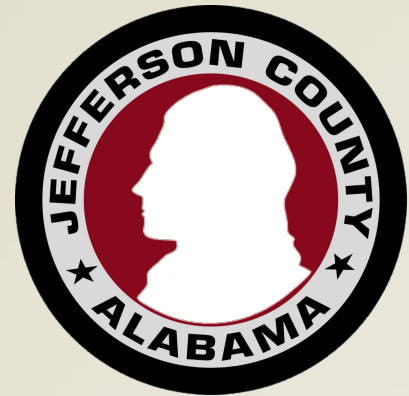


August 2022

EMS System Assessment
Jefferson County, Alabama



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CONSULTANT REPORT

Jefferson County, Alabama
EMS System Assessment

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ATTACHMENT

Attachment A – Data Report
Attachment B – Financial Report
Attachment C – PowerPoint Presentation

EXECUTIVE SUMMARY

In mid-2021, the Jefferson County Commission engaged Fitch & Associates, LLC (*FITCH*) to assess the County's emergency medical services (EMS) resources and develop future options for a performing, sustainable EMS system. The City of Birmingham was invited but chose not to participate in the study. All analyses were completed based on data excluding Birmingham's EMS activity.

FITCH consultants were on site in Jefferson County in November 2021 and during that time they observed a non-functioning EMS system that puts the safety and welfare of Jefferson County residents and visitors at risk. Throughout the next several months, *FITCH* and Jefferson County representatives continued to meet virtually to discuss findings and options for results-based solutions.

FITCH spent a substantial amount of time prior to the second site visit working to collect, process, and validate data for EMS responses in Jefferson County. Due to a fragmented and fractured system, it was difficult to understand the number of EMS dispatches occurring in the County.

FITCH recognized very early in this consultancy that there is a need to ensure that emergency services are available to all residents of Jefferson County, no matter the geographic or socio-economic demographics of the area. It is important to note that there are hints of disparity that exist in the provision of EMS in the County.

The critical findings that should be addressed immediately are as follows.

CRITICAL FINDINGS

Delayed or No Ambulance Response

In large portions of the County, ambulances do not or are not regularly available to respond quickly to 911 emergency medical calls. This occurs in municipal areas that do not fund their own or a contracted ambulance company, and the entire unincorporated, non-municipal area. In the unincorporated area, the County does not provide ambulance service that is required to respond to 911 emergency calls.

During a site visit, *FITCH* consultants personally observed a 911 call where the dispatcher could not find an available ambulance. The dispatcher then told the caller that no one was coming to help. This occurrence is not rare. Various fire department personnel told *FITCH* consultants that ambulances are frequently delayed several hours or may not show at all. The same story was shared by various municipal leaders regarding the lack of ambulances and how rarely, if at all, they might respond to their areas to provide life-saving medical care to sick or injured patients.

These delays, often several hours or a complete absence of an ambulance response, requires firefighters to remain on scene with a sick or injured patient for the duration. The result is that the fire unit is out of service for an extended period, which can impact the availability of fire units to respond to fire-related

incidents. Many firefighters report that this occurs daily. Additionally, first responders are regularly making decisions regarding patient treatment based on the extended arrival time or availability of ambulances. Sadly, people are suffering due to Jefferson County's uncoordinated EMS system.

The City of Birmingham and many of the municipal areas do have reasonable ambulance response times. However, even when traversing the County on interstate and other roadways, there is no guarantee that emergency ambulance services will be available.

Chaotic 911 Call System

Throughout out the County, there are 14 emergency 911 dispatch centers that are not connected or coordinated. *FITCH's* research indicates that Jefferson County is the only county in the State of Alabama to have more than two dispatch centers. During the site visit, *FITCH* consultants tested the 911 system with two people standing next to each other, calling 911 on their cell phones. Each person was routed to a different 911 center thus adding to the chaos within the 911 call system. They observed that sick or injured callers were often routed through multiple 911 centers before connecting to one for their specific geographic location. This continuous transferring leads to significant delays in patient care and can be life-threatening.

Currently, there is no requirement that the dispatch centers have interoperability, which would allow the system to readily connect and exchange information. Interoperability is critical to manage any type of significant or multi-casualty event. An uncoordinated 911 system will default to chaos. In October 2013, the State of Alabama published the Statewide Communication Interoperability Plan¹ which outlines the need and outlines how 911 interoperability is crucial to survivability in an emergency.

Very few of the 14 dispatch centers provide over the phone, protocol-driven emergency medical instructions, such as CPR, while help is on the way — many provide none. Medical pre-arrival instructions to callers are considered a minimum standard of care in the United States. Jefferson County fails in this regard. *FITCH* also heard that many dispatch centers decided to no longer offer instructions due to the long wait times for ambulances to arrive.

EMS Not Recognized As Essential Public Safety Service

EMS in Jefferson County is not legislatively recognized as an essential public safety service and there is no designated countywide funding. The County has never adopted legislative responsibility for ensuring emergency medical response is guaranteed. Likewise, fire agencies are not funded to provide 911 EMS response and patient transport; they were never intended to support the EMS system.

FITCH believes that the lack of this essential designation underpins many of the issues identified during our consultancy. It is imperative that quick legislative action be taken to ensure that EMS becomes

¹ <https://firstnet.alabama.gov/wp-content/uploads/2018/10/AlabamaSCIPApproved.pdf>, accessed June 2022.

recognized as an essential public service and funding is authorized to provide the necessary life-saving services.

As of January 17, 2022, a bill was introduced in the Legislature (SB183, 216490-1) by Senator Waggoner to designate EMS an essential service.²

No Single Entity Is Accountable

There is no single entity that is responsible to coordinate and provide accountability for the overall system that includes 911 dispatch, first response, and ambulance transport. As coordinated entities, Jefferson County emergency medical services fail to meet the accepted benchmarks for an EMS system.

Those benchmarks cover the following areas:

- 911 Communications
- Medical First Response
- Medical Transportation
- Medical Accountability
- Customer/Community Accountability
- Prevention and Community Education
- Ensuring Optimal System Value
- Organizational Structure & Leadership

From the viewpoint of performance metrics, there is no EMS system in Jefferson County. A single entity that would set standards and provide accountability would provide a significant benefit for Jefferson County residents and visitors. Currently, EMS is provided when and where an agency or group chooses to do so with no entity or individual designated to ensure coverage is maintained. Creation of a singular entity to oversee the provision of EMS is required to ensure that everyone who needs the services will receive them. This can be accomplished through the formation of the Jefferson County Public Safety Department. The newly formed department will have the ability to provide oversight for all facets of emergency services in Jefferson County.

² <http://alisondb.legislature.state.al.us/ALISON/SearchableInstruments/2022RS/PrintFiles/SB183-int.pdf>, accessed July 2022.

METHODOLOGY

FITCH spent a significant amount of time attempting to collect data using multiple systems and methods to analyze call volume and data. Data counts were provided from the 911 computer-aided dispatch (CAD) systems from several, but not all of the 14 dispatch centers, along with information from some of the many EMS and fire agencies servicing Jefferson County. Throughout the project, it has been difficult to validate data initially provided through the Information Data Request (IDR). *FITCH* consultants completed numerous iterations of the Data Report because data continued to become available throughout the consultancy. Additionally, because the Birmingham Fire Department did not participate, there are gaps in analysis of total data counts due to the inability to utilize Birmingham's data to provide a full county-wide picture of EMS call volume.

Data files were obtained from Jefferson County 911, Regional Paramedic Services (RMS), and Shoals Ambulance Service, for the period of January 1, 2018, through December 31, 2021. Jefferson County included a partial 2022 data set, but it was not utilized as none of the other agencies provided data for this period. The data utilized for this report focuses specifically on call volume analysis as unit data was not available. Each event is treated as an individual call for service without consideration of the number of units responding.

Audits of the data files were first conducted to reduce duplication of events and to identify anomalies in the base data that would impact analysis. Select records were excluded if there were values that reflected negative time calculations or were exceedingly long in the processing and assignment of the event. It should be noted that no data values were changed or modified in the cleanup process. Some spelling and abbreviation differences were adjusted in the names of towns and jurisdictions, only where it was obvious and necessary to provide the most accurate counts aggregated by geographic region. Tables where these values were excluded are noted in the table descriptions in the attached Data Report. After eliminating duplicates and incidents that fell outside the subject service areas, we selected a date range for analysis.

The client provided data from several agencies in a variety of formats and with differing naming conventions for the data elements. Some datasets contained geographic coordinates, some only provided only addresses. In addition, there was no attempt by the client to identify or eliminate duplicate responses to the same incident by multiple agencies.

Datasets that contained geographic coordinates were modified to latitude/longitude format. Datasets that did not contain coordinates were geocoded using an online service known as HERE.³ HERE was developed by HERE Technologies and supports Geographic Information System (GIS) developers with a rich array of GIS features that can be integrated into web or desktop applications. Since this geocoding process is not 100% reliable, addresses that could not be reliably geocoded were dropped from the datasets. Overall, error rates / rejections based on geocoding were less than 0.5%.

³ <https://developer.here.com/>, accessed July 2022.

Once the datasets were geocoded, we created a merge process to produce a consolidated set of data elements and (to the best of our ability) eliminate duplicate calls. Since we could not be sure that the coordinates and times provided by the various CAD systems and processes would be a reliable determinant of "same location, same time", we established a filter rule that marked any call occurring within 50 meters and within 30 minutes of another incident as a potential duplicate. When we identified incidents that were potential duplicates, we selected the incident record that contained the most amount of data as the official incident record (typically, more time fields had been completed). We tried several filter settings including shorter time windows and different distances, but settled on "within 50 meters, within 30 minutes."

While we were working on this process, additional datasets came to light and the merge process was repeated to incorporate them on an equal basis. Records for incidents falling outside the County or within the City of Birmingham were eliminated from the data using the shapefiles for the County and City boundaries. Once an official dataset was established and agreed on, we did our analysis steps and provided the output for consideration in the final report.

FITCH evaluated response time performance for each Jefferson County EMS entity at travel times of 10-minute, 15-minute, 20-minute, 30-minute, and 60-minute intervals. Once response time performance was determined, analysis was performed to strategically match supply with demand and ensure the appropriate number of locations are utilized for ambulance deployment, to meet a prescribed response objective. The primary objective is to ensure that geographical deployment and demand are staffed appropriately with the correct level of resources.

Modeling is produced showing the current resources deployed, personnel staffing levels and an optimized number of resources to cover historical volumes.

CURRENT SYSTEM DESCRIPTION

MEDICAL FIRST RESPONSE & TRANSPORT PROVIDERS

The current EMS system is at best, broken, although there are a few areas within the County that receive relatively timely and appropriate EMS coverage. It is important to note that the City of Birmingham Fire Department did not participate in this study, even after repeated attempts to have them join.

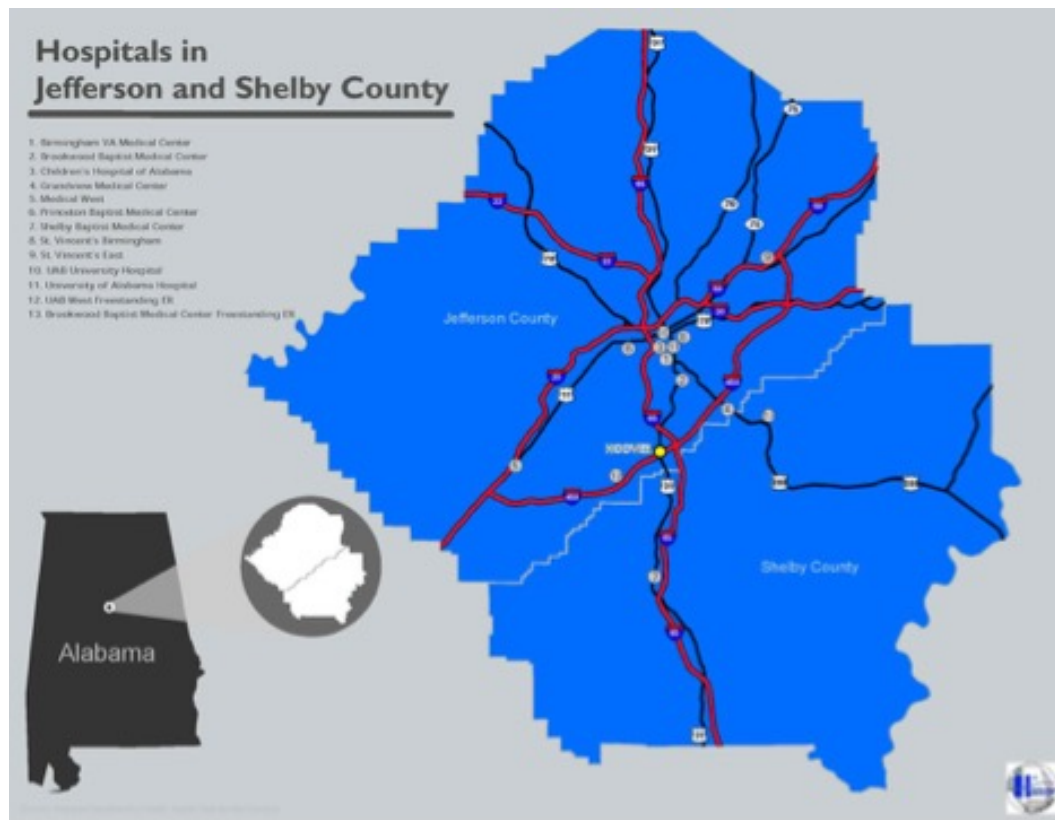
It was reported by Jefferson County representatives that on any given day there should be a total of 42 staffed ambulances ready to respond to emergencies within the County, excluding those utilized by Birmingham. Ambulance coverage and service are comprised of the following:

- Four for-profit EMS agencies – Shoals, Regional Paramedic Services (RPS), Advantage Ambulance, and NorthStar
- Two adjacent county services – Blount EMS and Shelby County
- 12 Fire Departments within Jefferson County (excluding Birmingham) as follows:

| | |
|----------------------------|----------------------------------|
| Center Point Fire District | Mountain Brook Fire Department |
| Concord Fire District | Palmerdale Fire District |
| Forestdale Fire District | Rocky Ridge Fire District |
| Hoover Fire Department | Trussville Fire & Rescue Service |
| Irondale Fire Department | Vestavia Hills Fire Department |
| McAdory Area Fire District | Warrior Fire Department |

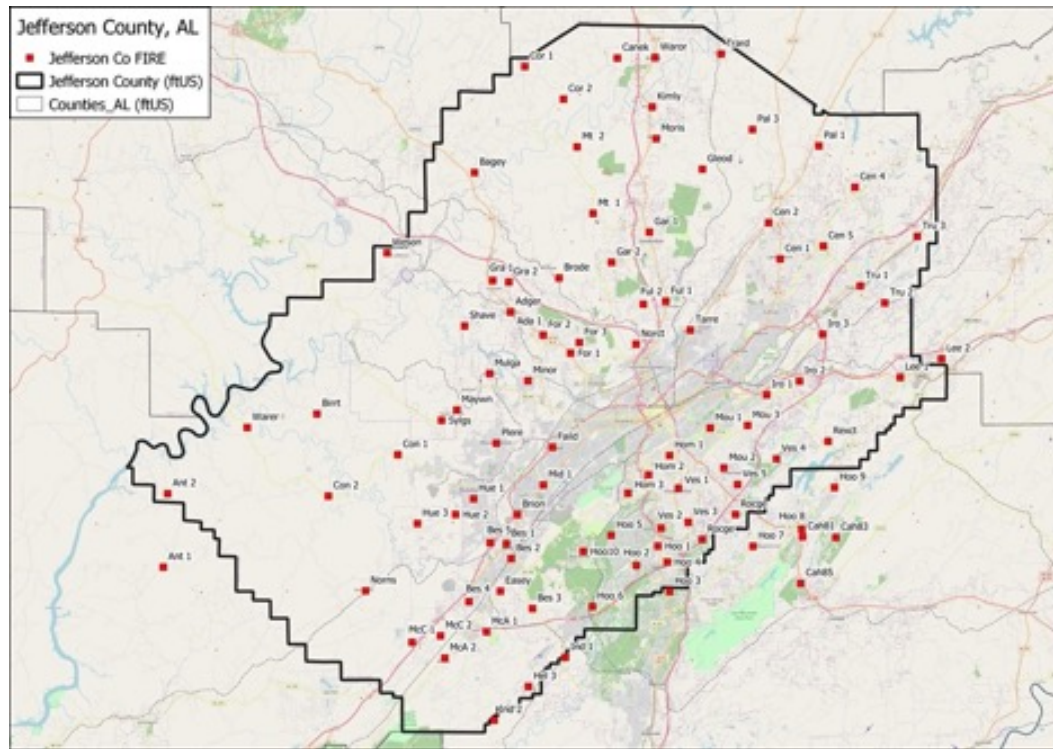
The EMS system is supported by 12 hospitals offering varying levels of service throughout the County as shown in Figure 1 below. The largest hospital and health system is University of Alabama, with their flagship hospital located in the City of Birmingham.

