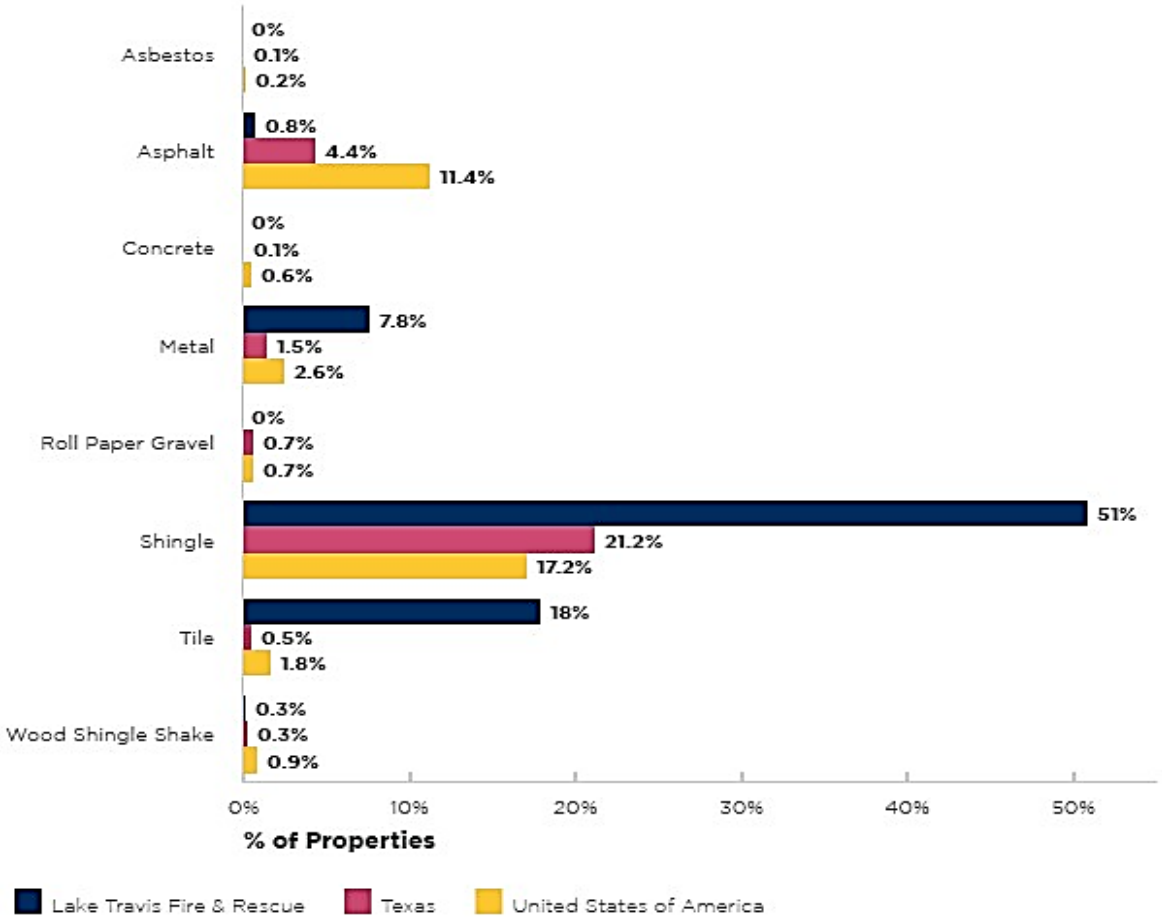
20th Century Buildings by Decade Built



Sources: County Tax Assessors 2021

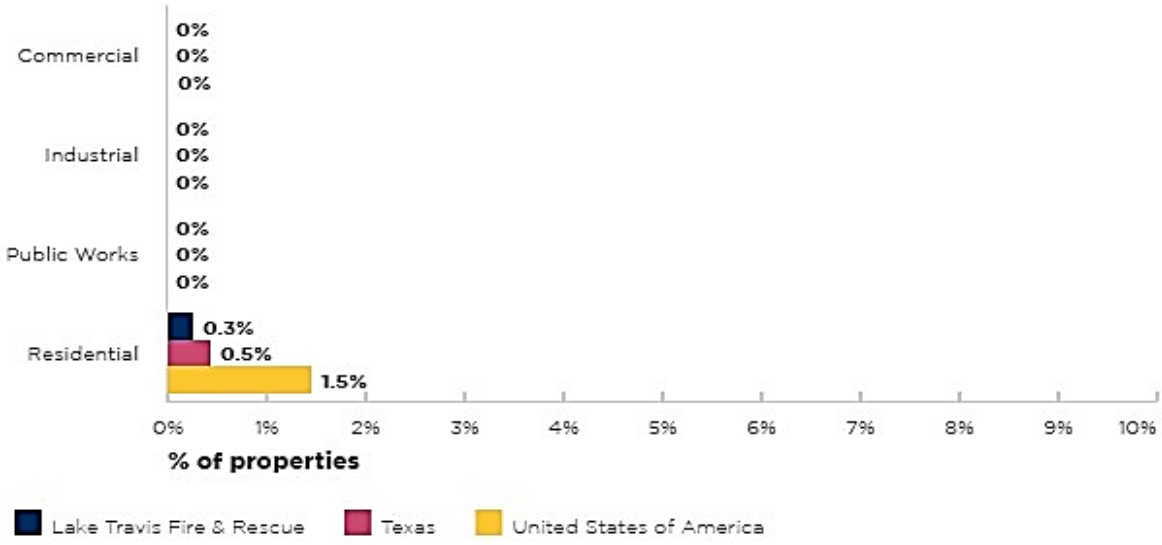

Properties Built Before or After the International Building Code (IBC)
Built Before 2000
38.4%
44.7%
52.6%
Built After 2000
54.4%
24.9%
15.5%
0%
10%
20%
30%
40%
50%
% of All Properties
Lake Travis Fire & Rescue
Texas
United States of America
Sources: County Tax Assessors 2021
*Not shown are properties with an unknown/unreported year of construction.

Roof Type for Total Properties

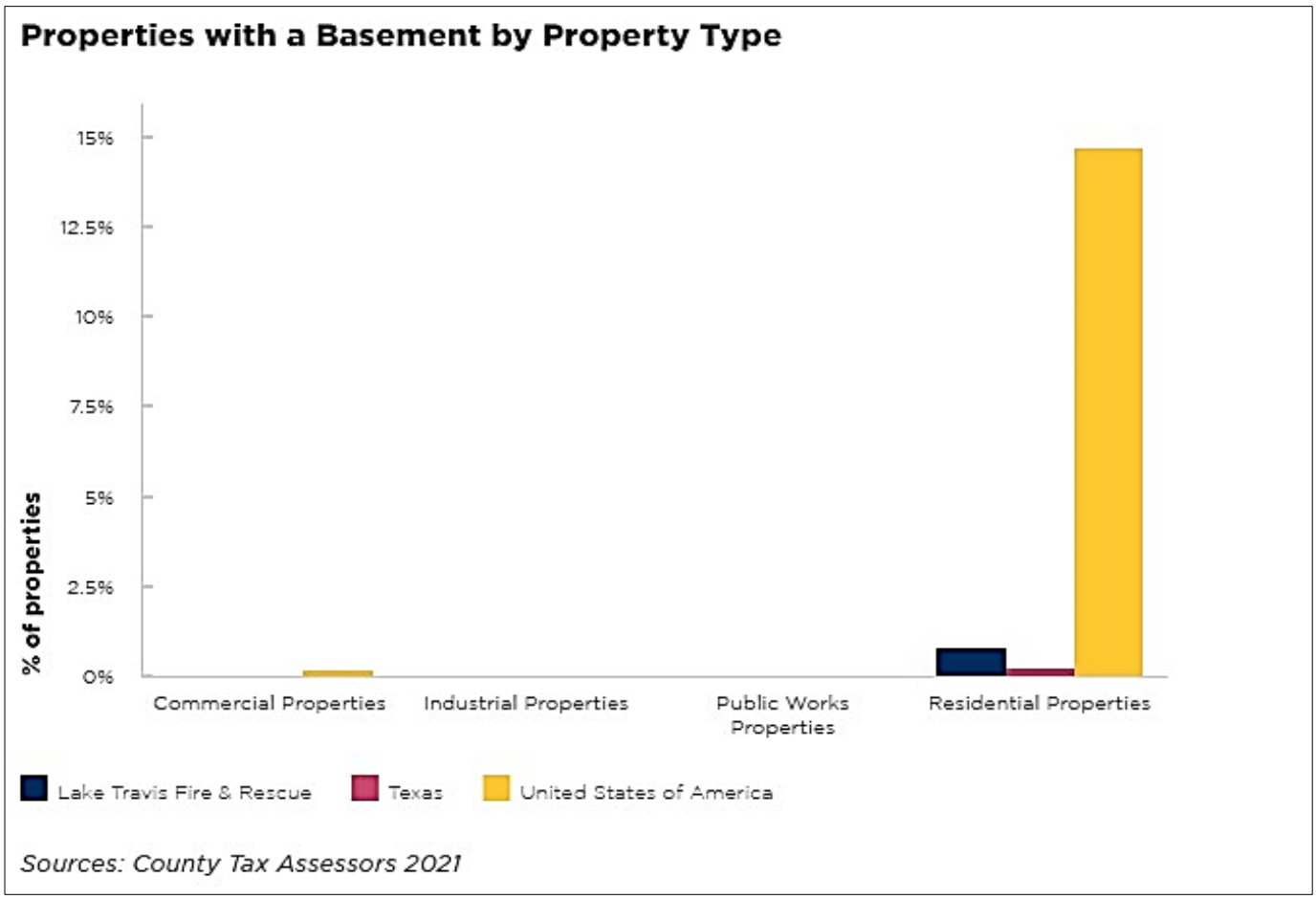


Sources: County Tax Assessors 2021

Properties with an Attic by Property Type



Sources: County Tax Assessors 2021



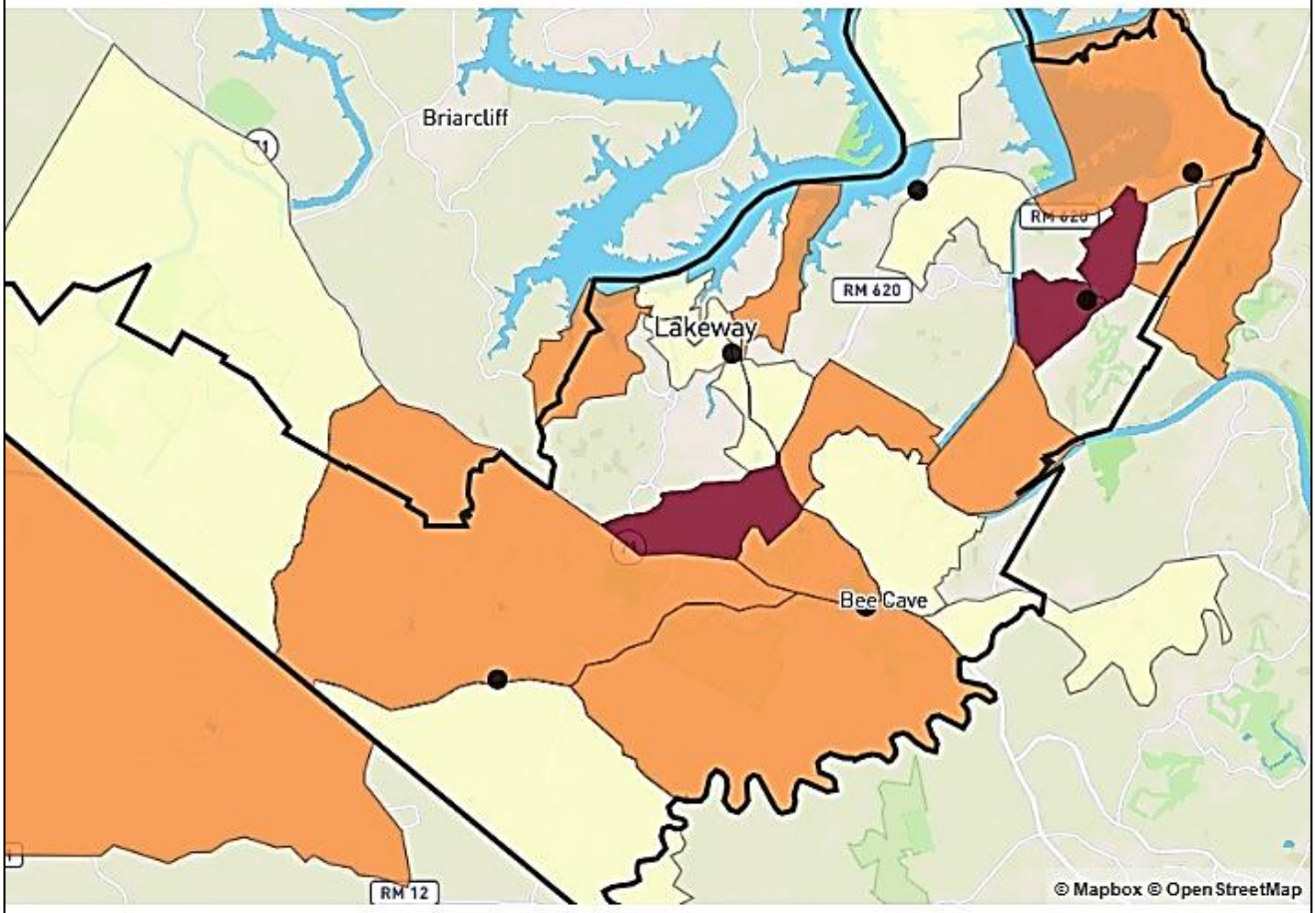
HAZARDOUS MATERIALS AND WASTE

Hazardous materials have the potential to cause harm to people, animals, and the environment. They can be the result of large industrial processes, or as small as old paint cans stored in a resident's garage. It is important for both residents and first responders to be aware of these hazards, including what they are, where they are located, and how they impact the community. This knowledge may help uncover root causes of issues and aid in response pre-planning.

EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY FORMS

Organizations and businesses with hazardous chemicals above set thresholds are required by the EPA, under Section 312 of the Emergency Planning and Community-Right-to-Know Act of 1986 (EPCRA), to fill out Emergency and Hazardous Chemical Inventory Forms, known as Tier II reports. These reports are submitted annually to fire departments, local governments, state officials, tribal agencies, and other organizations to allow those organizations to plan and respond to a chemical emergency. Some states have additional reporting requirements.

HazMat Release Related Incidents



Lake Travis Fire & Rescue
Fire Station

HazMat Release Incidents
0 - <1
1 - <3
3 - 4

Incident types 411, 413, 420, 421, 422, 423, 424, 431, and 451. The data displayed is for the most recent full calendar year available. Click on a geography to see the values for additional years.

ENVIRONMENTAL JUSTICE

The EPA Environmental Justice indexes reflect different environmental hazards for people's health. The visualizations below highlight some of the environmental hazards, with the indexes weighted by populations who are particularly vulnerable. These pose not only an everyday threat to health, but the impact can also be compounded during an emergency incident.

Lead Paint Environmental Justice Index

1
Lake Travis Fire & Rescue

14
Texas

Buildings Built prior to 1979, Potential for Lead Paint

9%
Lake Travis Fire & Rescue

41%
Texas

Sources: EPA EJSCREEN 2021; US Census Bureau ACS 5-year 2017-2021

The Lead Paint Environmental Justice Index is the percent of housing units built pre-1960 weighted by the proportion of the population identified as low-income or belonging to an ethnic/racial minority group. Lower percentage indicate fewer older housing units and lower potential exposure lead paint, while higher percentage indicate more older housing and a higher potential exposure to lead paint, based on building age.

Residential Buildings: Potential Lead Paint

8%
Lake Travis Fire & Rescue

29.2%
Texas

40.1%
United States of America

Commercial Buildings: Potential Lead Paint

9.9%
Lake Travis Fire & Rescue

20.6%
Texas

31.6%
United States of America

Sources: County Tax Assessors 2021

Buildings built 1978 or Earlier

UTILITIES

Communities depend strongly on the systems that support them, from plumbing and electricity to, more recently, the internet. When a disaster occurs and these systems fail, it is important to know which parts of the community are impacted the most. In some cases, utilities can also be a hazard, such as downed power lines and pipeline leaks. This section provides an overview of which utilities the community relies on and where they are located.

US ENERGY

The US Energy Information Administration (EIA) collects, analyzes, and disseminates independent and impartial energy information to promote sound policymaking, efficient markets, and public understanding of energy and its interaction with the economy and the environment.

EIA provides state profiles and estimates on different energy types, consumption, expenditures, prices, and emissions, amongst other information.

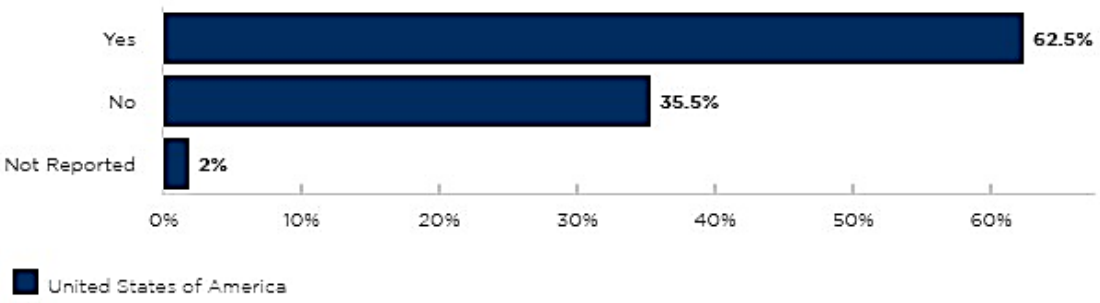
PIPELINES

The National Pipeline Mapping System (NPMS) by the US DOT Pipeline and Hazardous Materials Safety Administration (PHMSA) provides information and locations of hazardous liquid and gas pipelines. The detailed mapping interface is restricted to government officials and pipeline operators, though there is a public viewer available with a set map scale.

Pipelines carry a variety of substances, though the two most common are liquid petroleum and natural gas. The map below shows the natural gas compressor stations, delivery locations and some pipelines.

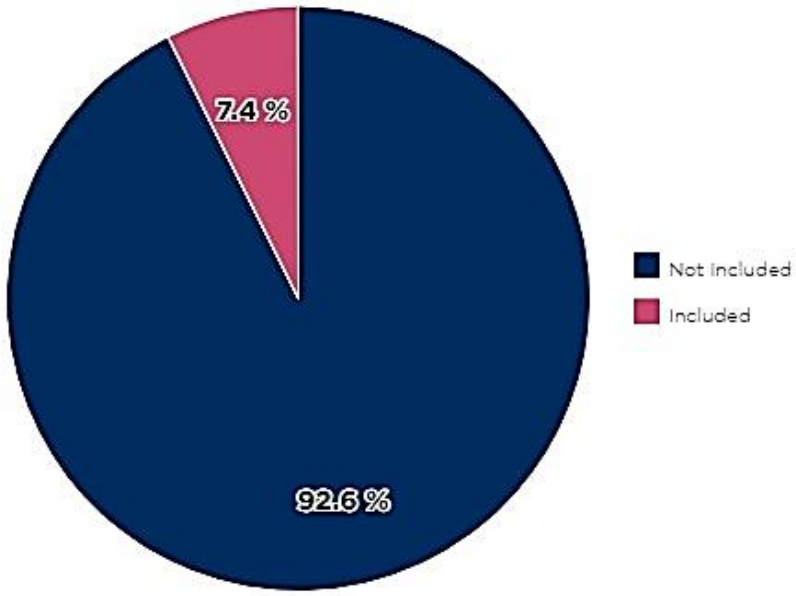
The District does not have any known pipelines in this area.

Carbon Monoxide Detector Prevalence in Homes in the United States



Source: American Housing Survey (AHS) 2017

Inclusion of Utilities in Rent



Lake Travis Fire & Rescue

Sources: US Census Bureau ACS 5-year 2017-2021

Housing Units Without Complete Kitchen Facilities

1.9%
Lake Travis Fire & Rescue

2.9%
Texas

2.6%
United States of America

Housing Units Without Complete Plumbing

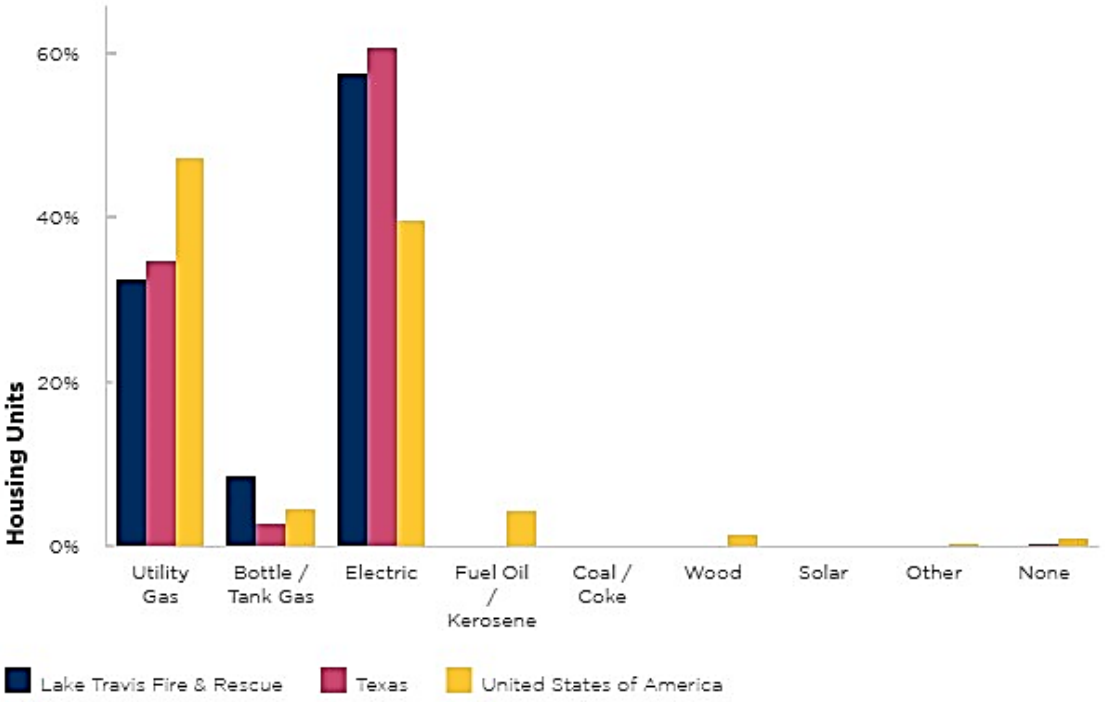
0.4%
Lake Travis Fire & Rescue

2.2%
Texas

1.9%
United States of America

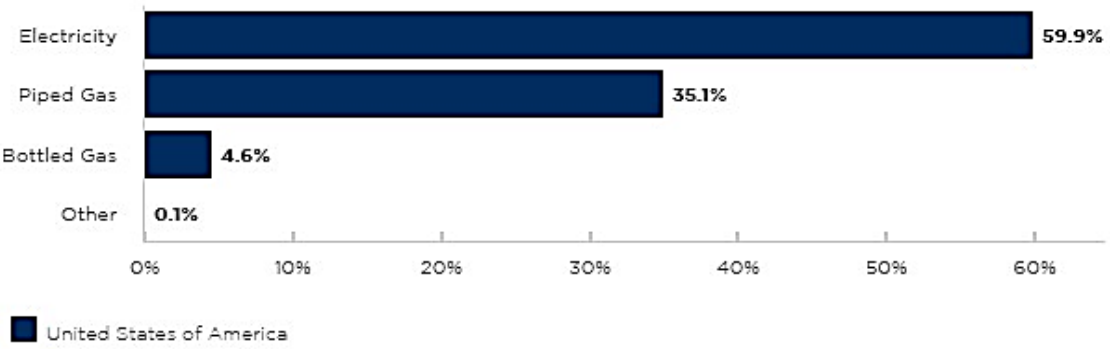
Sources: US Census Bureau ACS 5-year 2017-2021

Heating Fuel for Housing Units



Sources: US Census Bureau ACS 5-year 2017-2021

Typical Cooking Fuel Types in the United States



Source: American Housing Survey (AHS) 2017

WEATHER & CLIMATE

Spring (March to May):

Spring brings mild to warm temperatures with highs ranging from the upper 60s to the 80s°F (20-30°C). When not in a drought, there is a moderate amount of rainfall, with occasional thunderstorms, especially in late spring. This season marks the transition from the cool dampness of winter to the hot and dry conditions typical of Texas summers.

Summer (June to August):

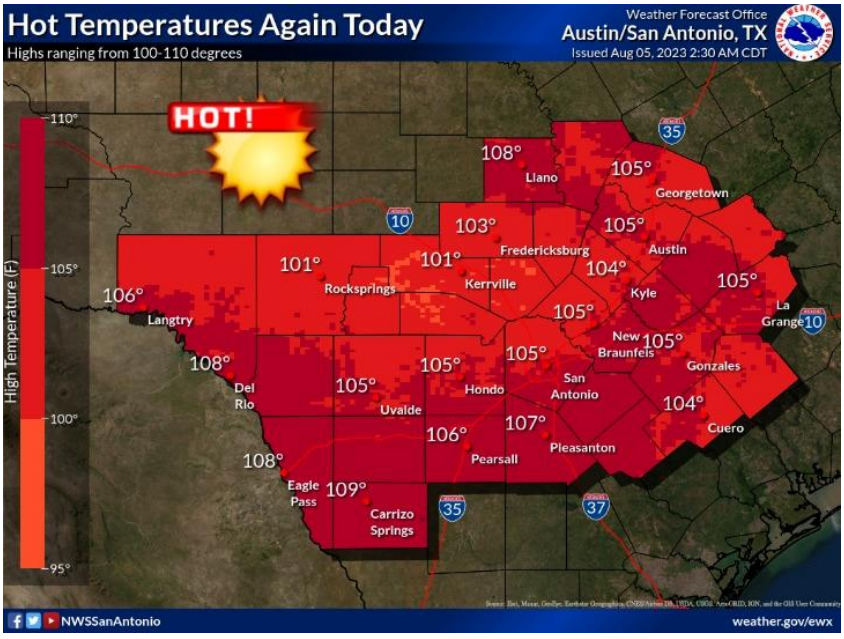
Summers are hot and often humid, with temperatures commonly in the 90s°F (32-37°C), and it's not unusual for temperatures to exceed 100°F (38°C) during peak heat waves and, as of recent (2022-2023) long periods (90+ days in a row) of sustained heat. Rainfall is less frequent, but can occur in the form of intense thunderstorms, sometimes leading to flash flooding in the region. Lake Travis becomes a popular spot for water recreation due to the heat.

Fall (September to November):

Autumn sees a gradual decrease in temperature, with highs ranging from the 70s to the 90s°F (21-34°C) early in the season, cooling off as winter approaches. Rainfall is relatively lower, but the area can experience storms and the tail end of hurricane season can affect weather patterns. The climate begins to dry out, and the first cool fronts begin to arrive, making outdoor activities pleasant.

Winter (December to February):

Winters are generally mild and can be quite variable, with temperatures often ranging from the 40s to the 60s°F (4-20°C). It's colder at night, sometimes dropping to or below freezing. Snow is very rare, but the area can experience occasional frosts and freezes. Rainfall is lower than in spring, but winter fronts can still bring wet weather. The community experienced significant freezing events in 2021 and 2022.



TOPOGRAPHICAL ASSESSMENT

Conducting a topographical assessment of the Lake Travis area involves analyzing the area's physical features, particularly its elevation and terrain. Lake Travis, located in central Texas, northwest of Austin, is known for its unique topographical characteristics that include:

Terrain: The area around Lake Travis is characterized by its hilly terrain, with a mix of steep cliffs and gentle slopes. The topography significantly varies, with some areas being quite rugged.

Elevation: The elevation around Lake Travis varies widely. The lake itself sits at an elevation that fluctuates depending on rainfall and water usage. The surrounding hills and cliffs can be significantly higher than the lake's surface level.

Water Levels: Lake Travis is a reservoir on the Colorado River. Its water levels are subject to change based on drought conditions, rainfall, and management by the Lower Colorado River Authority (LCRA). This fluctuation can affect the shoreline and adjacent areas.

Soil and Vegetation: The soil composition varies, with rocky areas as well as more fertile soil in valleys and flat areas. The vegetation is diverse, ranging from scrub and grasslands to wooded areas, primarily consisting of oak and cedar trees.

Urban Development and Land Use: The Lake Travis area has seen significant urban development, especially in terms of residential and recreational properties. The topography has influenced the layout and design of these developments, with many properties built to maximize views of the lake and surrounding hills.

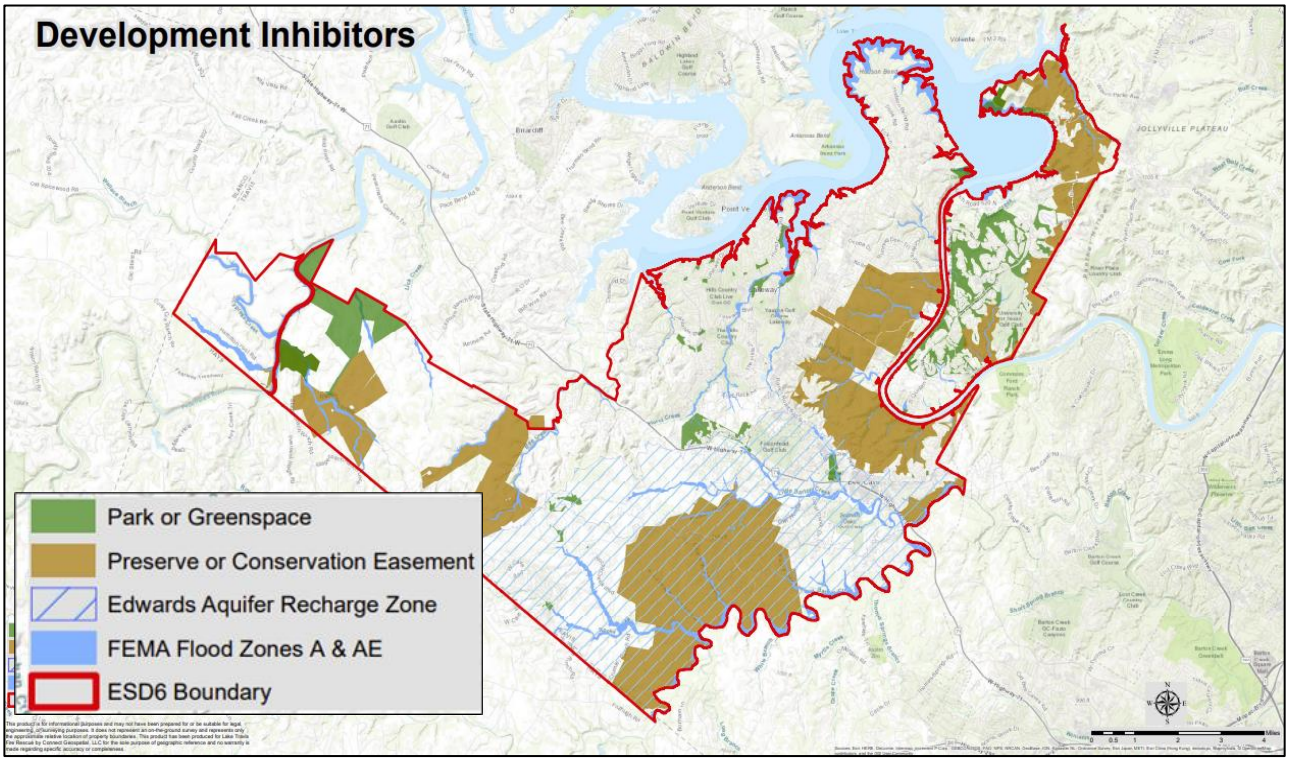
Climate Impact: The topography also influences the local climate, particularly in terms of microclimates. Hills and valleys can lead to variations in temperature and precipitation within relatively short distances.

Recreational and Environmental Significance: The unique topography of the Lake Travis area makes it a popular destination for outdoor and recreational activities, including boating, fishing, hiking, and camping. It's also important for wildlife habitats and biodiversity.

Geological Features: The region is part of the Texas Hill Country, known for its limestone geology. This has implications for water drainage and aquifer recharge, as well as for the types of vegetation that the area can support.

DEVELOPMENT & GROWTH

Development inhibitors include areas that are environmentally safe zones, designated parks or green spaces, conservation easements, recharge zones, or FEMA flood zones. Almost 30% of the 104 square miles is considered undevelopable or has significant regulations surrounding development.



TRANSPORTATION

TRAFFIC FLOW AND AREA MOBILITY

Lake Travis is a popular recreational destination, especially during the summer and holiday weekends. During these times, increased traffic is expected as visitors travel to Lake Travis for boating, fishing, and other water activities.

Traffic flow can also be affected by collisions, which are more likely to occur during busy times or due to inclement weather. Additionally, emergencies like wildfires in the District or surrounding areas, can increase traffic from emergency response vehicles and possible evacuations. As with any growing region, construction and road work can impact traffic flow. Updates to infrastructure to accommodate an increasing population can lead to road closures or detours that disrupt normal traffic patterns.

September 4, 2011 – Steiner Ranch Wildfire/RM620 Evacuation

MAIN CORRIDORS

The Lake Travis community is a collection of more than 130 subdivisions or areas with limited access to large road work. Less than 23% of the communities are interconnected other than using one of three main road corridors: Ranch to Market Road 620, State Highway 71, and Hamilton Pool Road. The following is a list of primary and secondary roads within the District.

CITY OF BEE CAVE

State Highway 71 (SH 71): This is a major highway that runs east-west through Bee Cave, providing access to Austin to the east and the Hill Country to the west.

Ranch to Market Road 620 (RM 620)**:** This is another significant road that runs north-south near Bee Cave and is a main road for local traffic.

Bee Cave Parkway: A local road within Bee Cave that provides access to various residential and commercial areas in the city.

Bee Caves Road (FM 2244): This is a main road that runs through the northern part of the city, connecting it with the West Lake Hills area and leading towards downtown Austin.

Hamilton Pool Road: While not directly in Bee Cave, Hamilton Pool Road is a significant nearby road that many locals might frequent to reach the Hamilton Pool Preserve.

