ESD Mutual Aid Impact Study

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Vast amounts of research has shown that denying mutual aid agreements in Texas emergency services districts create substantial economic losses exceeding billions of dollars annually. Dr. Ray Perryman's 2020 economic analysis found that Texas Emergency Services Districts (ESDs) provide emergency services at one-third to one-half the cost of municipalities, generating $1.2 billion in annual gross product and supporting 12,081 jobs statewide.[1] When mutual aid is denied, these cost efficiencies evaporate, creating cascading economic impacts across insurance rates, property values, and community development.

ESD's generate substantial economic multiplier effects through cost savings that ripple through the broader economy. However, these multiplier effects depend critically on the efficient resource sharing that mutual aid agreements enable. When larger districts with higher call volumes deny aid to smaller supporting districts, the economic consequences are severe and measurable.

Insurance Premiums Increase

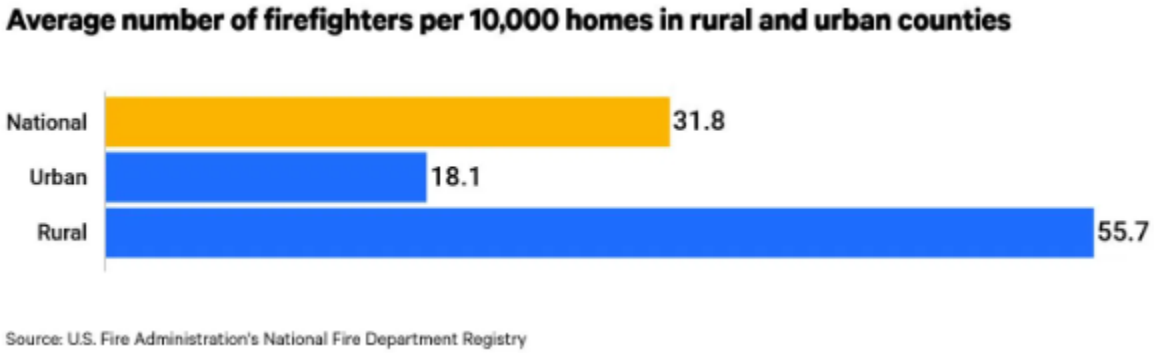
The Insurance Services Office (ISO) rating system directly links emergency service quality to homeowners insurance premiums.[2] Research shows that properties without adequate emergency coverage face insurance premium increases of 9% on average, with some rural areas experiencing increases up to 43% when located more than 25 miles from fire stations. Communities that lose ISO protection credit due to inadequate emergency coverage face permanent economic disadvantages.[3]

A Representative Illustration of the Potential Impact of Insurance Cost Savings Achieved by the Added Safety Provided by Emergency Services Districts (ESDs) Relative to Municipalities on Business Activity in the Relevant Areas

	Total Expenditures (Millions of 2020 Dollars)	Gross Product (Millions of 2020 Dollars)	Personal Income (Millions of 2020 Dollars)	Employment (Jobs)
	$58.270	$26.618	$16.075	261

Note: Based on a hypothetical 3% reduction in insurance costs and The Perryman Group's estimates of the related economic benefits of those savings. Additional explanation of methods and assumptions may be found elsewhere in this report and Appendix A, with results by industry in Appendix B.
Source: US Multi-Regional Impact Assessment System, The Perryman Group

https://www.perrymangroup.com/media/uploads/report/perryman-the-economic-benefits-of-potential-cost-savings-associated-with-emergency-services-districts-09-16-20.pdf