Figure 1. Hospitals in Jefferson County



There are 116 fire stations affiliated with 44 fire departments spread throughout the County as noted in Figure 2 below. Again, the City of Birmingham and its Fire Department are not included in this study.

Figure 2. Fire Stations in Jefferson County



Four for-profit companies provide ambulance transport services in Jefferson County: Shoals Ambulance, Regional Paramedic Services (RPS), Advantage Ambulance, and NorthStar Ambulance.

- Shoals Ambulance attempts to provide four ambulances daily to the areas for which they provide coverage. Shoals provides emergency 911 response and non-emergency interfacility transport (IFT) for many of the area hospitals. Shoals also provides contractual 911 service to the city of Bessemer.
- Regional Paramedic Service (RPS) has been a long-time provider of 911 emergency service in Jefferson County. RPS is not contracted to provide service to any specific location or territory within Jefferson County and they provide service when and where they can. As fire departments began to provide 911 service, RPS has decreased the number of available units for Jefferson County. RPS attempts to have five units committed to Jefferson County for 911 emergency response daily. They do make attempts to provide additional resources with as many as 10 units per day if staffing allows. RPS provides non-emergency interfacility transport to most of the hospitals within Jefferson County. RPS has primary response to a significant amount of territory within Jefferson County as they were the primary provider for so long. All calls for RPS 911 response are routed through their dispatch center, which has the right to accept or decline any 911 emergency call. Additionally, RPS has areas of the County where they chose not to respond.
- Advantage Ambulance has a satellite location in Trussville, Jefferson County that provides two ambulances. These ambulances primarily provide basic life support services in a limited 911 response to areas within Jefferson County. Primarily Advantage Ambulance conducts non-emergency IFT for many area hospitals.
- NorthStar has a presence in Jefferson County with non-emergency transfers and they currently have one ambulance stationed at McCalla Fire that responds primarily in Tuscaloosa County. They also provide response to Corner Volunteer Fire District under the name of Blount EMS. It is

important to note that the contract for Blount EMS is transitioning to AMR effective September 1, 2022, which may leave the area under protected.

Several events coalesced to bring the system to the brink. The two private ambulance companies began to have staffing and coverage problems, which led the area fire departments to respond to more and more 911 emergency calls. As a result, the for-profit agencies experienced a decline in calls (revenue) and they in turn refocused and realigned to ensure sustainability. The for-profit agencies operate without a contract, without any guaranteed revenue (subsidy) and absent any obligation to provide county-wide service. They were able to focus their efforts in easy-to-serve areas with populations more likely to have insurance.

For multiple years, many of the fire agencies have provided medical first response with a mixed level of service. As the for-profit agencies limited the number of available units and 911 calls increased, the fire agencies chose to begin ambulance transport service. Fire officials stated that they did not intend to break into the EMS business, but rather want to fill the service void for their community.

Area fire officials expressed that expanding ambulance service is an operational and financial burden. Personnel are assigned to an engine and move to an ambulance as needed for response to EMS calls. The agencies are not necessarily funded to maintain readiness for both fire and medical incidents, and most are not staffed to transport patients. The issue is compounded by extremely long wait times on scene waiting for a transport ambulance.

Patient well-being is likely compromised by the long wait times. Fire department personnel report that on numerous occasions, after waiting hours for an ambulance to arrive, they would discontinue care and assist the patient into a private vehicle of a friend or family member for transport to a hospital. This is a subpar standard of care.

SERVICE AREA & COMMUNITY DEMAND

Jefferson County is the most populous county in the state of Alabama. As of the April 2020 census, the population was 674,721 and declined by 1% to 667,820 by the July 2021 census. The County covers 1,112 square miles of a mix of urban and rural area. The county seat is the City of Birmingham. Birmingham's population of 197,575 represents 30% of the total County population. There are 67 cities, towns, and communities within Jefferson County.⁴

Jefferson County is one of eight counties in Alabama with a limited form of home rule government and a type of council-manager form of government. It is governed by a five-member commission that combines the legislative and executive duties for the County. The Commissioners are elected from single member districts and each commissioner represents one of the five districts.

⁴ QuickFacts Birmingham City and Jefferson County, Alabama, United States Census Bureau, www.census.gov, accessed July 2022.

Figure 3 below indicates the EMS call volume for four calendar years of 2018 through 2021. Calls decreased by 17% in 2020, which most likely correlates to the COVID-19 pandemic. The response volume rebounded in 2021 with a 2.8% increase over 2020. The attached Data Report offers more in-depth analysis of responses by day, week, time of day, month, and various call types.⁵

Figure 3. Call Volume by Agency and Priority

| AGENCY | PRIORITY | Reporting Period | | | |
|------------------|-------------------------|------------------|--------|--------|--------|
| | | 2018 | 2019 | 2020 | 2021 |
| Jefferson County | PRIORITY 1 | 21365 | 57266 | 62691 | 64590 |
| | PRIORITY 2 | 956 | 1124 | 1259 | 1588 |
| | PRIORITY 3 | 2746 | 3473 | 3293 | 3971 |
| | SCENEFLT | | 17 | 17 | 23 |
| | STBY | | 124 | 316 | 197 |
| | (blank) | 615 | 296 | 3655 | 3930 |
| Total | | 25682 | 62301 | 71236 | 74303 |
| AVG/DAY | | 70.4 | 170.7 | 194.6 | 203.6 |
| Total Growth | | N/A | 142.6% | 14.3% | 4.3% |
| RPS-Jefferson | Emergency Transport | 31118 | 30568 | 31790 | 26679 |
| | Non-Emergency Transport | 12 | 8 | 6 | 32 |
| | Scene Flight | 54 | 42 | 43 | 50 |
| | Standby | | 166 | 425 | 265 |
| Total | | 31184 | 30784 | 32264 | 27026 |
| AVG/DAY | | 85.4 | 84.3 | 88.2 | 74.0 |
| Total Growth | | N/A | -1.3% | 4.8% | -16.2% |
| Shoals EMS | Priority 1 - EMRFR | 6208 | 7566 | 6492 | 6791 |
| | Priority 2 - EMER | 14 | 26 | 13 | 6 |
| | Priority 3 - IMMED | 569 | 781 | 425 | 326 |
| Total | | 6791 | 8373 | 6930 | 7123 |
| AVG/DAY | | 18.6 | 22.9 | 18.9 | 19.5 |
| Total Growth | | n/a | 23.3% | -17.2% | 2.8% |

Jefferson County in Figure 3 refers to all first response and other EMS agencies operating in the County other than RPS and Shoals.

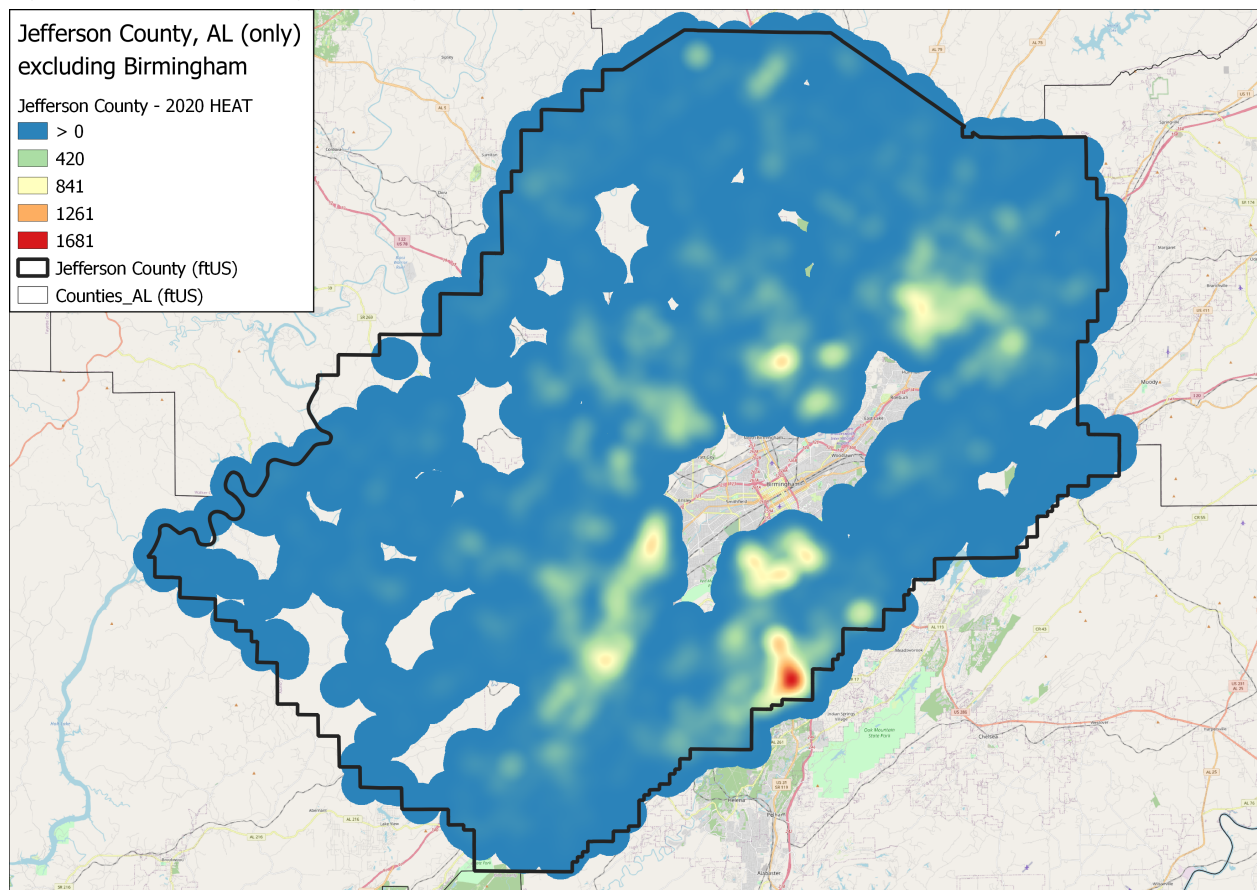
Density Mapping

To evaluate the current density levels for responses, *FITCH* utilized heat mapping to evaluate call activity. To ensure proper unit deployment, an understanding of where the highest level of risks or volumes occur, are required. This model allows for informed decisions to be made on performance levels of response.

Color coding indicates various levels of responses within the County. The areas in red indicate a “hot spot” of greater than 1,681 responses in that year. Blue areas are predominately rural and indicate a mostly rural response of greater than one call and less than 1,681 calls in that year. Areas absent of color received no calls or requests for service in that year. Figure 4 below presents the Heat Map.

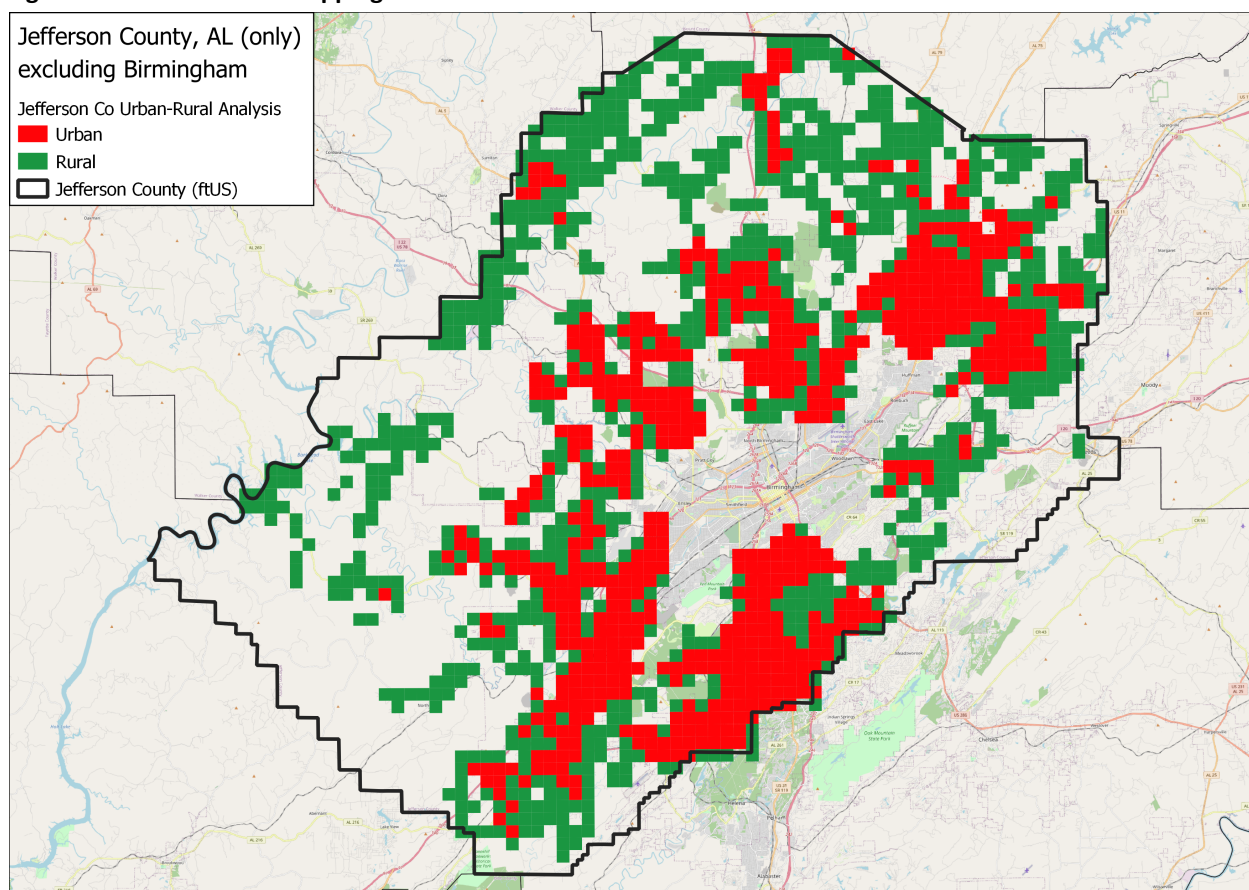
⁵ EMS response data was collected from the three main sources: Jefferson County 911, Shoals Ambulance, and RPS.