CITY OF LAKEWAY

Ranch to Market Road 620 (RM 620): This significant road runs north-south through Lakeway and serves as the primary artery for many residents and businesses in the area.

Lakeway Boulevard: This is another major roadway that cuts through the heart of Lakeway, providing access to residential areas and local businesses.

Serene Hills Drive: This road connects to RM 620 and serves as a connector to various neighborhoods and schools in the area.

Lohman's Crossing Road: This road intersects with RM 620 and Lakeway Boulevard and is a key road within the city.

Bee Creek Road: In the nearby vicinity, Bee Creek Road extends from Lakeway and provides access to other communities and rural areas.

Highland Boulevard: This road serves as a connector within Lakeway for various residential and commercial areas.

THE VILLAGE OF THE HILLS

The Hills Drive: This road circles 90% of the Village of The Hills and connects to Club Estates Parkway with side streets branching off it.

TRAVIS COUNTY UNINCORPORATED (TCESD6)

Debba Drive: It serves local traffic and connects to several residential areas in Apache Shores.

RM 620 (Ranch to Market Road 620): This is a significant road that runs north-south through the 78732 area and serves as a main artery for traffic, connecting to other major highways and many local businesses.

Quinlan Park Road: This road runs through the heart of the Steiner Ranch community and provides access to many residential areas as well as local amenities and schools.

N Quinlan Park Rd: Serving as an extension of Quinlan Park Road, this road also provides access to various neighborhoods and recreational areas within the 78732 zip code.

Steiner Ranch Blvd: This is another important road within the Steiner Ranch area, connecting residents to schools, retail centers, and community facilities.

Bullick Hollow Road: Running parallel to the north shore of Lake Travis, this road connects to RM 620 and provides access to lakeside communities and recreational areas.

Comanche Trail: Connects RM 620 to the Comanche Trail community.

Hudson Bend Road: Connects RM 620 the Hudson Bend community known for its proximity to the lake, marinas, residential communities, and local businesses.

Rockey Creek Boulevard: Connects Hamilton Pool to the Rocky Creek subdivision.

Lake Pointe Boulevard: Connects FM 2244 to the Lake Pointe subdivision.

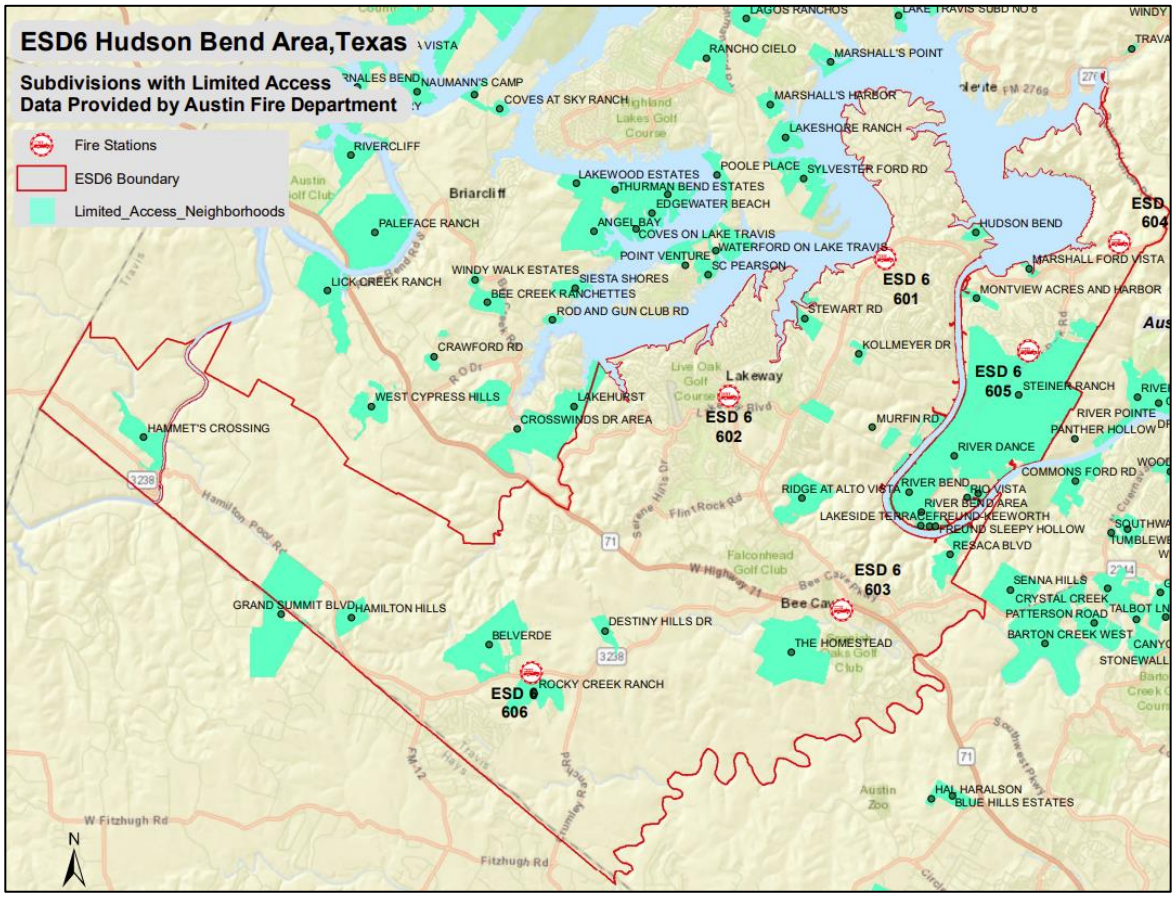
Pedernales Summitt Parkway: Connects State Highway 71 West to the Sweetwater Subdivision.

OPTICOM™ TRAFFIC PRE-EMPTION

Delays in arriving on the scene can put property and lives at risk. Accidents happen and there is no way to know when or where they will occur. Waiting for medical care or police support can make anyone feel helpless. *Example: With every minute it takes to arrive to a cardiac event, a patient's chance of surviving drops 7 to 10 percent, according to the Sudden Cardiac Arrest Foundation. A delay in responding to a fire can cause the fire to reach the flashover point, resulting in greater losses.* All first-out emergency response units and each traffic intersection within the District are equipped with the OPTICOM™ system. OPTICOM™ provides GPS location markers to each intersection in advance of an emergency vehicle approaching and provides prioritization to emergency vehicles as it relates to green and red-light sequencing. This reduces response times and increases the safety of each interaction as opposing traffic lanes will receive a red-light stopping traffic from entering the intersection.

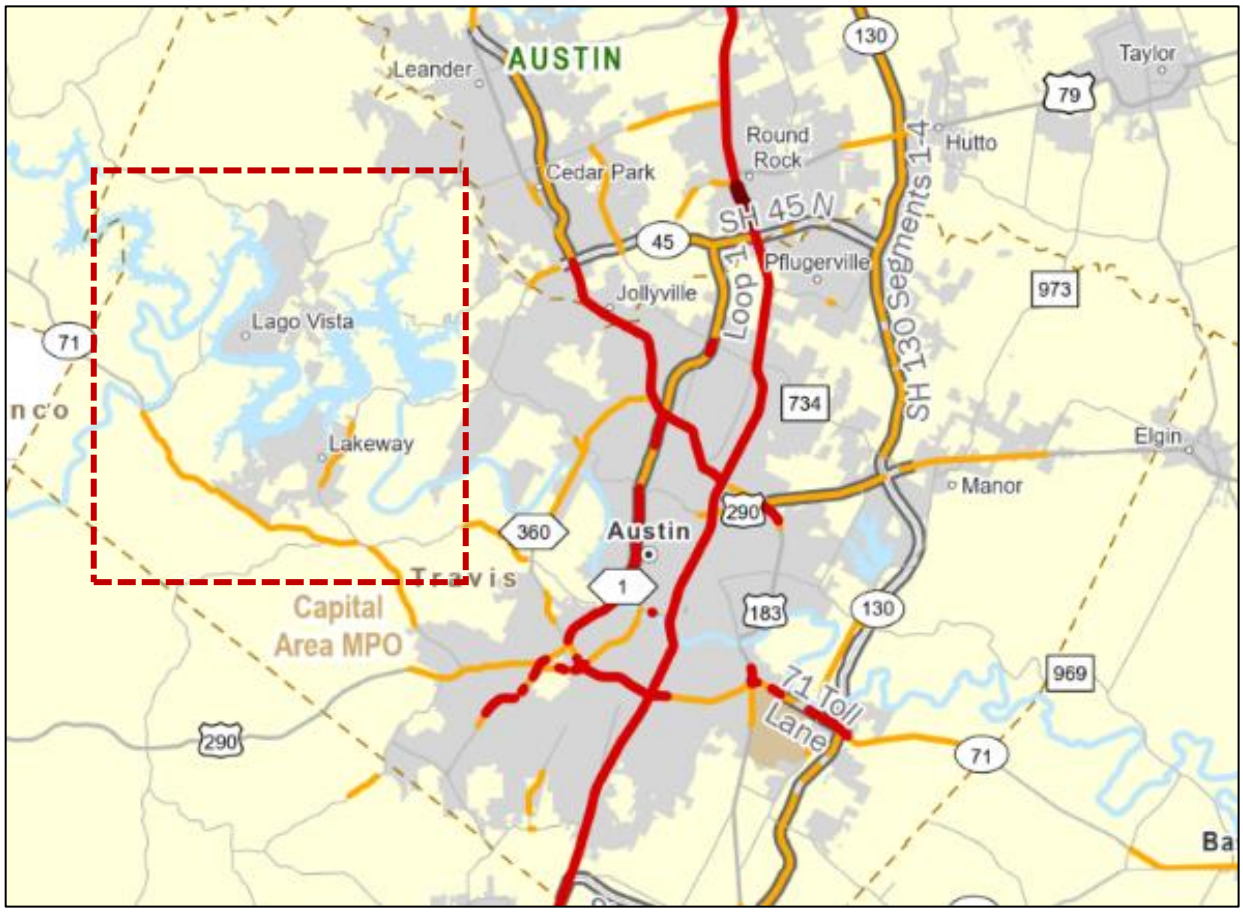
COMMUNITY INGRESS & EGRESS

A large portion of the western part of Travis County has limited means of ingress and egress. This is partly due to the available space and topographical challenges created when attempting to add or increase road network infrastructure. As reflected in the map below, there are several communities that only have one (legitimate) way in and out. One way in and out of communities poses a significant challenge when providing emergency services and evacuation planning.



PEAK HOUR CONGESTION

This map shows congestion on state-maintained highways and off-system toll facilities. It is created annually for the purpose of identifying roads that are most impacted by congestion, communicating congestion to the public, and information decision-making process to help identify projects where improvements can be made to provide relief. The congestion shown on the map is calculated by the "car space" method, developed by the Texas Department of Transportation. This method differs from other, more traditional methods, by determining the space between cars in one-mile increments. This method factors the number of lanes, Annual Average Daily Traffic (AADT), and average car length to calculate the space between vehicles for each one-mile segment of roadway during the 30th peak hour.



Peak Hour Congestion is defined by space between vehicles. The space remaining is categorized by the following:

Peak Hour Congestion 2021

- Most Congested < = 75 ft
- Congested > 75 ft and < = 175ft
- Moderately Congested > 175ft and < = 350ft
- Not Congested > 350 ft

Source: Texas Department of Transportation Link

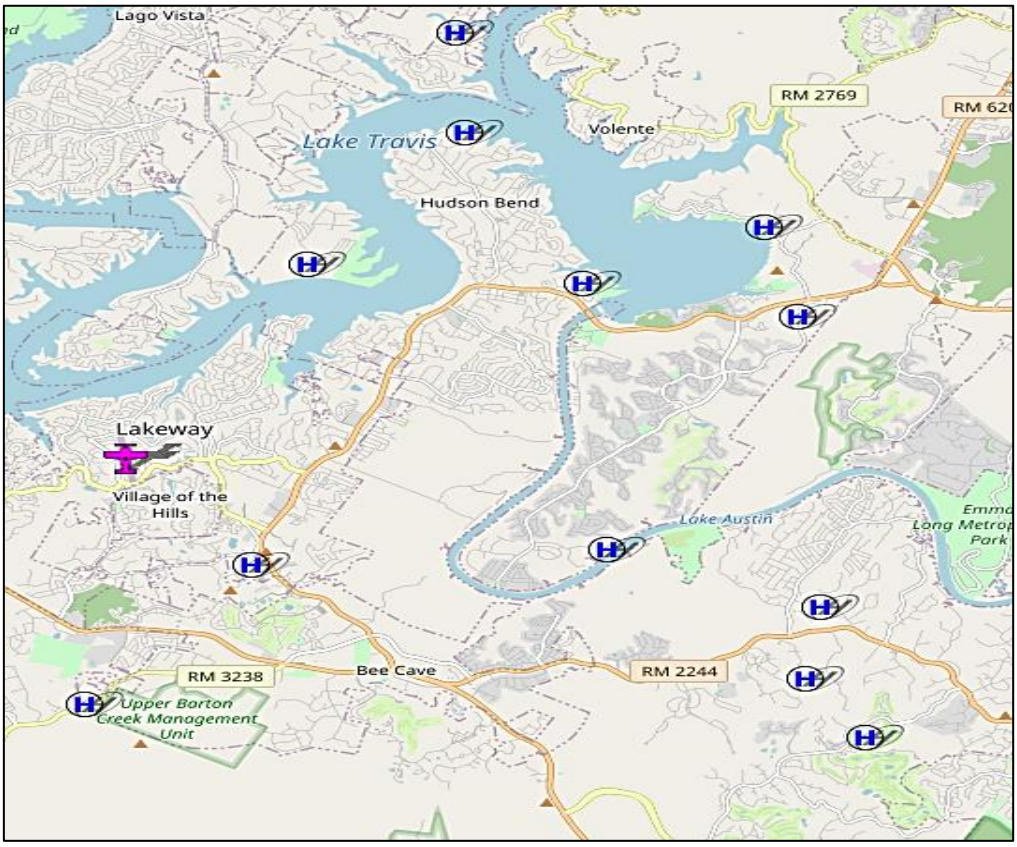
TRANSPORTATION OPTIONS

RIDE SHARE SYSTEMS & PRIVATE TRANSPORTATION

There is limited availability of ride share platforms in the Lake Travis area. During certain days of the week and time periods, there is a small offering of firms like Uber™ or Lift™ primarily in the Four Points/Steiner Ranch and City of Bee Cave area. There are some residents who offer scheduled rides to downtown Austin, and the Austin-Bergstrom International Airport with scheduling and booking being offered through social media platforms. While portions of the North Battalion are within the Capital Metro public transportation system, service does not currently extend into the District.

AIR TRAVEL

Options for air travel to and from the Lake Travis community are limited to one municipal air park in the City of Lakeway and seven Federal Aviation Administration (FAA) approved private helicopter pads, not including an approved aero-medical pad on top of Baylor Scott & White Hospital in the City of Lakeway.



ELEVATED VEHICLE PARKING & STORAGE

In the last five years, new concept parking and luxury garage/workspace areas have been approved, built, and sold to the public. These buildings are usually multi-storied enclosed parking garages and can house a host of other tenants. The Prevention Division has worked to ensure these newer concept buildings meet the required code.

X-Space Luxury Garage Condos – Ranch Road 620 & Cloudy Ridge

MARINA, DOCKS, AND SLIPS

Lake Travis is known for its recreational opportunities, and marinas play a significant role in the lake's appeal. These marinas offer a variety of services including boat slips for rent or purchase, boat rentals, fuel docks, and additional amenities like restaurants, shops, pools, and entertainment venues.

Name of Marina	Wet Slips	Dry Docks	Fire Protection Suppression Systems	Sells Fuel
Austin Yacht Club	159		NO	NO
Commanders Point Marina	96		NO	NO
Community Dock- The peninsula	10		NO	NO
Costa Bella Waterfront	60		NO	NO
Crosswater Yacht Club	240		YES	YES
Emerald Point Marina	292	688	YES	YES
Hurst Harbor Marina	196	220	YES	NO
Lake Travis Lodges Marina	325		YES	YES
Lakeway Marina	311		NO	YES
Marshall Ford Marina	117	276	NO	YES
Paradise Cove Marina	188		NO	NO
Platinum Marine			NO	NO
Rough Hollow Yacht Club	264		YES	NO
South Shore Marina	77		YES	NO
Vineyard Bay marina (POA Marina)	60		NO	NO
West Beach Marina	269		NO	NO
Totals	***2,664***	***1,184***	***6***	***5***

HOTEL CAPACITY

The capacity of a hotel refers to the number of guests it can accommodate at any given time. This is typically determined by the number of rooms available and the average number of guests per room. However, the term "hotel capacity" can encompass several different metrics, including:

- Room Capacity: The total number of rooms multiplied by the number of guests per room. For example, a hotel with 100 rooms that can each accommodate two guests would have a room capacity of 200 guests.
- Meeting and Event Space Capacity: This is the number of people that can be accommodated in the hotel's event spaces, which is particularly important for conferences, weddings, or other large gatherings. This is usually specified by the square footage of the space and can be influenced by the layout or seating arrangement.
- Dining Capacity: This includes the number of guests that can be served in the hotel’s restaurants and bars at one time.

- Facilities Capacity: For other hotel facilities like gyms, spas, pools, etc., capacity is determined by the size of the facility and the maximum number of people that can safely and comfortably use the space at once.
- In the hospitality industry, understanding hotel capacity is essential for:
    - Operations: To ensure that they can meet the needs of all guests without overbooking or underutilizing the space.
    - Safety: To comply with fire codes and safety regulations which often dictate the maximum occupancy for different areas within the hotel.
    - Revenue Management: To maximize occupancy and revenue. Hotels often use dynamic pricing strategies that change based on how close they are to reaching full capacity.
    - Event Planning: To properly plan for events and ensure they do not exceed the safe or comfortable capacity of their event spaces.

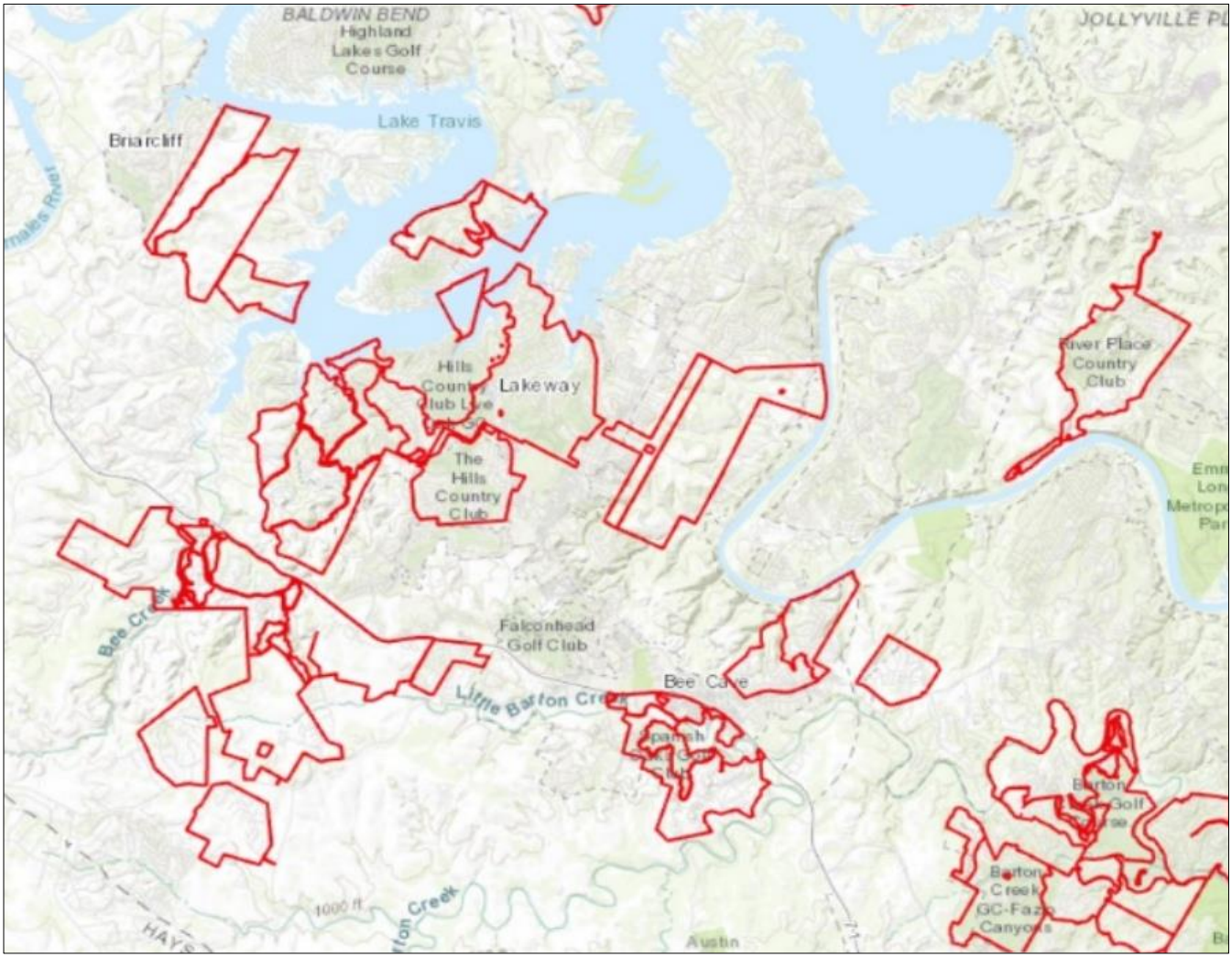
Hotels	Total Rooms	Beds Per Location	Single Occupancy	Double Occupancy
Hampton Inn and Suites	70	103	37	66
Holiday Inn Express	78	126	28	98
La Quinta	104	156	52	52
Lake House Spa at Lake Austin Spa Resort	40	52	28	24
Lakeway Spa and Resort Lodge	168	228	108	60
Sonesta Hotel	195	257	133	62
Spring Hill Suites Lakeway	88	124	52	72
Vintage Villas	44	61	27	34
Totals	***787***	***1,107***	***465***	***468***

WATER SUPPLY, DISTRIBUTION SYSTEMS, & TREATMENT

Municipal Utility Districts (MUDs) in Texas are specialized governmental entities that provide essential public utilities and services to specific areas, primarily in regions where city services are not available.

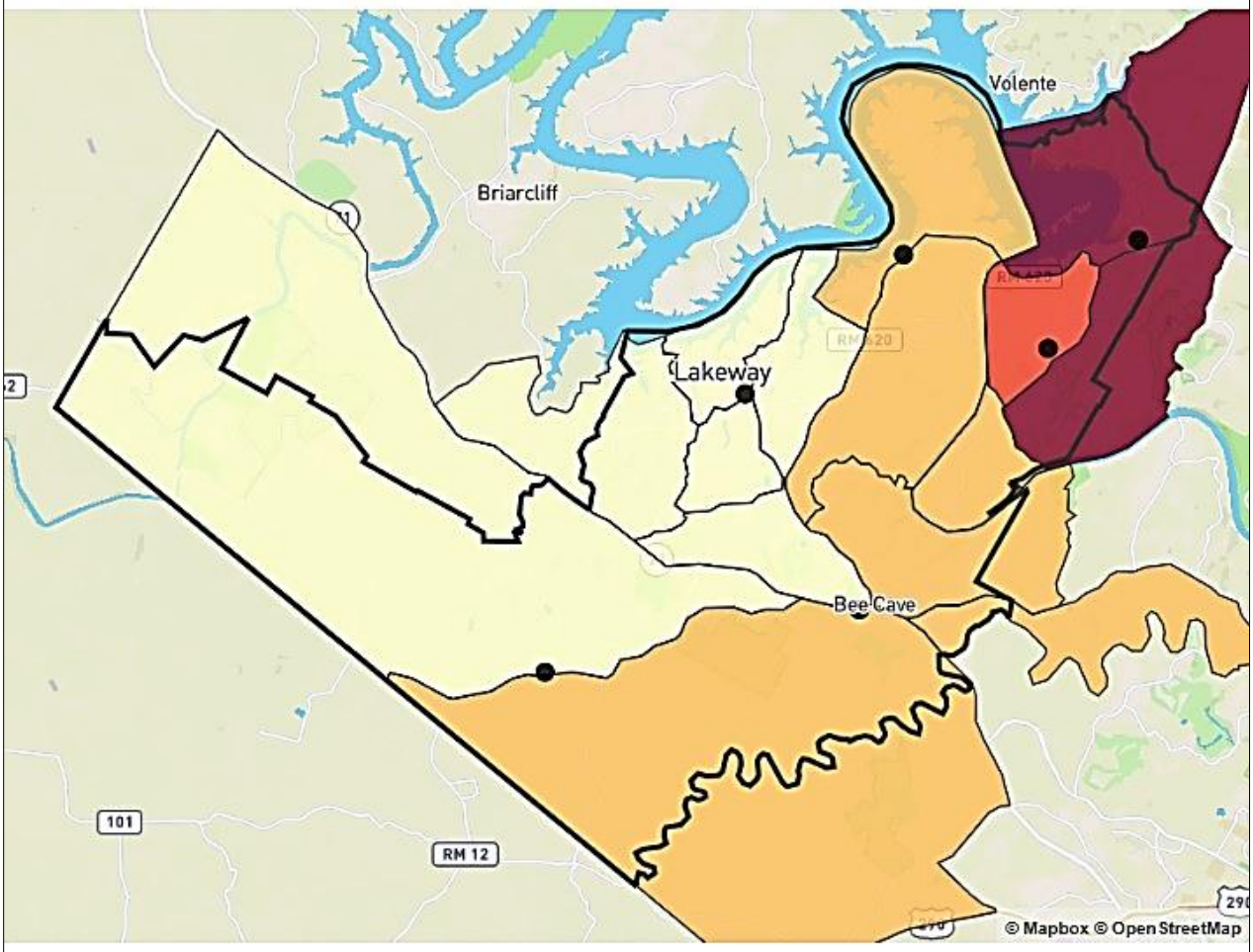
- Purpose and Services: MUDs are created to provide services like water supply, wastewater treatment, drainage, and sometimes additional services like garbage collection, parks, and recreational facilities. They are particularly common in suburban or newly developed areas.
- Legal Framework: MUDs operate under specific chapters of the Texas Water Code, primarily Chapter 54. They are established through a legal process involving the Texas Commission on Environmental Quality (TCEQ).
- Governance: Each MUD is governed by a board of directors, usually elected by residents of the district. This board oversees the operations, sets rates for services, and makes decisions regarding the district's management.
- Funding and Bonds: MUDs can issue bonds to finance infrastructure development, like building water treatment plants or laying sewer lines. These bonds are typically repaid through revenues generated from utility services provided to residents and property taxes within the district.
- Creation and Dissolution: The process of creating a MUD involves petitioning the TCEQ, holding a hearing, and getting approval from the state. Similarly, MUDs can be dissolved or annexed into a city, typically when the area develops, and city services become available.
- Advantages: For residents, MUDs can facilitate the development of infrastructure in areas not served by city utilities, allowing for growth and development in these regions. They provide localized management of essential services.
- Regulation and Oversight: While MUDs operate independently, they are subject to state oversight, primarily by the TCEQ, which ensures compliance with state laws and regulations.
- Property Taxes and Rates: Residents within a MUD typically pay property taxes to the district, which are used for bond repayment and maintenance of the district's infrastructure. Additionally, residents pay rates for the utilities they use.
- MUDs play a crucial role in supporting urban and suburban growth in Texas, enabling residential and commercial development in areas beyond the reach of city services. They are a key element in the State's approach to managing the expansion of utility services in rapidly growing regions.

MUNICIPAL UTILITY DISTRICTS (MUDS) IN TCESD6



[Click here for an interactive map of MUDs in Texas.]

Proximity to Treatment Storage and Disposal Facilities



Sources: EPA EJSCREEN 2021; EPA NATA 2014

Lower values indicate closer and higher values indicate farther from treatment storage and disposal facilities. This Environmental Justice Index is used by the EPA to identify geographic areas that are possibly impacted by environmental hazards, with emphasis on areas with populations which may experience disproportionate

STORMWATER

Some subdivisions are equipped with stormwater collection systems designed to mitigate flooding. It is unknown how many areas within the District do not have stormwater collection systems. However, the District estimates that many currently underdeveloped, incorporated, and older areas of all the cities within the District lack stormwater collection, and instead rely on easement ditch/retention pond systems. Most subdivisions built within the last 15-20 years are equipped with stormwater collection.

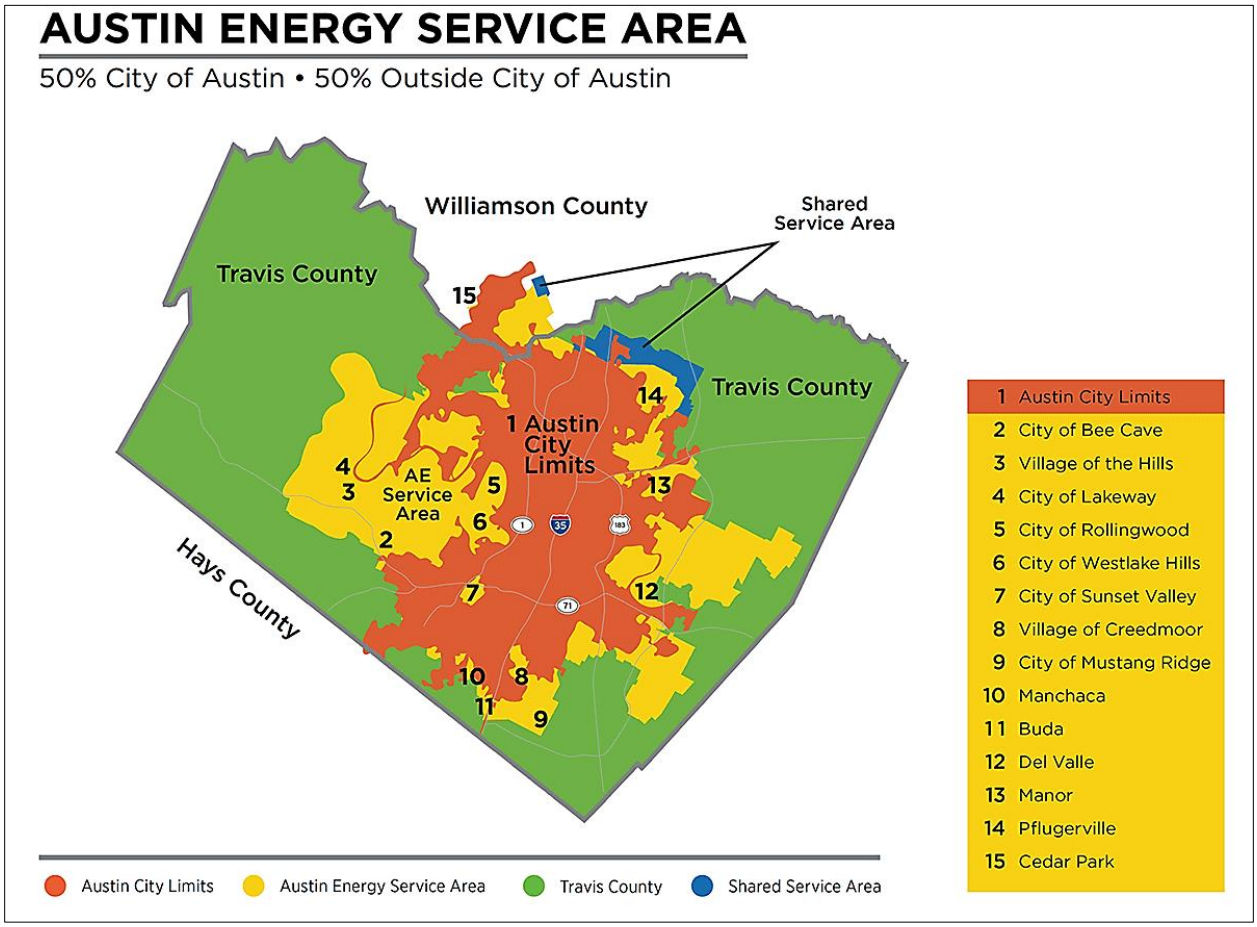
ELECTRICITY

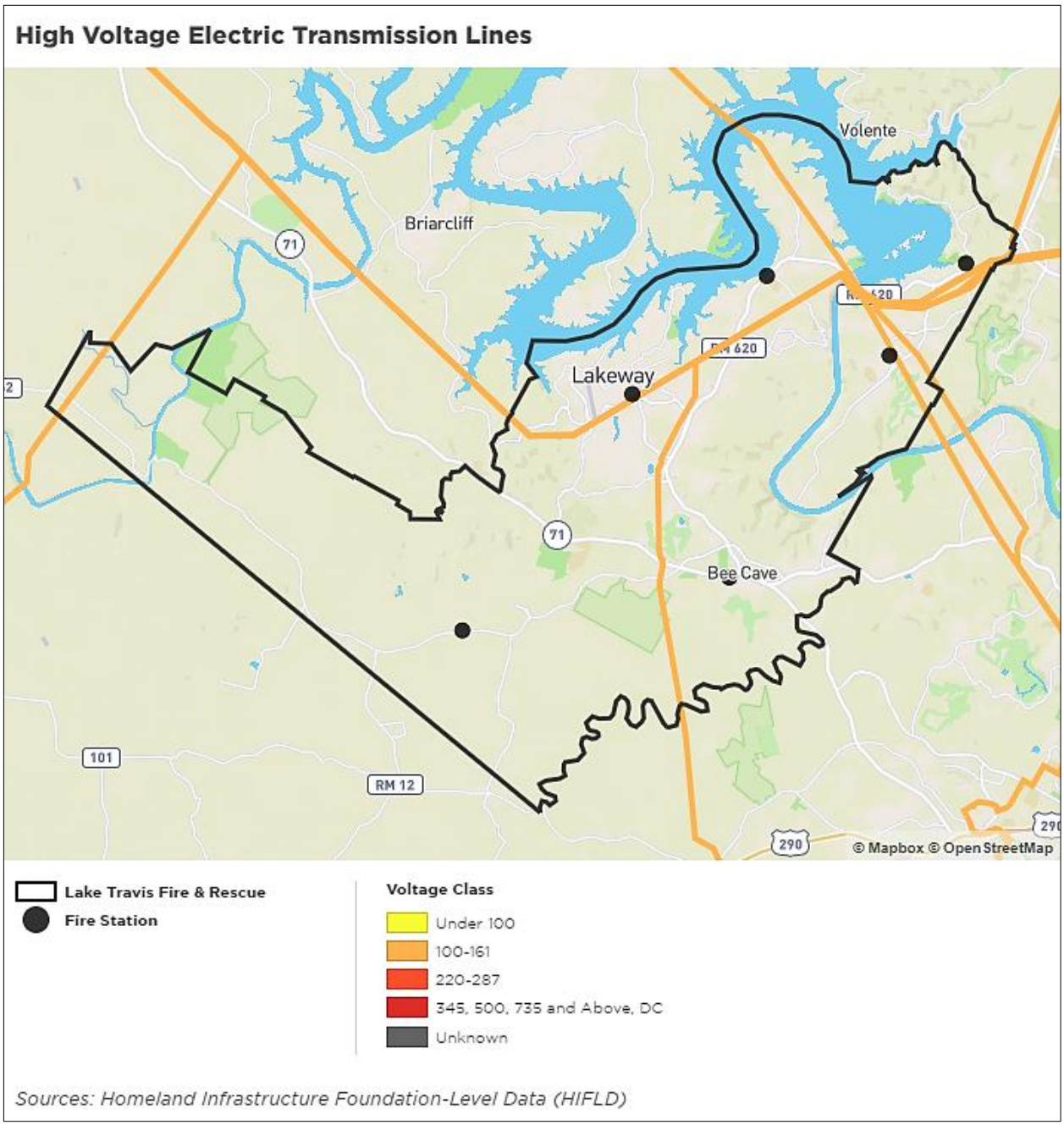
Electricity providers servicing the Lake Travis community include:

Pedernales Electric Cooperative, Inc. (PEC): PEC serves a large area in the Texas Hill Country, including Travis County, which encompasses the Lake Travis area. They provide electricity to numerous accounts across this region. PEC's Website

Lower Colorado River Authority (LCRA): LCRA has been a primary wholesale provider of electricity in Central Texas since 1937. They serve various city utilities and electric cooperatives, although specific information about their service in the Lake Travis area isn't detailed. LCRA's Website

Austin Energy: As the largest supplier in Travis County, Austin Energy provides significant electricity services in the region, including parts of the Lake Travis area. Austin Energy's Website





Note: In July 2023, the power utility companies began updating and replacing the high voltage electric transmission lines in the North Battalion. This section will be revised when the District receives new information upon the project's completion in 2024.