https://www.valuepenguin.com/access-to-fire-stations

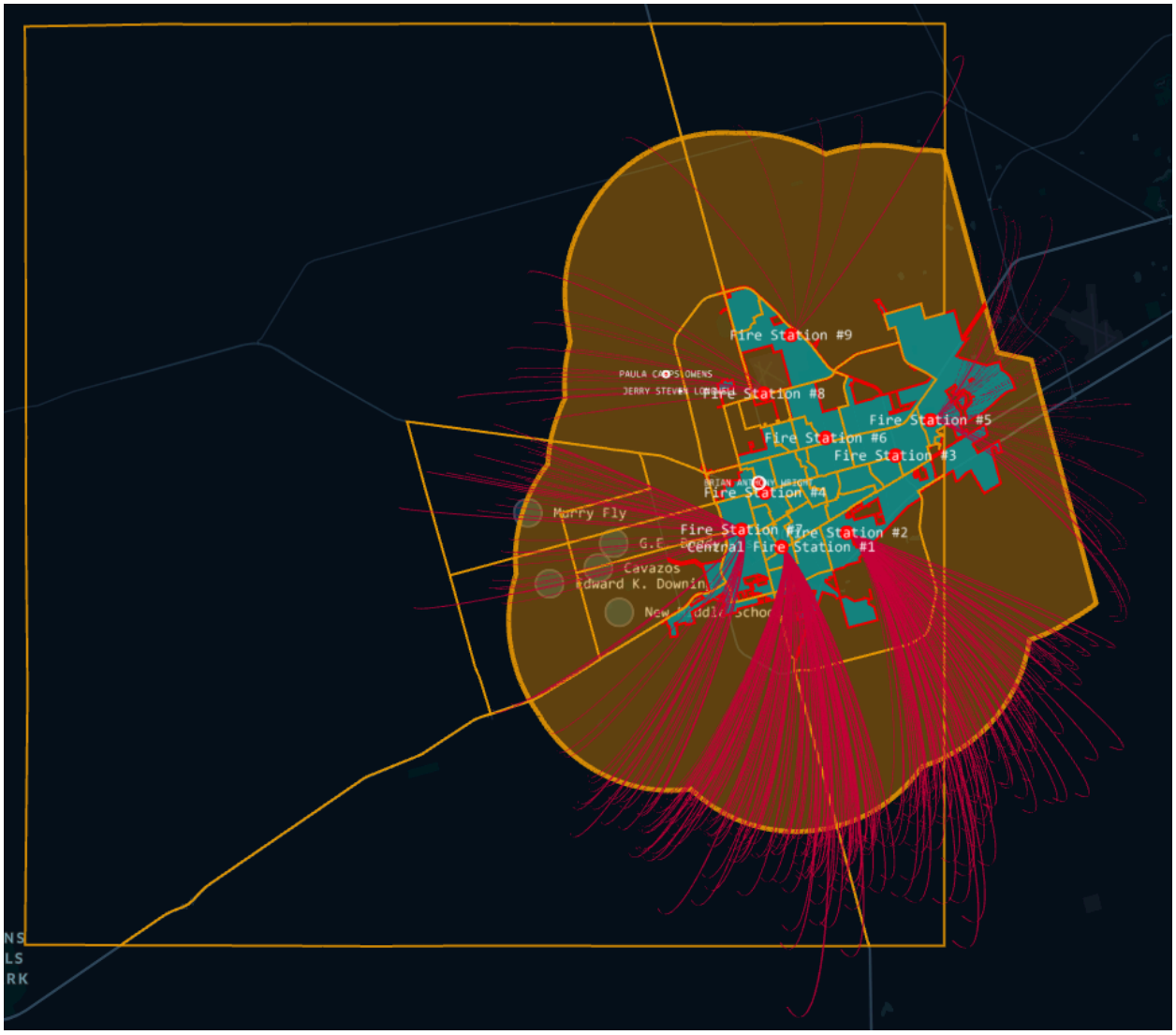
Property Values Decline

Studies demonstrate that property values decrease significantly based on distance from adequate fire protection. California wildfire research found property values decreased 10% after the first fire and 23% after the second fire in areas with inadequate protection.[4] The relationship between emergency service quality and property values creates a negative feedback loop. As property values decline, the tax base supporting emergency services erodes, further compromising service delivery.

Lower values directly impact the future opportunities when fostering in a new area into an existing district if services for mutual aid are not applied. For Ector County this would apply to the area outside of the Extra-Territorial Jurisdiction(ETJ), currently being considered to not have a mutual aid agreement. This decision would stagnate property values against neighboring properties receiving services and cause a lower total value capture of future tax revenue if absorbed later under a new election.