Figure 4. Urban/ Rural Map Heat Map



To evaluate Urban/Rural density levels for response zones, *FITCH* utilized a commensurate risk mapping to evaluate call activity. This model allows for informed decisions to be made on performance levels of response. Areas designated with a commensurate risk mapping as urban response density (in red) represent two calls per month within the one-kilometer cell and greater than or equal to four calls per month in the eight adjoining cells. Rural designated areas are coded in green and represent 25 calls within the one-kilometer cell and one call greater or equal to per month total in the eight adjoining cells. Where there is no color, these areas do not meet either of the above criteria and would be considered wilderness response density zones. Figure 5 below presents the commensurate mapping results.

Figure 5. Commensurate Mapping



911 DISPATCH CENTERS

The County website describes the County Communications Center/District as follows:

The Jefferson County 9-1-1 Emergency Communications District is the largest fully consolidated 9-1-1 Center in Alabama. We utilize sixty-six (66) full-time and twelve (12) part-time positions to staff the center 24/7. We serve all unincorporated areas and most of the cities and towns within Jefferson County. This includes the Jefferson County Sheriff's Office, twenty (20) incorporated cities and towns, and seventeen (17) additional fire districts and volunteer fire departments. Our 9-1-1 Center processes over 200,000 9-1-1 calls for service per year and an additional 250,000 administrative calls.⁶

In addition to the County Dispatch Center, there are 13 other dispatch centers scattered throughout and serving various agencies. There is no interoperability or connection between the centers. *FITCH's* research indicates that Jefferson County is the only county in the State to have more than two dispatch

⁶ <https://jeffcoal911.org/about-us/>, accessed July 2022.

centers. To “consolidate” is to combine a number of things into a single more effective or coherent whole. In essence, the County dispatch center is not consolidated, as this is evident since all 14 dispatch centers receive state 911 funding.

During the site visit, *FITCH* consultants tested the 911 system with two people standing next to each other, calling 911 on their cell phones. Each person was routed to a different 911 center thus adding to the chaos within the 911 call system. It is evident that there is no requirement that the dispatch centers have interoperability, which would allow the system to readily connect and exchange information for 911 callers who need emergency help.

During the site visit it was noted that very few dispatch centers provide over the phone protocol-driven emergency medical instructions, such as CPR, while help is on the way, while many others provide no instructions at all. Jefferson County fails in this regard. Although, some may perform quality assurance (QA) within their dispatch centers it is limited at best. All the dispatch centers should find common ground to ensure they are all performing baseline QA for all 911 calls as well as collect, process, and share parameters and metrics with each other to ensure that all individuals who call 911 receive the same opportunity for help. *FITCH* also learned that many dispatch centers have decided to no longer offer instructions due to the long wait times for ambulances to arrive and/or the financial outlay to maintain Emergency Medical Dispatch (EMD) certifications.

In October 2013, the State of Alabama published the Statewide Communication Interoperability Plan which outlines how 911 interoperability is crucial to survivability in an emergency.⁷ Alabama, like many other states, provides funding for 911 and the provision of 911 services to Jefferson County.

The EMS system is hampered by specific issues that occur across the multiple 911 centers.

- There is no visual on available unit locations, which would enable closest unit dispatching.
- No data is reported to a central entity which would allow for identification of efficiencies, overall strategic planning, or determining basic system performance.
- Callers are bounced between several 911 communications centers until they get to the right center for dispatch, all of which means delays in the dispatch of fire and/or ambulance resources.
- There are redundant costs to maintain multiple infrastructures, software systems, and personnel. There is no opportunity to achieve economies of scale.
- Few of the centers have personnel that are Emergency Medical Dispatch certified and can provide lifesaving, medical instructions while callers are waiting for responders.
- Several of the dispatch centers give dispatchers functions in addition to and distinct from call-taking and dispatching.

A regional, consolidated communications center that receives all 911 EMS calls first, would eliminate duplication and associated expense by pooling dispatch operations for EMS providers (fire and

⁷ <https://firstnet.alabama.gov/wp-content/uploads/2018/10/AlabamaSCIPApproved.pdf>, accessed July 2022.

ambulance). This would facilitate the intent of National Fire Protection Administration (NFPA) 1221 to have a single center with a “hot” back-up center in a separate geographic location. The relevant sections of NFPA 1221 are noted below.⁸

- 4.1.6* Each jurisdiction shall maintain an alternate communications center that meets the criteria in 4.1.6.1 and 4.1.6.2.
- 4.1.6.1 The alternate communications center shall be capable, when staffed, of performing the emergency functions performed at the primary communications center.
- 4.1.6.2* The alternate communications center shall be separated geographically from the primary communications center at a distance that ensures the survivability of the alternate center.
- 4.1.6.3 Each jurisdiction shall develop a formal plan to maintain and operate the alternate communications center.

Jefferson County must move forward to create a fully functional and operational Consolidated 9-1-1 Center where all 911 calls are received and processed. A process and workflow can be implemented to transfer the 911 calls to a secondary dispatch center once the call is initially processed and EMD is offered by County 911.

There is state 911 funding available to provide and fund a singular dispatch center for Jefferson County. This would also allow the other dispatch centers to reallocate funding to other emergency service areas if warranted. The consolidation and singular location of all 911 calls is extremely important to ensure that high quality 911 call-taking occurs. Any 911 call within the County would be immediately routed through Jefferson County 911 by phone carriers and would then be distributed to the secondary PSAP (dispatch center). This will limit multiple passes and attempted transfers of phone calls through each dispatch center and create a consistent call-taking process.

⁸ NFPA 1221: Standard for the installation, maintenance, and use of emergency services communications systems, 2019 Edition. In *NFPA National Fire Codes Online*. Retrieved from <http://codesonline.nfpa.org>, accessed July 2022.

RECOMMENDATIONS FOR IMMEDIATE ACTION

EMERGENCY DECLARATION TO CONTRACT FOR AMBULANCE SERVICE

The single most important action that the County can take is to declare a public health and safety emergency. This action would allow the County to immediately contract with an external entity for dedicated ambulance service in the unprotected areas.⁹

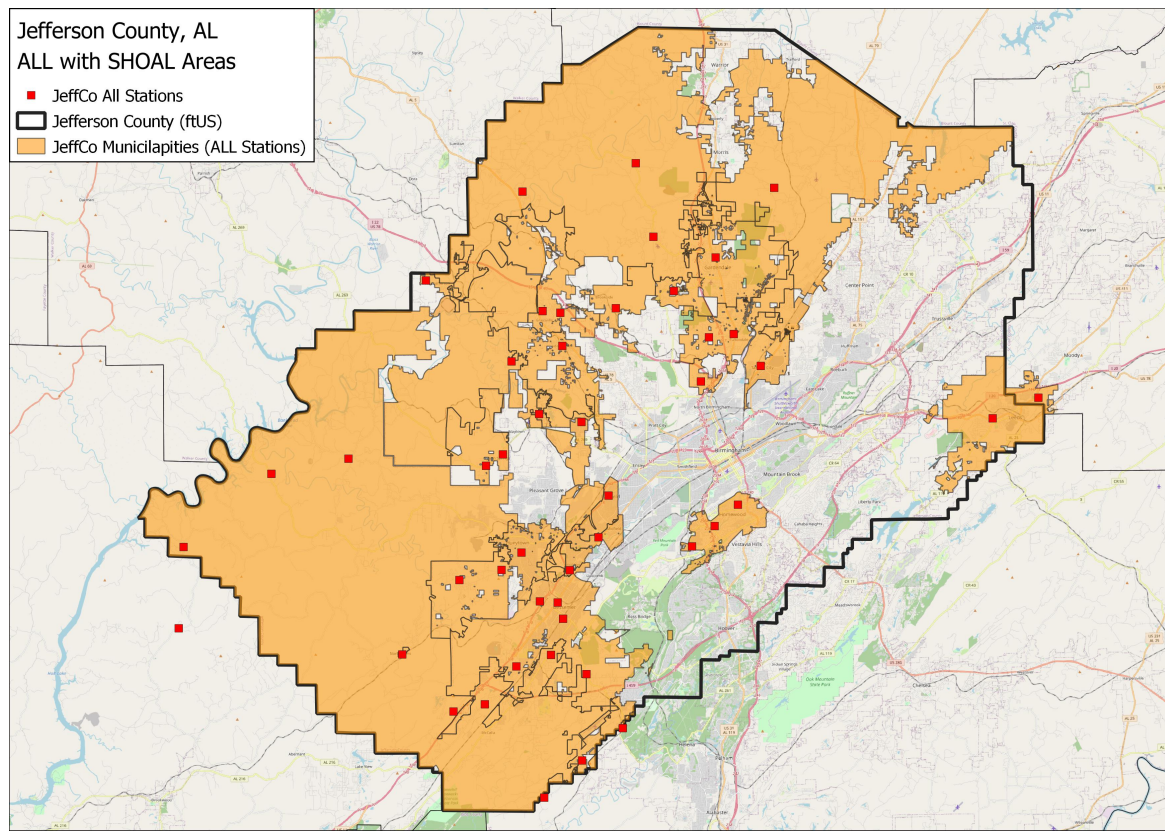
FITCH analyzed current system data as was available, to identify areas with seriously delayed ambulance service. Based on this analysis, *FITCH* developed a temporary stop-gap system. It is recommended that an ambulance contract with an external EMS agency be executed immediately to provide eight EMS units, 24 hours a day, seven days a week. Additionally, the County could contract with that entity to provide a dedicated EMS dispatcher position, 24 hours a day, seven days a week, to ensure that transferring of 911 calls to the external provider is seamless. The dispatch position would be co-located in the Jefferson County Communications Center.

The contracted ambulances could be dispatched anywhere in the County, as needed for primary or secondary back-up to established providers. A system of controls should be to monitor and continuously recommend improvements of the system. The system of controls is discussed in greater detail later in this report.

The shaded area in Figures 4 and 5 are the areas without contracted or dedicated ambulance service. The service is covered by agencies if they are available or from extreme distances. To compound the response issues, EMS and Fire agencies within the County do not operate according to their State Licensure as they do not respond with mutual aid immediately upon request. *FITCH* consultants witnessed an available ambulance less than five minutes from a call, that would not respond. The reason for non-response is to ensure coverage within their hometown. However, licensure requires mutual aid response to adjacent areas. The absence of reliable mutual aid response creates further inefficiencies and life safety issues for residents.

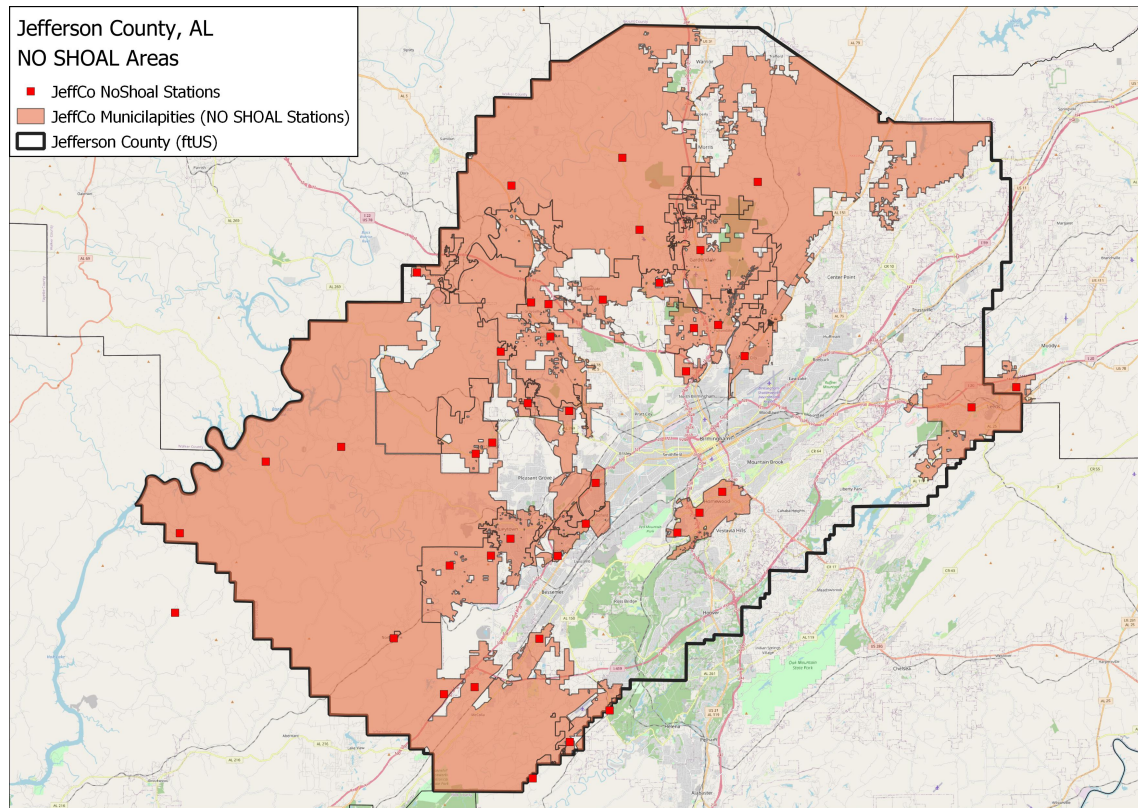
⁹ American Rescue Plan Act (ARPA) funds could be used for initiation of an ambulance service contract. The County's legal consultants have deemed this use of ARPA funds as appropriate.

Figure 4. Jefferson County: Shaded Areas with No Dedicated EMS Coverage



The shaded areas in Figure 5 that follows, also indicates areas without contracted or dedicated ambulance service, but assumes the loss of Shoals Ambulance. Shoals Ambulance has been constantly struggling to provide service to the areas they serve in the County. *FITCH* believes it is important to understand the impact to the system if Shoals ended service in Jefferson County.

Figure 5. Jefferson County: Shaded Areas with No Dedicated EMS Coverage (Without Shoals)



For the above figures and using the data received, *FITCH* estimates both the annual response volume and transport volume in Figure 6 below. *FITCH* estimated that 65% of calls result in a transport.

Figure 6. Estimated Annual Responses and Transports

| <u>Types</u> | <u>0.65</u> | |
|--------------|--|---------------------------------|
| | <u>Volumes for</u> <u>Areas</u> <u>Covered</u> | <u>Transport</u> <u>Rate</u> |
| No Shoals | 32,343 | 21023 |
| Shoals Inc. | 38,115 | 24775 |

FITCH then reviewed call density and heat mapping for these areas. In both understanding the volume, challenged response areas, and level of risk. Figures 7 and 8 below shows both the heat map and commensurate risk mapping for both areas to match the above Figures 4 and 5.