AGRICULTURE LAND USE BY ZIP CODE

Based on Travis County Appraisal District data as of October 2023, the following chart reflects approved agricultural land use and exemptions.

Agricultural Land Usage by Zip Code	Commercial	Other	Residential	Total
78620				
Native Pasture			23	**23**
Wildlife			58	**58**
Pasture			3	**3**
Ecological			2	**2**
78620 Total			**86**	**86**
78663				
Dry Cropland			2	**2**
Native Pasture			4	**4**
Wildlife			6	**6**
Pasture			1	**1**
78663 Total			**13**	**13**
78669				
Wildlife	1		7	**8**
WSA land segment			1	**1**
78669 Total	**1**		**8**	**9**
78732				
Mixed			2	**2**
Native Pasture			4	**4**
Under Water		1	6	**7**
Wildlife			15	**15**
78732 Total		**1**	**27**	**28**
78734				
Conservation Easement	1		9	**10**
Native Pasture	2		4	**6**
Under Water	20	3	57	**80**
Water Front	12	1	11	**24**
Wildlife			12	**12**
Pasture			3	**3**
78734 Total	**35**	**4**	**96**	**135**
78736				
Native Pasture			15	**15**
Wildlife			8	**8**
Golf course area			1	**1**
78736 Total			**24**	**24**

Agricultural Land Usage by Zip Code	Commercial	Other	Residential	Total
78738				
Land			1	**1**
Native Pasture			4	**4**
Dry Cropland			3	**3**
Greenbelt			1	**1**
Land (Private Street)			2	**2**
Landscape			2	**2**
Native Pasture	3		34	**37**
Water Utility / Open Space			1	**1**
Wildlife	8	1	161	**170**
Pasture			6	**6**
Ecological			4	**4**
78738 Total	**11**	**1**	**219**	**231**
Total	**46**	**6**	**465**	**517**

Types of Agricultural Exemptions Defined

- Commercial - Can include viticulture, which is the cultivation and production of grapes or horticulture, which is the cultivation of fruits, vegetables, flowers, herbs or other plants
- Conservation Easement - Used for conservation or restitution projects under certain federal and state statutes
- Ecological - Land devoted principally to agricultural use or the production of timber or forest products used principally as an ecological laboratory by a public or private college or university
- Land – Used for the primary purpose of raising or producing agricultural products for sale in the regular course of business including crops, livestock, timber and more
- Native Pasture - Land covered with grasses native to the area and suitable for grazing animals
- Wildlife - Management of native wildlife on the property including white-tailed deer, turkey, doves, songbirds, bats, butterflies, owls and more
- Pasture - Land covered with grasses and other low plants suitable for grazing animals, especially cattle or sheep
- Under Water - Plot that is primarily under water
- Dry Cropland - Land used to grow crops that are cultivated without irrigation or with a limited amount of precipitation
- WSA Land Segment - Wilderness Study Area: Undeveloped federal land retaining its primeval character and influence

- Waterfront – Property that fronts or attaches to waterfront access
- Mixed - Includes more than one of the agricultural classifications
- Golf Course Area – An area or specific plot of land designated as a golf course
- Greenbelt - Could not be defined - likely relates to something similar to wildlife classifications
- Landscape – A plot or parcel/section of land that has a maintained landscape feature
- Water Utility / Open Space - Land set aside for water utilities

COMMERCIAL AND PRIVATE POOLS BY ZIP CODE

Residential pools, while offering relaxation and recreational opportunities, also come with various risks that homeowners should be aware of. These include:

- Drowning
- Chemical Hazards
- Waterborne Illnesses
- Slips and Falls
- Electrical Hazards
- Entrapment Hazard

Source: Travis County Tax Appraisal. Some zip codes cross County ESD lines.				
Zip Code	**Commercial**	**Spas**	**Residential**	**Total**
78620 – Hamilton Pool Road communities.			184	184
78663 – Portions of Hamilton Pool Road			3	3
78669 – Sweetwater and Vail Divide communities	1		61	62
78732 – Steiner Ranch area and surrounding communities.	5	1	1,583	1,589
78734 – Primary City of Lakeway and surrounding communities.	15	14	1,977	2,006
78736 – Hamilton Pool Road and Crumley Ranch Road communities			16	16
78738 – Primary City of Bee Cave and surrounding communities.	16	3	3,108	3,127
Total	***37***	***18***	***6,932***	***6,987***

SECTION 5 - STANDARD OF COVER

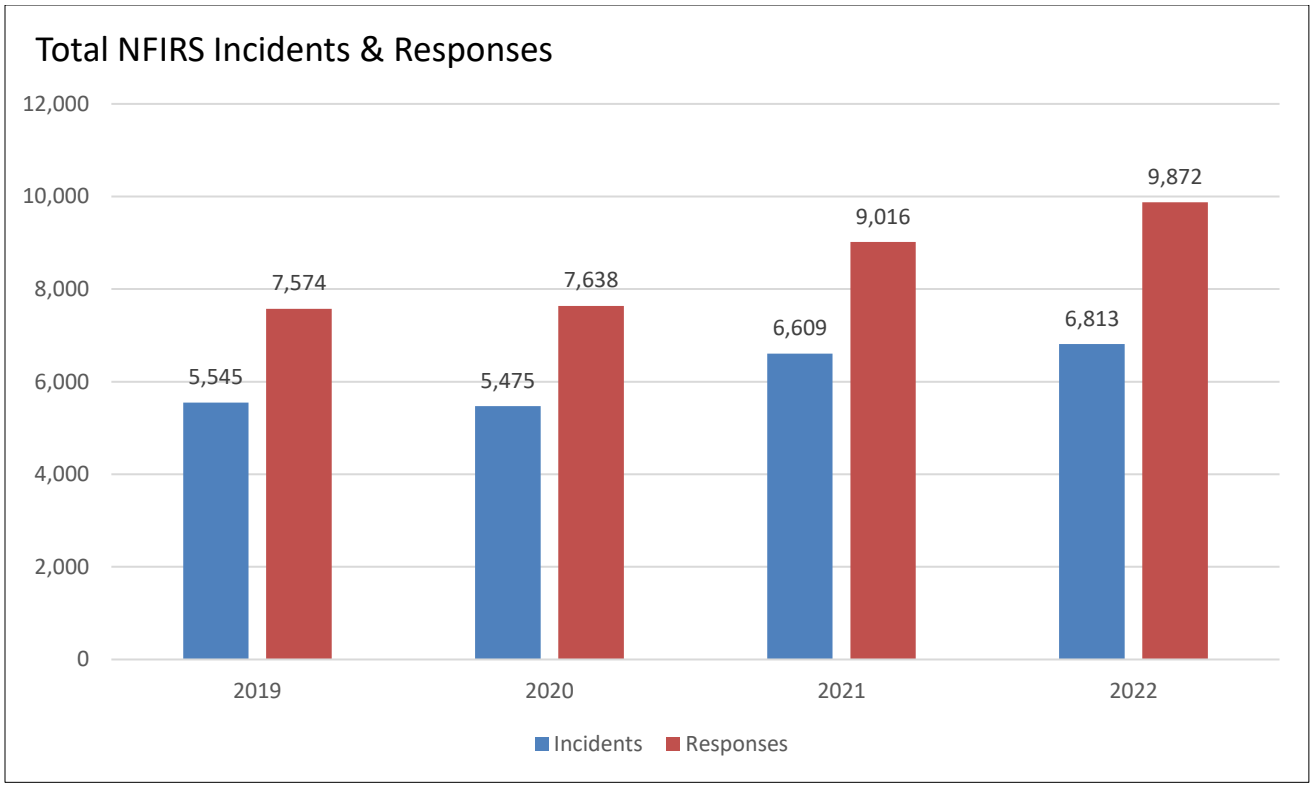
The Standard of Cover (SOC) has been complied by using forecasting models, incident data, and standard time and response calculations using the following systems or guidelines:

1. Levrum - Code 3 Strategist®
2. ESO Solutions® Record Management System & Electronic Patient Care Records (ePCR)
3. National Fire Protection Association (NFPA) Craig1300 CRA Insight Generator®
4. NFPA™ 1710/1720 Effective Firefighting Force (EFF) assembly time calculations
5. CFAI™ Effective Response Force (ERF) calculations

TOTAL INCIDENT VOLUME 2019-2022

In the four years of reported data, LTFR experienced an increase of 20.5% in total incidents, or an average 5.1 % increase per year. More notable is the rise in unit *responses or "runs"* to each incident, as many incidents require more than one unit to mitigate an emergency. LTFR experienced a 26.7% increase in unit responses over the four years, or an average 6.7% increase yearly. There are a few reasons for this increase over the period studied, which include ensuring an additional unit is sent to all traffic collisions to be used as a "blocking unit" to reduce serious injuries or death to the personnel on the scene, any incident outside the District's response area such as Auto Aid incidents, and some special assignments, and sending three units (two engines/quints and one battalion chief) to all cardiac arrest incidents. While the data supports the continued deployment of units in serious or labor-intensive incidents, there are many incidents where the system is over-assigning units that could be handled by units more adequately staffed and equipped to mitigate the situations safely and effectively. These incidents present as low-urgency medical incidents, public assistance, and some investigations. It should be noted that each of the years between 2019 – 2022 has contained significant situations or events that have either increased or decreased responses to specific incidents:

- 2019 – Local and statewide flooding
- 2020 – COVID – 19 pandemic
- 2021 – Winter storm "Uri", COVID
- 2022 – Winter storm "Urma", vegetation volumizing, followed by the beginning of drought conditions in 2023.



INCIDENT TYPES & COUNTS

The National Fire Incident Reporting System (NFIRS) is a reporting standard the District uses to uniformly report on its activities, from fire to emergency medical services to severe weather and natural disasters. NFIRS categorizes incidents into nine separate sections, each having a number of subjection codes that further define both the initial report and final action taken on an incident.

NFIRS 100 – FIRE INCIDENTS

The District experienced an increase in total fire-related incidents of 71.55% over four years, or an average 17.88% increase per year. Dryer-than-average weather conditions and reduced moisture accounted for an above-average increase in 2022. NIFRS 100 Fire Incidents includes, but are not limited to, the following type of fires:

- Structure and building fires
- Fires in mobile homes used as fixed residences
- Chimney and flue fires
- Cooking fires
- Vehicles fires
- Machinery fires
- Wildfire, vegetative, and debris fires

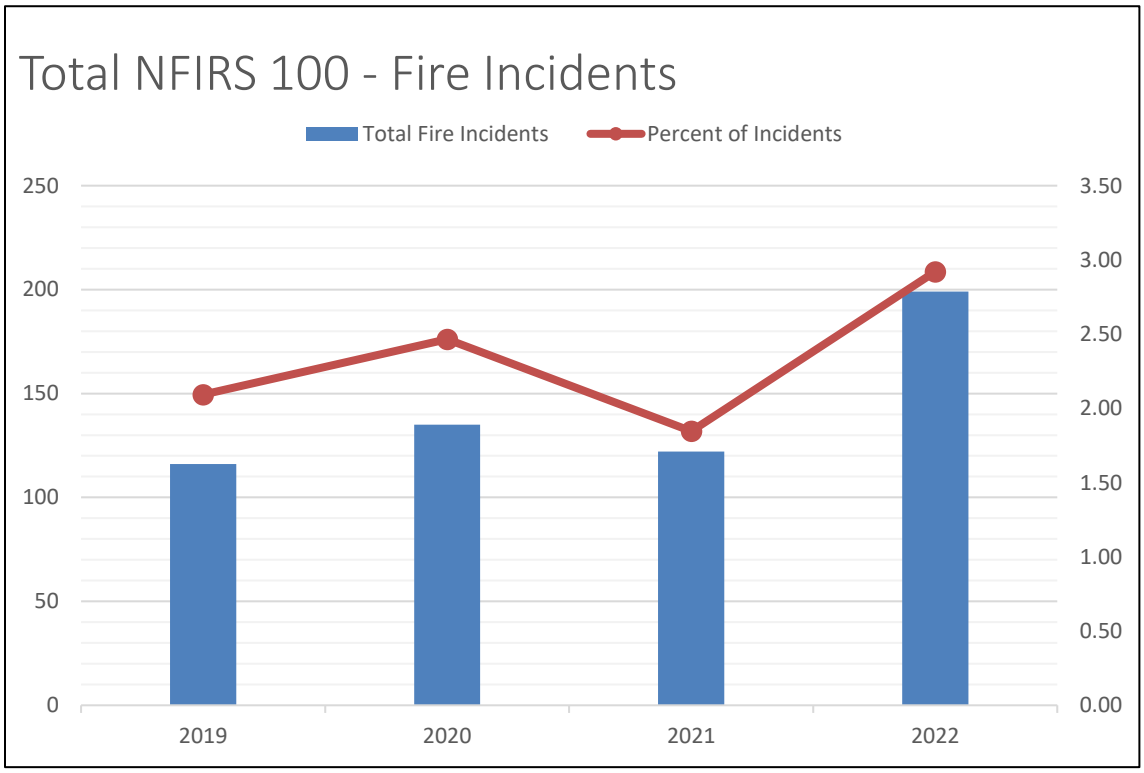
A community's fire rate can be influenced by the following:

Building and Fire Codes: Communities with stricter building codes and regular inspections may have fewer structure fires.

Public Education and Prevention Programs: Communities that invest in fire safety education and prevention programs tend to experience fewer fires.

Socioeconomic Factors: Areas with higher poverty rates or older housing stock might have higher fire risks due to factors like outdated electrical systems or limited access to fire safety resources.

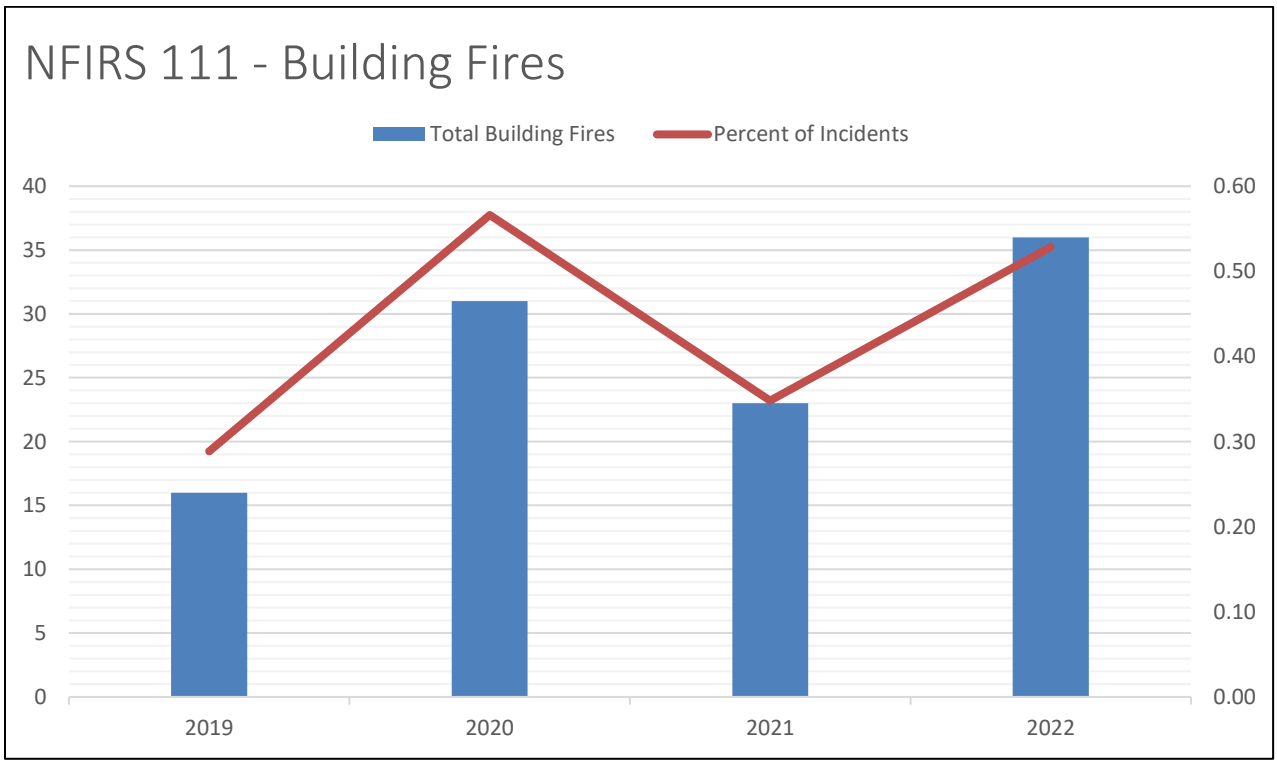
Fire Department Resources and Response Time: The effectiveness and resources of the local fire department play a significant role in both preventing and quickly responding to fires.



NFIRS 111 – BUILDING FIRES

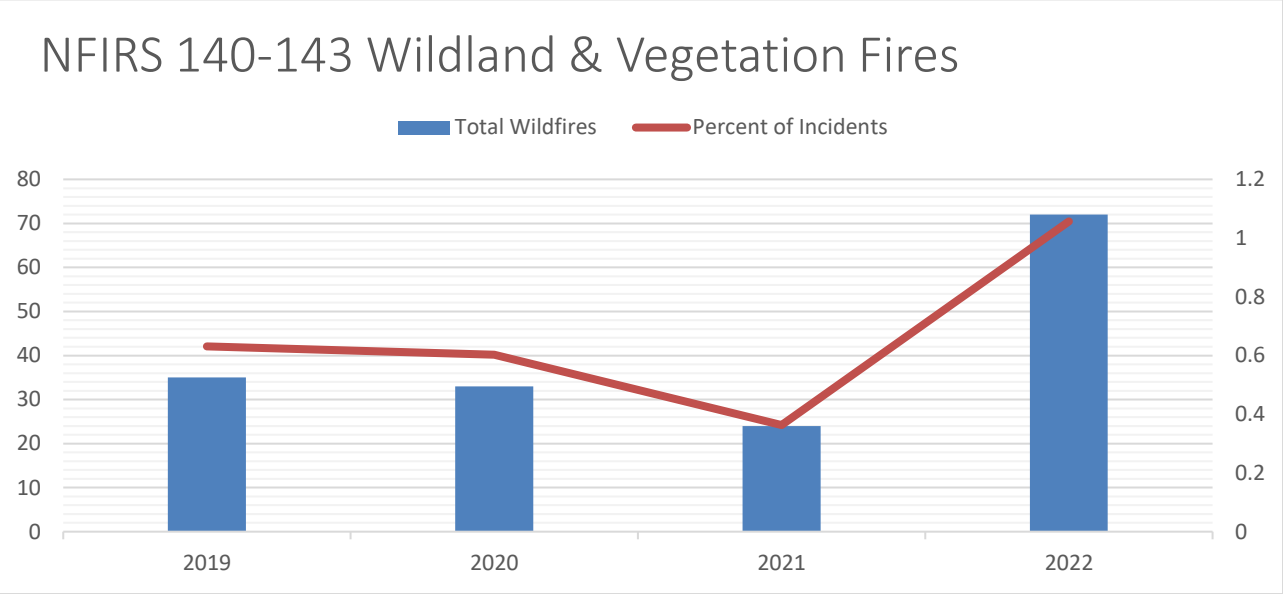
Building and structure fires alone increased 125% over the period of 2019-2022, with an average increase of 31.5% per year. While a 125% increase may sound high, 36 total building fires in 2022 (<1%) is still lower than the average national average for similar populations and demographics.

The low structure/building fire rate reflects several programs the District has implemented over the last two decades, which include additional stations, staffing, training, fire codes and enforcement, and public education in addition to the age of our buildings and homes. As reflected in the CRA portion of this document, most single-family homes have been built within the last 20 years, in addition to most multi-family apartments and condos being constructed within the same period, meeting or exceeding, in some cases, required building and fire codes designed to reduce fires.



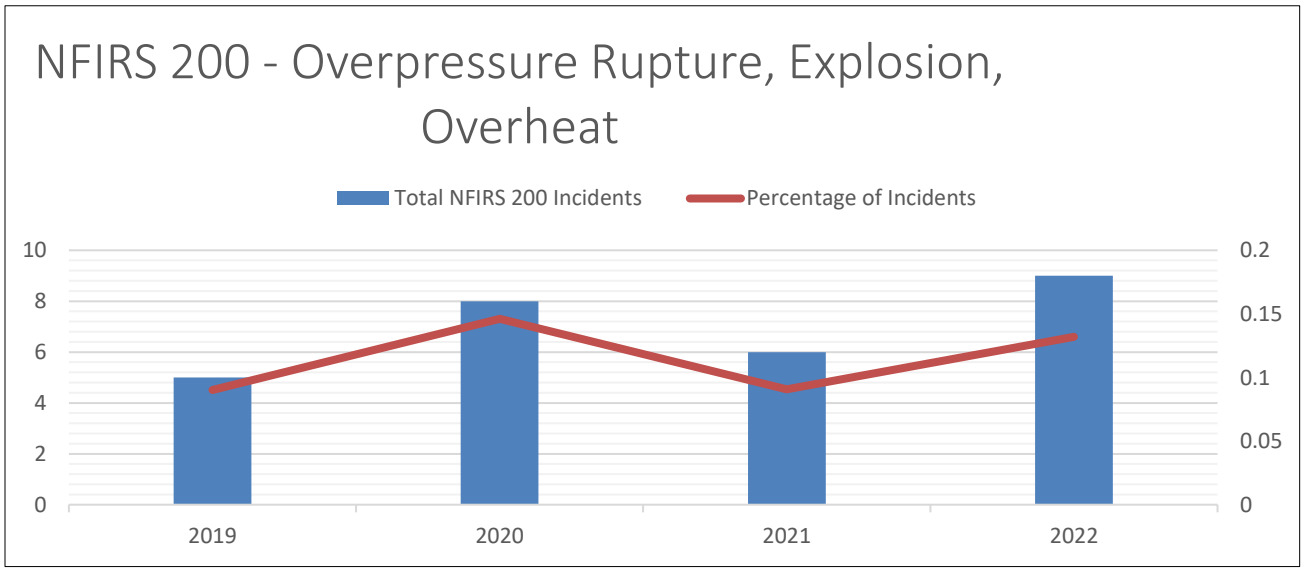
NFIRS 140 - 143 – WILDLAND & VEGETATION FIRES

Since 2019, wildland and vegetation fires have increased by 105.7%, resulting in a 26.4% average yearly increase. While the District has less than 1.2% of wildland fires from the total annual incident volume, large wildland fires can quickly spread throughout the communities and are extremely taxing on local and regional emergency services.



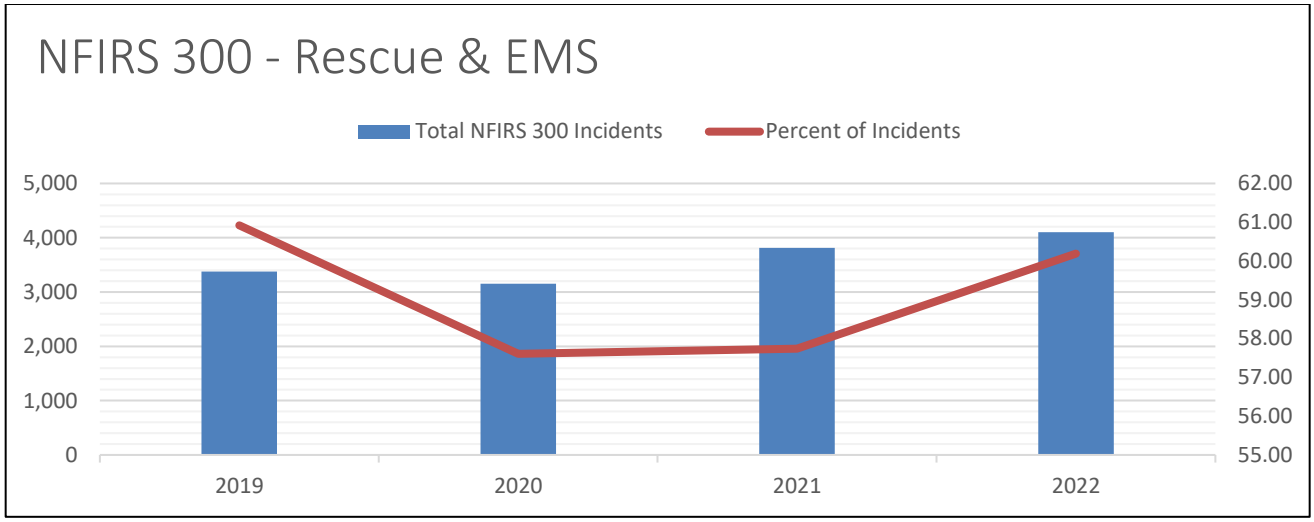
NFIRS 200 – OVERPRESSURE RUPTURES, EXPLOSIONS, OVERHEAT

Overpressure ruptures, and explosions are less common, but can be deadly in or near populations and communities. The District experienced an 80% increase in these calls, averaging an annual increase of 5.3% per year, but remaining <1% of the total incident volume for the four-year period.



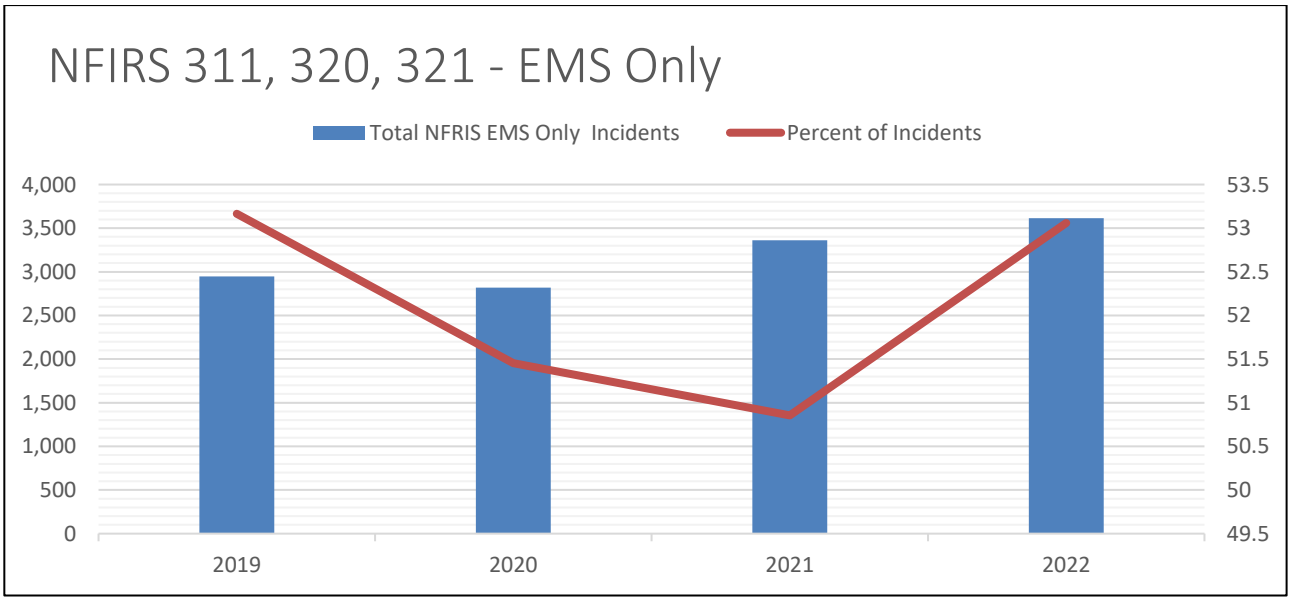
NFIRS 300 – RESCUE & EMS

Rescue and EMS represent much of the total incident volume. Over the four years shown in the chart, incidents relating to search and rescue, medical services, technical rescue, extractions, vehicle collisions, and mental health assistance have increased by 21.4%, or an average of 5.4% annually.



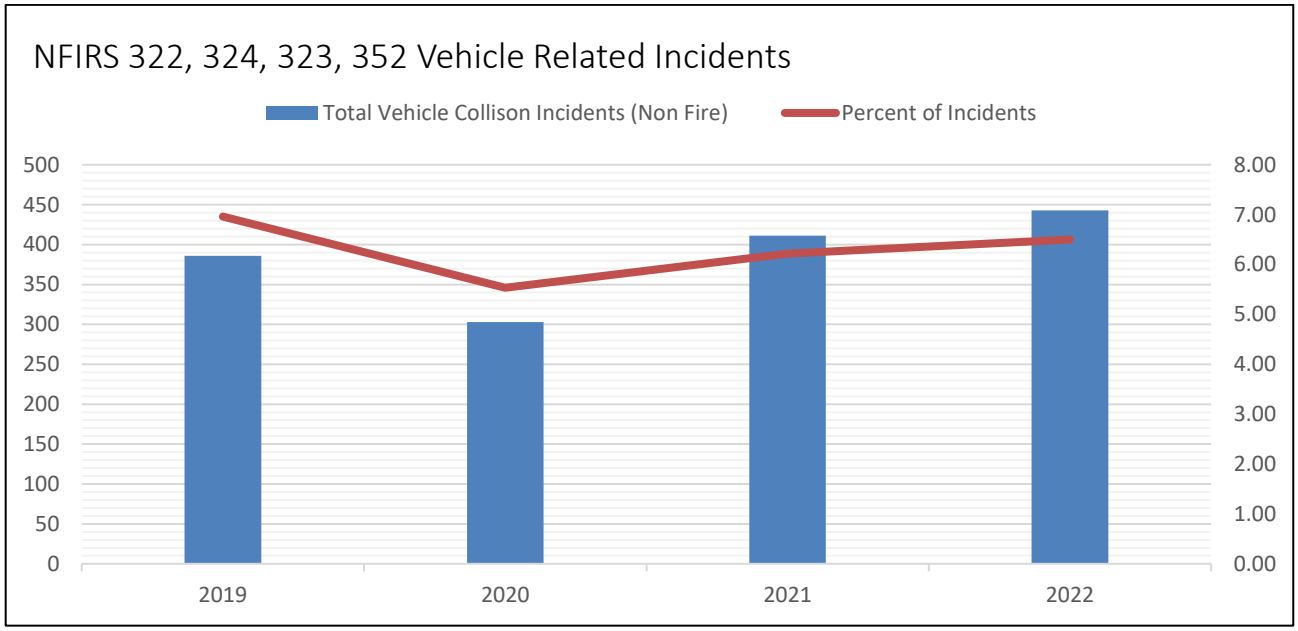
NFIRS 311, 320, 321 – EMS ONLY

Taking a deeper dive into the NFIRS 300 series, NFIRS 311, 320, 321 (EMS only) reflects a 53.3% average in 2022. Between 2020-2021 a slight lull was experienced due to the slowdown/shutdown due to the COVID-19. However, incidents rebounded in 2022 with pandemic-related mandates lessening, resulting in a balanced annual average for the four-year period.