Response Time Delays

Research using machine learning on over 1 million emergency missions found that resource constraints from lack of mutual aid can increase response times by 15-25%. Results deepen the understanding of the multifaceted factors influencing EMS response times and the integration of machine learning in this study highlights the potential for predictive modelling to significantly enhance EMS resource allocation strategies. By accounting for dynamic factors—such as specific call types, real-time weather data, and resource availability—EMS operations can transition from static deployment models to a more fluid, adaptable system.[5]



Response outside of ETJ

Each additional minute of delayed response exponentially increases property damage costs. Fire service operational studies indicate that denial of mutual aid can increase initial response times by 3-6 minutes for structure fires, critically impacting the "golden time" for suppression. Homeowners' fire losses account for 58 percent of total insured fire losses, while commercial multi-peril and fire each accounted for 21 percent of total insured fire losses. In each of the past two years, wildfires burned 7 million acres across several states – twice the average experienced in the 1990s. Without changes in recruiting and retention policies, communities can fall below even minimum standards governing the number of trained firefighters required to mount an effective first response to a building fire.[6] Denying service to a region would also complicate the oath and moral standards that the department employees would be expected to uphold by rendering aid to those in need in the most efficient and timely manner.

Points Required for Each PPC Class

PPC	Score
1	90 +
2	80 to 89.99
3	70 to 79.99
4	60 to 69.99
5	50 to 59.99
6	40 to 49.99
7	30 to 39.99
8	20 to 29.99
9	10 to 19.99
10	0 to 9.99

Classification descriptions:

- **Class 1-8:** The fire suppression system includes an FSRS creditable dispatch center, fire department, and water supply.
- **Class 8B:** Is an exception for Class 9 areas that have a superior fire protection system but lack the FSRS minimum water criteria.
- **Class 9:** The fire suppression system includes a creditable dispatch center, fire department, but no FSRS minimum water supply.
- **Class 10:** Does not meet minimum FSRS criteria for recognition.

https://www.tdi.texas.gov/fire/fmppcfaq.html

A direct example for Ector County is Murry Fly Elementary that sits roughly 100 yards within the ETJ. Multiple bus routes are outside of the current ESD direct response territory and an accident that occurs outside of children traveling to that school could be denied service if the commissioners opt to refuse mutual aid. This would require Odessa Fire and Rescue(OFR) many extra minutes of response drive time that could cause excess damage and/or cost lives. The public was sold the slogan ‘minutes matter’ and nothing has changed in the short months after the nearly 1,500 represented a community of more than an estimated 65k residents in the county or less than 2% voted.

School locations in County

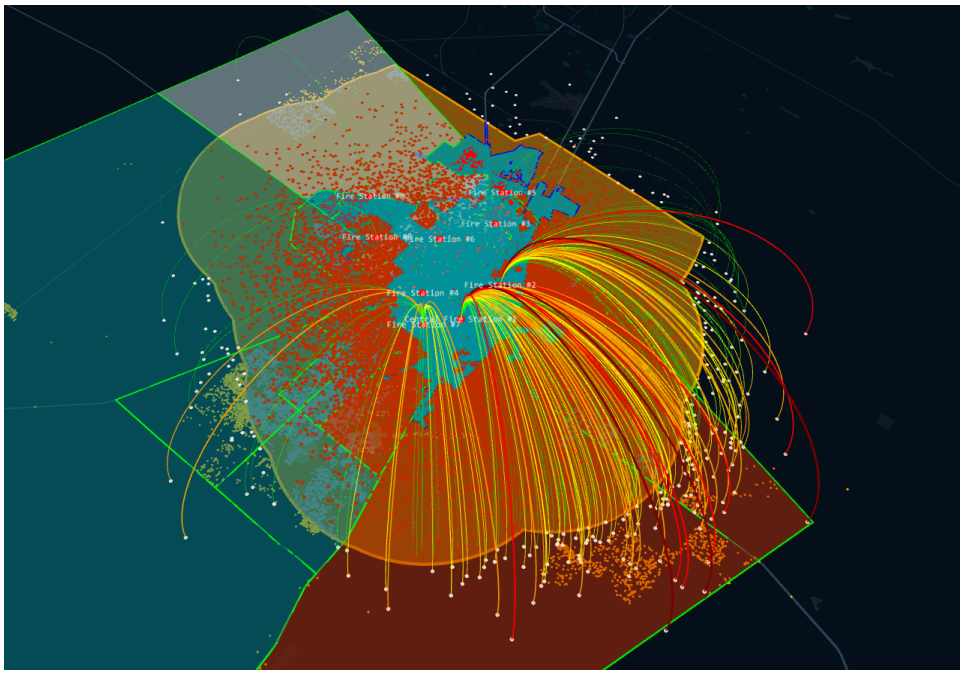
Smaller Districts Face Unsustainable Financial Burdens

