SOMETHING IN COMMON

Exploring Fire and EMS Service Sharing Opportunities in the La Crosse County Region

WISCONSIN POLICY FORUM

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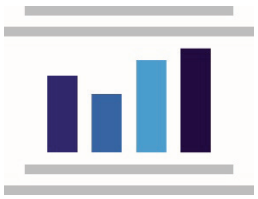
The Wisconsin Policy Forum was created on January 1, 2018, by the merger of the Milwaukee-based Public Policy Forum and the Madison-based Wisconsin Taxpayers Alliance. Throughout their lengthy histories, both organizations engaged in nonpartisan, independent research and civic education on fiscal and policy issues affecting state and local governments and school districts in Wisconsin. WPF is committed to those same activities and that spirit of nonpartisanship.

PREFACE AND ACKNOWLEDGMENTS

This report was undertaken to provide citizens and policymakers in La Crosse County and its surrounding region with information on the state of fire and EMS service provision across the region and options for collaboratively addressing future challenges. The intent was to lay out programmatic data, illustrate key challenges, and discuss options for improvement, but not to make recommendations on the future of fire and EMS services for individual communities.

Report authors would like to thank fire chiefs, public and private sector EMS directors, the county dispatch office, and county and municipal administrators for their assistance in providing information, and for patiently answering our questions.

In addition, we wish to acknowledge and thank La Crosse County and the La Crosse Area Planning Committee for jointly commissioning and underwriting much of the cost of this research; and the University of Wisconsin-La Crosse for funding and helping to organize preliminary planning meetings in the summer of 2019 that precipitated this study.



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INTRODUCTION

It is at times of crisis that citizens recognize more than ever the value of highly-functioning emergency response departments and systems. During such times, exemplified by the current COVID-19 pandemic, not only is it critical to have sufficient numbers of well-trained personnel and appropriate equipment, but the value of cooperation and coordination among neighboring public safety and health agencies also becomes more pronounced.

Even before the pandemic, efforts to explore enhanced service sharing and cooperation among regional fire and emergency medical services (EMS) providers were becoming more common in Wisconsin and across the nation. For example, the North Shore Fire Department in Milwaukee County has received national attention as an example of a highly successful consolidated fire department that has seen improved service at a lower cost since its creation in 1995. The South Shore Fire Department in Racine County and Western Lakes Fire District in Waukesha County also have demonstrated the benefits that can accrue from fire and rescue consolidation. Other communities have stopped short of consolidation but have developed strong mutual and automatic aid agreements among neighboring jurisdictions.

One reason for the increased attention to service sharing in Wisconsin is the strict property tax levy limits facing municipalities and the substantial share of municipal budgets devoted to fire and EMS services, which have threatened the ability of many communities to keep up with growing service demands. Yet, while service sharing may provide opportunities for fiscal savings from economies of scale, the Wisconsin Policy Forum has found that a more compelling rationale is the potential for municipalities to *enhance* service levels and keep up with capital needs at a cost that would be far lower than if they attempted to do so individually.

For smaller communities in particular, service sharing or consolidation may offer an opportunity to secure full-time fire and EMS service capacity for a price tag that would not be affordable if pursued independently. Meanwhile, for larger communities facing service expansion demands, such strategies may offer the opportunity to spread the cost of such expansion while providing a higher level of service across a broader geographic area.

La Crosse County and the La Crosse Area Planning Committee (LAPC) jointly commissioned this report to explore options for enhanced service sharing and consolidation of services among the various fire departments and EMS providers in La Crosse County, as well as in the neighboring city of La Crescent in Minnesota. The decision to do so followed two initial planning meetings of the LAPC that were sponsored and financially supported by the University of Wisconsin-La Crosse. At those meetings, municipal leaders and public and private sector fire and EMS officials were invited to discuss the need for such a project and its scope.

Subsequently, at the request of the county administrator, participants were asked to indicate whether they would like to participate in the study. Those that elected to do so comprise most of the municipal fire and EMS providers in the county and are listed below:

- City of La Crosse
- City of La Crescent
- City of Onalaska
- Village of Holmen
- Town of Farmington
- Town of Holland
- Town of Medary
- Town of Onalaska
- Town of Shelby
- Town of Washington
- Brice Prairie First Responders
- Tri-State Ambulance

The rationale for exploring fire and EMS service sharing and consolidation options in La Crosse County includes growing demands for service in parts of the region marked by increased development and population growth; challenges with current staffing models (including difficulty with recruitment and retention of paid-on-call firefighters); and a desire to consider cooperative approaches with regard to possible new stations or other service enhancements.

The analysis was conducted with the participation of administrators and fire chiefs from each of the participants and the county. In fact, while not endorsing any specific approach, the chiefs from the five participating fire departments met regularly with Forum researchers throughout the study process to share information and discuss operational details of various service sharing options.

In the pages that follow, we lay out the results of our analysis. It is important to note that its purpose was not to recommend a specific consolidation approach and implementation plan. Instead, we present a range of potential options and provide sufficient analysis to hopefully allow decision-makers to determine which (if any) should be considered for more detailed study and implementation.