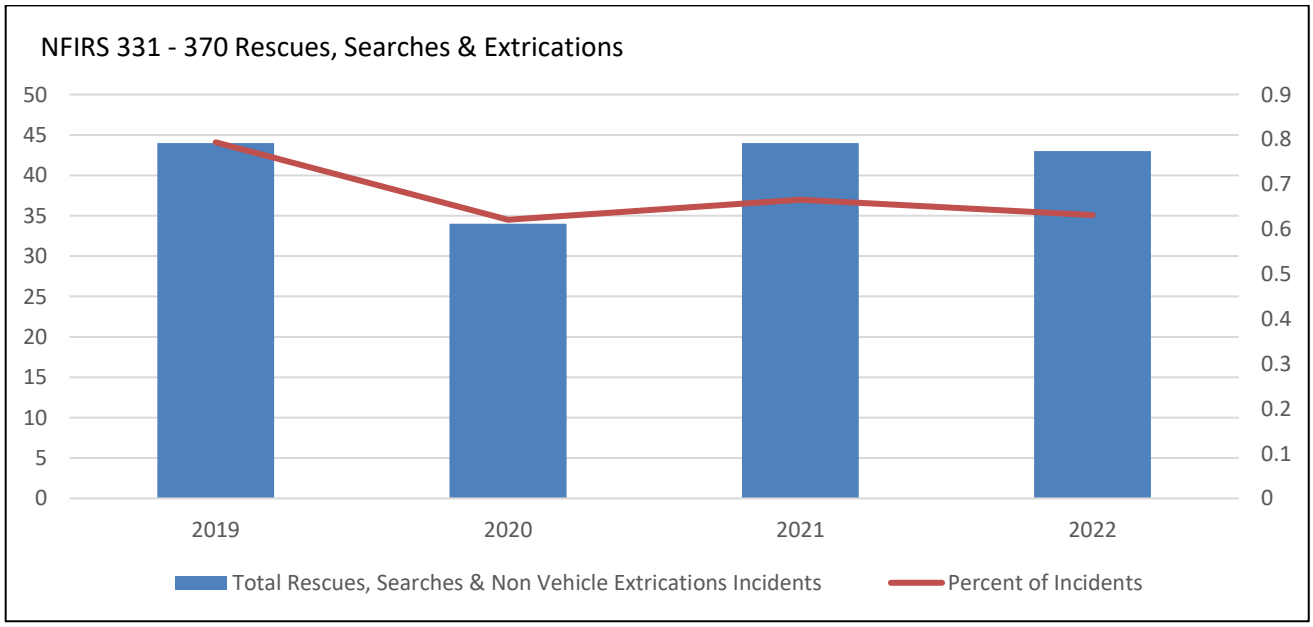
NFIRS 322, 324, 352 VEHICLE-RELATED INCIDENTS (NON-FIRE)

Vehicle-related incidents requiring medical assistance at either the basic life support (BLS), advanced life support (ALS), and at times, mechanical extraction, have increased 14.8% over the four-year period shown, or 3.7% annually. While these incidents have never crested over 7% of the total incident volume, vehicle collisions can be extended in duration, resource-heavy, and impact response times throughout the entire community.



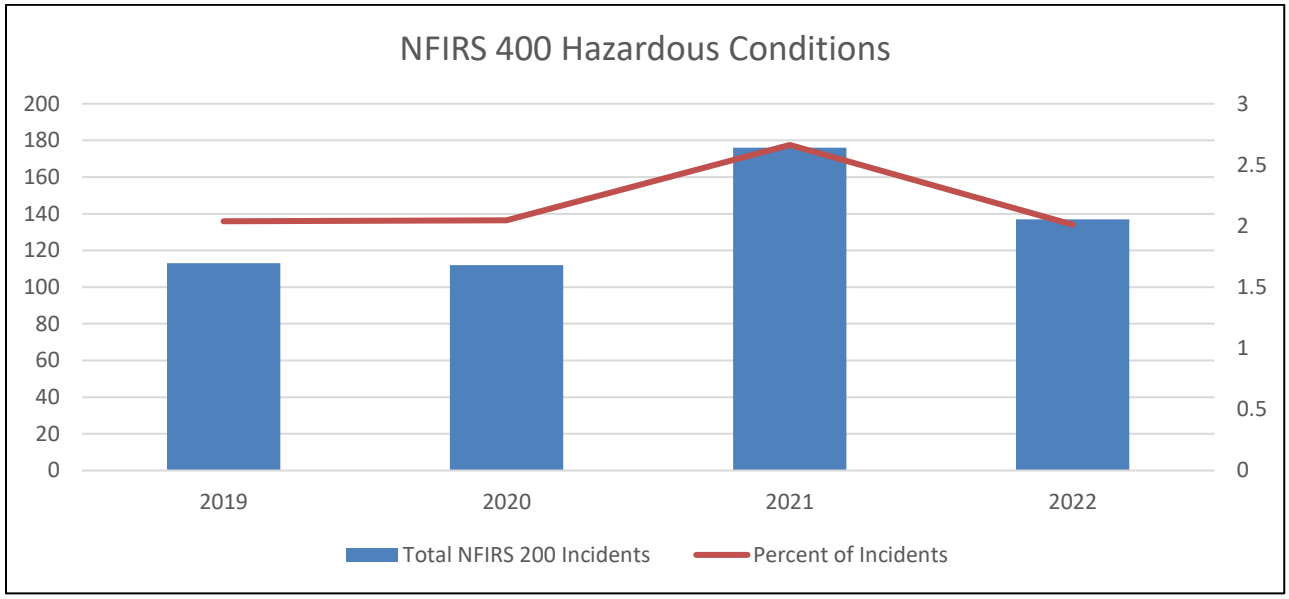
NFIRS 331-370 – RESCUES, SEARCHES, & EXTRACTIONS

Vehicle rescues (pin-in/entrapments), land and water rescues, and removal from non-vehicle situations have remained balanced over the four-year period.



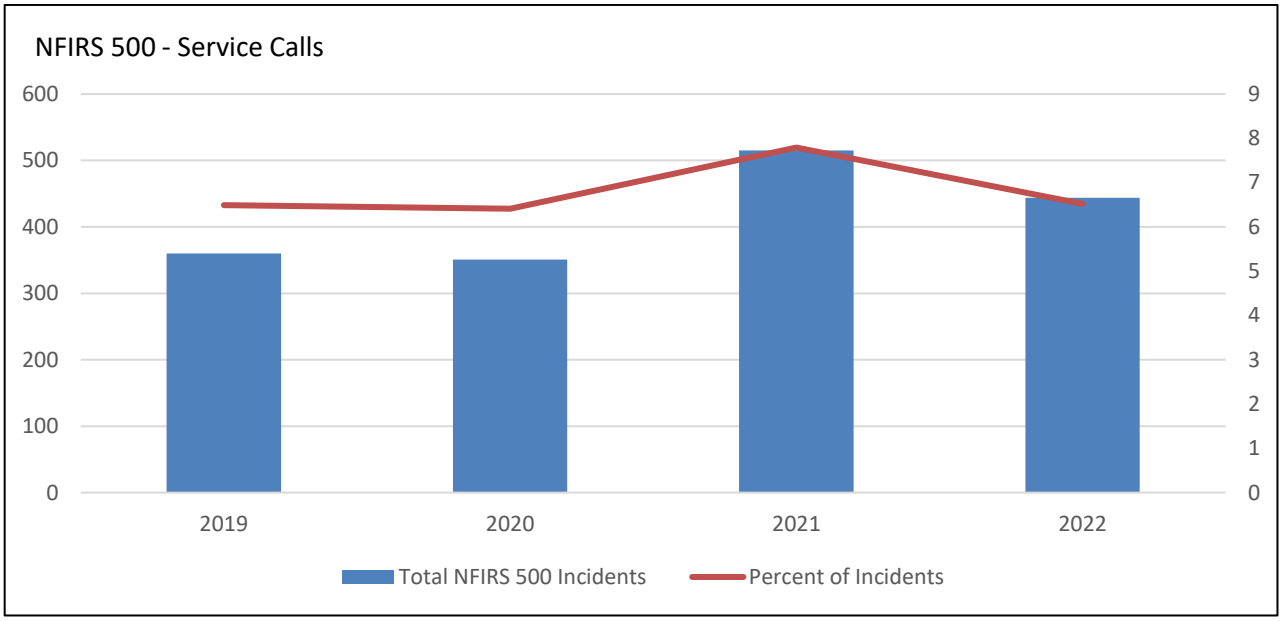
NFIRS 400 – HAZARDOUS CONDITIONS

Hazardous conditions have increased 21.23% over the four years for an average increase of 5.3% per year. Hazard conditions include but are not limited to chemical/flammable liquid spills and releases, radioactive materials, electrical wire/equipment failure (non-fire), biological hazards and cleanup of crime scene/decomposed bodies, explosive/bomb responses, illegal drug labs/manufacturing, and illegal burning of materials.



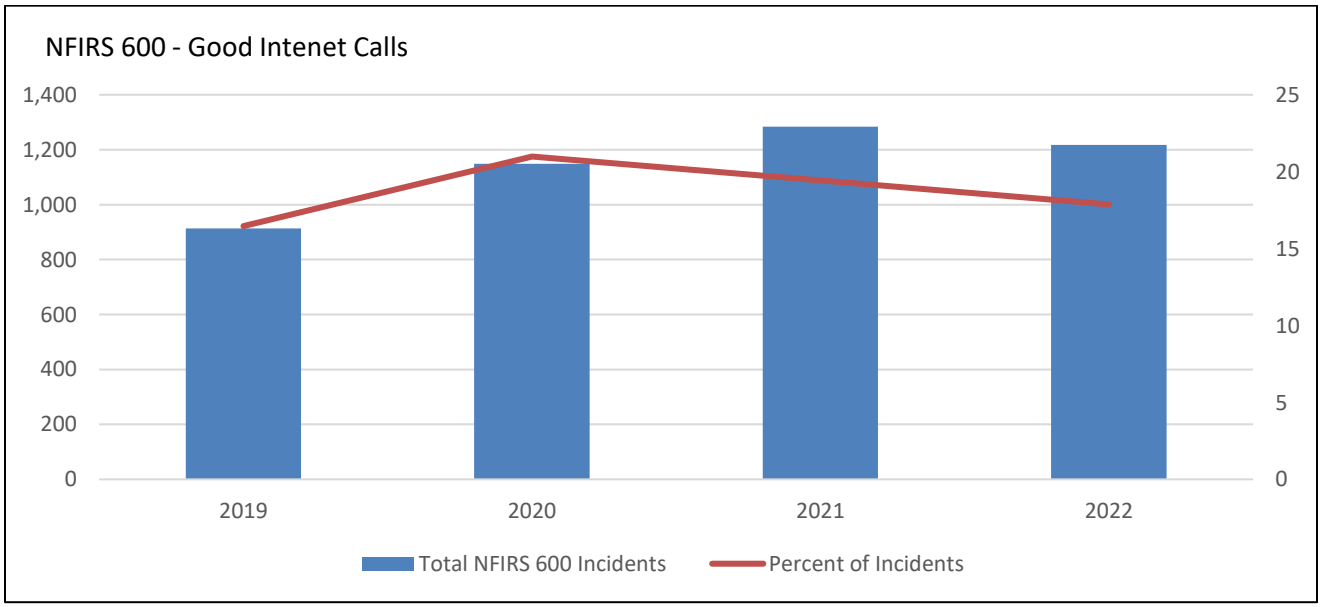
NFIRS 500 – SERVICE CALLS

Services calls increased a total of 23.3% over the four-year period, or an average increase of 5.8% per year. Service calls include, but are not limited to, persons in distress not meeting the definition of any of the NIFRS 300 codes, water pipe breaks, smoke and odor problems, animal rescues, public service assistance, unauthorized burning, and station move-ups and standby at fire stations.



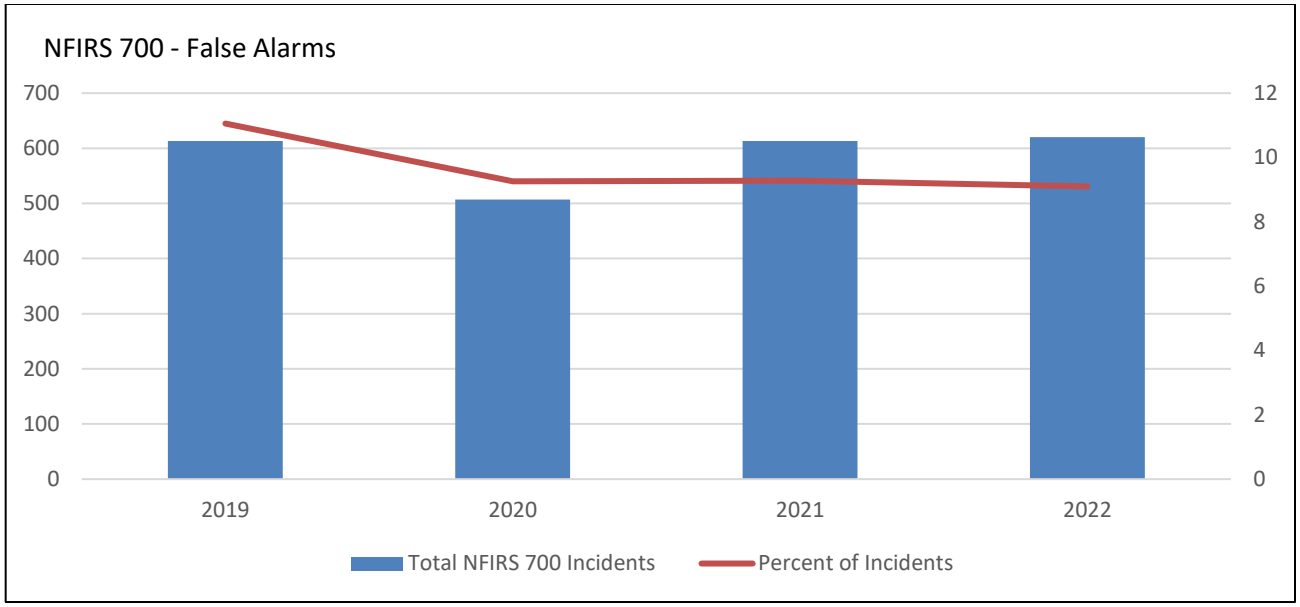
NFIRS 600 – GOOD INTENT CALLS

Good intent calls increased 33.3% over the four-year period for an annual average increase of 8.32%. Good intent calls include but are not limited to dispatched and then canceled en route, controlled burning, smoke scare or reported concerns, and hazard conditions, where no actual hazards were found.



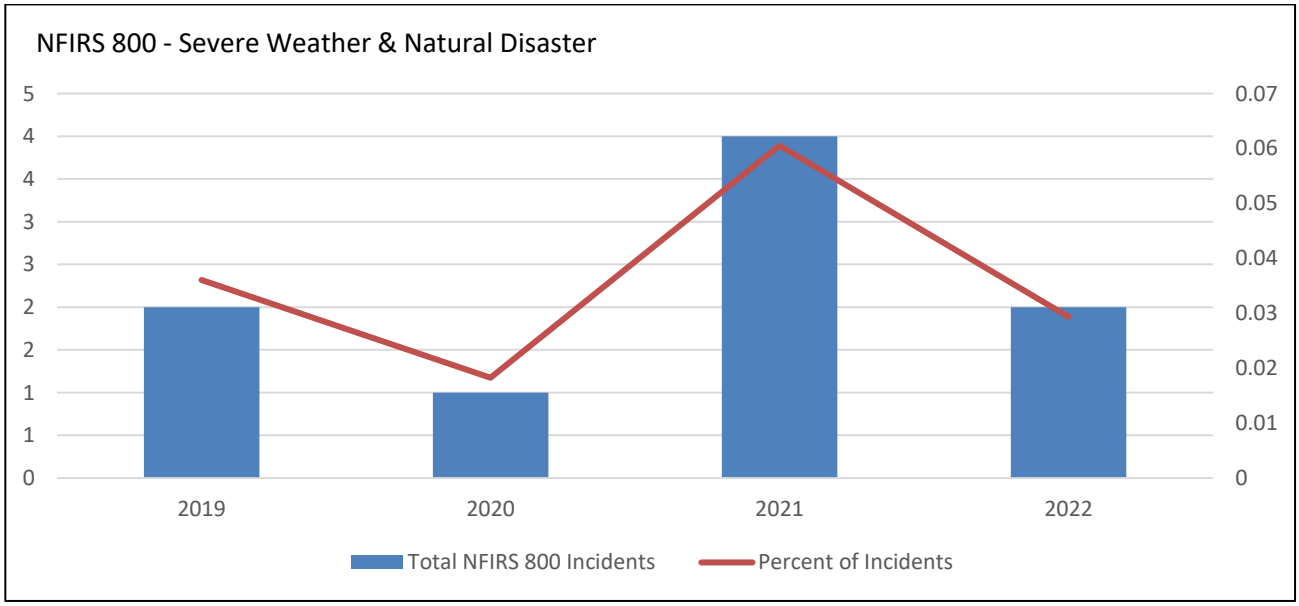
NFIRS 700 – FALSE ALARMS

Fire alarms and associated incidents that include false alarms, bomb scares, biohazards concerns, and reports of incidents where no actual incident was found, or action taken was warranted other than the investigation, increased only 1.14% over the four years.



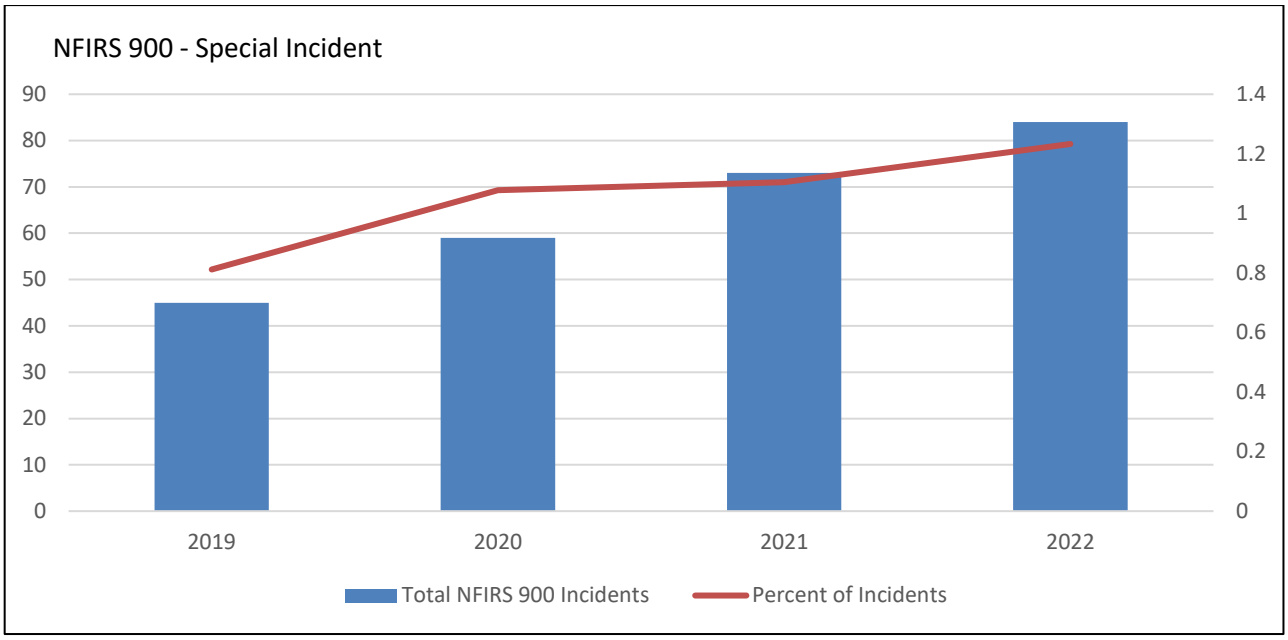
NFIRS 800 – SEVERE WEATHER & NATURAL DISASTER

LTFR responded to several different weather and natural disasters in the four years, including flooding, severe and historic winter storms in 2021, and record drought conditions beginning in 2022 and leading into 2023. These types of incidents increased by an average annual increase of 4.6%.



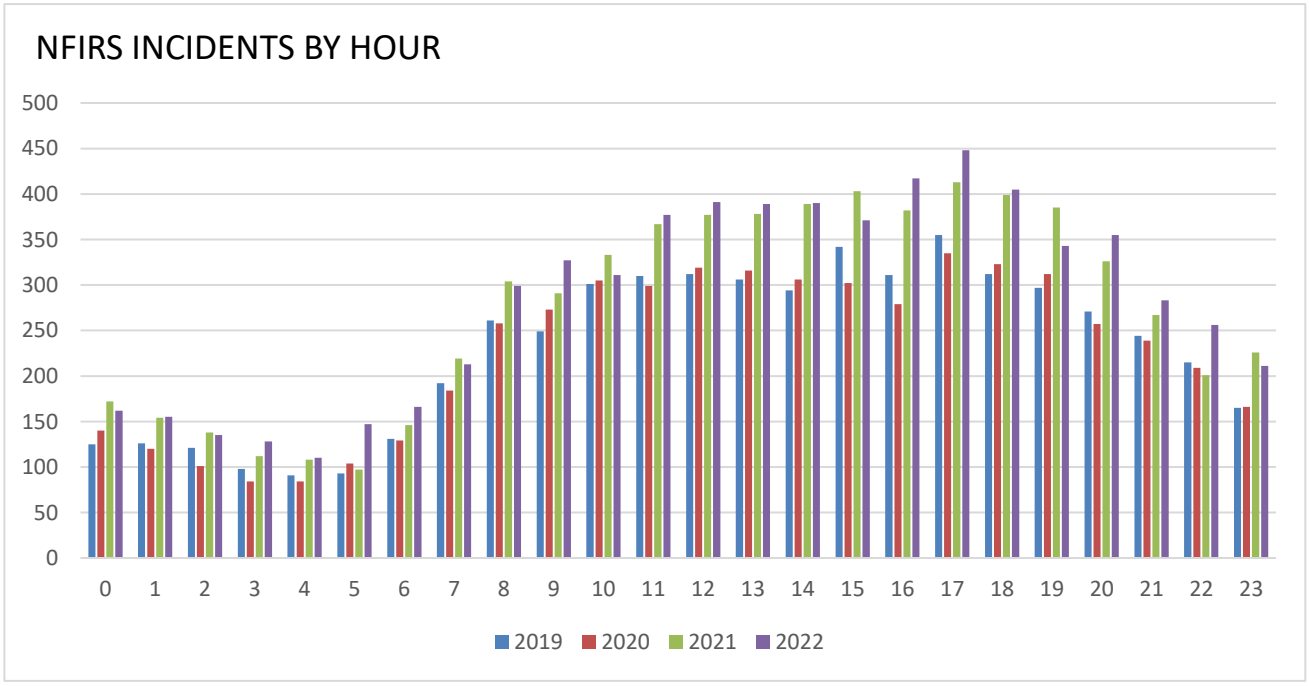
NFIRS 900 – SPECIAL INCIDENTS

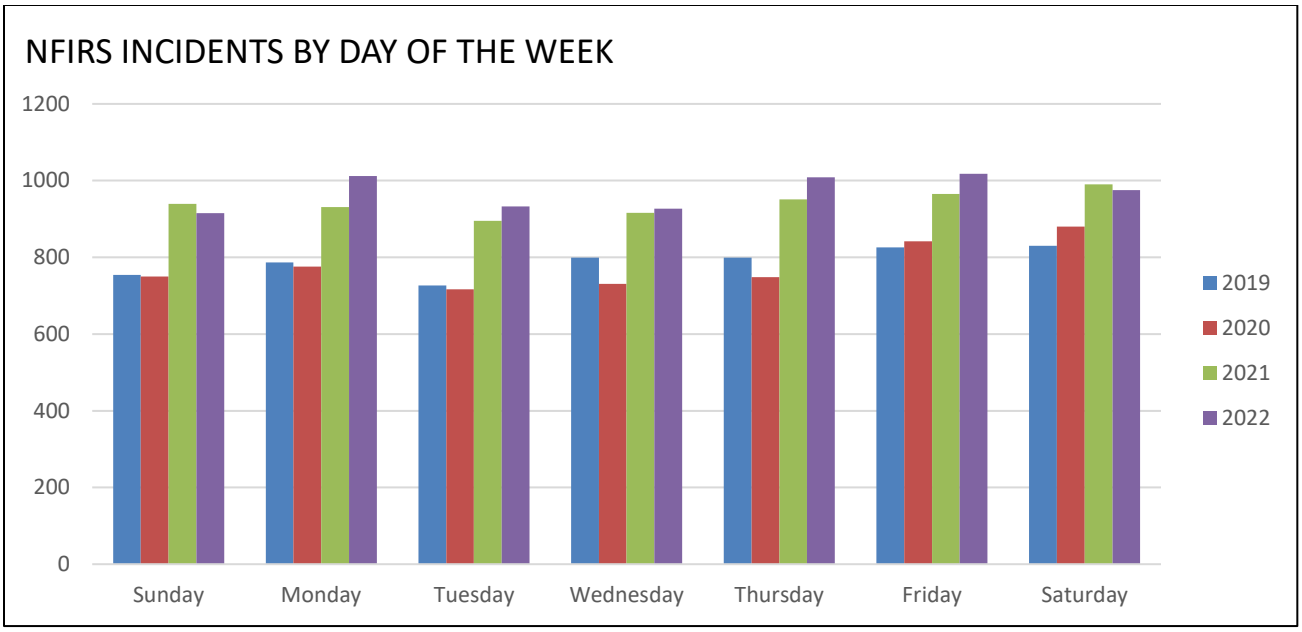
Special incidents increased by 86.7% over the four years, or 21.7% annually. Special incidents include investigation of resident complaints including fire code and ordinance violations.

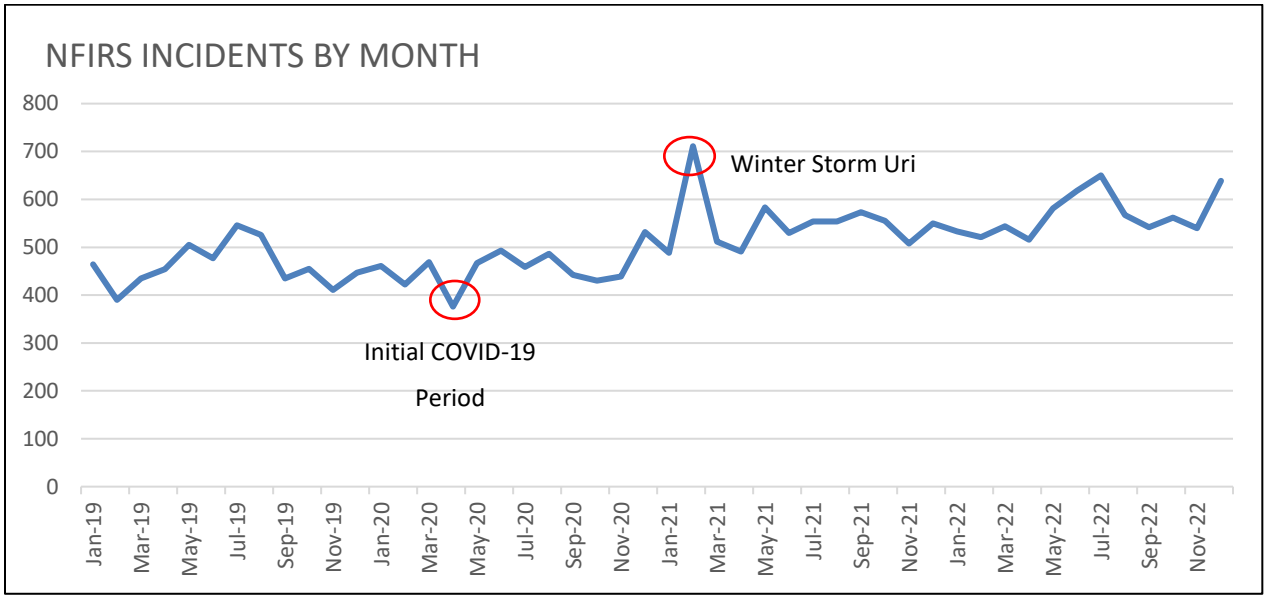


INCIDENTS - HOUR OF DAY, DAY OF THE WEEK, MONTH OF YEAR

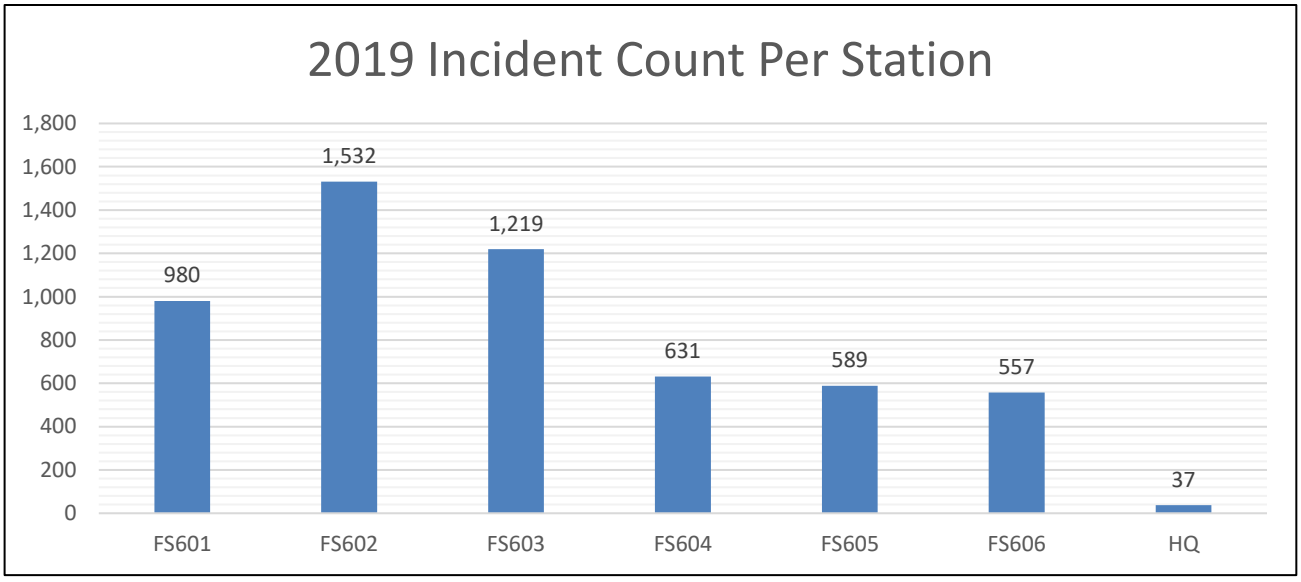
Incidents recorded by the hour of the day and day of week remained relatively consistent throughout the four years with mid-day increases noted in 2021-2022, when measured against the overall annual incident increases. Hour-of-day measurement provides data to reflect when demand rises and falls to deploy additional units such as extra staffed units to assist in handling system load and unit reliability.