Figure 7. Heat Mapping for No Dedicated EMS Coverage

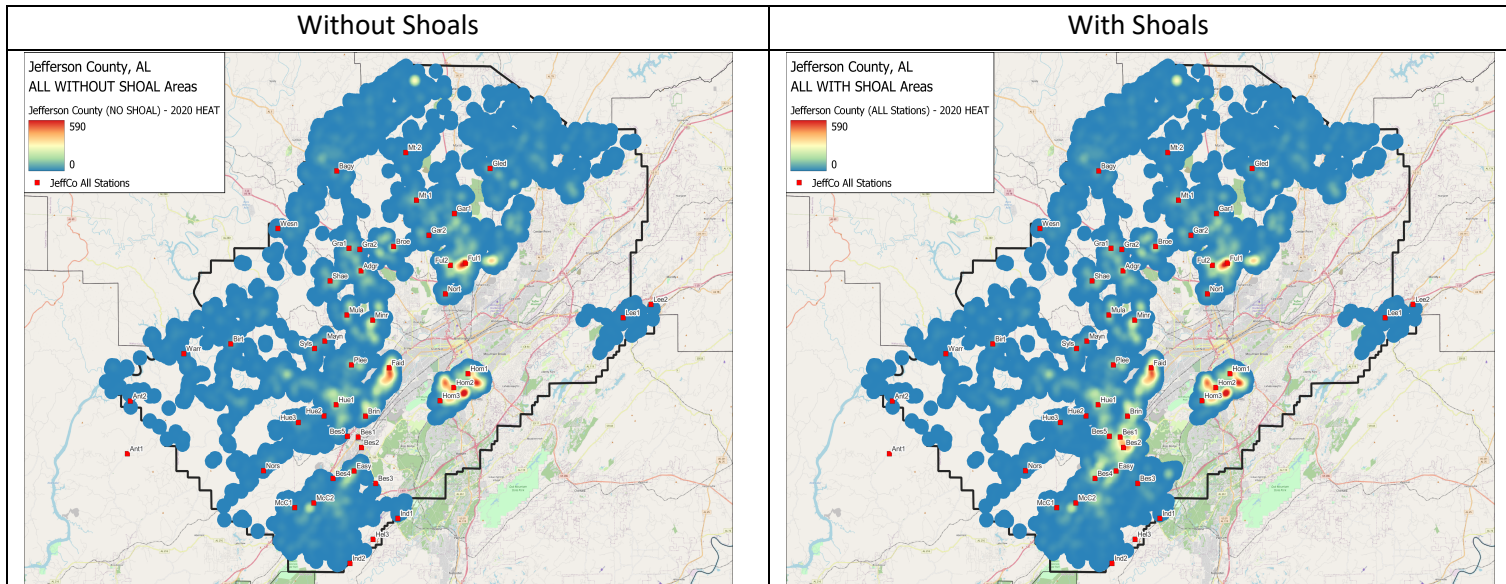
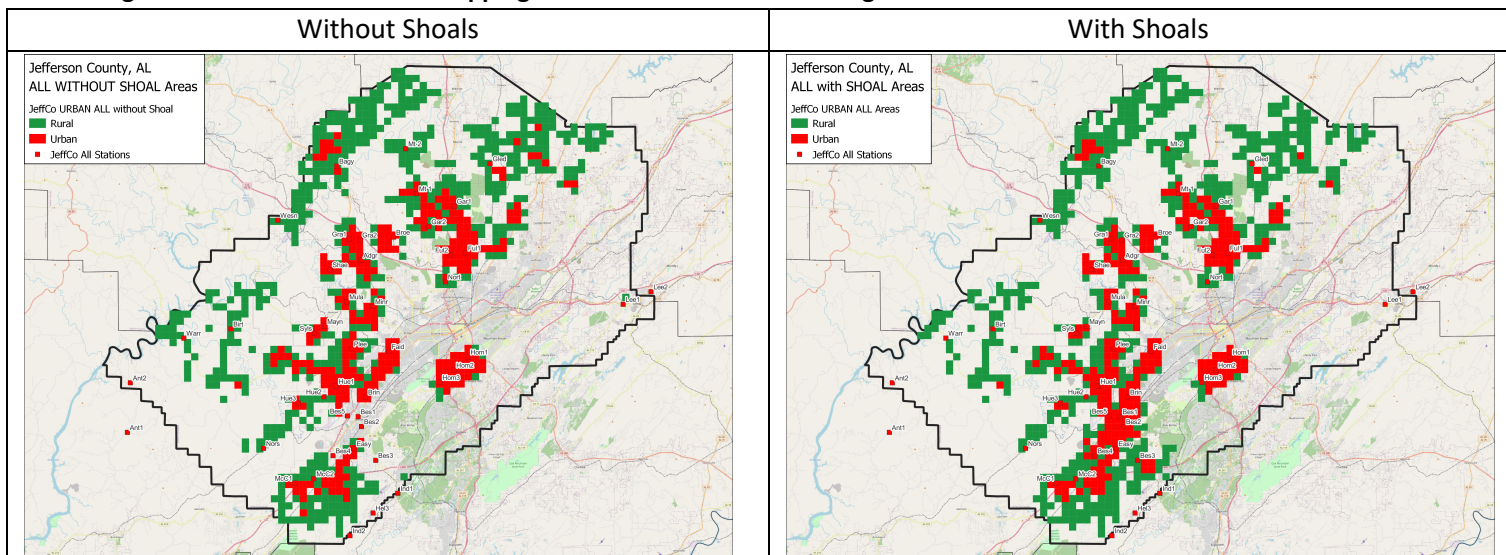


Figure 8. Commensurate Risk Mapping for No Dedicated EMS Coverage



GEOGRAPHIC COVERAGE FOR “NO DEDICATED EMS COVERAGE” AREA

FITCH completed mapping deployment models for Jefferson County for the areas with “No Dedicated EMS Coverage” and that detail is provided in the attached Data report. *FITCH*’s goal was to determine how many resources are required to operate in Jefferson County to cover the geography of the mentioned areas in Figures 4 and 5. *FITCH* used proprietary software to understand how many units would be needed to cover the geography in an equitable fashion based on the geographic density.

Figure 9 below shows a side-by-side comparison of a 10-minute response time at the 90th percentile for emergency responses in Jefferson County. On the left, the County's current deployment requires the use of 11 stations to capture 90% of the historical call volume. The chart below the map indicates that 26.58% or 18,952 calls can be captured from the Rocky Ridge station. With the addition of the Bessemer Fire Station 1, an additional 15.62% or 11,149 calls are captured. The goal is to capture 90% of all historical call volume within 10 minutes. In the *FITCH* optimized modeling, our software determines the best locations for unit deployment based on historical data. *FITCH*'s model shows that it would capture the same as the County model from post location 3586. In *FITCH*'s modeling, 91.01% of the historical call volume is captured from a total of nine locations as opposed to the County's model, which would require 11 locations.

Figure 9. 10 Minute Drive Time Mapping - Current Deployment vs. *FITCH* Optimized Deployment

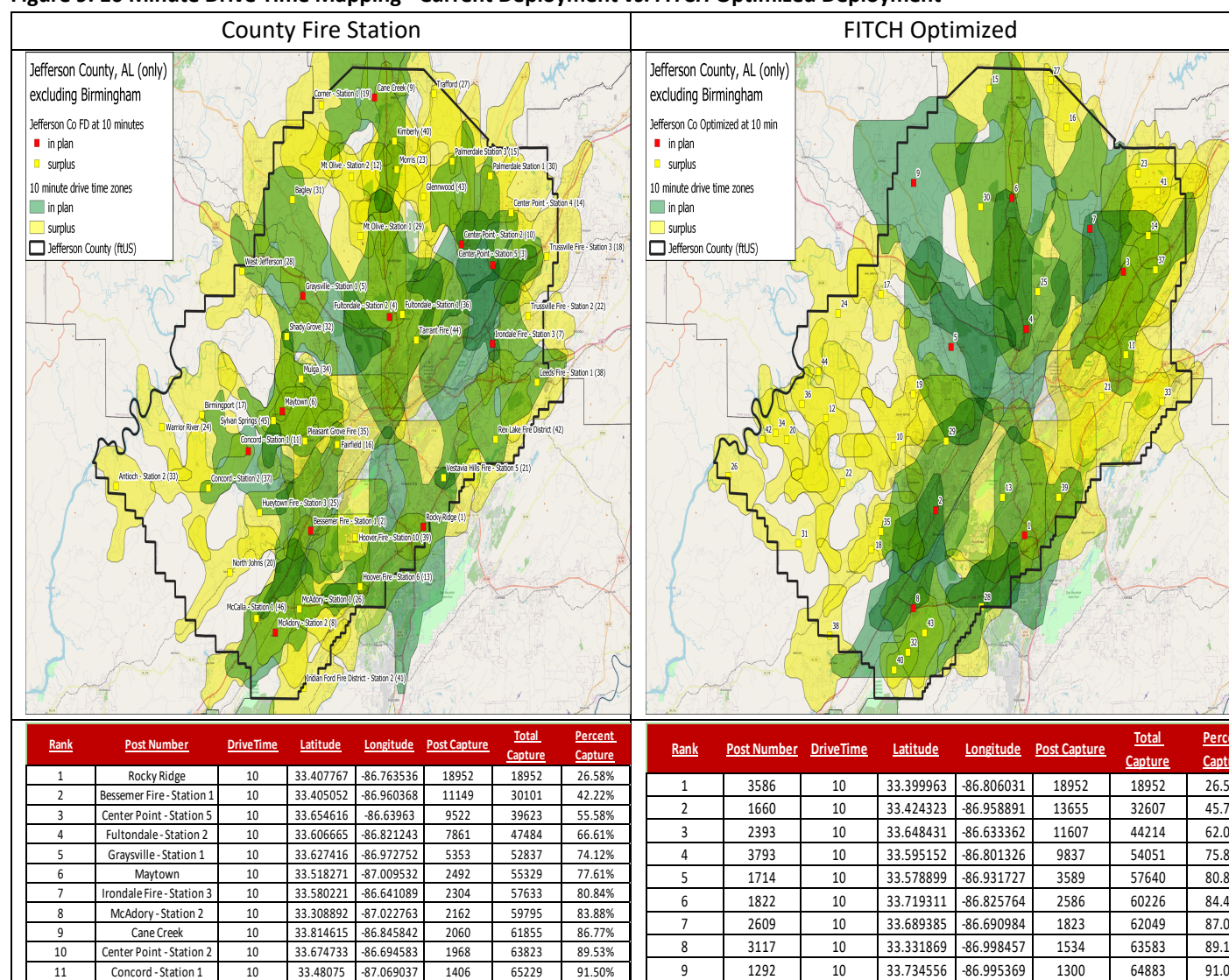


Figure 10 below shows a side-by-side comparison of a 20-minute response time at the 90th percentile for emergency responses in Jefferson County. On the left, the County's current deployment requires the use

of three stations to capture 92.14% of the historical call volume. The chart below the map outlines that from the Fairfield – Station location, 56.06% or 39,964 calls can be captured. With the addition of the Irondale – Station 3, an additional 27.85% or 19,856 calls can be captured. In the *FITCH* optimized modeling, our software determines the best locations for unit deployment based on historical data. The *FITCH* model captures 65.40% or 46,635 of the historical call volume from post number 1545 and with three post locations, 91.97% of the call volume is captured.

Figure 10. 20 Minute Drive Time Mapping - Current Deployment vs. *FITCH* Optimized Deployment

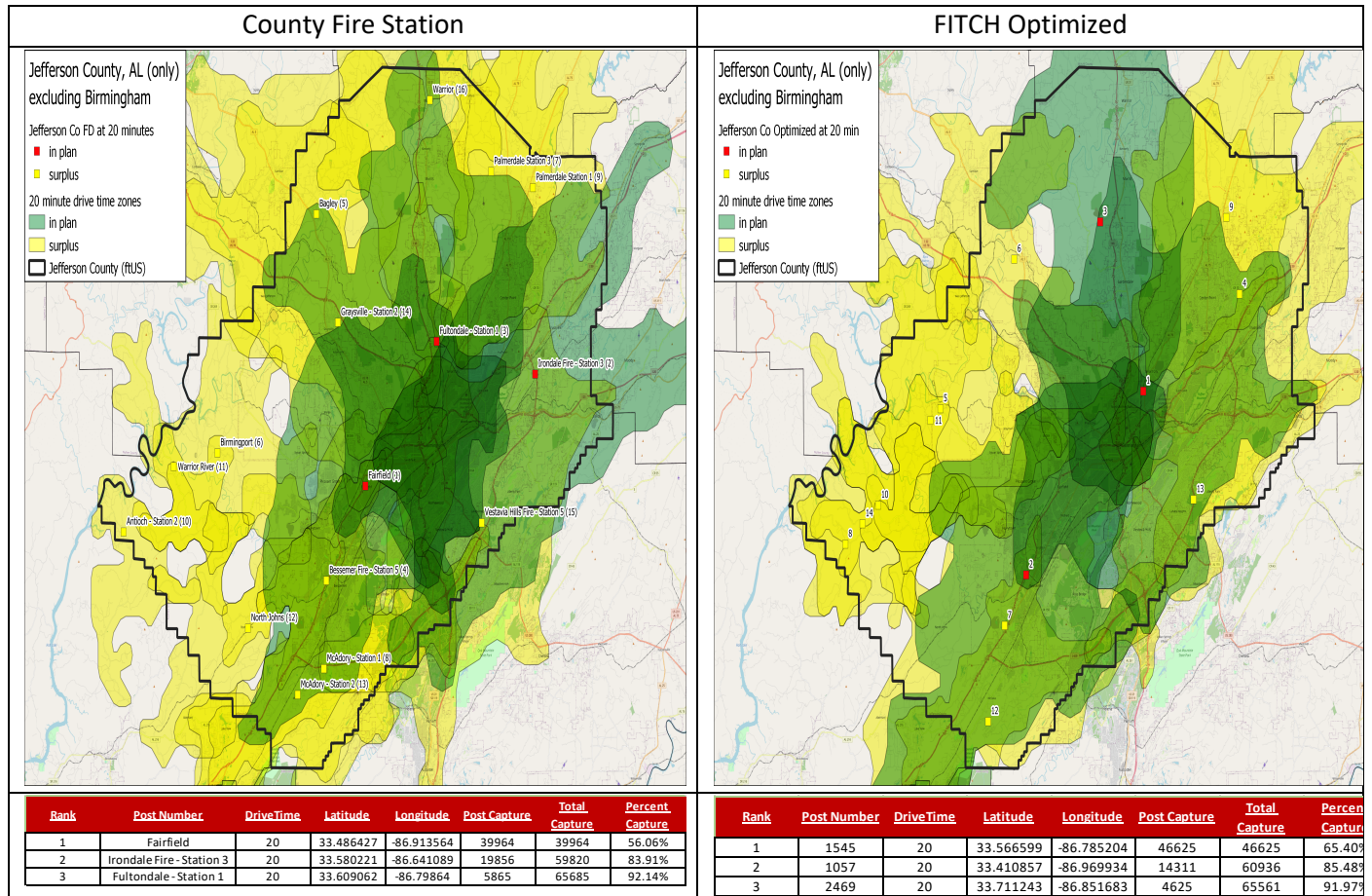
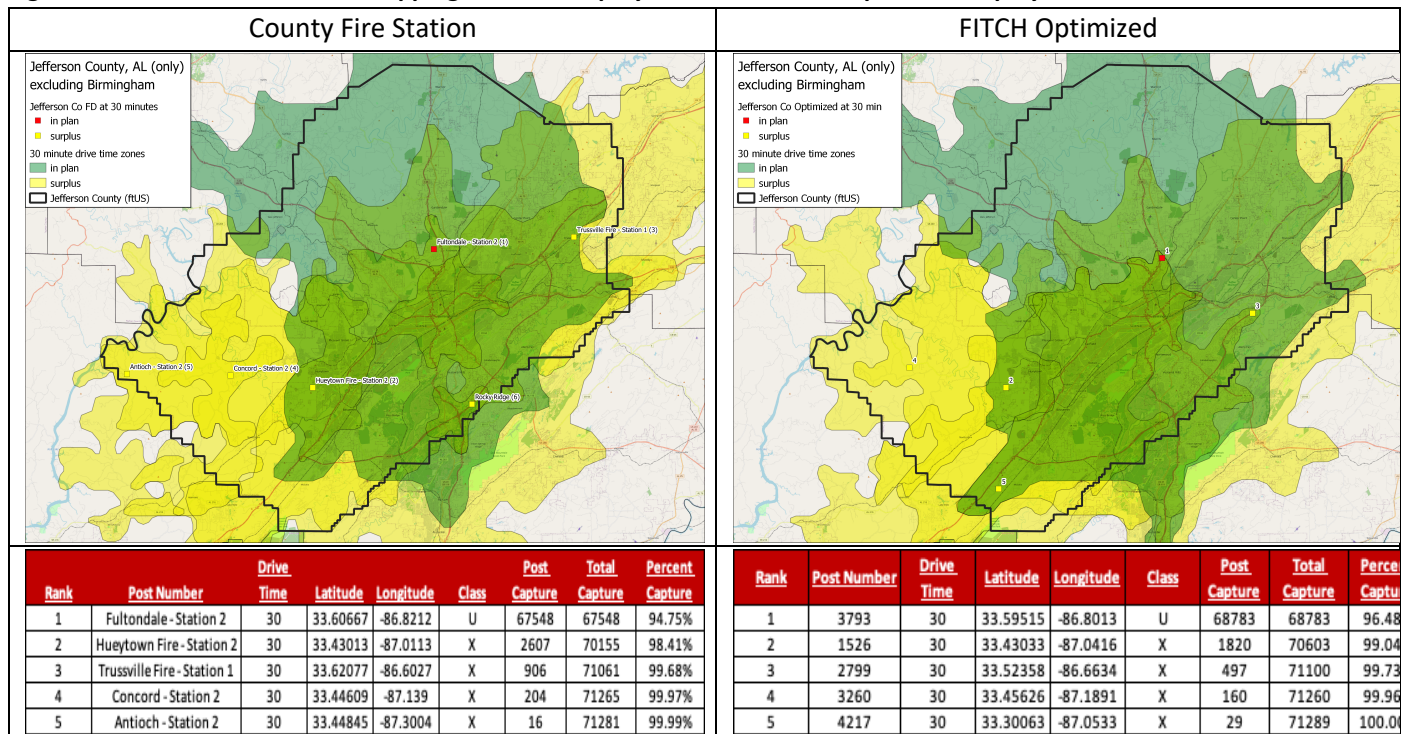