Rural emergency services face an "unsustainable" cost crisis, with expenses increasing nearly 80% since 2016 in some areas. When smaller districts provide mutual aid without receiving reciprocal support, they absorb the full cost burden including equipment wear, fuel costs, and personnel overtime without compensation. The dichotomy for the chief providing mutual aid/automatic aid is that, without their services, someone in a neighboring community may die in a fire or from a medical emergency aggravated by a delay in emergency response. Standard Operating Guidelines(SOG) include:

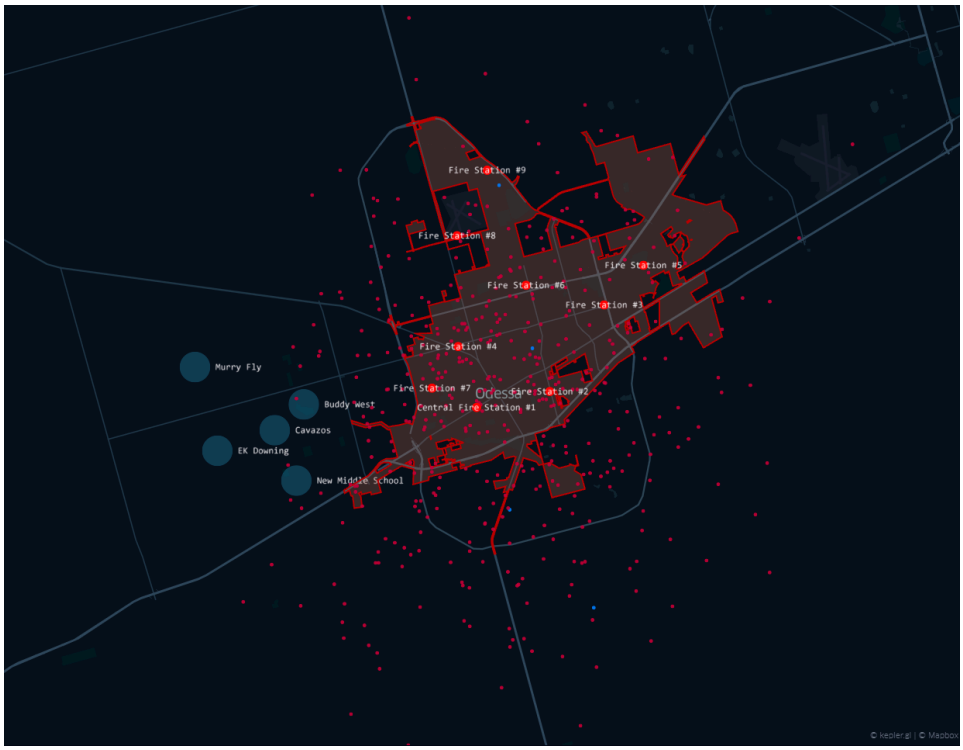
- Response from the closest station
- Avoiding apparatus duplication
- Quickly getting to the NFPA 1710 or NFPA 1720 staffing levels for a structure fire
- Sharing specialty services
- Increased availability of staff officers for ICS at major incidents
  Help with ISO class rating

One of the distinct advantages to automatic aid should be the ability to reach the required number of trained personnel under NFPA standards at an emergency scene more quickly, in part to assure overall firefighter safety.[7]

The 2024 Texas Panhandle wildfires exemplified this imbalance, with over $1 billion in economic losses partly attributed to poor coordination and resource sharing. Texas Intrastate Fire Mutual Aid System (TIFMAS)[8] deployed 11 strike teams with 189+ personnel, but the Texas House Investigative Committee found "ineffective air support, inadequate or flawed equipment, and poor communication" hampered the response.[9]



OFR +20 minute drive time(3 year snapshot)