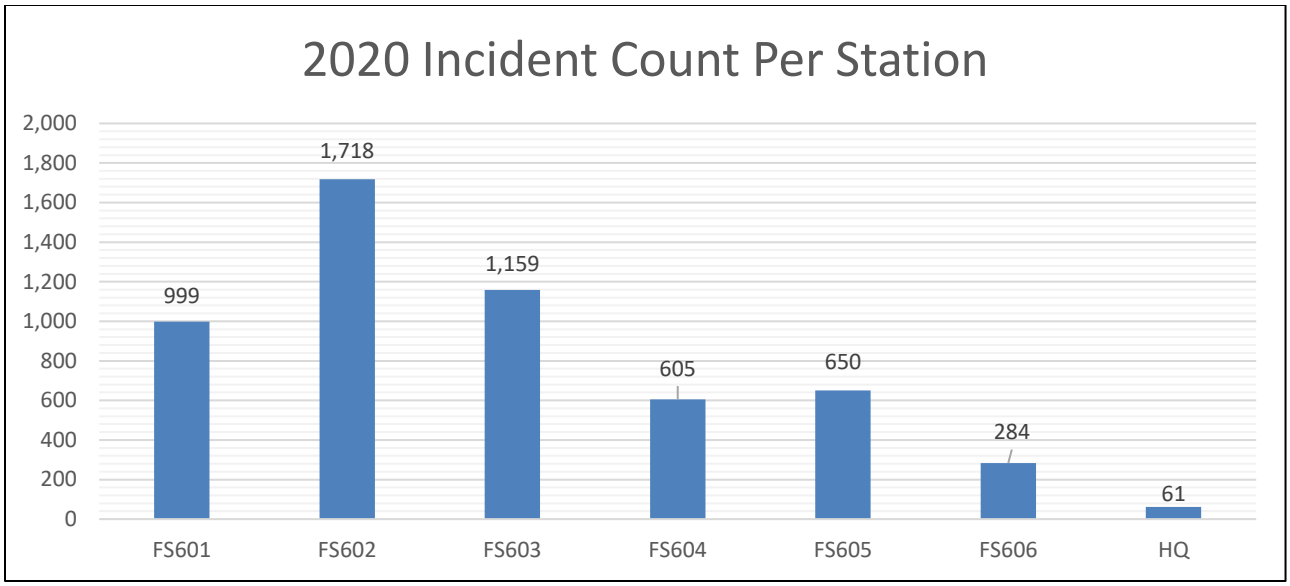


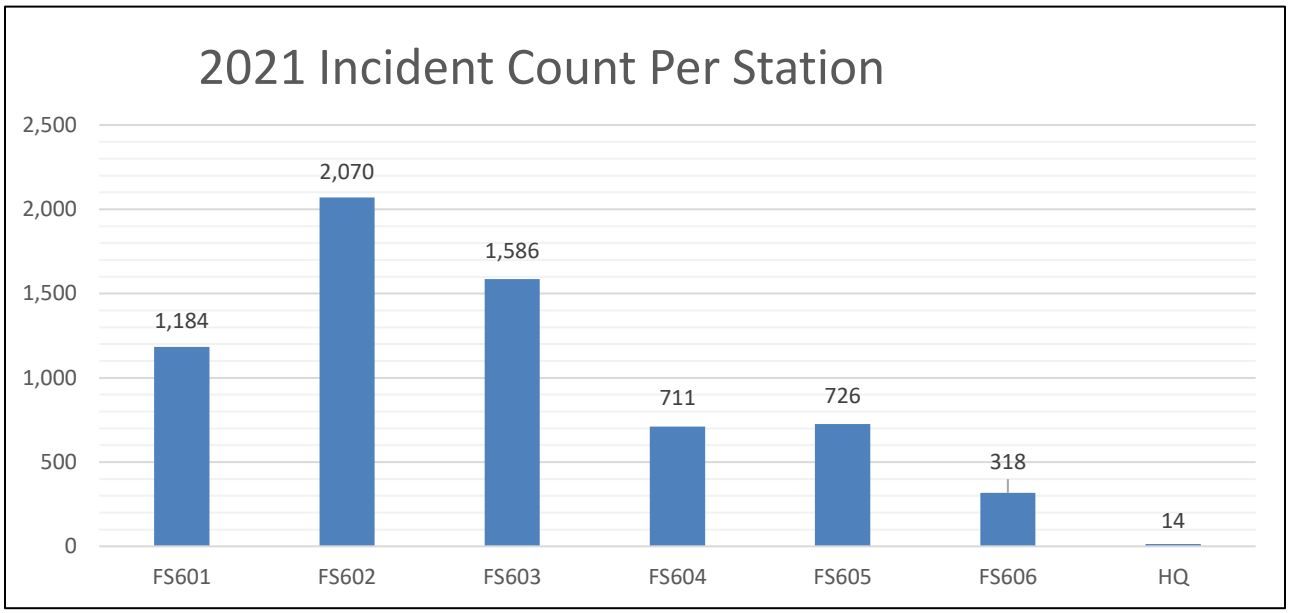

NFIRS INCIDENTS BY DAY OF THE WEEK
1200
1000
800
600
400
200
0
Sunday
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
2019
2020
2021
2022

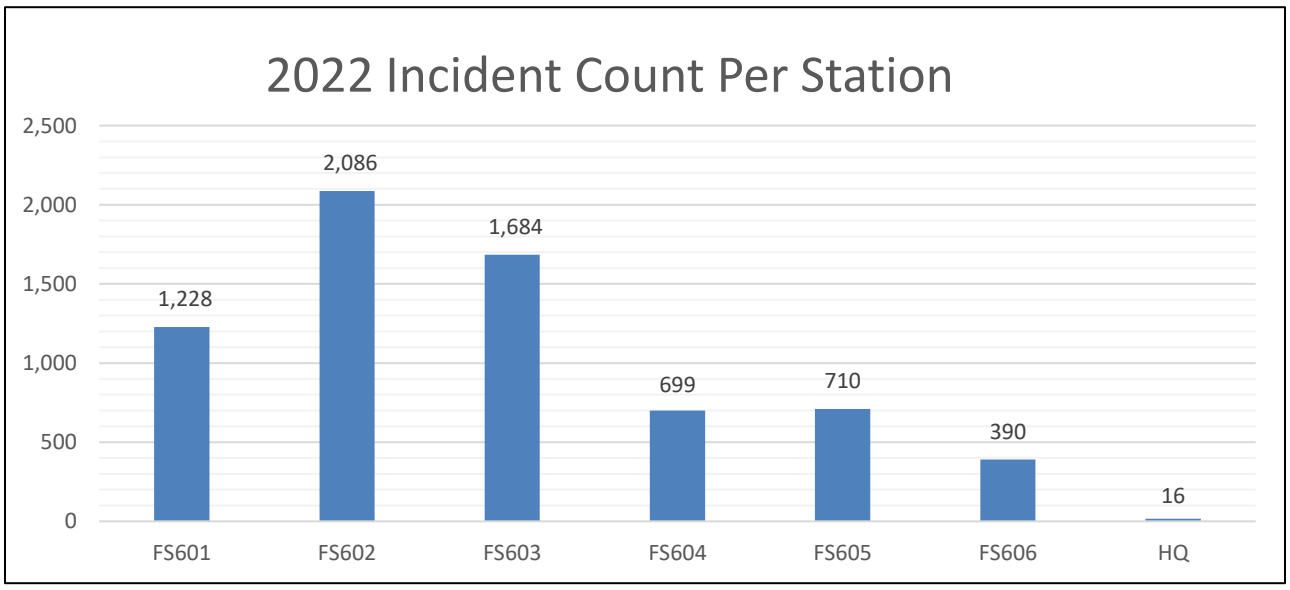

NFIRS INCIDENTS BY MONTH
800
700
600
500
400
300
200
100
0
Winter Storm Uri
Initial COVID-19
Period
Jan-19
Mar-19
May-19
Jul-19
Sep-19
Nov-19
Jan-20
Mar-20
May-20
Jul-20
Sep-20
Nov-20
Jan-21
Mar-21
May-21
Jul-21
Sep-21
Nov-21
Jan-22
Mar-22
May-22
Jul-22
Sep-22
Nov-22

INCIDENT COUNT PER STATION



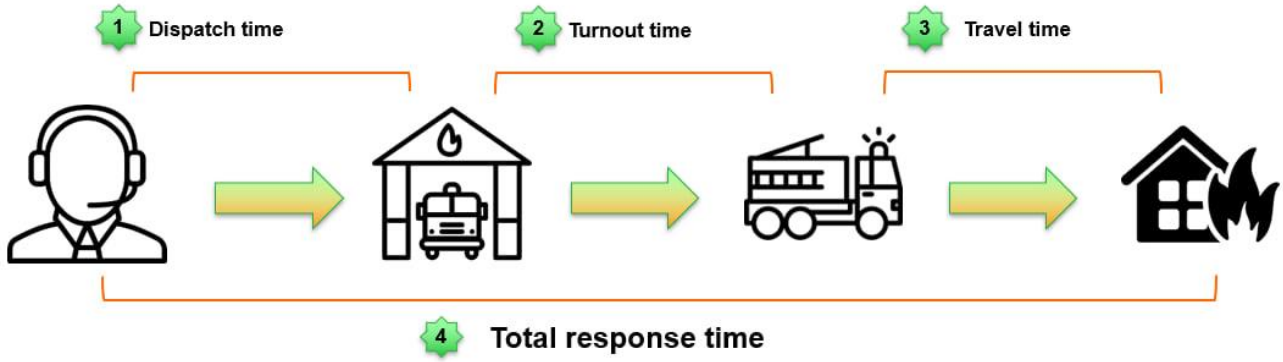

2020 Incident Count Per Station
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
999
1,718
1,159
605
650
284
61
FS601
FS602
FS603
FS604
FS605
FS606
HQ


2021 Incident Count Per Station
2,500
2,000
1,500
1,000
500
0
1,184
2,070
1,586
711
726
318
14
FS601
FS602
FS603
FS604
FS605
FS606
HQ


2022 Incident Count Per Station
2,500
2,000
1,500
1,000
500
0
1,228
2,086
1,684
699
710
390
16
FS601
FS602
FS603
FS604
FS605
FS606
HQ

RESPONSE PERFORMANCE

Measuring the performance of the emergency response provides the District with the ability to identify areas of each segment of response from the moment the call is received at the 9-1-1 center to the second the first unit arrives on the scene.



INCIDENT – 90TH PERCENTILE CALL PROCESSING TIME

Alarm Handling Time - the time it takes for a public safety communications center to process an emergency alarm from the time it is received, to the time appropriate emergency resources are dispatched. This is a critical metric for performance and effectiveness in emergency response.

Alarm Handling			
Year	Average	*90th Percentile*	Delta
2019	00m:16s	*00m:46s*	00m:30s
2020	00m:05s	*00m:46s*	00m:41s
2021	00m:06s	*00m:45s*	00m:41s
2022	00m:18s	*00m:43s*	00m:25s

INCIDENTS - 90TH PERCENTILE TURNOUT TIME

Turnout Time - When referring to "turnout time," in the context of emergency services and the Center for Public Safety Excellence (CPSE), it often pertains to the time it takes for emergency responders (such as firefighters) to don their gear ("turnout") and respond to an emergency after being alerted.

Turnout time is a critical performance measure for fire departments and is typically a focus of both accreditation and continuous improvement efforts. The CPSE, through its Commission on Fire Accreditation International (CFAI) program, provides a framework for fire and emergency services to measure and improve their performance, including reducing turnout times.

The specific standards for turnout time can vary by department and the nature of the call (fire, EMS, etc.). The National Fire Protection Association (NFPA) provides guidelines on turnout times in NFPA 1710, which is often referenced by the CPSE in its accreditation process. For example, NFPA 1710 currently recommends:

- For fire incidents, turnout time should be within 80 seconds for at least 90% of the calls.
- For EMS incidents, turnout time should be within 60 seconds for at least 90% of the calls.

The District maintains the following turnout standards:

1. Between the hours of 06:30 – 22:00 the standard company turnout times apply:
    a. 60 seconds or less for calls not requiring Level 1 or Level 2 PPE
    b. 90 seconds or less for calls that require Level 1 or Level 2 PPE
    c. 120 seconds or less for any wildland fire response.
2. Between the hours of 22:00 – 06:30 the standard company turnout time apply:
    a. 90 seconds or less
    b. 120 seconds or less for any wildland fire response.

Turnout Time			
Year	Average	*90th Percentile*	Delta
2019	01m:06s	*01m:49s*	00m:46s
2020	01m:11s	*01m:52s*	00m:41s
2021	01m:07s	*01m:49s*	00m:42s
2022	01m:03s	*01m:47s*	00m:44s

INCIDENTS - TRAVEL TIME

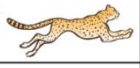
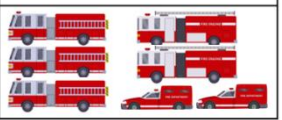
Travel Time – The total time segment calculated from the moment the fire or EMS apparatus begins traveling to the incident to the moment it arrives on-scene.

Travel Time			
Year	Average	*90th Percentile*	Delta
2019	06m:16s	*10m:50s*	04m:34s
2020	06m:35s	*10m:38s*	04m:35s
2021	06m:40s	*10m:56s*	04m:40s
2022	06m:30s	*10m:52s*	04m:22s

INCIDENTS – 90TH PERCENTILE TOTAL RESPONSE TIME

Total Response Time – The total calculated amount of time from the moment the first 9-1-1 call is received by the telecommunications specialist to the moment the first fire unit arrives on-scene.

Total Response Time			
Year	Average	*90th Percentile*	Delta
2019	07m:20s	*12m:02s*	04m:42s
2020	07m:46s	*11m:52s*	04m:06s
2021	07m:47s	*12m:10s*	04m:23s
2022	07m:33s	*12m:00s*	04m:27s

Community Type	Urban / Suburban	Emerging Suburban	Rural	Wildland	Total Response
Population Density	>1,000 people/sq. miles	500 – 1000 People/sq. mile	<500 People/sq. mile	Permanent Open Space Areas	
1st Due Travel Time	4	8	14	10	
Total Response Time Minutes (Speed) 	*7*	*11*	*17*	*13*	
1st Alarm Travel Time	8	12	20	12	
1st Alarm Total Time Minutes (Weight) 	*11*	*15*	*23*	*15*	

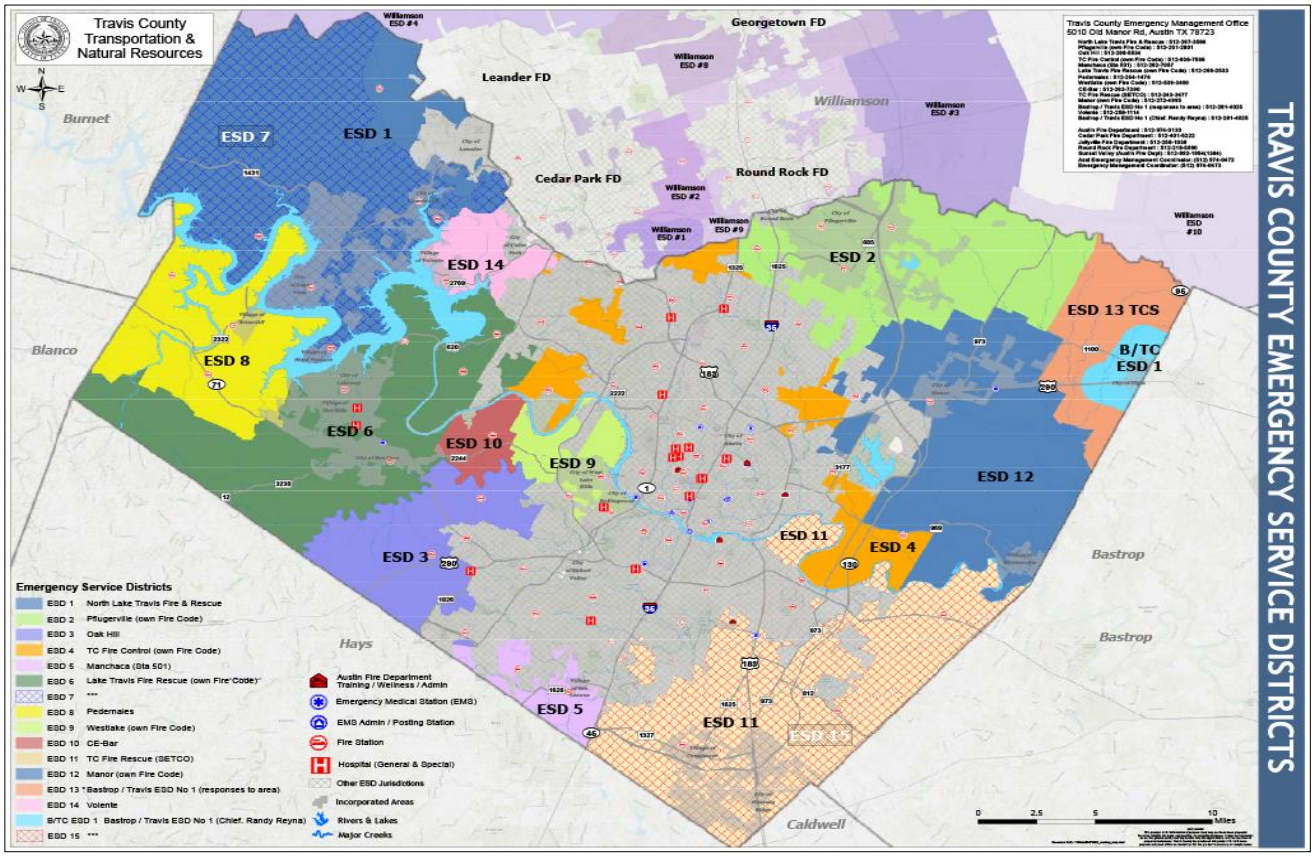
INCIDENTS – AVERAGE ON SCENE TIME

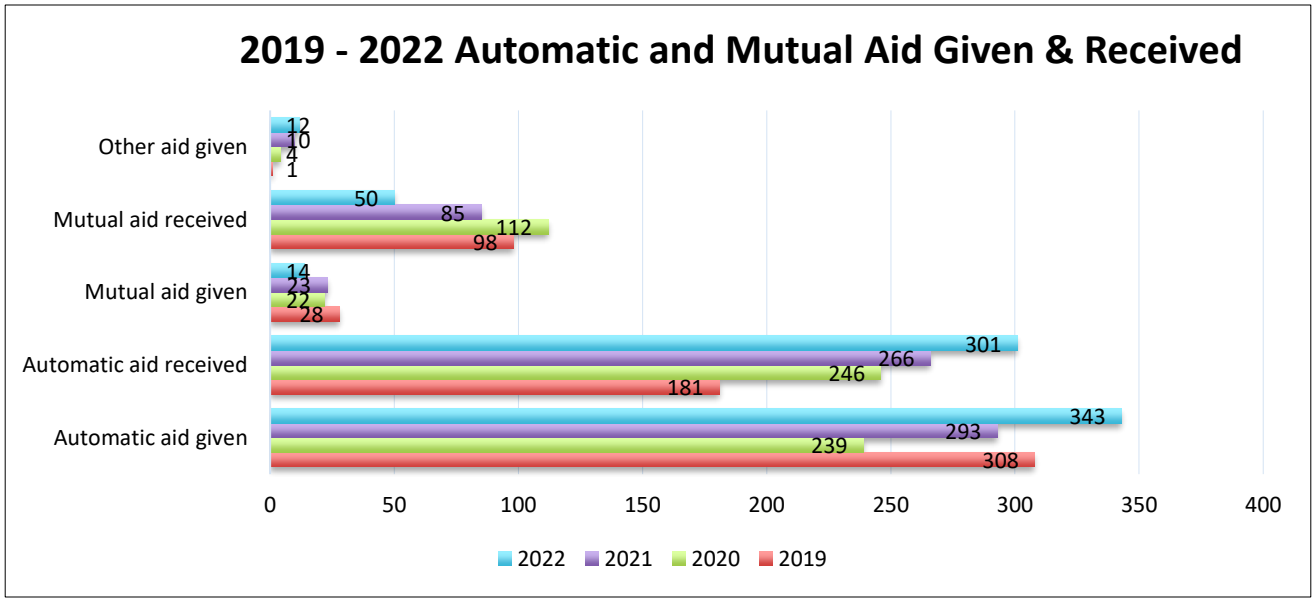
Average On Scene Time – The average amount of time it takes to mitigate an incident from the moment the first unit arrives on scene to the time the last unit clears the scene.

Average On Scene Time	
2019	24m:43s
2020	28m:35s
2022	25m:01s
2023	22m:38s

REGIONAL AUTO AID AGREEMENTS

The District has actively participated in the Austin/Travis County Regional Fire Automatic Aid Agreement (AAA) since 2007. As a participant, the District provides and receives fire, rescue, and EMS resources within the established jurisdictions defined within the agreement. The agreement also establishes minimum staffing levels, response plans, and regional training elements. As part of the AAA, participating agencies are dispatched according to the closest unit based on the global positioning system (GPS) location of each unit at the time of the initial alarm notification, and according to established approved alarm assignments.





OFFENSIVE VS. DEFENSIVE STRATEGIES IN STRUCTURE FIRES BASED ON RISK PRESENTED

Since the first SOC in 2007, the District has made several improvements to staffing levels and weight on-scene to improve the overall safety and effectiveness of each response unit. One of the most significant enhancements included the addition of a minimum staffing level on first out units of four personnel in 2014, followed by an additional Battalion Chief to the Operations Division.

Considering the level of risk, the Incident Commander will choose the proper strategy to be used at the fire scene. The Incident Commander (can be anyone of any rank who first establishes Incident Command "IC") must take into consideration the available resources (including firefighters) when determining the appropriate strategy to address any incident. The strategy can also change with conditions or because certain benchmarks are achieved or not achieved. For example, an important benchmark is "all clear," which means that all savable persons have been removed from danger or placed in a safe refuge area. Once it has been determined that the structure is safe to enter, an offensive fire attack is centered on life safety. When it is safe, departments will initiate offensive operations at the scene of a structure fire. Initial attack efforts will be directed at supporting a primary search – the first attack line will go between the victims and the fire to protect avenues of rescue and escape. The decision to operate in a defensive strategy indicates that the offensive attack strategy, or the potential for one, has been abandoned for personnel safety, and the involved structure has been conceded as lost (the Incident Commander makes a conscious decision to write the structure off). The announcement of a change to a defensive strategy means all personnel will withdraw from the structure and maintain a safe distance from the building. Officers will account for their crews. Interior lines will be withdrawn and repositioned. Exposed properties will be identified and protected.

While the District's overall fire incident volume was just above 3% for four years, working structure fires represented approximately 1% of the total call volume for the same period. Regardless of the percentage, structure fires represent one of the most dangerous types of incidents to both the firefighters and the residents and should be respected as such.

The fire service recognizes a simple risk management plan, introduced by the late Alan V. Brunacini (RIP), retired Chief of Department for Phoenix Fire Department, that aids in the decision-making process

- We **will** risk our lives a lot, in a calculated manner, to protect **SAVABLE** lives.
- We **will** risk our lives a little, in a calculated manner, to protect **SAVABLE** property.
- We will **NOT** risk our lives at all for lives or property already lost.

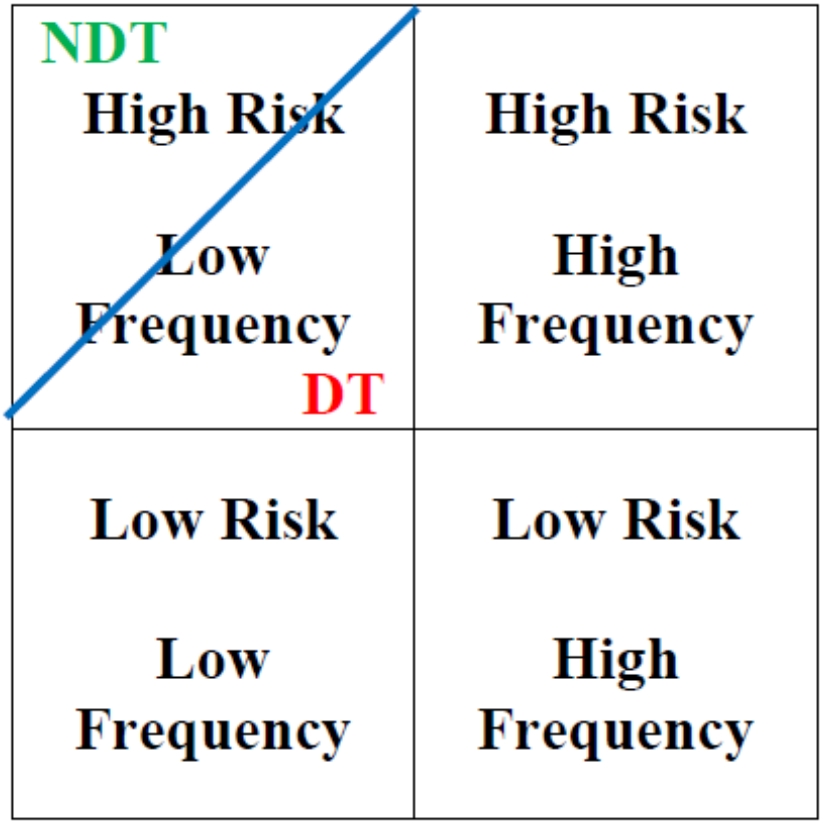
Most of the time this plan is recognized as it relates to fire emergencies, but the District believes it is equally effective in dealing with all emergencies.

RISK VERSUS FREQUENCY

Captain Nick Salameh (Ret) of Arlington County (VA) Fire Department describes risk vs. frequency using a chart to describe not only risk compared to frequency, but also discretionary time when tasked with critical decisions.

The chart identifies four specific areas of risk and frequency. Low Risk/Low Frequency events have little impact on the organization, its resources, and its personnel. High-Frequency events generally do not cause problems, except when complacency, fatigue, distractions, hubris (excessive pride and self-confidence), and risk homeostasis (we are invincible) are involved. The section of the chart posing the highest vulnerability is the top left box, denoting High Risk/Low Frequency scenarios. These instances carry life-threatening consequences, occur so rarely that our experience in handling them is limited, and lack readily available information to inform our decision-making process.

Notice the dividing line in the High Risk/Low Frequency category. This line indicates a distinction between High Risk/Low Frequency events with Discretionary Time (DT) and those with Non-Discretionary Time (NDT). DT affords an opportunity to analyze a given situation and to make decisions within a very limited amount of time. Take for instance hazardous materials or bomb incidents. Except for life safety, there is usually no reason to rush these incidents. Many of the incidents the District responds to can be considered DT type incidents. Conversely, NDT incidents increase the District's vulnerability by having to act immediately within a limited amount of time. An example of this is a structure fire in which savable victims are trapped.



THE STAGES OF FIRE

The concept of "time versus production of combustion" refers to how the characteristics of a fire change over time, from ignition to full development, and eventually to decay. Understanding this relationship is crucial in fire science, firefighting strategies, and fire safety design. Following is a breakdown of the stages of a typical fire and how combustion products vary over time:

Ignition Phase:

- This phase occurs immediately after a fire source ignites combustible materials.
- Initially, combustion produces light smoke and gases like carbon dioxide (CO2) and water vapor. There might be limited visibility and minimal heat production.

Growth Phase:

- Time: This stage follows ignition, characterized by the fire spreading to nearby combustibles.
- Combustion Products: Heat output increases rapidly. Smoke becomes denser and more toxic, with increased levels of carbon monoxide (CO), hydrogen cyanide (HCN), and other harmful gases. Oxygen levels in the area begin to decrease.

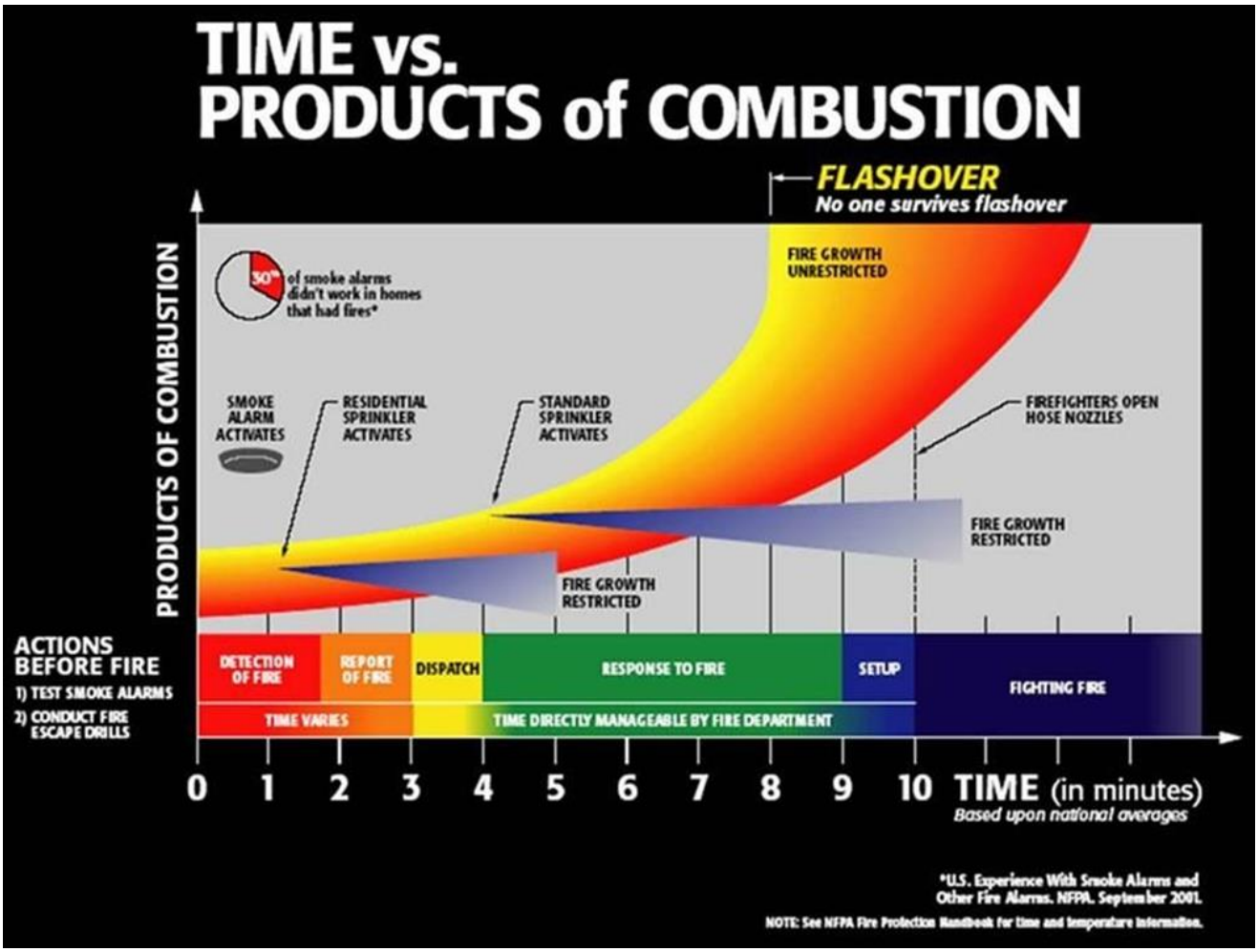
Fully Developed Phase:

- Time: The fire reaches its peak intensity, consuming available fuel and oxygen.
- Combustion Products: High temperatures are achieved, and the fire produces the maximum amount of heat and smoke. Flames are large and intense, and the environment becomes extremely hazardous due to high levels of toxic gases and heat.

Decay Phase:

- Time: This phase begins when the fire runs out of fuel or oxygen, leading to a reduction in intensity.
- Combustion Products: The production of heat and toxic gases starts to decrease. However, the environment may still be hazardous due to the presence of hot, smoldering materials and residual gases.

The exact progression and duration of these phases can vary greatly depending on factors such as the type of fuel, availability of oxygen, and environmental conditions. In enclosed spaces, like buildings, fires can also undergo a "flashover" — a transition from a localized fire to a full room involvement, which drastically changes the production of combustion products.



ALL HAZARDS COMMUNITY RISK PROFILE

To establish a more accurate assessment of the community risk profile from a measurement of probability, consequence, and impact, the three–axis risk categorization process is used. This process uses a free access risk categorization approach, which utilizes the elements of hazardous event probability, consequences, and the impact on LTFR relative to the risk classification. The total incident impact is determined by considering varying conditions and features within the response area, the different hazards unique to the risk, the essential factors created by the risk or event, and the resources required to mitigate an incident risk effectively.

Using Heron's Formula to calculate the risk assessment for the various known and forecasted hazardous and cross-referencing available incident data:

Heron's Formula

$$RC = \sqrt{\frac{(PC)^2 + (CI)^2 + (IP)^2}{2}}$$

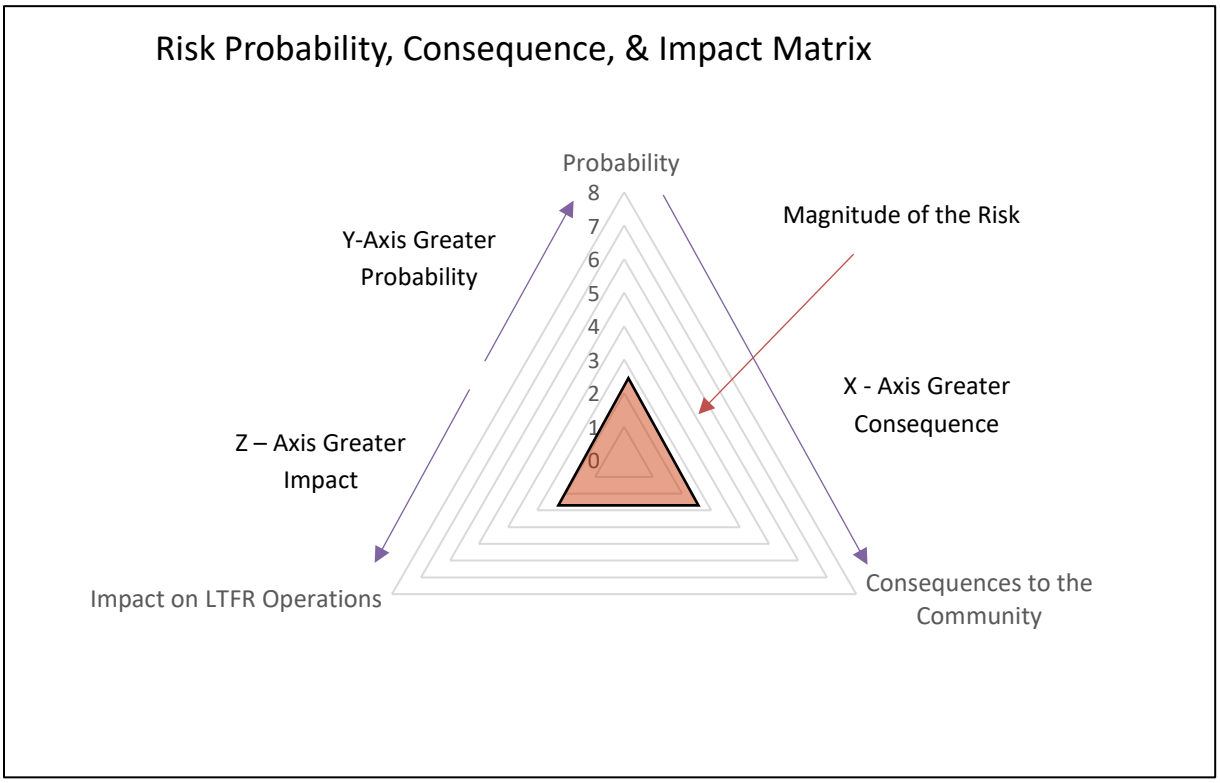
P = Probability – The probability was assessed by reviewing NFIRS data from 2019 – 2022 to determine the likelihood of an incident.

C = Consequences to the community – The consequence to the community was assessed using known and documented incident outcomes.

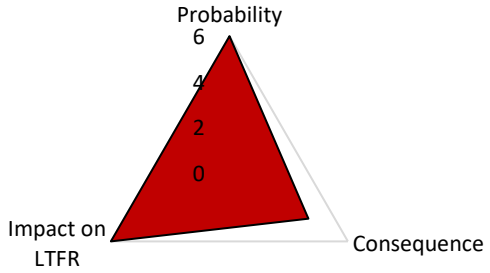
I = Impact on LTFR – The impact to LTFR was determined by aligning the responses against the staffing and availability of resources as defined in the Effective Response Force portion of this document.