Figure 11 below shows a side-by-side comparison of a 30-minute response time at the 90th percentile for emergency responses in Jefferson County. On the left, the County's current deployment requires the use of one station to capture 94.75% of the historical call volume. The chart below the map outlines that from the Fultondale – Station 2 location, 94.75% or 67,548 calls can be captured. With the addition of the Hueytown Fire – Station 2, an additional 3.66% or 2,607 calls can be captured. In the *FITCH* optimized modeling, our software determines the best locations for unit deployment based on historical data. The *FITCH* model captures 96.48% or 68,783 of the historical call volume from post number 3793 and with five post locations, 100% of the call volume is captured.

Figure 11. 30 Minute drive time mapping - Current deployment verse FITCH Optimized deployment



Fitch then utilized a hybrid model to determine the baseline number of units needed to cover the “No Dedicated EMS Coverage”. In creating the hybrid model, FITCH determined a baseline number of units needed to cover the geography of the “No Dedicated EMS Coverage Areas”. Fitch separated the two models looking at coverage with and without Bessemer (Shoals) and created both a 10-minute urban with a 20-minute rural, and a 10-minute urban with a 30-minute rural. Models are reflective below in staffing to demand.

STAFFING TO DEMAND ANALYSIS

To service 911 emergency volume, geographic coverage plus normalized hourly demand provides the total number of staffed ambulances required per hour. The figures that follow indicate staffing to demand both with and without Shoals coverage. The figures read left to right, Sunday to Saturday, reviewing each hour’s average demand and then normalized for the estimated time on task for the areas mentioned in Figures 4 and 5 that have “No Dedicated EMS Coverage”. Volume was determined using the most recent 52 weeks. The light blue area indicates how many units are required, per the marginal resources required to capture the prescribed geographic response time. The bar lines indicate the average hourly demand and change colors demanding whether the staffing line (red line) is above or below the dark blue geographic plus the average demand line. If the staffing line is above the dark blue line and there is “space” between the lines that indicates there is capacity within the system. If the staffing line falls below the geographic plus demand line (dark blue), this indicates that there are not enough resources during that hour and the bar lines will change colors.

The Figures 12 and 13 reflect coverage including Shoals. *FITCH* estimates two response time models for the “No Dedicated EMS Coverage” which are:

- 10-minute urban drive time and a 20 rural response time (10/20 with Shoals Model)
- 10-minute urban drive time and a 30 rural response time (10/30 with Shoals Model)

The 10/20 with Shoals model would require seven (7) geographic units, which would require 92,486 annual unit hours to cover the geographic demand. The 10/30 with Shoals model would require six (6) geographic units, which would require 83,750 annual unit hours to cover the geographic demand. The 10/20 with Shoals would require 8,736 more annual unit hours than the 10/30 with Shoals response model.

Figure 12. Demand vs. Staffing 10/20 Response Times with Shoals

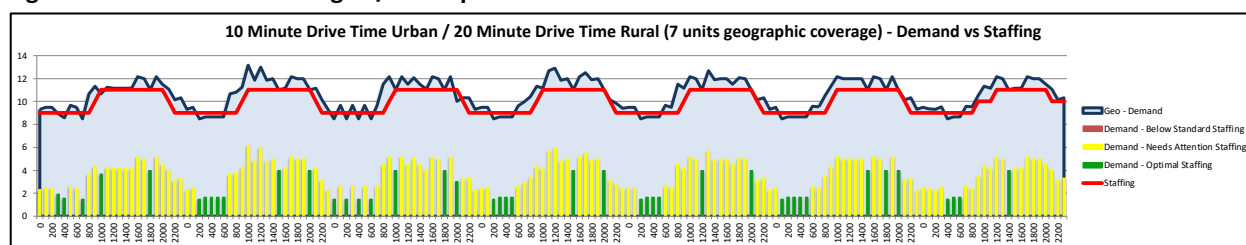
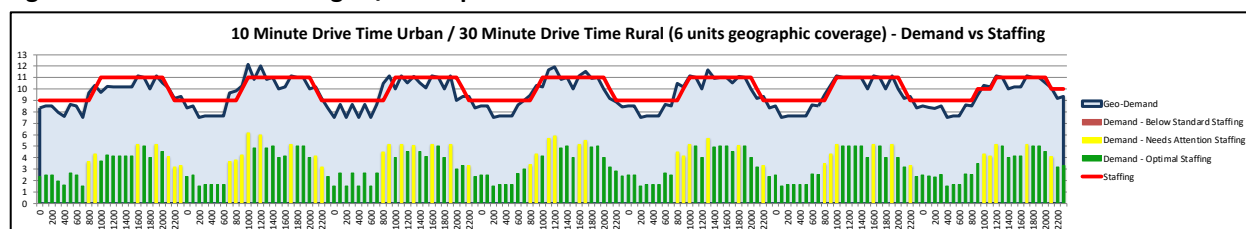


Figure 13. Demand vs. Staffing 10/30 Response Times with Shoals



The Figures 14 and 15 reflect coverage without Shoals. *FITCH* estimates two response time models that the “No Dedicated EMS Coverage” which are:

- 10-minute urban drive time and a 20 rural response time (10/20 without Shoals Model)
- 10-minute urban drive time and a 30 rural response time (10/30 without Shoals Model)

The 10/20 without Shoals model would require six (6) geographic units, which would require 79,158 annual unit hours to cover the geographic demand. The 10/30 without Shoals model would require five (5) geographic units, which would require 70,422 annual unit hours to cover the geographic demand. The 10/20 without Shoals would require 8,736 more annual unit hours than the 10/30 without Shoals response model.

Figure 14. Demand vs. Staffing 10/20 Response Times without Shoals

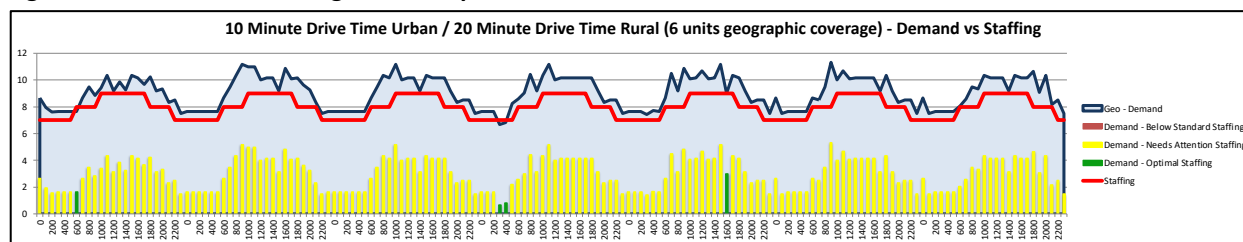
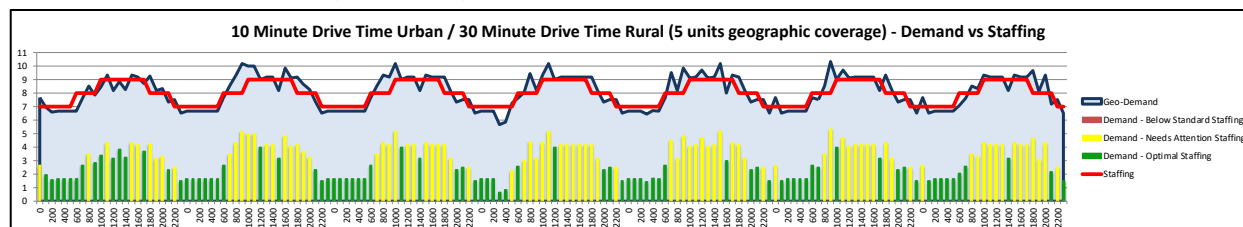


Figure 15. Demand vs. Staffing 10/30 Response Times without Shoals



Ultimately, the County will need to determine what they can afford to ensure an equitable response and a baseline level of service for all residents.

To understand the costing for these models, *FITCH* obtained data, through our information data request to determine the overall value of the EMS system. *FITCH* received billing data from providers, which determined the estimated average revenue per transport to be \$348.15. *FITCH* then estimated, using a range of values for the cost to provide EMS service, by vehicle type, per hour. For an Advanced Life Support (ALS) Unit, *FITCH* estimated a range of \$135 to \$155 and for a Basic Life Support (BLS) Unit, \$105 to \$135 per hour. These ranges consider the current market pressures and increased Consumer Price Index (CPI) increases. Also, included are the costs for dispatching and oversight.

In Figure 16, *FITCH* estimates the cost to the County for each model.

Figure 16. Estimated Cost of Response Models

| | No Shoals | W/Shoals |
|--------------|-----------------------------|-----------------------------|
| | 10 Min Urban / 30 Min Rural | 10 Min Urban / 20 Min Rural |
| | 8 24/7 Units | 9.5 24/7 Units |
| <u>Range</u> | 2 BLS & 6 ALS | 2 BLS & 7.5 ALS |
| Low Range | \$ 1,866,050 | \$ 2,333,760 |
| High Range | \$ 3,442,850 | \$ 4,173,360 |

ESTABLISH JEFFERSON COUNTY 911 AS PRIMARY PSAP

It is essential for development of the *system* that Jefferson County 911 be designated as the primary Public Safety Access Point (PSAP) that receives all 911 emergency medical calls and is set up to provide immediate auto transfer of 911 calls to the appropriate municipal or other response entity. Primary PSAP dispatchers would be Emergency Medical Dispatch (EMD) certified to provide care instructions to

callers prior to arrival of first responders and ambulances. Municipal dispatch centers would no longer need to train dispatchers for EMD certification, as that responsibility would be handled by Jefferson County 911.

Designating Jefferson County 911 as the primary PSAP would establish interoperability among and between all dispatch centers within the County. This is essential to manage any kind of major event, disaster, or multi-casualty incident. The primary PSAP can coordinate information flow to and from the current dispatch centers and communicate with other counties and State Emergency Management, should additional resources be needed.

An important benefit of establishing Jefferson County as the primary PSAP, is the collection of EMS operational data. The data would provide the means to understand the current system finances, plan for future funding, and provide recommendations to ensure an ambulance responds to any emergency and that no resident of Jefferson County is left without an ambulance. Systemwide data is not currently available from all dispatch centers on a timely basis.

Through the primary PSAP, calls can be triaged for patient acuity to allow fire departments and ambulance services to handle resources in a more meaningful manner, thereby sending the right resource to match the patient's needs. The primary PSAP can link to a nurse triage line and/or community paramedicine services. These services are beneficial to the public and hospitals often fund them as a service to their patients.

ESTABLISH COUNTY COORDINATING ENTITY

Many high-functioning EMS systems in the United States and across the world have one entity that provides coordination and oversight. Jefferson County EMS would benefit significantly from a designated entity that would initially be charged with managing the coordination of ambulance response throughout the County. This entity could work with existing providers to establish performance metrics and formalize mutual aid agreements countywide. Progress reports would be made to the County Commission and the public to provide transparency and measure effectiveness.

The Jefferson County Commission could determine that the excessive number of 911 PSAPs, operating independently and without strong coordination among first responders,¹⁰ is detrimental to the timely receipt, dispatch, and provision of emergency public safety services. An assessment of PSAPs currently operating in the County is needed. With the assessment in hand, the County can modify the list of PSAPs eligible for funding pursuant to Alabama Code Title 11, Subtitle 3, Chapter 98.

The Jefferson County Commission should make a determination that its fractured, multi-provider EMS system lacks coordination and is not effectively or efficiently providing benefit to residents or visitors.

¹⁰ Ala. Code § 11-98-1 (a)(12).

Needed modifications to the system can be made pursuant to Alabama Code Title 11, Subtitle 3, Chapter 87.

To facilitate the above actions, the County should establish a Public Safety Department (PSD) whose mission is to achieve the following objectives:

- Work with existing public safety entities to develop specific recommendations for governance, funding, oversight, and operations of PSAPs, fire protection services, and EMS with the objective of enhancing coordination and cooperation between these service providers.
- Enhance service public safety services delivery by working with existing providers.
- Be involved in direct service delivery only to the extent necessary, as determined by the PSD and the Jefferson County Commission.
- Be responsible for the County's emergency management and animal services functions.
- Manage all funding and if an agency receives County funding, they should sign an operating agreement to operate in a manner that the County expects.
- Ensure all EMS agencies are operating as per their license to include mutual aid responses.

FUNDING AND GOVERNANCE OPTIONS

The County has access to the American Rescue Plan Act (ARPA) funds to stand up an ambulance service and accomplish several other efforts towards establishing a *system*. *FITCH* estimates that the current funds will cover the initiatives for a least two years. The County would need to fund continuing efforts beyond the first two years. A more efficient system can be achieved through analyses of the entire system's operational data.

To cover costs moving forward, the County can look to ARPA funding for years 2022 and 2023. Following 2023, the County should review current legislation and evaluate the need to create additional legislation for the provision of including funding mechanisms for Emergency Medical Services.

To address these issues and develop a sustainable system for the future, *FITCH* is recommending that a phased approach be implemented, beginning immediately. This will improve needed EMS services, while driving for the long-term solution that is sustainable, patient centric and measured, driven by meaningful data. There is no EMS system in place today. The goal is to create an environment where the foundation of an EMS system is developed.