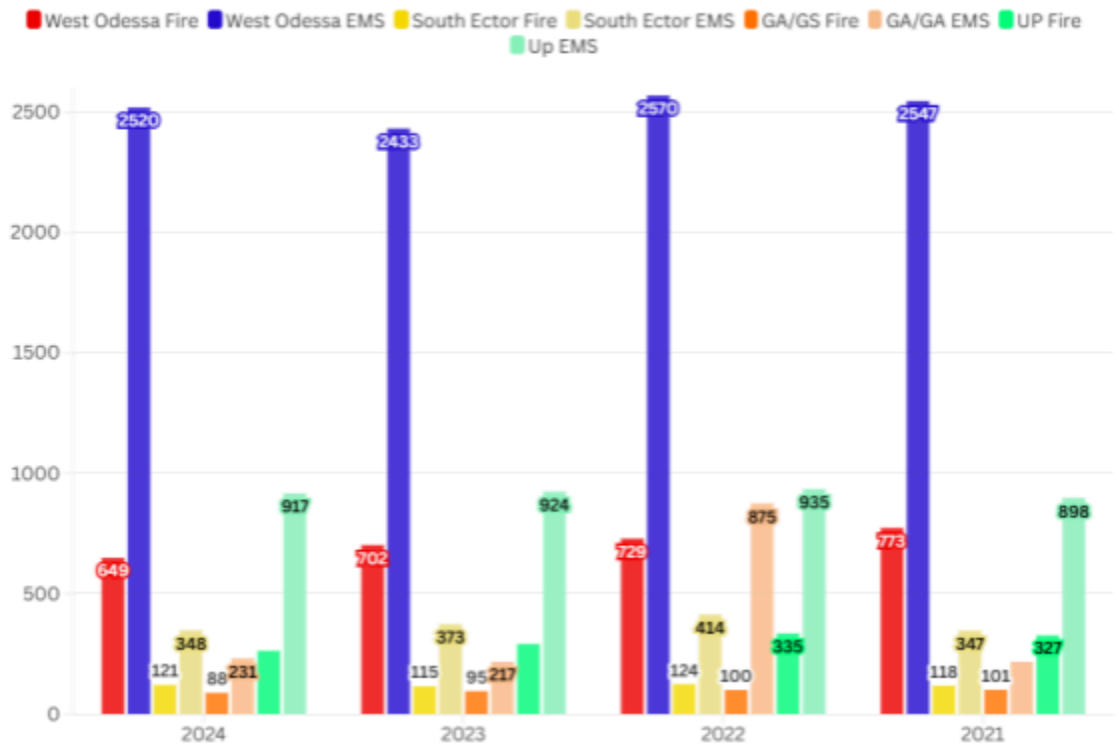


2023 Fire only response

Resource Allocation Inefficiencies Compound

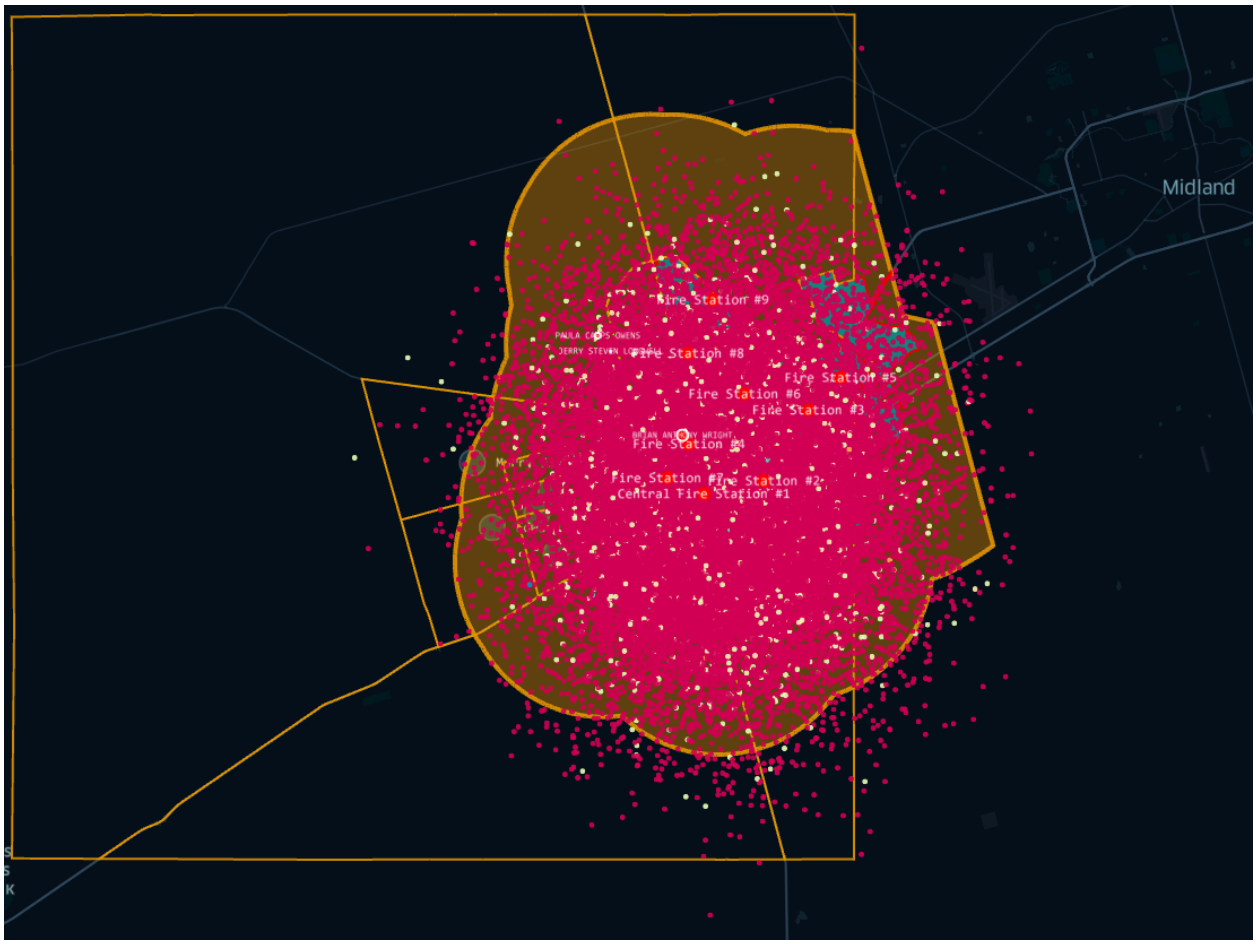
When mutual aid is denied between these districts, the fragmented system loses its cost-sharing advantages.[10] Departments without adequate mutual aid agreements experience 91% increases in "left without being seen" rates and 83% increases in admission processing times for emergency medical services, directly impacting community health outcomes and economic productivity.[11]

Texas ESDs are constitutionally limited to $0.10 per $100 property valuation, while facing property tax caps of 3.5% that make it difficult to keep pace with growing service demands.[12] The Mutual Aid Box Alarm System (MABAS), covering over 1,500 fire departments across multiple states, demonstrates how standardized agreements and resource sharing create economic efficiencies while maintaining service quality. MABAS member agency set an example, the community has the same agreement as the 1,175 other communities – all agreeing to voluntarily send pre-determined resources, without reservation, to assist a stricken community. Without a formal written mutual aid agreement (such as MABAS,) a request for mutual aid assistance becomes a legal quandary. A Fire Chief and his employing community sends resources at great risk should equipment be damaged or a firefighter is injured or killed in the line of duty.[13]



OFR resource allocation 2021-2024

Majority of calls are located in the city limits and ETJ with a high concentration on main roadways for accidents. The burden of the mutual aid for the area in the county outside of the ETJ is visually represented below and shows a low amount of calls compared to the large numbers within the new ESD area. New industrial developments near Hwy 866, such as data centers with high property values, would be forced to provide their own services which would exclude any potential property tax capture by the ESD due to lack of future foresight in planning for the growth of the county.



Conclusion

The economic evidence overwhelmingly demonstrates that denying mutual aid agreements in Texas creates quantifiable financial losses across multiple sectors. When these agreements are denied, the economic impacts cascade through increased insurance premiums, reduced property values, delayed emergency response, and ultimately threaten the sustainability of emergency services delivery across Texas. Maintaining robust, enforceable mutual aid agreements is not merely a public safety issue but an economic imperative for Texas communities.

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