RISK ASSESSMENT SCORING METHODOLOGY

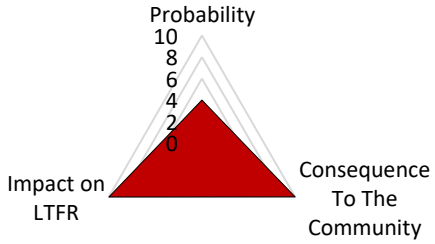
Score	Probability	Consequence	Impact
2	Rarely (Annual or longer)	No life or property loss	< 4 Personnel
4	Quarterly	Life or property impaired	4-8 Personnel
6	Monthly	Life of property loss	8-12 Personnel
8	Weekly	Loss >1 life or property loss	12-18 Personnel
10	Daily	Loss of >3 lives or major building	> 18 Personnel



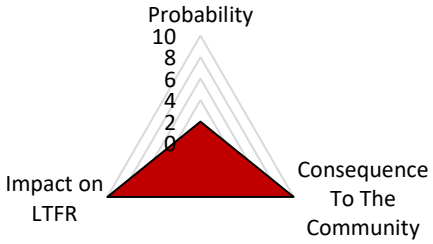
Light Box Alarm - Light Smoke Investigation



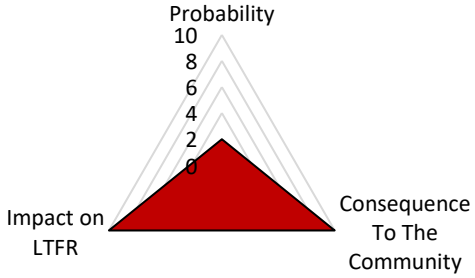
Single Family Dwelling Structure Fire



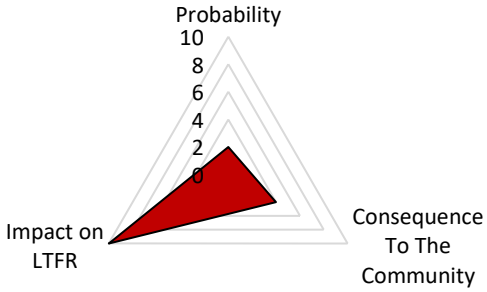
Still Box Alarm - Smoke Odor Investigation



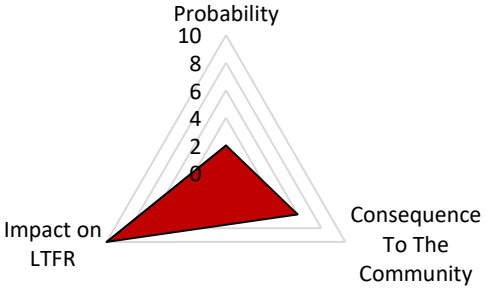
Mid Rise Alarm



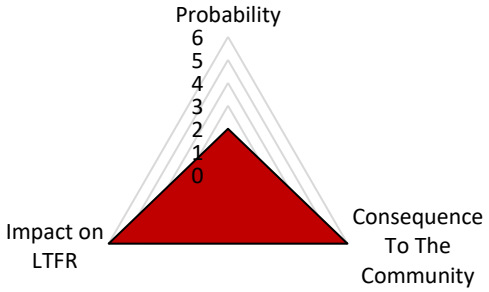
Parking Garage Fire



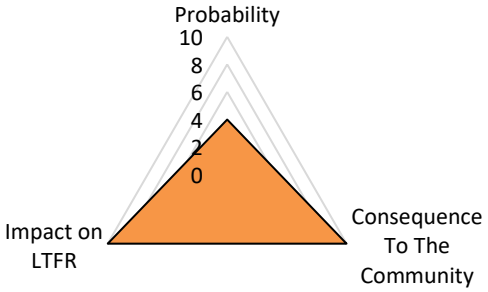
Marina Fire



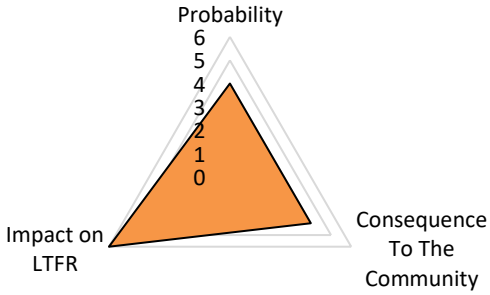
Single Boat Fire



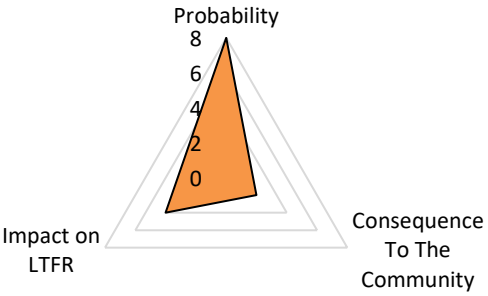
Brush Alarm (Wildland Fire)



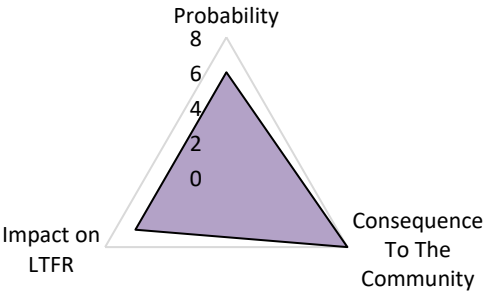
Light Brush Alarm



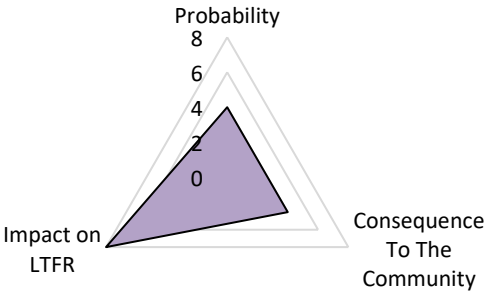
Grass Fire



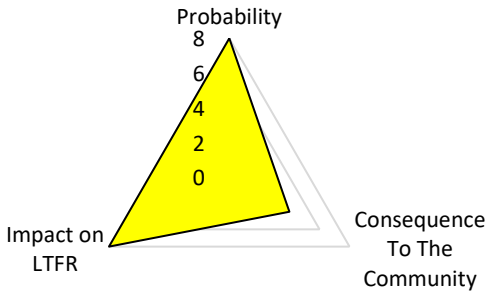
Lake Travis Task Force Rescues



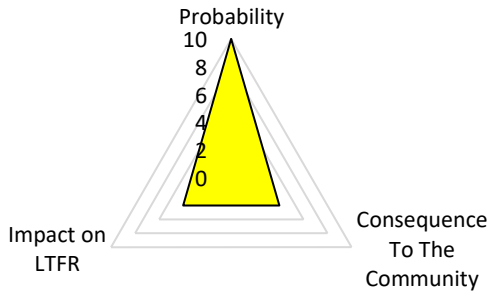
Rescue Condition



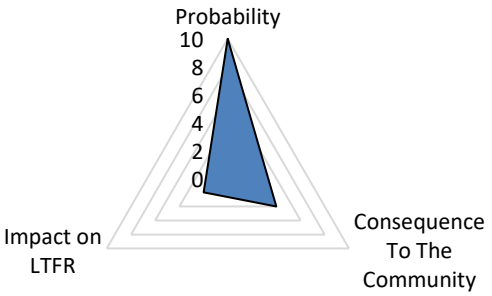
Vehicle Rescue



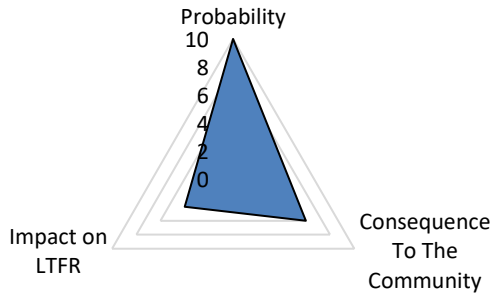
Vehicle Collisions



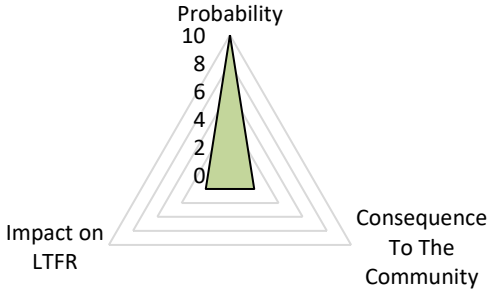
Medical Alarm Single Unit



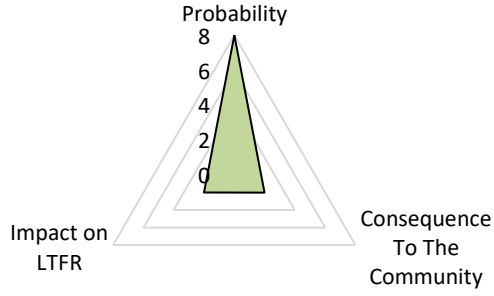
Medical Alarm - Cardiac Arrest



Fire Alarms



Hazardous Condition Alarm



EFFECTIVE RESPONSE FORCE (ERF)

An Effective Response Force (ERF) refers to a designated group of emergency service personnel that are organized, trained, and equipped to deal with specific emergencies or incidents. The term is often associated with rapid response to crises, such as natural disasters, terrorist attacks, or other emergencies.

Elements of an ERF include, but are not limited to:

- Readiness: An ERF is ready to deploy at a moment's notice.
- Training: An ERF has specialized training for specific incidents.
- Equipment: An ERF has access to specialized equipment to handle their designated emergencies effectively.
- Mobility: An ERF can be quickly transported wherever needed.
- Sustainability: An ERF can sustain operations for the duration required to mitigate the emergency or until relieved by other forces.

2 IN/2 OUT SAFETY REGULATIONS

A portion of the ERF includes the "2 in/2 out" rule in the context of the Texas Commission on Fire Protection (TCFP), which refers to a safety regulation for firefighters commonly adhered to in various jurisdictions across the United States. This rule is a guideline for ensuring that firefighters do not enter a potentially hazardous environment—such as a structure that is on fire—without adequate backup.

Following is the breakdown of the "2 in/2 out" rule:

2 In: Before firefighters can enter a hazardous environment, at least two team members (a team of at least two firefighters) should enter the structure together. If one firefighter gets into trouble or becomes incapacitated, the other can provide immediate assistance or rescue.

2 Out: Besides the two firefighters inside, there must be at least two firefighters outside (the backup team) who are prepared to enter if necessary to assist their colleagues. These outside team members stay in constant communication with the firefighters who are inside, ready to intervene if the situation deteriorates or if the initial team needs help.

The primary purpose of the "2 in/2 out" rule is to increase the safety of firefighters during operations where they might face disorientation, rapid-fire progression, structural collapse, or other immediate dangers. It is a cornerstone of the Incident Command System's safety protocols.

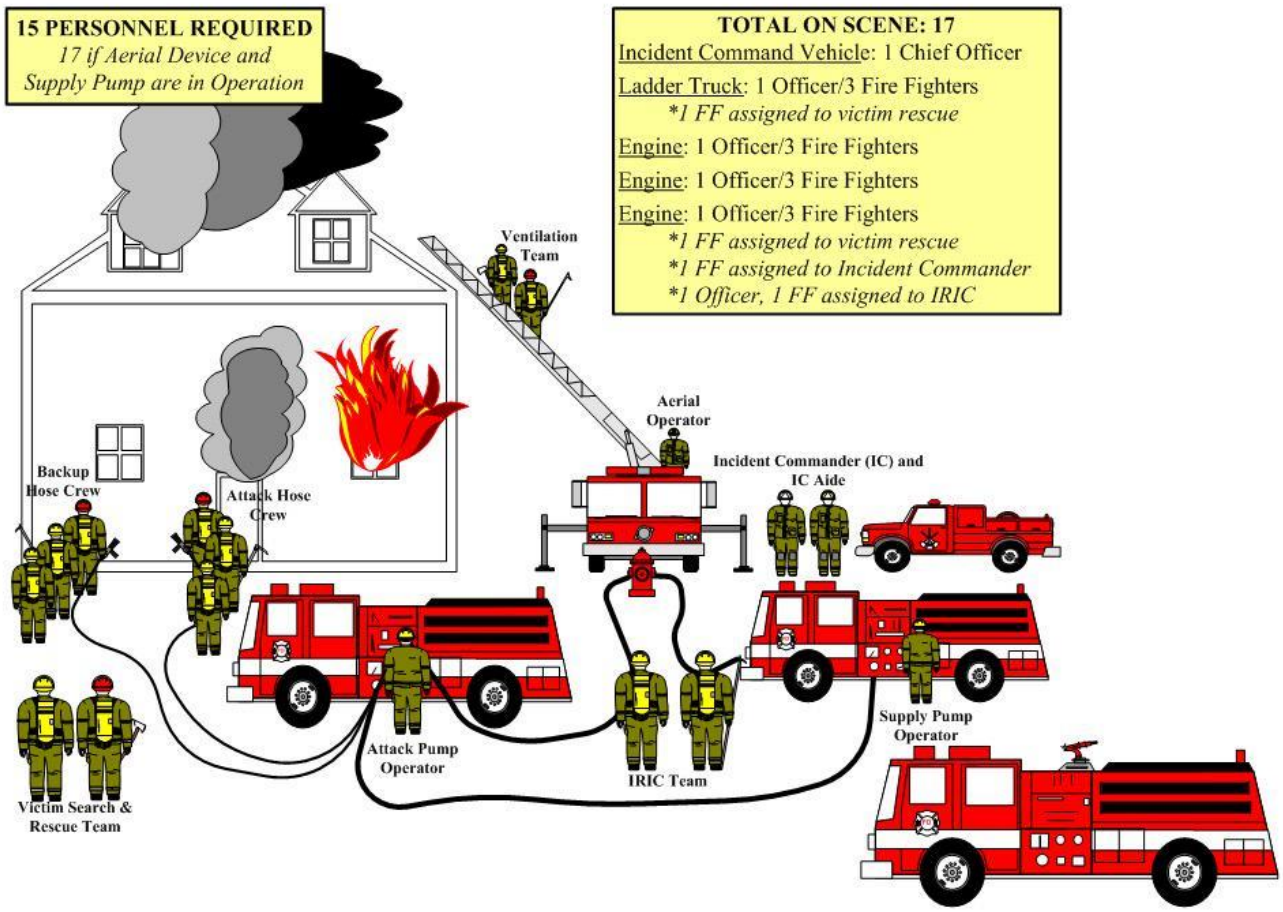
The rule can have exceptions, such as situations where immediate action is needed to save a life; this is often referred to as the "life safety exception." In such cases, the incident commander might allow firefighters to enter without the usual "2 in/2 out" arrangement, but such decisions are made with a clear understanding of the increased risk.

The TCFP, which enforces statewide fire service standards, adopts this rule as part of its commitment to firefighter safety and ensures that fire departments operate under guidelines that minimize risks during firefighting and rescue operations.

NATIONAL FIRE PROTECTION ASSOCIATION 1710

NFPA 1710 is a standard developed by the National Fire Protection Association (NFPA) that outlines the organization and deployment of fire suppression operations, emergency medical operations, and special operations to the public by career fire departments. The document provides guidelines for response times, staffing levels, and preparedness for fire and emergency service organizations. Since 2014, the District has budgeted a minimum of four personnel assigned to each engine and quint.

[Watch the NFPA 1710 Video]



RESOURCE DEPLOYMENT MODEL & DRAW DOWN RATES

This chart reflects the District's ERF based on the call type and established response procedures and apparatus types per the Auto Aid Agreement. Key points to remember when reviewing the data:

1. Engines are staffed with a minimum of 4 personnel: 1 Lieutenant, 1 Engineer, 2 Firefighters, and sometimes three firefighters.
2. Quints are staffed with a minimum of four personnel: 1 Captain, 1 Engineer, 2 Firefighters, and sometimes three firefighters.
3. Battalion Chief units are staffed with a minimum of one personnel: 1 Battalion Chief.
4. The LTFR Fire Boat is cross staffed by an assigned engine (Normally Engine 601).
5. Engines/Quints can cross-staff brush trucks in the same station, also known as "shadowing."
6. A Quint (ladder with a pump, tank water, ground ladders, hose supply, an aerial device) may be used to fill an engine assignment when CAD is searching for the closet "pump".
7. Based on the number of staffed units, LTFR does meet the minimum NFPA 1710 staffing requirement for the number (17) of firefighters assigned to an initial residential single-family structure fire. The Auto Aid Agreement requires additional units be assigned to the specific incidents.
8. The calculations are based on assigning what LTFR staffs and maintains for its ERF, i.e. six stations, four engines, two quints, and two battalion chief units.
9. Each shift is staffed with a minimum headcount of 27 personnel, with a routine maximum of 31 personnel. This headcount does not include when the District staffs extra units, calls personnel back during large incidents, or special situations that would require additional staff to be on-duty. Vacancies are possible.
10. "Draw Down" is defined as the number of units or personnel remaining and available for another incident. This chart makes no attempt to calculate the simultaneous incident volume or a unit's reliability during system status evaluations.

Type of Alarm Assignment	**1st Alarm Units**	**Draw Down: Remaining Units**	***1st Alarm Personnel***	**Draw Down: Remaining Personnel**	**2nd Alarm Units**	***2nd Alarm Personnel***	**3rd Alarm Units**	***3rd Alarm Personnel***
Structure Fires/ Box								
Engines	4	0	*16*	*0*	4	*16*	1	*4*
Quints/Ladders	2	0	*8*	*0*	2	*8*	3	*12*
Battalion Chiefs	2	0	*2*	*0*	2	*2*	1	*1*
Fire Investigator	1	0	*1*	*0*	0	*0*	0	*0*
Total Number of Resources	**9**	**0**	***27***	***0***	**8**	***26***	**5**	***17***
Light Box/Still								
Engines	3	1	*12*	*4*				
Quints/Ladders	1	1	*4*	*4*				
Battalion Chiefs	1	1	*1*	*1*				
Fire Investigator	1	0	*1*	*0*				
Total Number of Resources	**6**	**3**	***18***	***9***				

Light Box is visible light smoke in a structure. Upgrading an alarm fills out a Box Alarm.

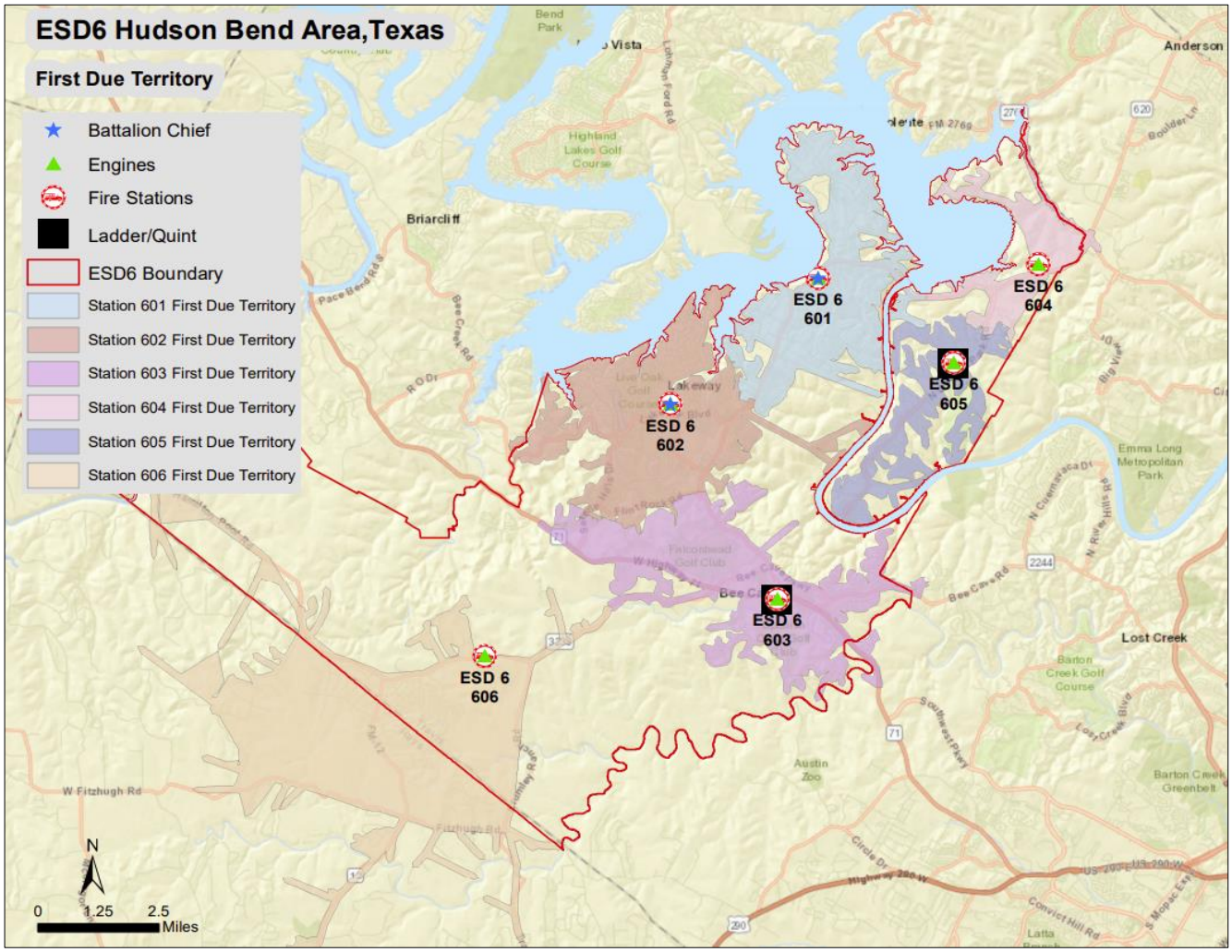
Type of Alarm Assignment	1st Alarm Units	Draw Down: Remaining Units	*1st Alarm Personnel*	Draw Down: Remaining Personnel	2nd Alarm Units	*2nd Alarm Personnel*	3rd Alarm Units	*3rd Alarm Personnel*
Box Still								
Engines	1	3	*4*	*12*	Still Box is the smell of smoke in a building. Upgrading an alarm fills out a Box Alarm.			
Quints/Ladders	1	1	*4*	*4*				
Fire Investigator	1	0	*1*	*0*				
Total Number of Resources	**3**	**4**	***9***	***16***				
Mid Rise								
Engines	4	0	*16*	*0*	4	*16*	Buildings Less than 75' in height. Incident Commanders have the authority to request additional units as needed beyond the structured alarm assignment.	
Quints/Ladders	3	-1	*12*	*-4*	3	*12*		
Battalion Chiefs	2	0	*2*	*0*	2	*2*		
Fire Investigator	1	0	*1*	*0*	0	*0*		
Total Number of Resources	**10**	**-1**	***31***	***-4***	**9**	***30***		
Parking Garage Fire								
Engines	3	1	*12*	*4*	Incident Commanders have the authority to request additional units as needed beyond the structured alarm assignment.			
Quints/Ladders	1	1	*4*	*4*				
Battalion Chiefs	1	1	*1*	*1*				
Fire Investigator	1	0	*1*	*0*				
Total Number of Resources	**6**	**3**	***18***	***9***				
Marina Fire								
Engines	4	0	*16*	*0*	4	*16*	TCESD 6, ESD 1, ESD 8 send fire Boats. Incident Commanders have the authority to request additional units as needed beyond the structured alarm assignment.	
Quints/Ladders	1	1	*4*	*4*	2	*8*		
Battalion Chiefs	1	1	*1*	*1*	2	*2*		
Fire Boat (1 Engine)	3	0	*12*	*0*	0	*0*		
Fire Investigator	1	0	*1*	*0*	0	*0*		
Total Number of Resources	**10**	**2**	***34***	***5***	**8**	***26***		
Boat Fire								
Engines/Quints	1	5	4	20	Fire in a vessel on the lake, not at a marina. Engines respond to the closest landmark or given location. Incident Commanders have the authority to request additional units as needed beyond the structured alarm assignment. Drawdown personnel count assumes both engines/quints are from LTFR for this type of incident.			
Fire Boat (Engine)	1	0	4	0				
Fire Investigator	1	0	1	0				
Total Number of Resources	**3**	**5**	**9**	**20**				

Type of Alarm Assignment	1st Alarm Units	Draw Down: Remaining Units	*1st Alarm Personnel*	Draw Down: Remaining Personnel	2nd Alarm Units	*2nd Alarm Personnel*	3rd Alarm Units	*3rd Alarm Personnel*
Brush Alarm								
Engines	2	2	*8*	*16*	2	*8*	Moderate to heavy fuels on fire with structures being exposed. Incident Commanders have the authority to request additional units as needed beyond the structured alarm assignment. Data reflects staffing numbers of Engine/Brush Trucks "shadowing" / Cross staffing.	
Quints/Ladders	1	1	*4*	*4*	0	*0*		
Brush Trucks	4	2	*0*		2	*4*		
Battalion Chiefs	2	0	*2*	*0*	1	*1*		
Fire Investigator	1	0	*1*	*0*				
Total Number of Resources	**10**	**5**	***15***	***20***	**5**	***13***		
Brush Alarm Light								
Engines/Quints	1	5	*4*	*20*	Light to moderate vegetative fuels on fire. Regular staffing would cross-staff a brush truck from stations. Incident Commanders have the authority to request additional units as needed beyond the structured alarm assignment. *Quints can be at times in place of an engine.			
Brush Trucks	1	1	*0*					
Battalion Chief	1	1	*1*	*1*				
Fire Investigator	1	0	*1*	*0*				
Total Number of Resources	**4**	**7**	***6***	***21***				
Grass Fire								
Engine/Quint	1	5	*4*	*20*	Light vegetative fuels on fire. Depending on weather conditions or special assignment orders, company officers may opt to bring a brush truck with the assignment. Incident Commanders have the authority to request additional units as needed beyond the structured alarm assignment.			
Total Number of Resources	**1**	**5**	***4***	***20***				
Lake Travis Rescue Task Force (LTFR's commitment to the Task Force)								
Engine/Quint	2	4	*8*	*16*	This alarm is for boating accidents on Lake Travis, prevalent in the summer months. Incident Commanders have the authority to request additional units as needed beyond the structured alarm assignment.			
Fire Boat(Eng Staff)	1	0	*0*	*0*				
Battalion Chief	1	1	*1*	*0*				
Total Number of Resources	**4**	**5**	***9***	***16***				
Rescue Condition								
Engines	2	2	*8*	*8*	This alarm is for injured persons in the woods or a trapped person in equipment, trenches, or buildings. Eng. 601 will always be one of the two engines due to technical rescue equipment. Incident Commanders have the authority to request additional units as needed beyond the structured alarm assignment.			
Quints/Ladders	1	1	*4*	*4*				
Battalion Chiefs	1	1	*1*	*1*				
Total Number of Resources	**4**	**4**	***13***	***13***				

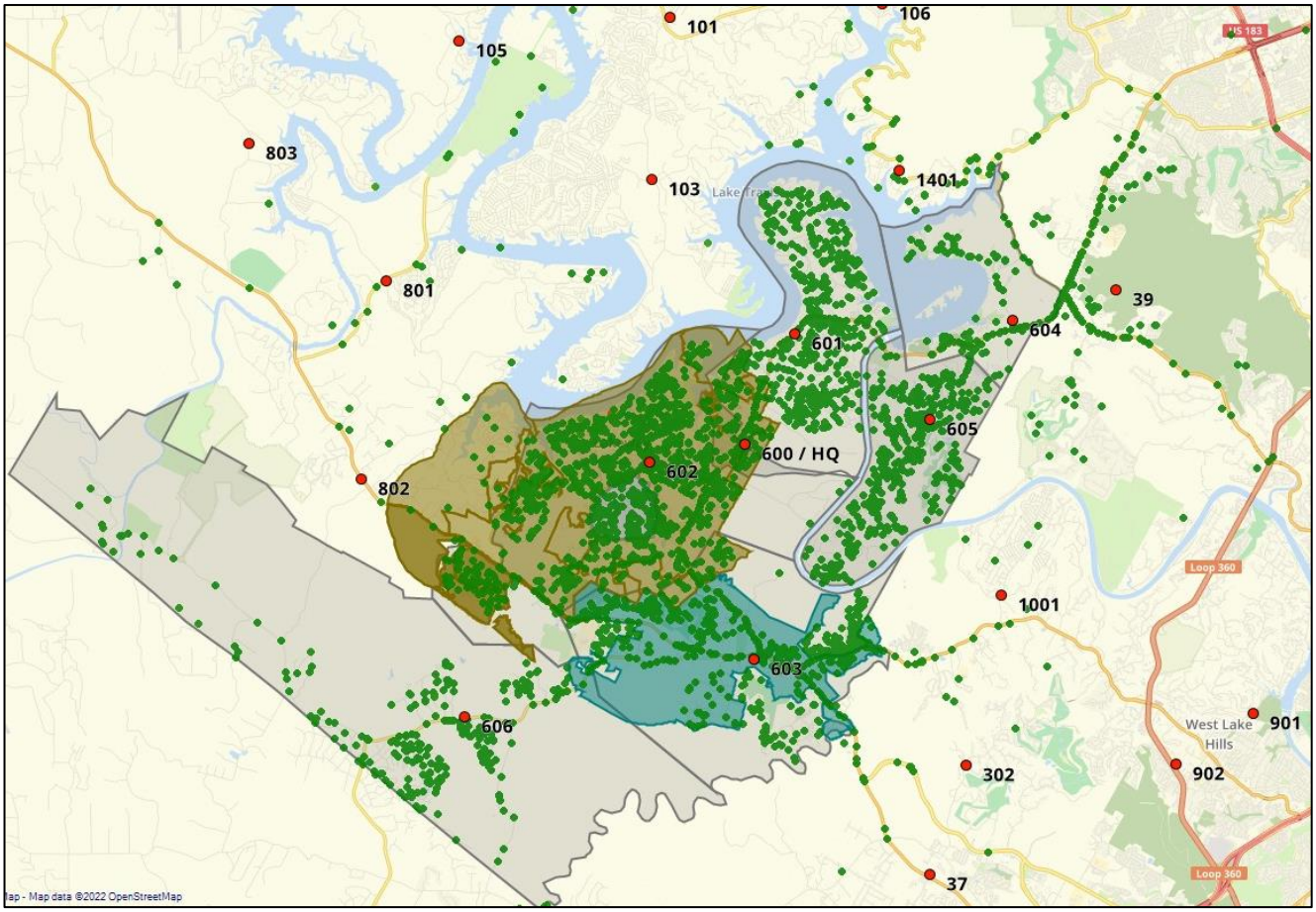
Type of Alarm Assignment	1st Alarm Units	Draw Down: Remaining Units	*1st Alarm Personnel*	Draw Down: Remaining Personnel	2nd Alarm Units	*2nd Alarm Personnel*	3rd Alarm Units	*3rd Alarm Personnel*
Vehicle Collisions								
Engines/Quints	2	4	*8*	*16*	A quint may take the place of an engine closest units are assigned. Incident Commanders have the authority to request additional units as needed beyond the structured alarm assignment.			
Total Number of Resources	**2**	**4**	***8***	***16***				
Vehicle Rescue								
Engines	2	2	*8*	*8*	Incident Commanders have the authority to request additional units as needed beyond the structured alarm assignment.			
Quints/Ladders	1	1	*4*	*4*				
Battalion Chiefs	1	1	*1*	*1*				
Total Number of Resources	**4**	**4**	***13***	***13***				
Medical Alarm								
Engine, Quint, or Squad	1	5	*4*	*20*	Single unit response closest unit assigned. Incident Commanders have the authority to request additional units as needed beyond the structured alarm assignment. Squads are staffed with two personnel.			
Total Number of Resources	**1**	**5**	***4***	***20***				
Medical (Cardiac Arrest)								
Engine /Quint	2	4	*8*	*16*	*The two closest resource units may be two engines or quint/engine.*			
Battalion Chief	1	1	*1*	*1*				
Total Number of Resources	**3**	**5**	***9***	***17***				
Fire Alarms								
Engine /Quint	1	5	*4*	*20*	*The two closest resource units may be two engines or quint/engine.*			
Total Number of Resources	**1**	**5**	***4***	***20***				
Hazardous Condition Alarm								
Engine /Quint	1	5	*4*	*20*	*The two closest resource units may be two engines or quint/engine.*			
Total Number of Resources	**1**	**5**	***4***	***20***				
Public Assistance Alarms								
Engine /Quint	1	5	*4*	*20*	*The two closest resource units may be two engines or quint/engine.*			
Total Number of Resources	**1**	**5**	***4***	***20***				

RESPONSE & PLANNING ZONES

A new feature of this SOC is the development of seven Response & Planning Zones (RPZ). The District is expanding on the existing fire station first-due response areas in the geographical boundaries of each RPZ. These zones will assist in planning and deployment assessments, reducing response times, and tailoring the proper response to each type of alarm or developing situation the District may encounter. In addition, each RPZ will include data specific to road networks, demographic and geopolitical elements, building types, target hazards, and any additional risk assessments that are unique to individual zone. Since the RPZ tool is a new feature of this SOC, the District will alter and adjust RPZ boundaries as needed in the future to ensure each RPZ properly reflects the risk and demand for service within the District. RPZs will include one or more fire stations, cities, target hazards, and geopolitical elements, resulting in different levels of risk and deployment of resources for each zone.