Each phase may have multiple tasks/actionable items to be completed, each guided by the principle of building a sustainable and measurable system.

Phase 1: Contract with an external EMS agency for additional ambulances to cover gaps in service and provide oversight for system response.

Phase 2: Purchase both ambulances and fire first response resources.

Phase 3: Consistently provide education programs for EMTs and Paramedics to begin developing a feeder system of providers into EMS.

Phase 4: Ensure all 911 calls for Jefferson County are directed to one Communications Center. If multiple centers continue to exist, then the one center should be designated as principal and can distribute calls to secondary centers.

Phase 5: Evaluate Phase 1-4 efforts and design future models that will ensure consistent and measurable services across the county.

Phases 1 and 2 are the initial, critical steps to improve service and should be considered immediately. Phase 3 will help create a sustainable workforce. Phase 4 is a potential project that is needed should ARPA funding remain available.

Phase 1: Contract with an external EMS agency for additional ambulances to cover existing gaps in service and provide oversight for system response

To cover gaps in the current service delivery model, *FITCH* has designed a temporary system that would begin to cover gaps in service. *FITCH* recommends that the County contract with an external EMS agency and initially purchase coverage consisting of eight ambulances 24/7, 365 days a year. The County should also contract for a dispatcher(s) 24/7, 365 days a year to be placed in the Jefferson County 911 center to ensure the contracted units are dispatched appropriately. These units will be used anywhere in the County as needed for primary response or as secondary back-up to currently established EMS providers. The County will need to enact the oversight entity to ensure the contracted EMS agency is performing accordingly and to monitor and continuously improve the system.

To cover the costs moving forward, *FITCH* suggests the County use available ARPA funding for calendar years 2022 and 2023. For the subsequent years, *FITCH* recommends reviewing current legislation and evaluating the need to create additional legislation for the provision of Emergency Medical Services. Additionally, there is a need for legislation to support the creation of a fee schedule to support future costs.

Phase 2: Purchase ambulances and fire first response resources

To assist current departments with vehicle purchases and needed replacements, *FITCH* recommends the County use ARPA funding. The goal is to replace the current ambulances in rural communities that do not have a municipal funding source. Funding could also be used to replace medical first response, quick response resources, such SUV's or pick-up trucks, instead of replacing full fire engines that are more than seven years old or have more than 250,000 miles. Since currently all assets are not managed as a singular system, *FITCH* recommends that any resource purchased using ARPA funds, would adhere to the following:

- A Global Positioning System (GPS) system will always be active, and at a minimum, will be tracked at Jefferson County 911 Communication Center.
- The County would own 51% of the asset and the agency will be required to maintain appropriately.
- When staffed, the unit can be dispatched, as per the EMS license, anywhere in the County, as requested.

Phase 3: Consistently provide education programs for EMTs and Paramedics to develop a new opportunities for EMS workforce development

Workforce development and training is a top priority. *FITCH*'s recent experience indicates that APRA funds can be eligible for these purposes. These are turnkey classes, and all instruction should be provided by an accredited program. Alabama currently uses their State University junior college system. Built into the estimated costs are potential University fees (instructor/management/classroom space/supplies, student books, materials, uniforms, certification testing and lab and technology fees). All students are paid to attend class. This enhances the recruitment opportunity and offers the occasion for non-traditional students access to a career. Additionally, it allows students to focus on training verses working full time to support their families while trying to attend class in a part-time setting. This permits training to be done "academy style", 5 days a week, 8 to 9 hours a day, resulting in EMT's or Paramedics obtaining certification and entering the workforce faster, while maintaining the quality of education.

Currently, the University of Alabama EMT class is four months long and by shifting to an academy style class, the class is shortened to 3.6 weeks. Likewise, the University of Alabama Paramedic class is 16 months - under academy style class, this time is shortened to 26.5 weeks (6.5 months). Costs for recruitment, advertising, or background checks, etc., are not included.

Workforce development Program: EMT classes

Three (3) EMT classes per year for four (4) years totaling 15 EMT classes, with 20 students per class.

Workforce development: Paramedic classes

One (1) Paramedic class per year for three (3) years with 20 students per class. Would need to considered offsetting by one-year start to avoid pulling too many existing EMT's from current resources.

Phase 4: Ensure all 911 calls for Jefferson County are received in one Communications Center

FITCH is recommending that the County look to consolidate all 14 of its communications centers into one regional emergency communications center. Jefferson County is the one county in the state with an overabundance of dispatch centers. The state provides funding for each communications center and as such, if consolidated, those funds could cover most, if not all the costs for this service.

The current challenges with multiple centers include but not limit too:

- Lack of visualization of where available units are located to ensure the closest most appropriate unit is dispatched.
- Lack of consistent data reporting for measuring system performance or to conduct strategic planning.
- 911 callers are routinely transferred between 911 communications centers until they are finally at the correct center for their area.

- Multiple infrastructures and software systems tend to increase costs, both capital and annual maintenance.

FITCH estimates that a study would be needed to ensure a correct build. Furthermore, the County has been looking at facilities to house a consolidated Communications Center. *FITCH* understands the numbers that Jefferson County 911 team is estimating, and *FITCH* believes at a minimum 25% of that build would be related to EMS. Of note, *FITCH* has not independently verified the total build cost and is using estimated numbers provided by the County.

Phase 5: Evaluate Phase 1-4 efforts and design future models that will ensure consistent and measurable service across the County

Once the initial phases have been established, Jefferson County will need to evaluate the overall results and develop legacy opportunities for further system improvement. A potential single focus would be to support areas that are not covered by municipal services, while folding in current resources. This would result in an improvement of performance metrics. This model, as presented will provide needed resources to residents immediately.

PATHWAY FORWARD

Although there are several options for Jefferson County to consider, *FITCH* urgently recommends the formation of a Public Safety Department to provide strategic and organizational oversight for the provision of all emergency services. The narrative below outlines a selection of options for the County to consider in a scalable and implementable format.

OPTION ZERO – SUPPORT STATUS QUO

In this Option, EMS agencies would continue operating as they do today. It is understood that some jurisdictions can provide more support and mutual aid than others and that some agencies may be struggling. Further, it is expected that some EMS agencies will continue to pick and choose which areas they respond to and whether they provide mutual aid to other areas within the County. Based on these issues alone, there are EMS agencies that may cease operations, thereby leaving additional territory without dedicated EMS coverage.

Under this option, response efforts will still be disorganized and non-uniform across the County's communities. Residents and visitors would not receive needed or deserved emergency medical care.

Actions that the County can take to further support the status quo are outlined below.

- Establish dispatch agreements between each agency receiving County dispatch services and enforce mutual aid no matter the geographic or socio-economic footprint.
- Require as part of the dispatch agreement that any staffed EMS unit will mark-up or communicate their status with the Jefferson County 911 Center.
- Change dispatch policy to dispatch a staffed ambulance upon immediate request for service, thereby eliminating delays while waiting for the primary (fire) agency to respond. Dispatch services should simultaneously dispatch the primary agency and a staffed ambulance.
- Explore the feasibility of purchasing and implementing Automatic Vehicle Locaters (AVL) for all EMS resources so units can be tracked and deployed based on the Dispatch agreement. Agreement and cooperation of all transporting EMS agencies would need to be achieved.

The estimated cost for Option Zero is the cost of providing AVL for all resources. The cost estimate is between \$650,000 and \$750,000 and would require installation of software in the County 911 Center.

OPTION ONE — PURCHASE AMBULANCE COVERAGE FROM EXTERNAL EMS AGENCY & IMPLEMENT PUBLIC SAFETY DEPARTMENT

Ambulance Contract

FITCH designed a temporary system that would begin to cover identified gaps in ambulance services where currently, there is either no contracted or designated service that can provide timely and measurable response. The immediate recommendation is for the County to enter into a contract with an

external EMS agency to provide ambulance coverage with eight units 24 hours a day, seven days a week. The County would contract for six (6) Advanced Life Support (ALS) ambulances and two (2) Basic Life Support (BLS) ambulances. *FITCH* estimates the cost the range between \$1.8 and \$3.4 million annually. The estimated cost is the difference from the provider being able to bill for service and the cost to provide the service.

As part of Option One, the County would contract with the outside agency to provide a dedicated EMS dispatcher position, 24 hours a day, seven days a week. The dispatch position would be co-located in the Jefferson County Communications Center. The contracted ambulances will be dispatched anywhere in the County, as needed for primary or secondary back-up to established providers. The contracted agency will be responsible to monitor and continuously improve the system. The County will need to designate a position (employee or contractor) to provide contract oversight to ensure the contracted EMS agency is performing per the specifications of an agreement. In addition, the County can position ambulances in areas in the County that are identified as needing additional resources based on call density analysis.

Public Safety Department

As part of this Option, County would immediately implement a County supported and funded Public Safety Department that provides an EMS model for the rural, economically challenged, and unincorporated areas. This entity will directly link each arm of emergency services: EMS, Fire, Dispatch, and Law Enforcement, to form a unified approach.

This approach has been implemented in several areas in Alabama and throughout the United States with significant success. Three specific Alabama counties implemented variations of a county Public Safety Department that provides oversight for emergency medical ambulance services. Each had different approaches, but the outcome is beneficial to the EMS systems and ultimately their residents. A brief outline of each of the three approaches follows.

Elmore County, AL

Elmore County relied on Alabama Code ss. 11-87-1 as the authority to form a designated committee for ambulance oversight.¹¹ The County Commissioners advertised a Request for Proposals for bidders to provide ambulance services according to the County's specifications. The County awarded the most recent contract to Haynes Ambulance. All EMS calls to the County's primary PSAP are routed to Haynes Ambulance for triage and ambulance dispatch. Elmore County implemented this system in May 2022.

¹¹ Section 11-87-1 of the Code of Alabama authorizes the governing body of any county or municipality to "create and establish, maintain and operate ambulance service within the county, or within the municipality, to promote the health, welfare, and safety of the residents . . . "

Macon County, AL

In 2019, the Macon County Commission sought relief from the State legislature to secure sustained funding for the County's "emergency ambulance crisis."¹² The Alabama legislature found that "an immediate crisis exists," and allowed the county to implement a half-cent sales tax to be used solely for ambulance services in Macon County. The funding was approved for an initial three-year period and is currently on track for extension for another three years.

FITCH believes that, like Macon County, an immediate crisis exists in Jefferson County regarding the gaps in countywide ambulance services — immediate action on several fronts is needed.

Mobile County, AL

The Mobile County Emergency Medical Services System Rescue Squad was founded in 1992 as a volunteer-driven service. It has evolved to a career service with 100+ paid personnel. The County established a Board of Directors that must have at least three and no more than 10 members to provide organizational oversight.

The Squad's purpose is relevant to Jefferson County as it recognizes the same issues that currently exist in Jefferson County. The stated purpose is as follows:

To promote the health, welfare, and safety of residents living in rural and economically distressed communities within Mobile County, including certain geographic areas that exist within boundaries where emergency medical services are not available within acceptable standards, and whereas the lack of acceptable standards endangers the well-being of citizens who live there.¹³

FITCH recommends that Jefferson County consider implementing the following positions and salaries for the initiation of the Jefferson County Public Safety Department. The positions below will provide a structure that will allow for accountability while ensuring all facets of forming, implementing, and operationalizing the Public Safety Department are accomplished. These positions are modeled after previously implemented public safety departments in both Tennessee and Florida. Annual first year total compensation for the positions listed below is \$454,950 including fringe benefits.

Figure 18. Public Safety Department Expected Salary and Positions

| Job Title | Base Salary | 35% fringe | Total Compensation |
|--------------------------|--------------------|-------------------|---------------------------|
| Public Safety Director | \$96,000 | \$33,600.00 | \$129,600 |
| Technical Manager – Fire | \$69,000 | \$24,150.00 | \$93,150 |

¹² Director's Report, Macon County Emergency Management Agency, Frank H. Lee, Director, June 10, 2019, Macon County Commission Agenda and reports, July 8, 2019. Authority based on Alabama Code 45-44-247 (1975) and Act 20190337, ss 1.

¹³ Mobile County Emergency Medical Services System Rescue Squad, Inc. (Mobile County E.M.S.), Revised 09/20/2021, summary document, www.mobilecountyal.gov, accessed, June 2022.

| Job Title | Base Salary | 35% fringe | Total Compensation |
|--|-------------|-------------|--------------------|
| Technical Manager – EMS | \$69,000 | \$24,150.00 | \$93,150 |
| Data Analyst | \$59,000 | \$20,650.00 | \$79,650 |
| Administrative Assistant/Support Staff | \$44,000 | \$15,400.00 | \$59,400 |

¹⁴

Additional expenses that could be incurred for the implementation of the Public Safety Department would include three emergency response SUV type vehicles to include associated emergency response equipment. The included equipment should reflect that of basic medical equipment including an AED, various safety equipment, and other items to be determined by the Director. The cost per vehicle would be estimated at \$65,000 per vehicle for a total of \$195,000.

The Public Safety Director or their designee should also be granted positions on any of the relevant boards that are currently in place in Jefferson County. Those include but are not limited to the 911 Board and the Emergency Management Association Board. The purpose of having representation is to ensure continuity and consistency throughout the emergency services organizations.

This Option also includes further actions by the County as follows:

- Establish with the newly formed Public Safety Department, targeted response time goals for EMS, review monthly and report quarterly.
- Allocate funding to ensure longevity of the EMS system.
- Form an EMS Advisory Board to begin strategic planning for one-, five-, and 10-years for EMS sustainability.
- Fund a County Medical Director who is available to coordinate and provide clinical oversight for all transporting EMS agencies. This action would ensure consistent clinical care and quality assurance controls are in place.
- Purchase and implement an Automatic Vehicle Locations System (AVL) for all response units in the system to enable GPS for closest unit dispatch.
- The Public Safety Department should report to a separate board set up by the County, with a Public Safety Director. The Director would report to the County Manager and County Commission.

OPTION TWO — CENTRALIZED PURCHASES FOR SYSTEM IMPROVEMENT

In this Option, the County would identify funds to further support the system as follows:

- Develop group purchase contracts available to all agencies for items such as fuel, medical supplies/equipment, fleet purchases, and maintenance, etc.

¹⁴ <https://govsalaries.com/>

- Purchase and implement a single Electronic Patient Care Reporting (EPCR) software system for all transporting EMS agencies, at no cost to the agencies. The System Medical Director would gather clinical data for coordinated review with individual EMS agency Medical Directors.
- Develop a dedicated EMS revenue stream that provides support to agencies for large purchases and other system wide improvements. The County would manage the fund and seek recommendations from the Public Safety Department, which may incentivize agencies to be active participants in the Committee.
- Add more transport capable ambulances to what is noted in Option One. The goal of the County operated transport capable ambulances is to ensure a minimum geographic coverage to meet 90% of historical demand.

The Public Safety Department would develop and publish a strategic plan for the EMS system. The plan is to address system finances, operational solutions when/if agencies dissolve, opportunities for alternative transport and destination, formation of County supported EMS education, community paramedicine, and system quality assurance. Furthermore, the plan should be updated at least annually to reflect changes in reimbursement policies and the overall status of EMS agencies and the system.

This Option offers a solid opportunity for improvements with a minimal amount of disruption. EMS agencies with substantial local support can thrive while all agencies can seek savings through group purchasing contracts. The Option also allows a *systems* approach to evolve with higher levels of coordination. At some point, agencies may understand that they are more likely to survive by working together to provide coordinated emergency services in support of community well-being.

The estimated cost of Option Two is \$1,500,00 each year for the first two years.