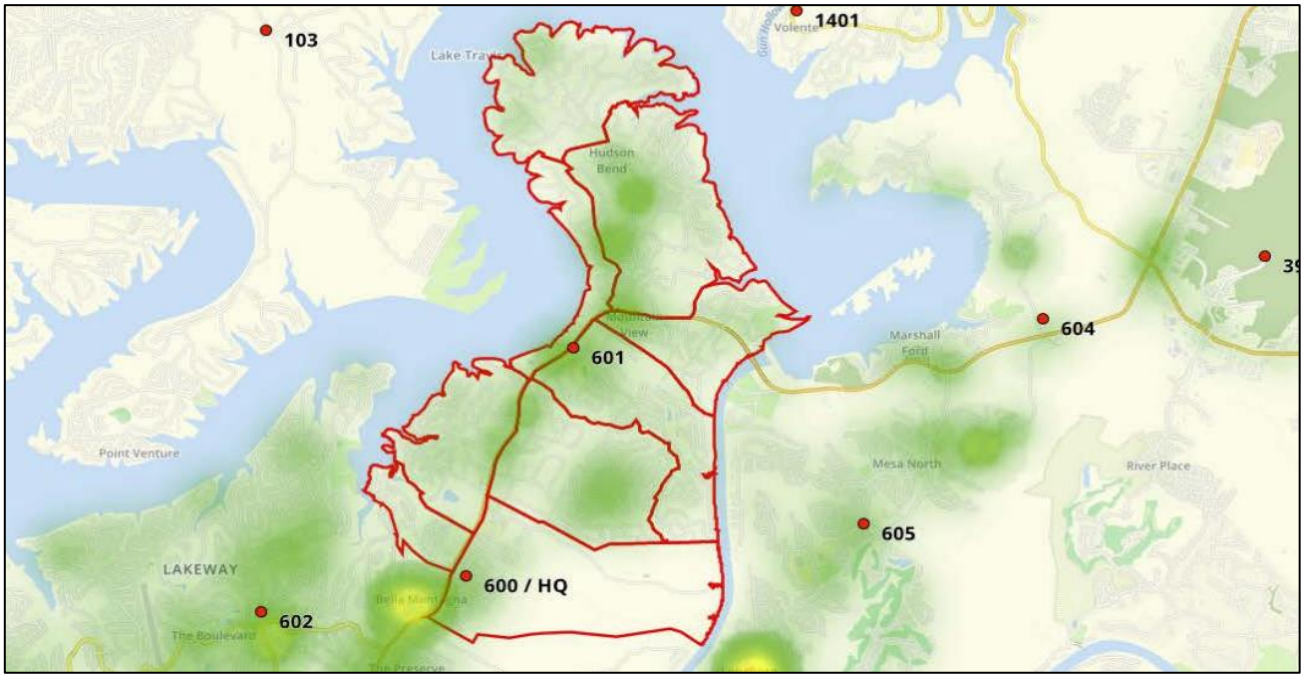


RESPONSE PLANNING ZONES WITH INCIDENTS MAP



RESPONSE PLANNING ZONE 1

Response & Planning Zones	Battalions	Stations	Units
Zone 1	North Battalion	Fire Station 601 Headquarters Training Center Fleet Services	Battalion 601 Engine 601 Brush Truck 601 Fire Boat 601 (At Marina) RIB 601 Command 602 Command 601 Investigator 601 Investigator 602 Field Medical Officer 601 Field Training Officer 601



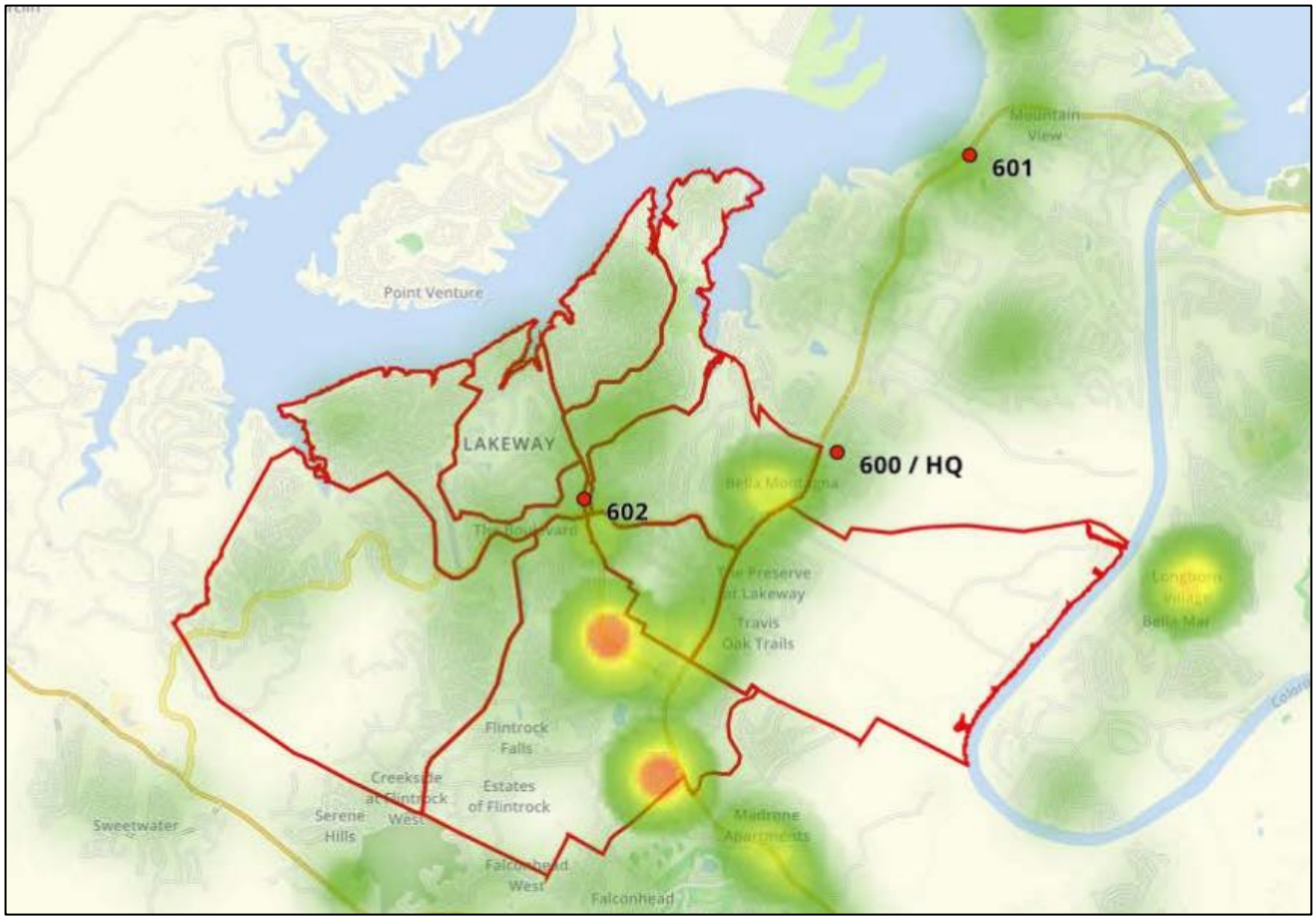
Fire Station 601

15516 General Williamson Drive
Austin, Texas 78734

Fire Station 601 services most of the shoreline property of Lake Travis, residential areas including Hudson Bend, Apache Shores, Vineyard Bay, Costa Bella, Lake Wind, and Cardinal Hills areas.

RESPONSE PLANNING ZONE 2

Response & Planning Zone	Battalions	Stations	Units
Zone 2	South Battalion	Fire Station 602 Fire Station 607 (Future)	Battalion 602 Engine 602 Brush Truck 602



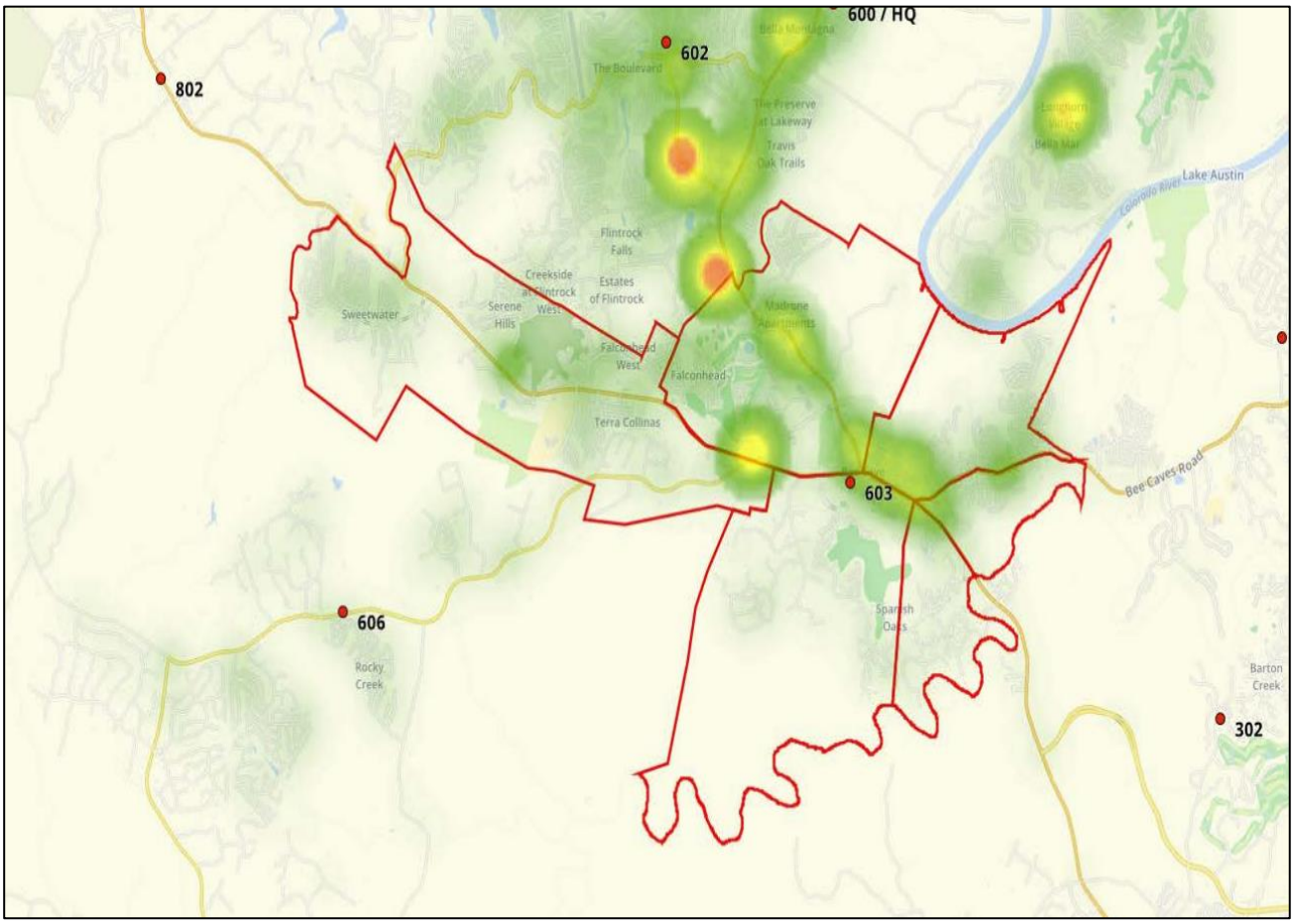
Fire Station 602

1211 Lohmans Crossing Road
Lakeway, Texas 78734

Fire Station 602 services the Lake Travis shoreline, City of Lakeway, and The Hills of Lakeway.

RESPONSE PLANNING ZONE 3

Response & Planning Zone	Battalions	Stations	Units
Zone 3	South Battalion	Fire Station 603	Quint 603 Brush Truck 603



Fire Station 603

13333 Highway 71 West
Bee Cave, Texas 78738

Fire Station 603 services the City of Bee Cave, Lake Pointe, and the Uplands.

RESPONSE PLANNING ZONE 4

Response & Planning Zone	Battalions	Stations	Units
Zone 4	North Battalion	Fire Station 604	Engine 604 Brush Truck 604 Spill Trailer

Fire Station 604

5939 Comanche Trail
Austin, Texas 78732

Fire Station 604 services Steiner Ranch, Comanche Trail, and Marshall Ford areas

RESPONSE PLANNING ZONE 5

Response & Planning Zone	Battalions	Stations	Units
Zone 5	North Battalion	Fire Station 605	Truck 605 Brush Truck 605 (TIFMAS) SUP601

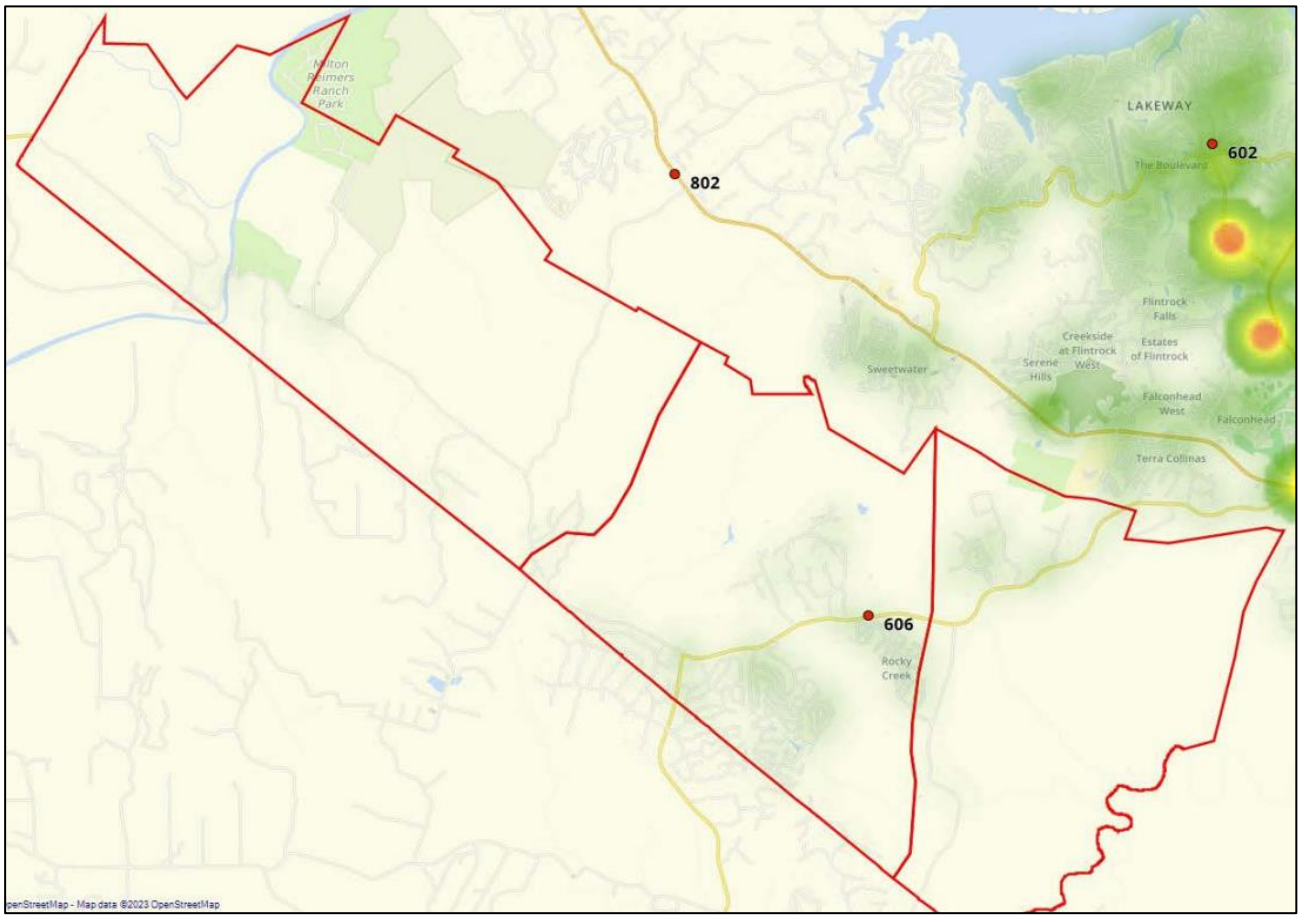
Fire Station 605

3048 Steiner Ranch Boulevard
Austin, Texas 78732

Fire Station 605 services the Steiner Ranch and Quinlan Park areas.

RESPONSE PLANNING ZONE 6

Response & Planning Zone	Battalions	Stations	Units
Zone 6	South Battalion	Fire Station 606	Engine 606 Brush Truck 606 SAR 606



Fire Station 606

17304 Hamilton Pool Road
Austin, Texas 78738

Fire Station 606 services Rocky Creek, Belvedere, Deer Creek, and other Hamilton Pool Road developments.

NON-EMERGENCY TRAVEL TIME & ROAD MILES BETWEEN STATIONS COMPARISON

		Non-Emergency Travel Time & Road Miles Between Stations Comparison															
	<5 miles / 5-7 miles / 7-8 miles / 8-10 miles	601		602		603		604		605		606		Future - 607		Future - 608	
Station #	Address	Miles	Minutes	Miles	Minutes	Miles	Minutes	Miles	Minutes	Miles	Minutes	Miles	Minutes	Miles	Minutes	Miles	Minutes
LTFR 601	15516 General Williamson Drive, Austin TX 78734	0	0	4.6	7-12	7.4	12-24	4.7	6-12	5.6	8-14	12.3	16-30	7.7	12-20	4.7	7-16
LTFR 602	1211 Lohmans Crossing Rd, Lakeway, TX 78734	4.6	7-12	0	0	4.6	8-18	9.2	12-24	10.1	14-26	9.6	14-26	3.6	8-12	1.8	4-6
LTFR 603	13333 Highway 71 West, Bee Cave, TX 78738	7.4	12-24	4.6	8-18	0	0	12.1	18-35	13	18-40	6	9-14	4.2	8-12	3.1	7-16
LTFR 604	5939 Comanche Trail, Austin, TX 78732	4.7	6-12	9.2	12-24	12.1	18-35	0	0	2.9	5-8	17	22-40	12.3	18-30	9.4	12-24
LTFR 605	3048 Steiner Ranch Blvd, Austin TX 78732	5.6	8-14	10.1	14-26	13	18-40	2.9	5-8	0	0	17.9	24-45	13.2	20-40	10.3	14-28
LTFR 606	17304 Hamilton Pool Rd, Austin, TX 78738	12.3	16-30	9.6	14-26	6	9-14	17	22-40	17.9	24-45	0	0	6.4	12-16	9.5	16-26
Future LTFR 607	GPS Coordinates: 30.323386, -98.005528	7.7	12-20	3.6	8-12	4.2	8-12	12.3	18-30	13.2	20-40	6.4	12-16	0	0	2.9	6-8
Future LTFR 608	15419 Flintrock Rd, Austin, TX 78738	4.7	7-16	1.8	4-6	3.1	7-16	9.4	12-24	10.3	14-28	9.5	16-26	2.9	6-8	0	0
AFD 31	5507 FM 2222, Austin, TX 78731	10.8	14-26	15.3	20-40	14	20-40	6.3	8-16	9	12-24	21.2	28-50	17.8	26-50	15.5	22-45
AFD 34	10041 Lake Creek Parkway, TX 78729	12.6	20-45	17.1	26-55	19.9	30-70	10	16-30	10.7	18-45	26.4	40-75	20.2	30-65	17.3	24-55
AFD 37	8660 Hwy 71 W, Austin. TX. 78735	12.6	18-35	9.9	14-28	5.8	8-16	17.2	22-45	18.2	24-45	13	18-26	9.6	14-24	8.2	12-24
AFD 39	7701 River Place Blvd, Austin TX 78726	7.2	10-18	11.7	16-30	14.5	22-45	2.7	6-8	5.3	9-16	21	30-50	14.8	22-45	11.8	18-35
AFD 43	11401 Escarpment Blvd, Austin, TX 78739	19.4	28-55	16.6	26-50	12.5	20-40	23.1	28-50	25.7	30-60	18.9	28-35	17.9	26-45	16.5	26-50
AFD 46	12010 Brodie Lane, Austin TX 78748	22	35-60	19.2	30-60	15.1	24-50	23.6	30-60	26.2	35-65	20.2	30-50	19.3	30-60	17.9	30-60
AFD 47	4200 City Park Rd., Austin, TX 78730	12.6	16-26	17.1	22-40	16.8	24-45	8.2	12-18	10.8	14-24	24	35-55	18.4	28-50	15.4	24-40
ESD 10 1001	353 Commons Ford Rd, Austin, TX 78733	12.3	16-35	9.6	14-26	5.6	8-16	14.9	18-35	17.6	22-40	12.8	18-28	9.5	12-22	7.9	12-20
HCESD6 1	400 Sportsplex Dr., Dripping Springs, TX 78620	22.5	30-55	19.8	26-50	16.2	24-40	27.2	35-60	28.1	40-65	10.2	14-22	15	20-35	18.1	26-45
HCESD6 75	16716 Fitzhugh Rd, Dripping Springs, TX 78620	17.3	22-40	14.5	20-35	10.9	16-22	21.9	28-45	22.9	30-50	4.9	6-8	9.7	14-20	12.9	18-35
ESD3 301	9211 Circle Drive, Austin, TX 78736	13.8	20-40	11	16-30	6.9	10-18	18.4	24-45	19.3	26-50	12.3	20-24	10.8	18-28	9.4	16-30
ESD3 302	4111 Barton Creek Blvd, Austin TX 78735	14	18-40	11.2	16-30	7.1	10-18	15.7	22-40	18.3	26-50	14.3	20-30	11	14-24	9.6	14-24
ESD8 801	801 Bee Creek Road, Briarcliff, TX 78669	14.1	22-28	9.8	16-20	13.2	16-28	18.8	28-40	19.7	30-45	15.4	20-28	9.5	12-20	11.4	18-24
ESD8 802	21311 Highway 71 West, Spicewood, TX 78669	12.3	18-30	8.1	14-18	8.3	12-20	16.9	22-40	17.9	26-45	10.5	16-20	4.6	7-12	7.5	12-20
ESD8 803	311 N. Paleface Ranch Rd, Spicewood, TX 78669	19.6	26-40	15.3	20-28	15.6	20-30	24.3	30-50	25.2	35-55	17.8	22-35	12	16-22	14.9	20-35
ESD 14 1401	15406 Farm to Market Rd 2769, Volente, TX 78641	11.8	18-35	16.3	26-45	19.2	30-60	6.6	12-14	9.9	18-30	25.6	40-70	19.4	28-50	16.4	22-40

INSURANCE SERVICES OFFICE (ISO)

The Insurance Services Office (ISO) classification, particularly when referring to the 1.5 versus 5-mile distinction, relates to the fire protection services in a community and their impact on fire insurance ratings. The ISO's Public Protection Classification (PPC) program assesses the fire protection capability of local fire departments to determine a PPC grade, which then influences insurance premiums for properties within that area. The 1.5 and 5-mile measurements are significant in this context.

LTFR is recognized as an **ISO Class 2** Department in the Cities of Bee Cave, The Hills, and Lakeway. Most unincorporated Travis County areas are in an **ISO Class 3**. These areas include River Place, Steiner Ranch, Comanche Trail, Marshall Ford, Mansfield Dam, Hudson Bend, Apache Shores, and Cardinal Hills.

ISO's Public Protection Classification (PPC) Program:

The ISO evaluates the fire protection services of communities across the United States and assigns a PPC rating from 1 to 10, with 1 being the best and 10 indicating no recognized fire protection.

The rating is based on the District's ability to receive, respond to and mitigate fires (60%) while assessing the hydrant and water supply capabilities of your local water provider (40%). It is possible in some developing areas outside of municipalities, will have a class rating of 8b, 9, or 10. The higher rating may be a result of either the lack of fire hydrants within 1000' of a home: the distance from a recognized fire station beyond five road miles, or both.

1.5-Mile Radius:

This refers to the distance from a fire station. Ideally, a property should be within 1.5 miles of a fire station for optimal fire protection. Properties within this range generally benefit from faster response times in case of a fire. Being within 1.5 miles of a fire station can positively impact a community's or property's ISO rating, potentially leading to lower fire insurance premiums.

5-Mile Radius:

This measurement pertains to the distance from a recognized water supply source, such as a hydrant or alternative water source used for firefighting.

Properties within 5 miles of a water supply, but more than 1.5 miles from the nearest fire station may have a less favorable ISO rating than those within the 1.5-mile radius, potentially leading to higher insurance premiums.

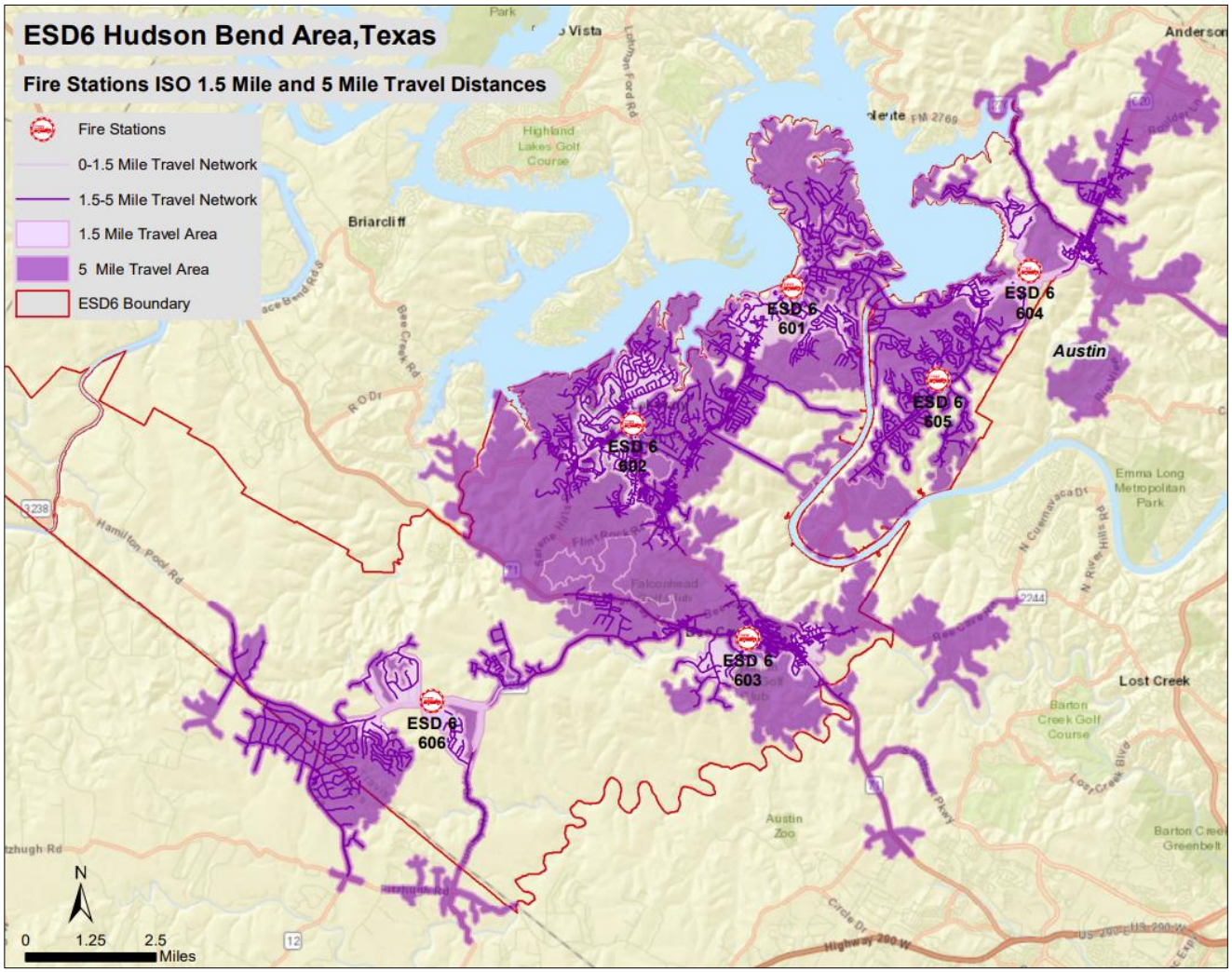
Impact on Insurance:

Insurance companies often use ISO ratings to help set home and property insurance rates. A better (lower) PPC rating can mean lower insurance premiums, as it suggests a lower risk of fire damage due to more effective fire protection services. Communities and fire departments often strive to improve their ISO ratings by enhancing their fire services, water supply, and fire prevention measures.

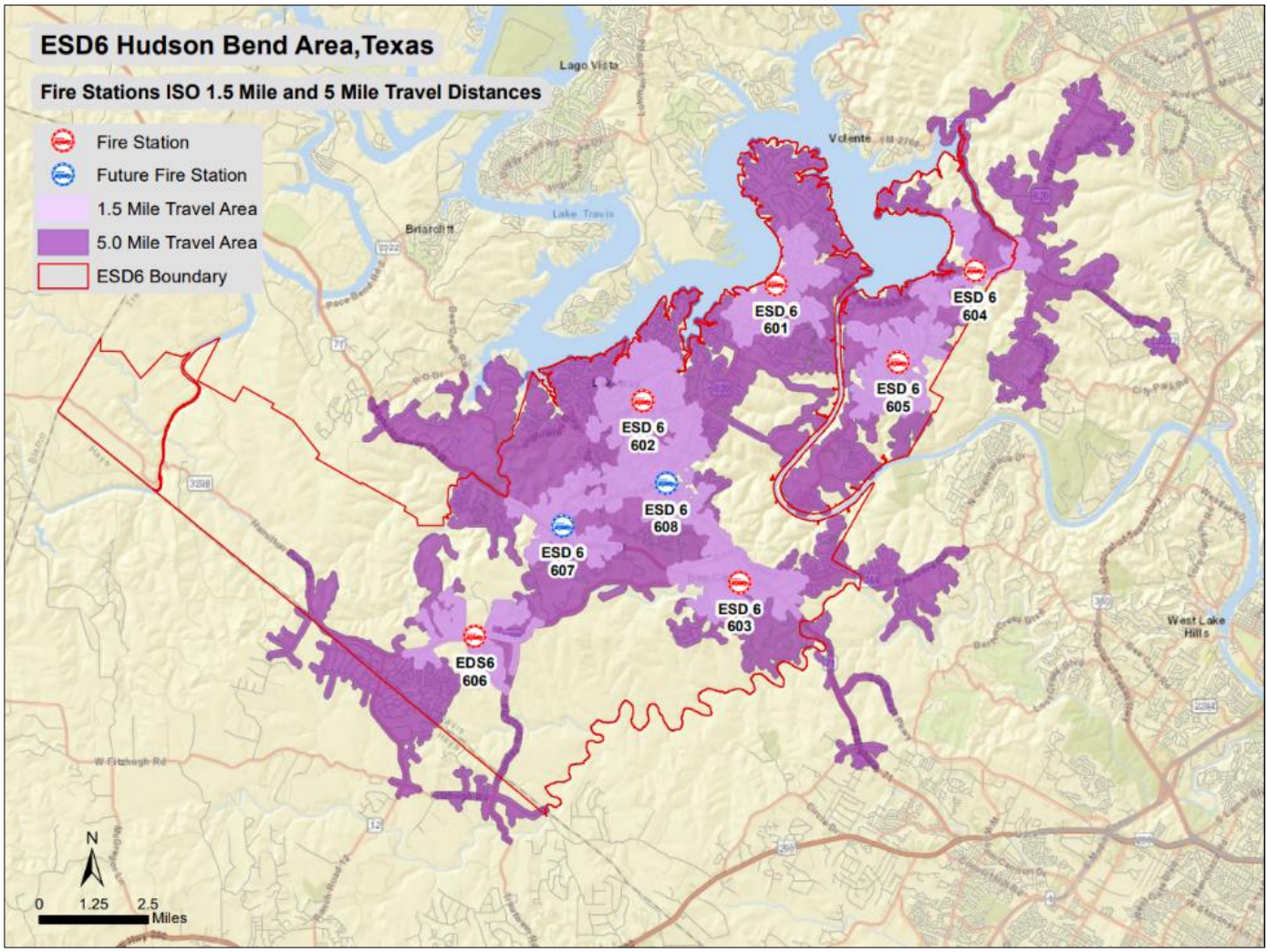
Rural vs. Urban Areas:

In rural areas, where fire stations and water supplies may be more spread out, achieving a PPC rating equivalent to urban areas with more densely located services can be challenging.

Some rural areas might not meet the 1.5-mile fire station or 5-mile water supply criteria, leading to higher PPC ratings and, consequently, higher insurance premiums.



The above map reflects the Fire Station ISO one and half mile and five-mile travel distances impacting the District's current split rating of ISO Class 2/3 maintaining six fire stations.



The above map reflects the Fire Station ISO one and half mile and five-mile travel distances strengthening the District's current ISO ratings with the addition of future Fire Stations 607 and Fire Station 608.

ENGINE & QUINT CONCENTRATION

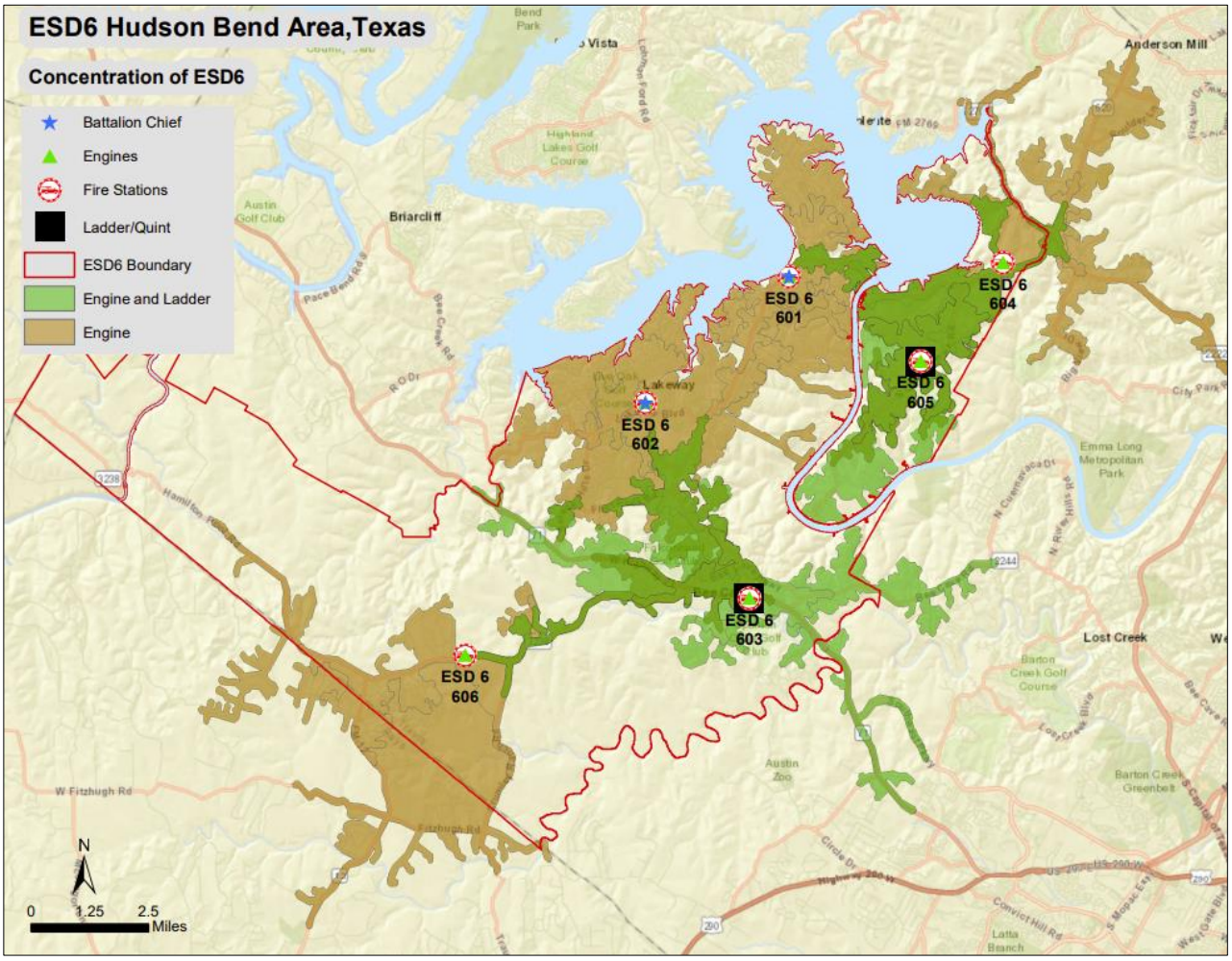
The terms "engine" and "quint" refer to the types of firefighting apparatuses. Their concentration in a fire department is an important aspect of the department's operational capabilities and strategy. Following is a brief overview of each apparatus and the significance of concentration.

A fire engine, also known as a pumper, is a vehicle designed primarily for firefighting operations. Its primary function is to transport water and firefighters to a fire scene. It carries a water pump, a large tank of water, hoses, and other equipment like ladders, first aid kits, and tools. The main role of a fire engine is to extinguish fires by supplying water. It can connect to fire hydrants or draw water from other sources like lakes or rivers.