OPTION THREE — A SINGLE PROVIDER SYSTEM

Over time, a single provider system may evolve out of necessity. Without financial subsidy Jefferson County may experience EMS agencies going out of business or further curtailing operations due to financial instability. Continuing changes in insurance and Medicare/Medicaid transport reimbursements *and* operational policies may well force market changes and the demise of local EMS agencies. Local economies are relatively strong today, but an economic downturn could change the ability of communities within Jefferson County to support EMS.

A single provider system provides the opportunity for efficiencies on multiple levels. Staffing to demand in a larger system can provide more efficient geographic, as well as temporal coverage. Services can be contracted to a private or not-for-profit entity or provided by the County. In all cases, the Public Safety Department would provide robust system oversight and set system wide standards of care.

As is evident, there is concern for the EMS system within Jefferson County. There is likelihood that a natural progression will occur where either one or more of the for-profit EMS agencies continue to retreat from providing service to areas within the County or Fire Departments are not able to meet the

demand for service without a funding source. As this natural progression occurs, this option will become a likely option that will require implementation. This will need to be continually evaluated and monitored in real-time as the removal of just a few EMS units will dramatically change the already lacking EMS coverage to the County.

The estimated cost for Option Three: Variable and would require an analysis.

EMS EDUCATION CONCERNS

During the site visit *FITCH* consultants heard there is a significant concern with the current state of EMS education, regionally. There were several common themes that were conveyed during the site visit. Those themes included:

- Extremely low National Registry of Emergency Medical Technician (NREMT) testing pass rates
- Lack of correlation between NREMT testing and Alabama treatment protocols
- Limited options for variety of EMS educational institutes
- Expense and time requirement of the Paramedic programs is comparable to Nursing programs

These challenges to EMS education appear to be a deterrent for the recruitment of new EMS providers. Additionally, the challenges create a void in the natural progression of advancement of EMS providers from basic to advanced level certification. With any challenge there is opportunity, and there is opportunity for the County and proposed Public Safety Department to investigate the creation of a county-based EMS educational institute that can readily meet the needs of the system. There is an opportunity for the County to evaluate what levels of certification and education are truly needed to help sustain the already challenged EMS system.

EMS Education system redesign costs: \$800,000 annually

CONCLUSION

Jefferson County is in a unique situation as it relates to EMS coverage, yet it can be forward-thinking in the creation and revitalization of EMS for the residents and visitors of Jefferson County. It is imperative that equitable EMS services be provided to all areas within Jefferson County no matter the geographic or socio-economic footprint. Ensuring that there is a common goal of the safe, fair, and equitable provision of EMS should be the primary focus. This is obtained by implementing the recommendations included in this report and ensuring that industry best-practices are utilized when making decisions for the provision and sustainability of EMS in Jefferson County. The days of not having available EMS units to respond or choosing not to respond must end quickly. The need to have all EMS agencies follow the regulations and provide mutual aid when called upon, free of charge or fee, is also important.

Jefferson County is positioned to not only change the EMS system within the county, but also provide a pathway forward to ensure legislation is enacted for EMS.

ATTACHMENT A

Data Report



Jefferson County, Alabama

Data Analysis

Jerry Slaughter *Prepared by:*



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Jefferson County, Alabama

Draft Data Analysis

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METHODOLOGY

Data files were obtained from Jefferson County, RPS – Jefferson County and Shoals Ambulance Service spanning the period of January 1, 2018, through December 31, 2021. Jefferson County included a partial 2022 data set, but it was not utilized as none of the other agencies provided data for this period.

This report focuses specifically on call volume analysis as unit data was not available. Each event is treated as an individual call for service without consideration of the number of units responding.

Audits of the data files were first conducted to reduce duplication of events and to identify anomalies in the base data that would impact analysis. Select records were excluded if there were values that reflected negative time calculations or were exceedingly long in the processing and assignment of the event. It should be noted that no data values were changed or modified in the cleanup process. Some spelling and abbreviation differences were adjusted in the names of towns and jurisdiction only where it was obvious and necessary to provide the most accurate counts aggregated by geographic region.

Tables where these values were excluded are noted in the table descriptions.

SNAPSHOT OF 2018-2021

Call Volume

Table 1: Number of Calls Received by Agency by, Priority and Reporting Period

| AGENCY | PRIORITY | Reporting Period | | | |
|------------------|-------------------------|------------------|--------|--------|--------|
| | | 2018 | 2019 | 2020 | 2021 |
| Jefferson County | PRIORITY 1 | 21365 | 57266 | 62691 | 64590 |
| | PRIORITY 2 | 956 | 1124 | 1259 | 1588 |
| | PRIORITY 3 | 2746 | 3473 | 3293 | 3971 |
| | SCENEFLT | | 17 | 17 | 23 |
| | STBY | | 124 | 316 | 197 |
| | (blank) | 615 | 296 | 3655 | 3930 |
| Total | | 25682 | 62301 | 71236 | 74303 |
| AVG/DAY | | 70.4 | 170.7 | 194.6 | 203.6 |
| Total Growth | | N/A | 142.6% | 14.3% | 4.3% |
| RPS-Jefferson | Emergency Transport | 31118 | 30568 | 31790 | 26679 |
| | Non-Emergency Transport | 12 | 8 | 6 | 32 |
| | Scene Flight | 54 | 42 | 43 | 50 |
| | Standby | | 166 | 425 | 265 |
| Total | | 31184 | 30784 | 32264 | 27026 |
| AVG/DAY | | 85.4 | 84.3 | 88.2 | 74.0 |
| Total Growth | | N/A | -1.3% | 4.8% | -16.2% |
| Shoals EMS | Priority 1 - EMRFR | 6208 | 7566 | 6492 | 6791 |
| | Priority 2 - EMER | 14 | 26 | 13 | 6 |
| | Priority 3 - IMMED | 569 | 781 | 425 | 326 |
| Total | | 6791 | 8373 | 6930 | 7123 |
| AVG/DAY | | 18.6 | 22.9 | 18.9 | 19.5 |
| Total Growth | | n/a | 23.3% | -17.2% | 2.8% |

1 Jefferson County is a combined data set from multiple sources. RPS-Jefferson and Shoals Ambulance are subsets of the data contained in the Jefferson County data.

Response Volume and Busy Time

Table 2: Number of Calls, Number of Responses, and Total Busy Time by Agency and Reporting Period

| | Reporting Period | Number of Events | Total Event Time (hh:mm:ss) | Avg Resp per Day | Avg Busy Time per Day | Avg Busy Time per Event |
|------------------|------------------|------------------|-----------------------------|------------------|-----------------------|-------------------------|
| Jefferson County | 2018 | 25682 | | 70.4 | | |
| | 2019 | 62301 | | 170.7 | | |
| | 2020 | 71236 | | 194.6 | | |
| | 2021 | 74303 | | 203.6 | | |
| RPS - Jefferson | 2018 | 31186 | 24563:03:57 | 85.4 | 67:17:46 | 0:47:15 |
| | 2019 | 30784 | 22833:44:13 | 84.3 | 62:33:29 | 0:44:30 |
| | 2020 | 32267 | 23313:18:01 | 88.2 | 63:41:51 | 0:43:21 |
| | 2021 | 27026 | 18360:55:40 | 74.0 | 50:18:14 | 0:40:46 |
| Shoals | 2018 | 6791 | 5789:38:02 | 18.6 | 15:51:43 | 0:51:09 |
| | 2019 | 8373 | 7902:33:03 | 22.9 | 21:39:03 | 0:56:38 |
| | 2020 | 6930 | 6659:43:54 | 18.9 | 18:11:46 | 0:57:40 |
| | 2021 | 7123 | 6736:51:41 | 19.5 | 18:27:26 | 0:56:45 |

*Data from Jefferson County was incomplete and lacking time stamps for most event status updates.

System Performance

Table 3: 90th Percentile Performance Times by Reporting Period

| | PRIORITY | YEAR | ProcTime | Chute | RespTime | Sample Size |
|------------------------|-------------------------|------|----------|---------|----------|-------------|
| Jefferson County | 1 | 2018 | N/A | N/A | N/A | 21365 |
| | | 2019 | 0:02:41 | 0:02:35 | 0:21:27 | 57266 |
| | | 2020 | 0:02:48 | 0:02:23 | 0:22:33 | 62691 |
| | | 2021 | 0:03:42 | 0:02:46 | 0:24:59 | 64590 |
| | 2 | 2018 | N/A | N/A | N/A | 956 |
| | | 2019 | 0:17:04 | 0:02:07 | 0:25:10 | 1124 |
| | | 2020 | 0:17:35 | 0:02:13 | 0:24:26 | 1259 |
| | | 2021 | 0:19:40 | 0:02:16 | 0:28:16 | 1588 |
| | 3 | 2018 | N/A | N/A | N/A | 2746 |
| | | 2019 | 0:16:59 | 0:03:28 | 0:51:18 | 3473 |
| | | 2020 | 0:30:30 | 0:03:55 | 0:58:53 | 3293 |
| | | 2021 | 1:06:14 | 0:03:39 | 1:39:03 | 3971 |
| | Scene Flight | 2018 | N/A | N/A | N/A | N/A |
| | | 2019 | 0:02:37 | 0:11:32 | 0:33:51 | 17 |
| | | 2020 | 0:01:26 | 0:16:58 | 0:56:33 | 17 |
| | | 2021 | 0:03:45 | 0:14:49 | 0:36:56 | 23 |
| | Standby | 2018 | N/A | N/A | N/A | N/A |
| | | 2019 | 0:02:59 | 0:01:18 | 0:26:24 | 124 |
| | | 2020 | 0:03:18 | 0:01:58 | 0:26:04 | 316 |
| | | 2021 | 0:04:07 | 0:02:47 | 0:27:35 | 197 |
| | PRIORITY | YEAR | ProcTime | Chute | RespTime | Sample Size |
| RPS - Jefferson County | Emergency Transport | 2018 | 0:01:49 | 0:01:56 | 0:20:58 | 31118 |
| | | 2019 | 0:02:07 | 0:01:59 | 0:22:19 | 30568 |
| | | 2020 | 0:02:29 | 0:01:53 | 0:23:14 | 31790 |
| | | 2021 | 0:03:24 | 0:01:58 | 0:26:31 | 26679 |
| | Non-Emergency Transport | 2018 | 0:02:45 | 0:01:11 | 0:44:34 | 12 |
| | | 2019 | 0:41:23 | 0:00:54 | 1:06:29 | 8 |
| | | 2020 | 0:41:14 | 0:01:43 | 1:05:15 | 6 |
| | | 2021 | 0:18:37 | 0:00:57 | 0:48:29 | 32 |
| | Scene Flight | 2018 | 0:02:26 | 0:12:18 | 0:31:37 | 54 |
| | | 2019 | 0:02:45 | 0:13:16 | 0:32:39 | 42 |
| | | 2020 | 0:01:59 | 0:17:22 | 1:10:36 | 43 |
| | | 2021 | 0:04:14 | 0:14:46 | 0:35:34 | 50 |
| | Standby | 2018 | N/A | N/A | N/A | |
| | | 2019 | 0:02:54 | 0:01:13 | 0:26:23 | 166 |
| | | 2020 | 0:03:39 | 0:01:48 | 0:27:15 | 425 |
| | | 2021 | 0:04:22 | 0:02:41 | 0:28:07 | 265 |
| | PRIORITY | YEAR | ProcTime | Chute | RespTime | Sample Size |
| Shoals | Priority 1 - EMRFR | 2018 | 0:02:25 | 0:03:51 | 0:19:45 | 6208 |
| | | 2019 | 0:02:12 | 0:05:38 | 0:22:17 | 7566 |
| | | 2020 | 0:02:06 | 0:06:08 | 0:26:37 | 6492 |
| | | 2021 | 0:02:43 | 0:06:05 | 0:25:24 | 6791 |
| | Priority 2 - EMER | 2018 | 0:17:31 | 0:03:49 | 0:36:34 | 14 |
| | | 2019 | 0:09:23 | 0:06:34 | 0:39:45 | 26 |
| | | 2020 | 0:11:51 | 0:04:38 | 0:35:41 | 13 |
| | | 2021 | 0:42:33 | 0:11:51 | 1:00:12 | 6 |
| | Priority 3 - IMMED | 2018 | 0:34:41 | 0:05:27 | 1:03:31 | 569 |
| | | 2019 | 0:40:23 | 0:06:16 | 1:08:04 | 781 |
| | | 2020 | 0:47:30 | 0:05:48 | 1:24:13 | 425 |
| | | 2021 | 1:28:52 | 0:05:27 | 2:09:00 | 326 |

ATTACHMENT B

Financial Report

ATTACHMENT C

PowerPoint Presentation



EMS System Assessment Jefferson County, Alabama

Final Report
August 9, 2022

Critical Findings



There is No EMS System in Place Today

❖ *Delayed or No Ambulance Response*

- ❖ “In large portions of the County, ambulances do not or are not regularly available to respond quickly to 911 emergency medical calls.”

❖ *Chaotic 911 Call System*

- ❖ “There are 14 emergency 911 dispatch centers that are not connected or coordinated, compromising patient care.”

❖ *EMS Not Recognized as Essential Public Safety Service*

- ❖ “EMS in Jefferson County is not legislatively recognized as an essential public safety service and there is no designated countywide funding”

❖ *No Single Entity is Accountable*

- ❖ “There is no single entity that is responsible to coordinate and provide accountability for the overall system that includes 911 dispatch, first response, and ambulance transport”

Options for Implementation

- ❖ Although there are several options for Jefferson County to consider, FITCH urgently recommends the formation of a Public Safety Department to provide strategic and organizational oversight for the provision of all emergency services.
- ❖ Four options incorporating five finding phases
 - ❖ Option Zero: Status Quo
 - ❖ Option One: Purchase Ambulance Coverage From External EMS Agency & Implement Public Safety Department
 - ❖ Option Two: Centralized Purchases for System Improvement
 - ❖ Option Three: Single Provider System
- ❖ Options One through Three assume addressing the chaotic 911 call system

Current System Design

Dispatch Centers

- ❖ 14 dispatch centers scattered throughout and serving various agencies.
- ❖ There is no interoperability or connection between the centers
- ❖ 911 callers are not routed to one center creating chaos in determining the right 911 center to use
- ❖ Many 911 centers do not meet the National Fire Protection Administration (NFPA) 1221 standard

Current System Design

EMS System

- ❖ The current EMS system is at best, broken, although there are a few areas within the County that receive relatively timely and appropriate EMS coverage
- ❖ Any given day there should be a total of 42 staffed ambulances ready to respond to emergencies within the County, excluding those utilized by Birmingham.
- ❖ Ambulance coverage and service are comprised of the following:
 - ❖ Four for-profit EMS agencies – Shoals, Regional Paramedic Services (RPS), Advantage Ambulance, and NorthStar
 - ❖ Two adjacent county services – Blount EMS and Shelby County
 - ❖ 12 Fire Departments within Jefferson County (excluding Birmingham) as follows:

| | |
|----------------------------|----------------------------------|
| Center Point Fire District | Mountain Brook Fire Department |
| Concord Fire District | Palmerdale Fire District |
| Forestdale Fire District | Rocky Ridge Fire District |
| Hoover Fire Department | Trussville Fire & Rescue Service |
| Irondale Fire Department | Vestavia Hills Fire Department |
| McAdory Area Fire District | Warrior Fire Department |

Current System Design

County Oversight

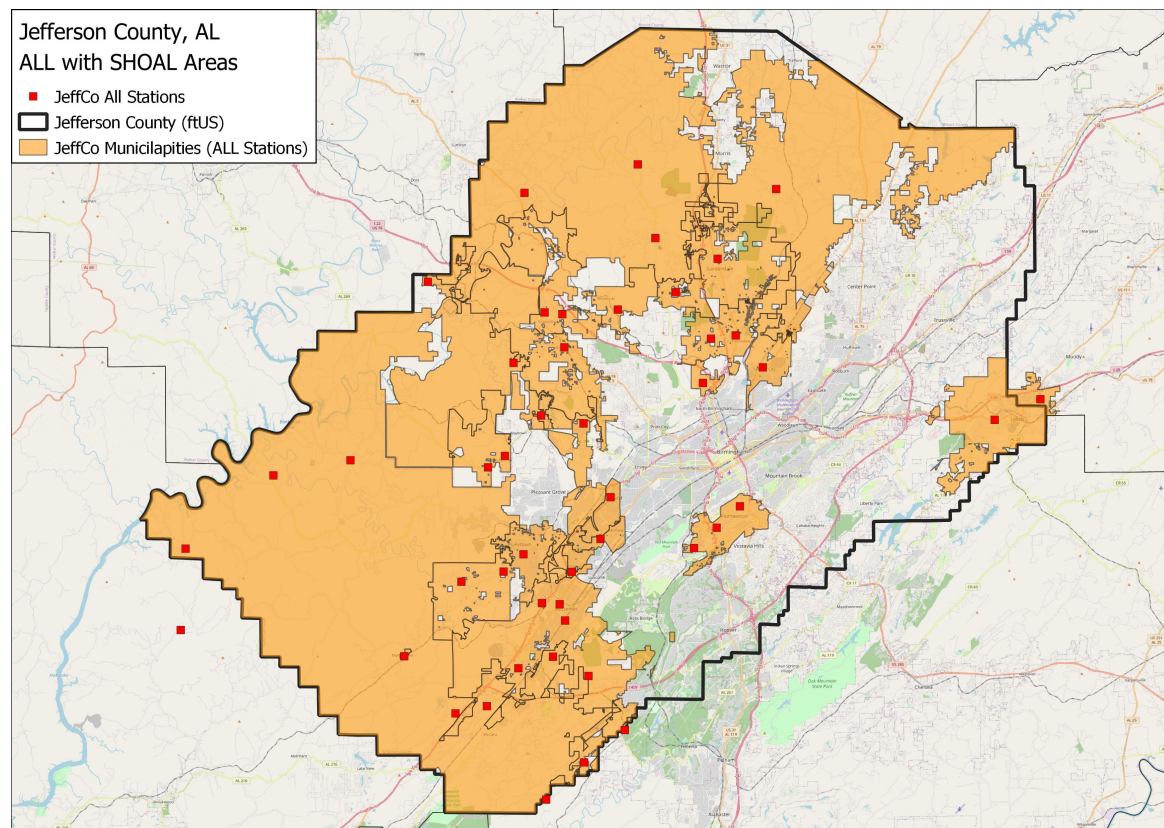
- ❖ County currently does not provide and coordinate EMS activity in the county
- ❖ Act 79, that provides maintenance of districts for fire service requires additional clarification regarding the provision of EMS. Additional legislation may be needed to support EMS funding mechanisms.
- ❖ Many high-functioning EMS systems in the United States and across the world have one entity that provides coordination and oversight.

Emergency Declaration to Contract for Ambulance Service

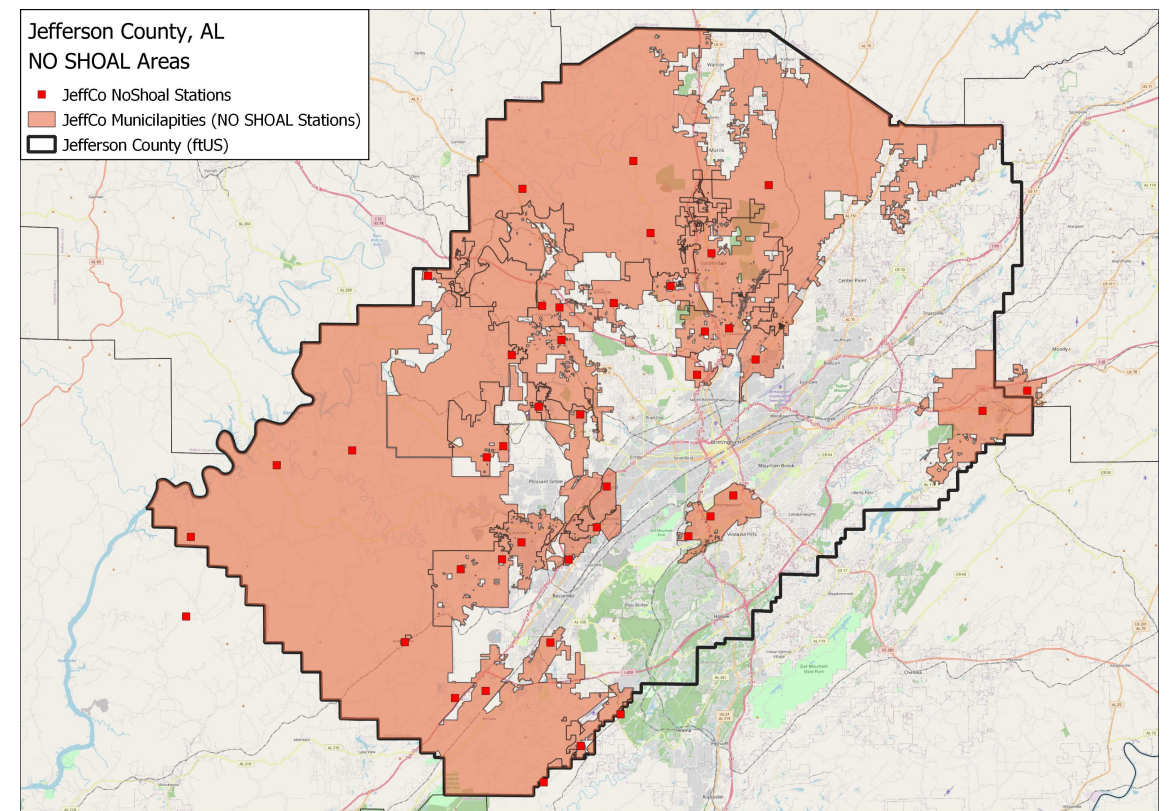
- ❖ The single most important action that the County can take is to declare a public health and safety emergency.
- ❖ County should immediately contract with an external entity for dedicated ambulance service in the unprotected areas and require an EMS dispatcher position that will be co-located in the Jefferson County Communications Center.
- ❖ Contracted ambulances should be dispatched anywhere in the County, as needed for primary or secondary back-up to established providers.

Emergency Declaration to Contract for Ambulance Service

Jefferson County: Shaded Areas with No Dedicated EMS Coverage



Jefferson County: Shaded Areas with No Dedicated EMS Coverage (Without Shoals)



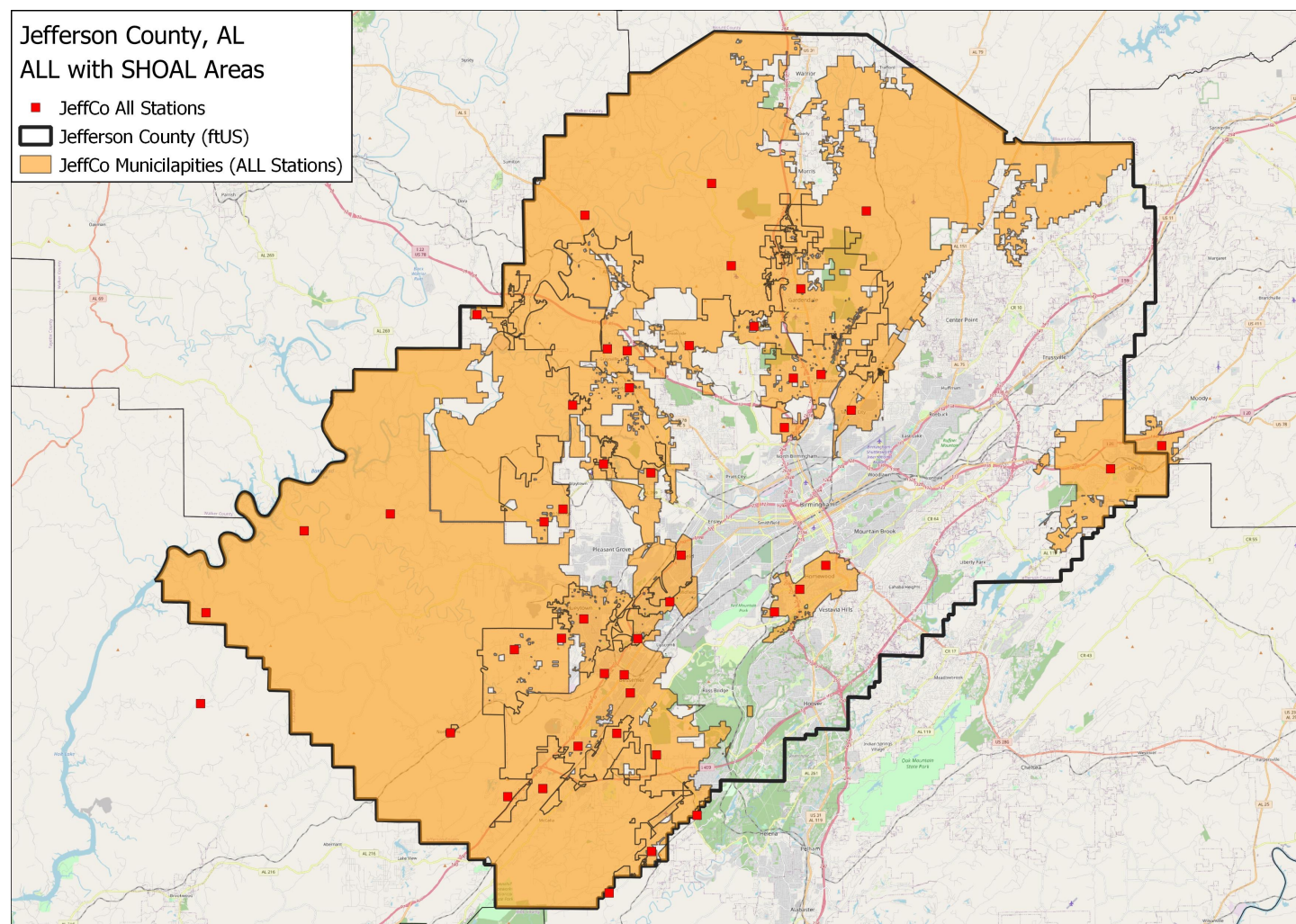
Estimated Annual Responses & Transports

| <u>Types</u> | <u>Volumes for</u> | |
|--------------|----------------------|-----------------------|
| | <u>Areas Covered</u> | <u>Transport Rate</u> |
| No Shoals | 32,343 | 21023 |
| Shoals Inc. | 38,115 | 24775 |

0.65

Emergency Declaration to Contract for Ambulance Service

Jefferson County: Shaded Areas with No Dedicated EMS Coverage



10/20 Minute Drive Time for Geographic Coverage

| Rank | Post Number | Drive Time | Class | Post Capture | Total Capture | Percent Capture |
|------|-------------|------------|-------|--------------|---------------|-----------------|
| 1 | Bes1 | 10 | Urban | 8243 | 8243 | 20.69% |
| 2 | Hom2 | 10 | Urban | 5721 | 13964 | 35.05% |
| 3 | Gar2 | 10 | Urban | 3933 | 17897 | 44.93% |
| 4 | Hue2 | 10 | Urban | 1264 | 19161 | 48.10% |
| 5 | Lee1 | 10 | Urban | 54 | 19215 | 48.24% |
| 6 | 3793 | 20 | Rural | 11016 | 30231 | 75.89% |
| 7 | 893 | 20 | Rural | 4739 | 34970 | 87.79% |

10/30 Minute Drive Time for Geographic Coverage

| Rank | Post Number | Drive Time | Class | Post Capture | Total Capture | Percent Capture |
|------|-------------|------------|-------|--------------|---------------|-----------------|
| 1 | Bes1 | 10 | Urban | 8243 | 8243 | 20.69% |
| 2 | Hom2 | 10 | Urban | 5721 | 13964 | 35.05% |
| 3 | Gar2 | 10 | Urban | 3933 | 17897 | 44.93% |
| 4 | Hue2 | 10 | Urban | 1264 | 19161 | 48.10% |
| 5 | Lee1 | 10 | Urban | 54 | 19215 | 48.24% |
| 6 | 3793 | 30 | Rural | 18152 | 37367 | 93.80% |

One geographic unit removed if Bessemer/Shoals was not included

Emergency Declaration to Contract for Ambulance Service

| <u>Range</u> | No Shoals | | W/Shoals | |
|--------------|-----------------------------|--------------|-----------------------------|--|
| | 10 Min Urban / 30 Min Rural | | 10 Min Urban / 20 Min Rural | |
| | 8 24/7 Units | | 9.5 24/7 Units | |
| | 2 BLS & 6 ALS | | 2 BLS & 7.5 ALS | |
| | Low Range | \$ 1,866,050 | \$ 2,333,760 | |
| High Range | | \$ 3,442,850 | \$ 4,173,360 | |

- ❖ Estimated average revenue per transport to be \$348.15
- ❖ Advanced Life Support (ALS) Unit, *FITCH* estimated a range of \$135 to \$155 and for a Basic Life Support (BLS) Unit, \$105 to \$135 per hour

Funding and Governance Options

- ❖ **Phase 1:** Contract with an external EMS agency for additional ambulances to cover gaps in service and provide oversight for system response.
- ❖ **Phase 2:** Purchase both ambulances and fire first response resources.
- ❖ **Phase 3:** Consistently provide education programs for EMTs and Paramedics to begin developing a feeder system of providers into EMS.
- ❖ **Phase 4:** Ensure all 911 calls for Jefferson County are directed to one Communications Center. If multiple centers continue to exist, then the one center should be designated as principle and can distribute calls to secondary centers.
- ❖ **Phase 5:** Evaluate Phase 1-4 efforts and design future models that will ensure consistent and measurable services across the county.

Options for Implementation

- ❖ Although there are several options for Jefferson County to consider, FITCH urgently recommends the formation of a Public Safety Department to provide strategic and organizational oversight for the provision of all emergency services.
- ❖ Four options incorporating five finding phases
 - ❖ Option Zero: Status Quo
 - ❖ Option One: Purchase Ambulance Coverage From External EMS Agency & Implement Public Safety Department
 - ❖ Option Two: Centralized Purchases for System Improvement
 - ❖ Option Three: Single Provider System
- ❖ Options One through Three assume addressing the chaotic 911 call system

Conclusion

- ❖ Jefferson County is positioned to not only change the EMS system within the county, but also provide a pathway forward to ensure legislation is enacted for EMS.
- ❖ Ensuring that there is a common goal of the safe, fair, and equitable provision of EMS should be the primary focus.
- ❖ This is obtained by implementing the recommendations included in this report and ensuring that industry best-practices are utilized when making decisions for the provision and sustainability of EMS in Jefferson County.
- ❖ The days of not having available EMS units to respond or choosing not to respond must end quickly.

Pathway Forward

- ❖ Commission expresses a preference for an option.
- ❖ Commission directs County Administrator to draft an action plan
- ❖ Commission considers County Administrator's draft action plan
 - ❖ Adjusts or rejects as appropriate

Questions?

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