A quint is a multi-functional firefighting vehicle that combines the features of a fire engine and a truck. The name "quint" refers to its five main functions: pump, water tank, fire hose, aerial device, and ground ladders. Quints are versatile and can be used for both fire suppression and rescue operations, especially where access to higher floors or roofs is necessary.

Engine and quint concentration refers to the number and distribution of engines and quints within a fire department or across a service area. A higher concentration means more apparatuses are available for deployment, which can improve response times and operational effectiveness.

The concentration of engines and quints is determined by the needs of the area served. Urban areas with taller buildings may require a higher concentration of quints for rescue operations, while suburban or rural areas might focus more on engines for fire suppression. Decisions about the concentration of these vehicles are influenced by factors such as the size and layout of the area, population density, building types, budget constraints, and historical data on fire incidents and emergencies. The right balance and concentration of engines and quints are crucial for effective firefighting and rescue operations. This concentration can also affect a community's ISO rating, as it reflects the fire department's capability to respond to and manage fire emergencies.



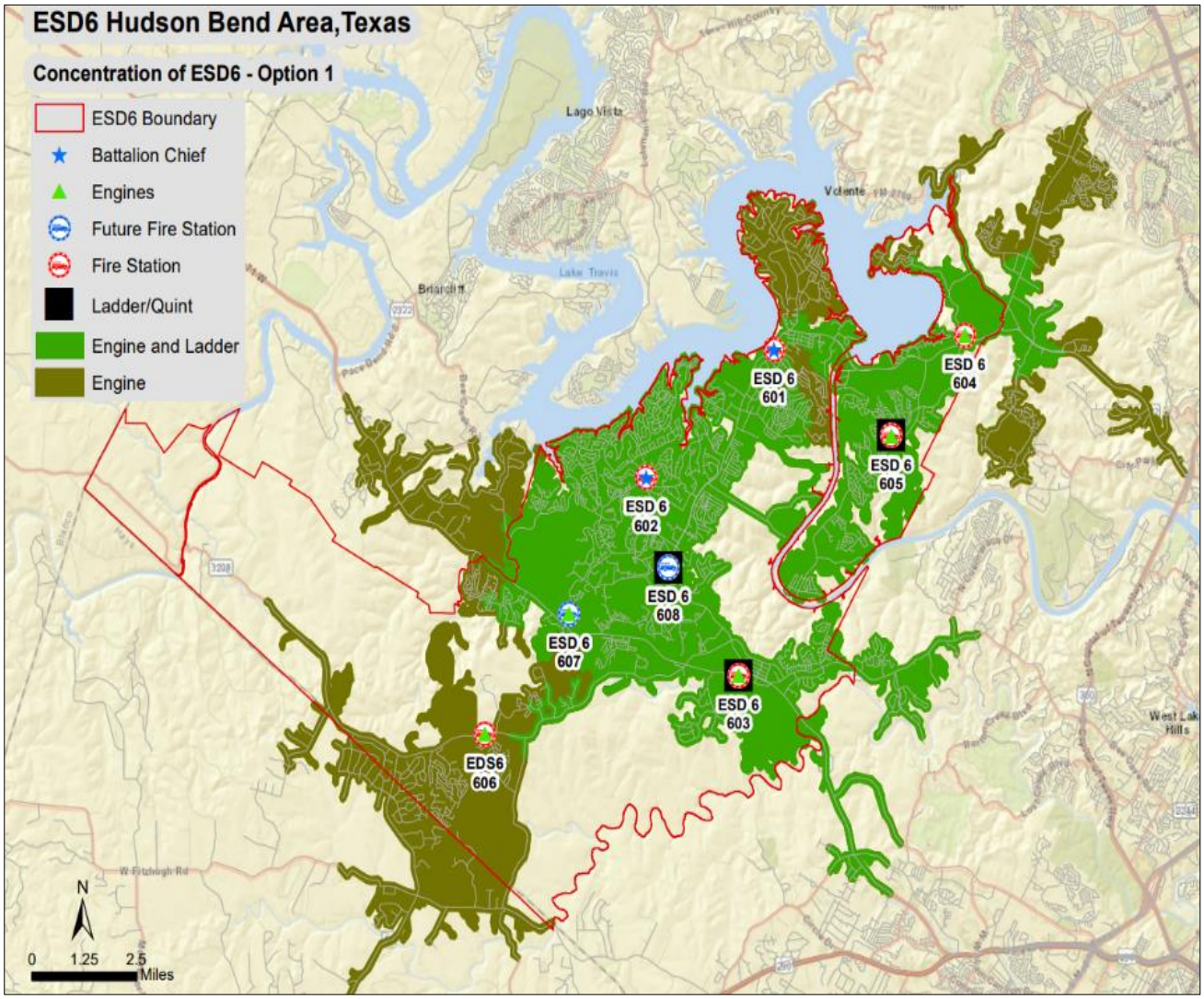
The above map reflects the current engine and quint concentration within the District staffing six single unit fire stations yielding four engines and two quints.

Adding two additional fire station locations will increase the engine and quint concentration throughout the District. While in a perfect world, the concentration would be equally balanced throughout the entire District, it is not realistic to assume that the concentration would ever be balanced due to the available road network, available future station locations, and incident volume shifts that change with zoning and development.

Below are two options for future consideration to improve engine and quint concentration using existing or future fire station sites.

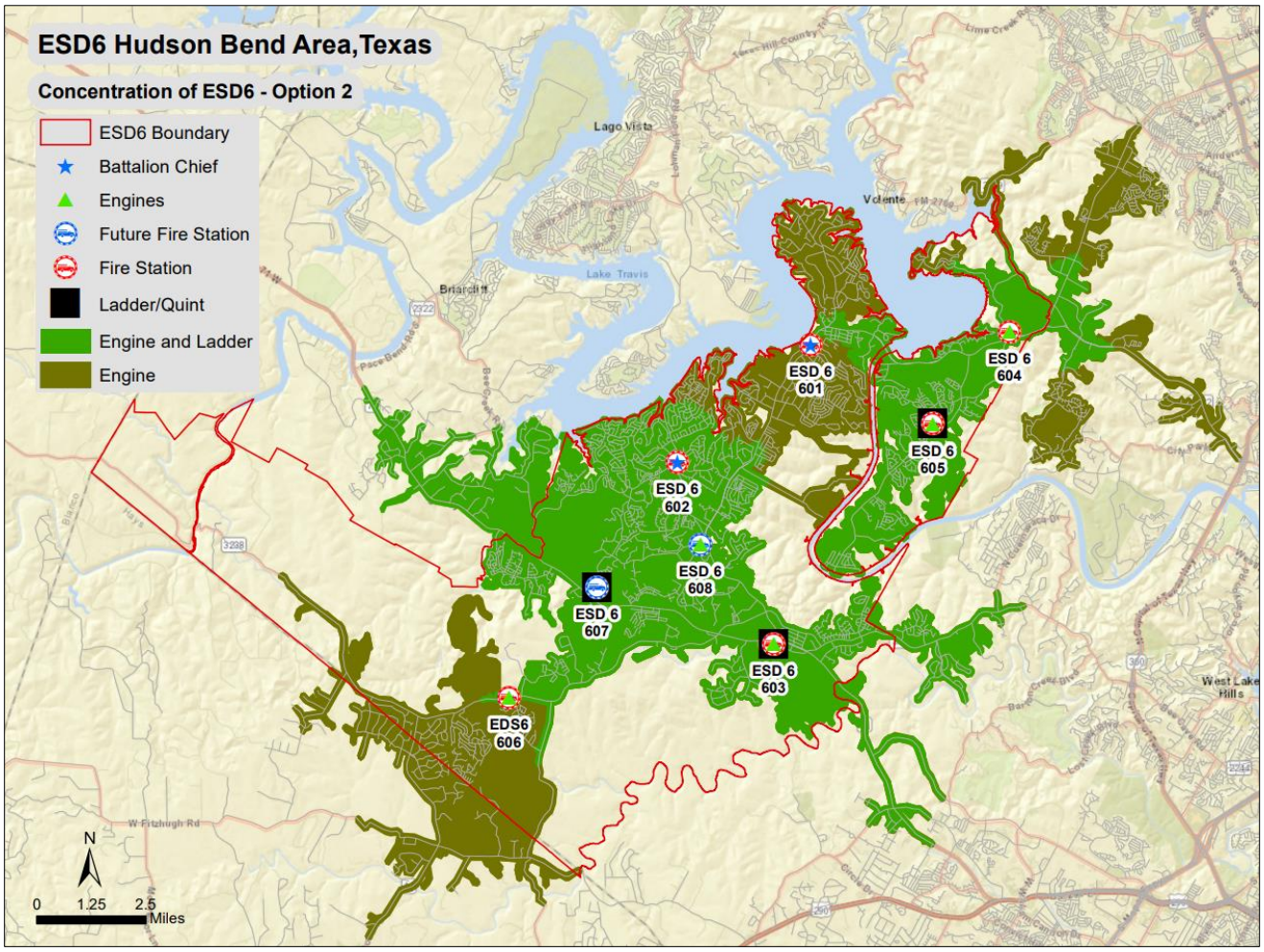
ADDITIONAL FIRE STATIONS - OPTION 1

In addition to the existing fire station locations, this option would add Fire Station 607, housing an engine company, and Fire Station 608, housing a quint company.



ADDITIONAL FIRE STATIONS - OPTION 2

In addition to the existing fire station locations, this option would add Fire Station 607, housing a quint company, and Fire Station 608, housing an engine company.



Assessing quint/ladder coverage provides insight into areas that have adequate or delayed response from aerial devices. The assessment evaluates the availability of a ladder and whether it is in an ideal location. Using quints, the District gets both a 'credit' for a ladder and the accompanying pump when ISO ratings are calculated, compared to a stand-alone ladder truck not equipped with a fire pump and tank of water.

FOUR- & EIGHT-MINUTE RESPONSE TIMES

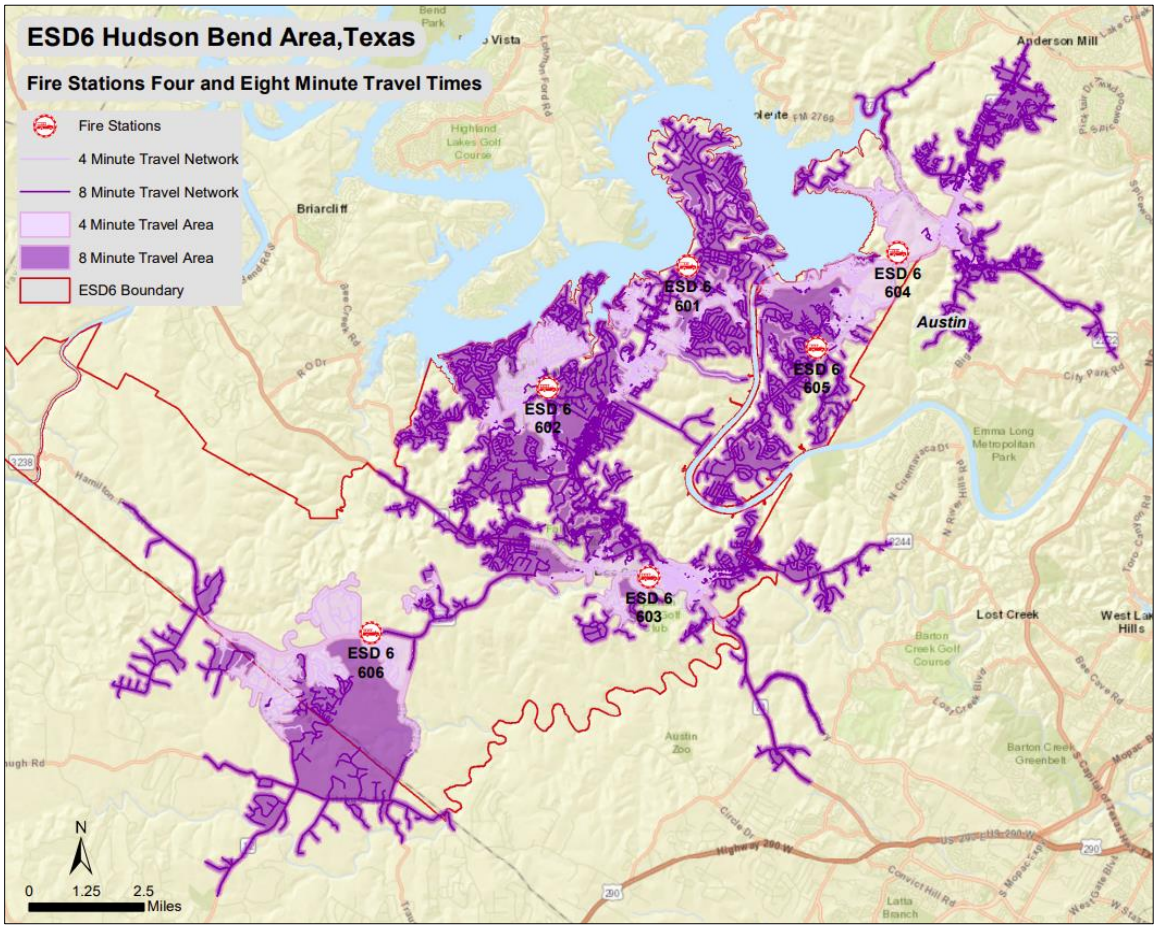
The four and eight-minute response times are benchmarks commonly used in the fire service and emergency medical services (EMS) to gauge the effectiveness and efficiency of their response to emergencies. These time frames are significant for several reasons:

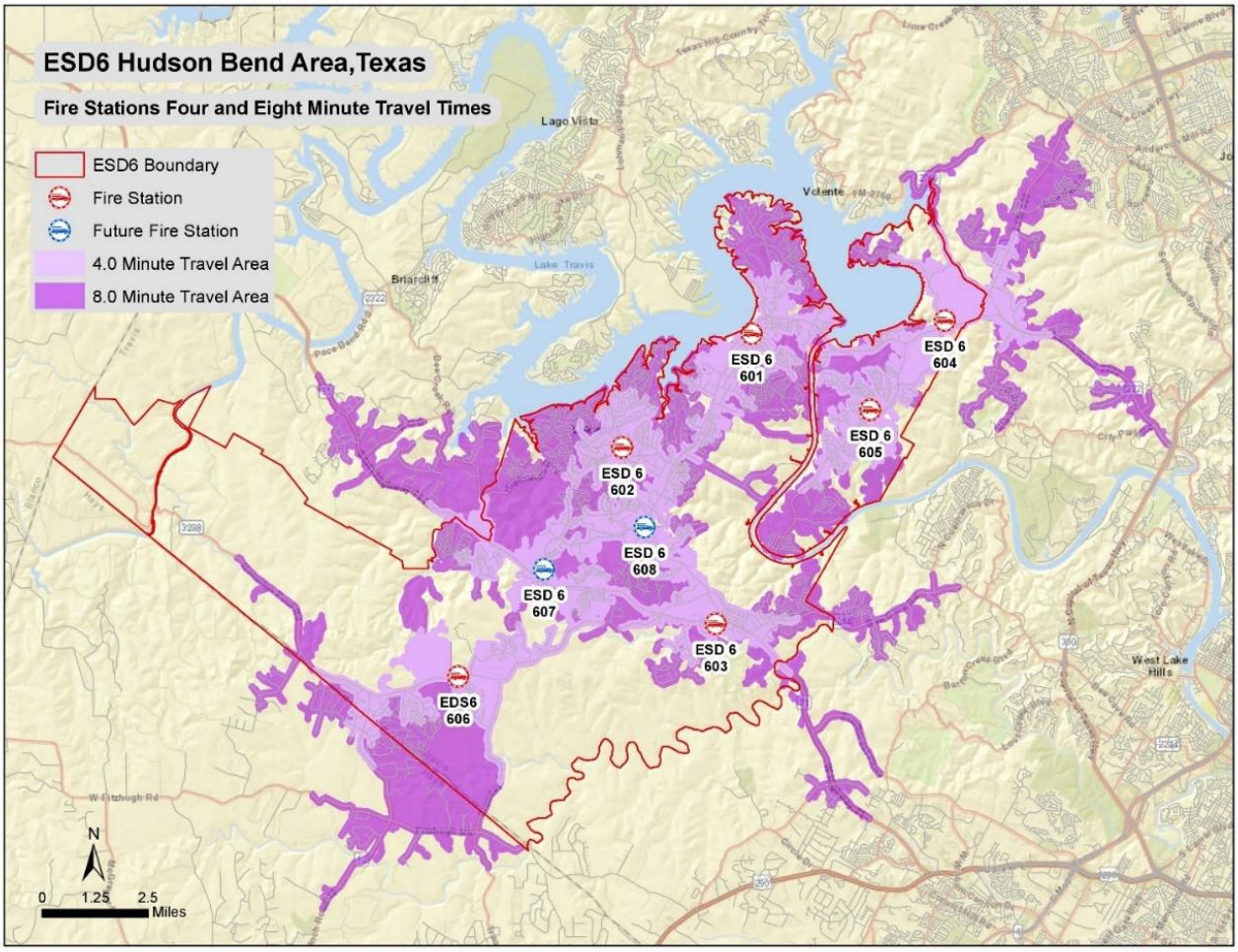
Four-Minute Response Time:

The four-minute mark is often cited as a critical threshold for fire suppression. Fires can grow exponentially in the first few minutes, so a rapid response is crucial to prevent a small fire from becoming unmanageable. In medical emergencies, particularly cardiac arrests, brain death can start to occur within four to six minutes without intervention. Therefore, a response time of four minutes or less is ideal for improving survival rates.

Eight-Minute Response Time:

An eight-minute response time for fire departments is often considered a standard for reaching more complex or involved incidents, especially where additional resources are required. For EMS, an eight-minute response time is commonly used as a benchmark for advanced life support services. Receiving advanced care within this timeframe can be crucial for patient outcomes in severe medical emergencies.





The map above reflects the improved four- and eight-minute response times with the addition of Fire Stations 607 and Fire Station 608.

Factors Affecting Response Times:

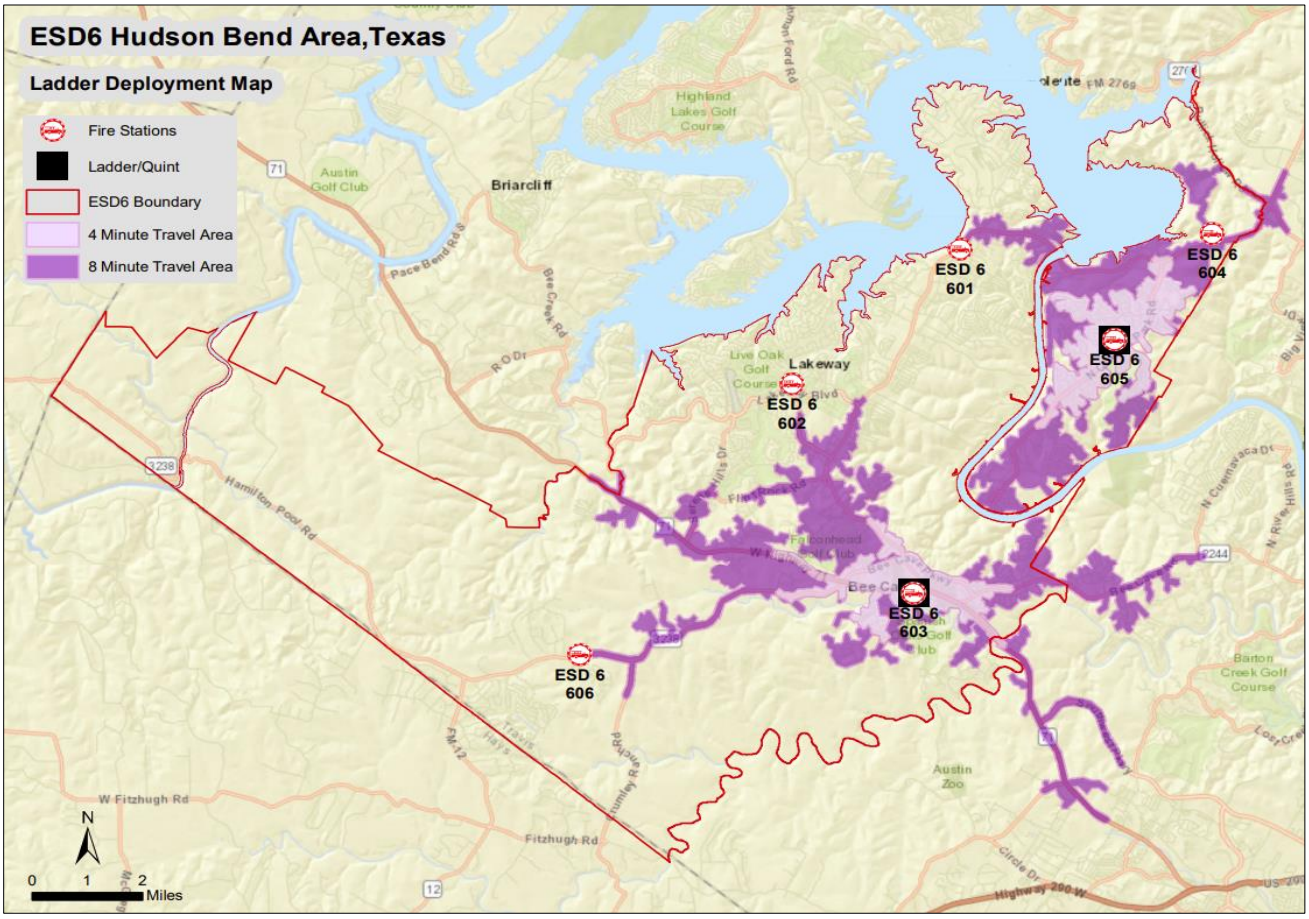
Urban areas, with closer proximity to fire stations and hospitals, generally have shorter response times compared to rural areas. Traffic congestion, road conditions, and the accessibility of the incident location can significantly impact response times. The number of available responders and vehicles (like fire engines and ambulances) at any given time influences response capabilities.

Implications:

Faster response times are associated with better outcomes in emergencies, including lower mortality rates in medical emergencies and less property damage in fires. Many fire and EMS departments strive to meet these response time benchmarks to comply with national standards and achieve accreditation from relevant bodies. Shorter response times can lead to increased public confidence in emergency services and can be a factor in urban planning and community development.

Meeting these response time goals can be challenging, especially for under-resourced departments or those serving large, rural, or geographically diverse areas. Four and eight-minute response times are key benchmarks in emergency response, reflecting the urgency and efficiency required in fire suppression and medical emergencies. Achieving these response times can significantly impact the effectiveness of emergency services and the safety of a community.

QUINT FOUR- & EIGHT-MINUTE RESPONSE TIMES



ADDITIONAL FIRE STATIONS - OPTION 1

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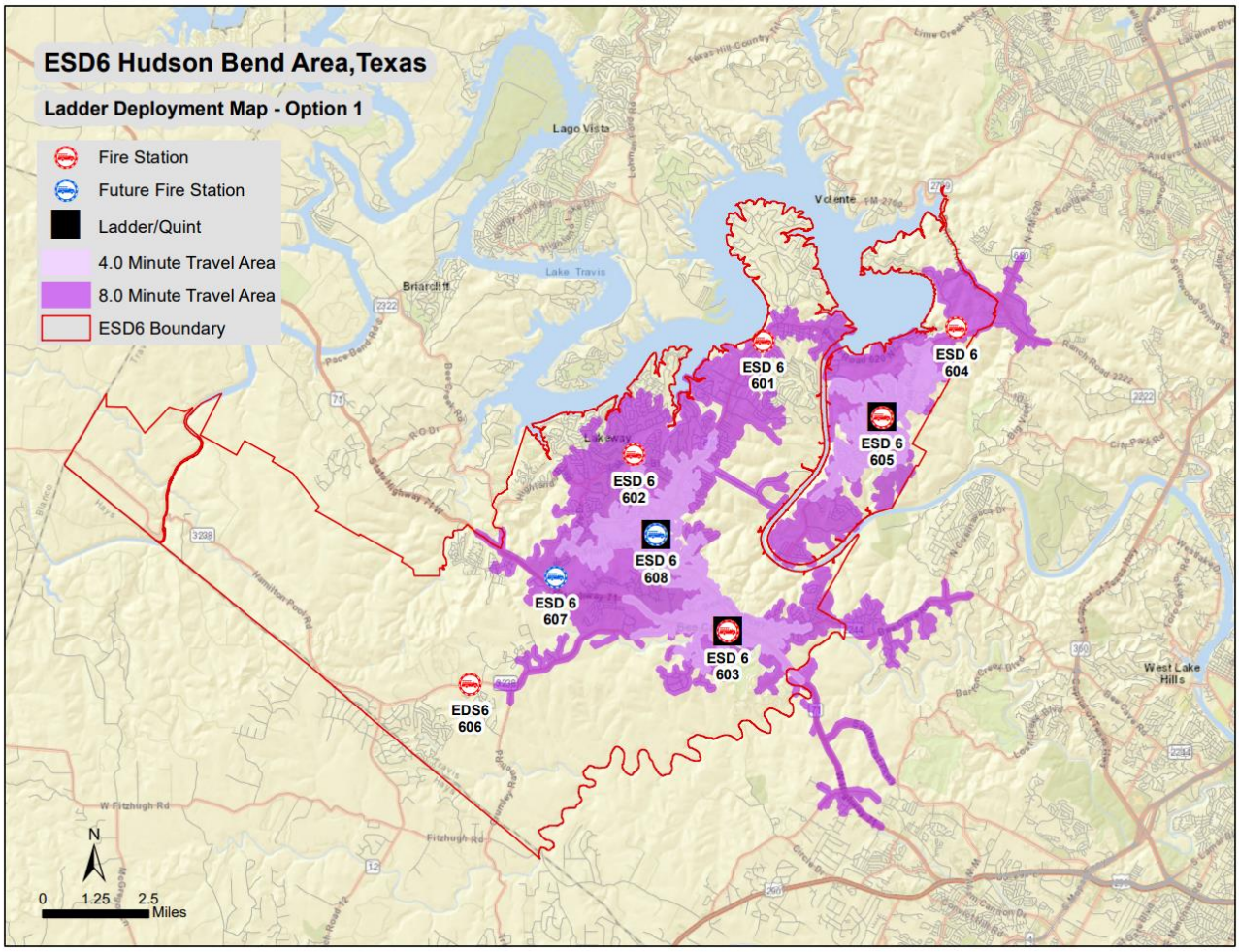
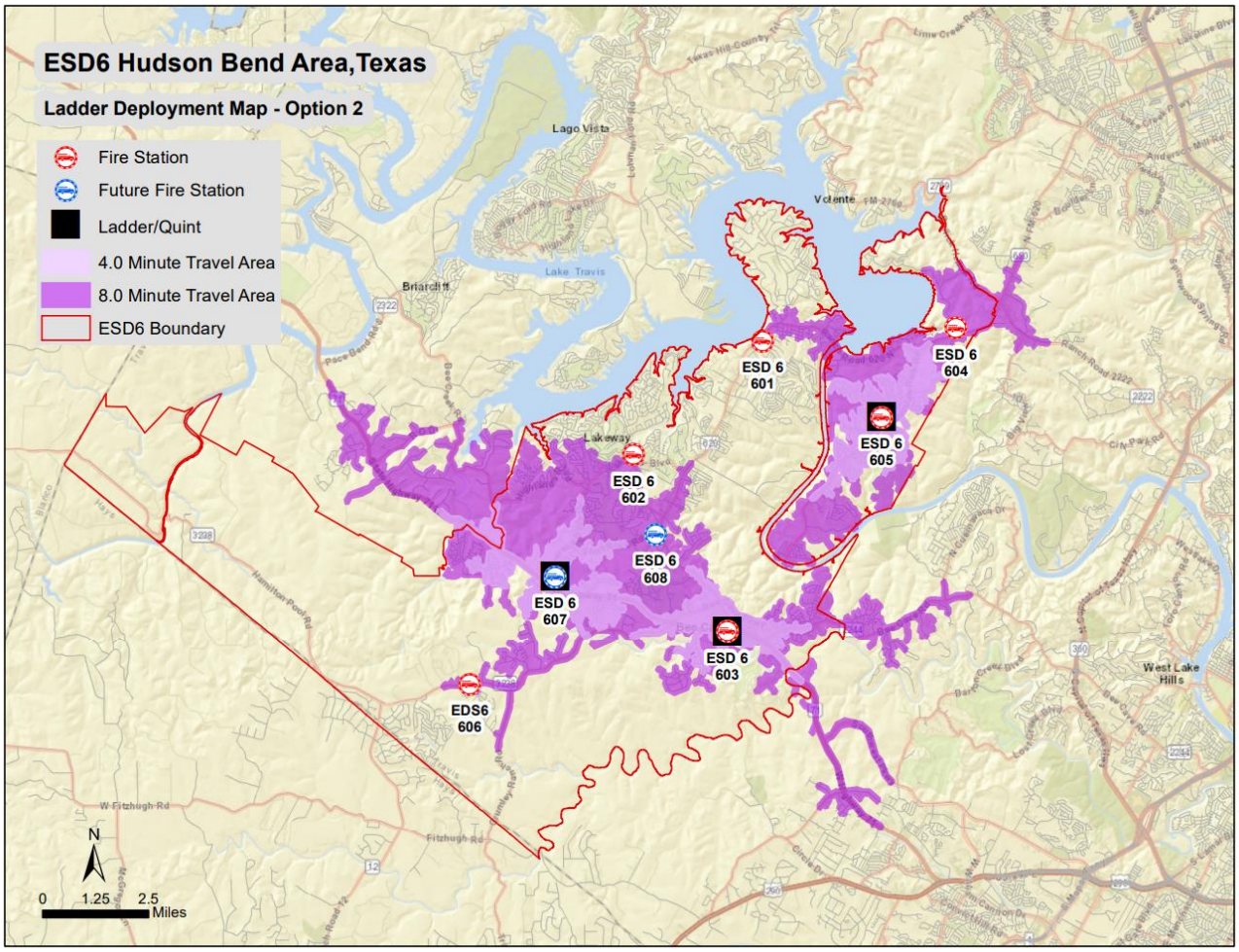


ADDITIONAL FIRE STATIONS - OPTION 2

In addition to the existing fire station locations, this option would add Fire Station 607, housing a quint company, and Fire Station 608, housing an engine company.



HIGH PRIORITY HIGH-RISK CALLS NON-FIRE

TCESD6 is an ALS first responder service. Fire units are staffed with firefighter AEMTs and firefighter/paramedics. The following performance measures are used to guide FIRE/EMS personnel in treating community medical emergencies.

PRIORITY 1 AND PRIORITY 2

When looking at P-1/2 Stroke and Chest pain calls, the criteria are as follows (AHA and EMS medical directors):

1. Pre-arrival notification of suspect stroke >90%
2. Documentation of last known well for patients with suspected stroke >90% of the time
3. Evaluation of blood glucose for patients with suspected stroke >90% of the time
4. Stroke screen (CSS and if appropriate VAN) performed and documented >90% of the time
5. 12 lead ECG performed within 5 minutes of arrival on the scene >90%

6. Aspirin administration for any STEMI with 5 minutes >90%
7. SPO2 recorded >90%
8. Pre-arrival notification for STEMI within 10 minutes of positive STEMI positive ECG >90%
9. First EMS/FD medical provider on the scene to thrombolytic administration at the hospital within 90 minutes for any patient with a stroke >90%
10. First EMS/FD medical provider on the scene to endovascular therapy within 180 minutes for any patient with a stroke >90%
11. First EMS/FD medical provider on the scene to PCI within 90 minutes for patients with STEMI >90%
12. First EMS/FD medical provider on the scene to thrombolytic administration within 30 minutes for patients with STEMI >90%

CARDIAC ARREST

CARES Criteria and EMS medical director's recommendations looks at the following benchmarks for adult patients:

1. Compression rate 100-120 compressions per minute >90%
2. Compression depth average of 2-2.4" >90%
3. Full recoil of the chest wall after compression >90%
4. Compression fraction or time in CPR, as high as possible, but the benchmark is at least 60% of pauses are less than 10 seconds >90%
5. The ventilation rate of 10 breaths per minute with a tidal volume of 500-600ml per breath >90%
6. Response interval for CPR and defibrillator application <5 minutes>90%
7. ETCO2 monitored >90%

AIRWAY MANAGEMENT

EMS Medical Director's recommendations:

1. ETCO2 on any advanced airway >90%
2. Multiple confirmation techniques >90%
3. Complete documentation >90%

RESPIRATORY DISTRESS

1. CHF: - Administration of NTG & application of NPPV in the absence of contraindications >90%
2. Bronchospasm - Beta-agonist by earliest arriving, trained qualified provider >85%
3. Mental status assessed and documented >90%

SEIZURE

1. Admin of benzo on any patient with seizure activity lasting 15 or more consecutive minutes, patients who have 2 or more seizures w/o intervening period of clear mental status >90%
2. obtain and measure blood glucose on any seizure >90%

TRAUMA

1. Scene time of fewer than 10 minutes or documentation for the exception >90
2. Pain management (including but not limited to splinting, ice, and PO meds) for patients with pain scores >7 >90%
3. Pre and post-pain management pain scores documentation >90%
4. Direct transport to a trauma center with patients meeting the criteria >90%

CRA & SOC TEAM

Robert B. Abbott, Fire Chief/Chief Executive Officer

Sharon Smith, Chief Financial Officer -*Financial & Capital Improvement Plan*

Virgina Deeny, Chief Human Resource Officer – *Organizational Data*

Mike Prather, Assistant Fire Chief of Operations and Training

Glenn Trubee, Assistant Fire Chief/Fire Marshal

Rachel Neutzler, Director of Communications- *Risk Reduction Programming, Communications & NFPA Craig1300*

Sarah Leach, Clinical Care Coordinator- *Standards of Cover, Medical Performance & Levrum 3 Strategist®*

Captain Jonathan Bohot, Fire Inspector/Arson Investigator- *Permitted Building Assessments*

Cindy Taylor, Executive Assistant - *Community Advisory Committee & Public Safety Day*

Tisa Warner, Executive Assistant- *Station Distancing & Travis County Appraisal Data*

Kimberlee Harvey, GIS Contractor

LAKE TRAVIS
FIRE RESCUE

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info@ltfr.org | www.ltfr.org | (512)266-2533

15304 Pheasant Ln., Lakeway, TX 78734