CHARACTERISTICS OF THE PARTICIPATING MUNICIPALITIES

This section gives a brief overview of demographic characteristics of the study participants that are relevant to fire and EMS services. For some of our analysis, we also include the town of Campbell – which elected not to participate – in light of its proximity to the study participants; and the town of Greenfield, which is covered by the Shelby Fire Department.

The communities within the study area include urban areas, urbanizing areas, and areas that remain essentially rural. Generally speaking, population and employment are concentrated most heavily in the cities along the Mississippi river, in particular the city of La Crosse. New development is constrained in La Crosse since the city has less available land. Population growth is most pronounced in the northern parts of the study area, in particular around the village of Holmen.

General Demographic Characteristics

Table 1 shows population trends between 2010 and 2019. While population is highly concentrated in La Crosse, growth in the city has been slow in comparison with northern suburbs. Holmen, Onalaska, Farmington, and Holland have all experienced significant growth since 2010. With the exception of Greenfield, population growth in the southern part of the region has been slower.

Table 1: 2010-2019 population change by municipality*

Central Urban Area Municipality	2019 Population	2010 to 2019 Change	2010 to 2019 % Change
Holmen	10,204	1,749	20.8%
Onalaska	18,988	1,851	10.8
La Crosse	52,197	965	1.9%
La Crescent (MN)	5,107	277	5.7%
Surrounding Towns			
Farmington	2,119	338	20.3%
Holland	4,216	661	18.6%
Onalaska	5,816	262	4.7%
Medary	1,524	-255	-14.3%
Campbell	4,316	16	0.4%
La Crescent (MN)	1,115	-331	-22.9%
Shelby	4,750	50	1.1%
Greenfield	2,132	322	18.4%

Source: 2019 Population Estimates from WI DOA Municipality Final Population Estimates, 2018 Populations from MN DOA Population Finder for Cities and Townships, 2010 Census Estimates

* This table, like most others in this section, lists municipalities from north to south

As shown in **Table 2**, projections of population growth by the Wisconsin Department of Administration show that these trends are likely to continue, with growth rates of more than 25% in Holland,

Onalaska, and Holmen. Little to no growth is projected for La Crosse. Greenfield is also projected to experience more than a 25% increase in population.[1]

Table 2: Population projections

Central Urban Area Municipality	2019 Population	2040 Projection	% Change (2019 to 2040)
Holmen	10,204	13,400	31.3%
Onalaska	18,988	23,570	24.1%
La Crosse	52,197	51,850	-0.7%
Surrounding Towns			
Farmington	2,119	2,535	19.6%
Holland	4,216	5,500	30.5%
Onalaska	5,816	6,485	11.5%
Medary	1,524	1,630	7.0%
Campbell	4,316	4,315	0.0%
Shelby	4,750	4,665	-1.8%
Greenfield	2,132	2,715	27.3%

Source: 2019 Population Estimates from WI DOA Municipality Final Population Estimates, WI DOA Municipal Population Projections 2010 to 2040

Because the highest users of EMS services are people over the age of 65, **Table 3** shows the senior populations for each community. Again, there is some distinction between northern and southern parts of the region, with some northern municipalities showing lower percentages of citizens age 65 and older and some southern parts showing higher percentages. La Crosse has a relatively low senior citizen population at 13.5%, but the city also has a large college student population.

Table 3: Median age and population age 65+

Central Urban Area Municipality	2017 Total Population	65+	% 65+	Median Age
Holmen	9,693	1,082	11.2%	35.4
Onalaska	18,452	3,429	18.6%	41.5
La Crosse	51,928	6,987	13.5%	28.3
La Crescent	5,046	939	18.6%	40.6
Surrounding Towns				
Farmington	2,255	348	15.4%	38.3
Holland	3,804	405	10.6%	38.5
Onalaska	5,690	763	13.4%	41.9
Medary	1,589	307	19.3%	48.5
Campbell	4,370	851	19.5%	46.1
La Crescent	1,116	250	22.4%	53.5
Shelby	4,847	1,048	21.6%	47.8
Greenfield	2,087	317	15.2%	42.6

Source: US Census American Community Survey Age and Sex, 2017 5 YR Estimate

[1] We were unable to obtain population projections for Minnesota cities and towns so the city and town of La Crescent are not included in the table. Similarly, where the La Crescent communities are not included in subsequent tables it was because of an inability to secure the data in question for those municipalities.

Table 4 shows population projections for persons aged 65+ for all of La Crosse County. The senior population is projected to increase by almost 40% between 2020 and 2040 countywide.

Table 4: County age 65+ projections

Year	65+ Population Projection
2020	22,170
2025	25,950
2030	28,840
2035	30,370
2040	30,990
% Change 2010 - 2040	**39.78%**

Source: WI DOA County Age-Sex Population Projections 2010-2040 (2013)

Fire departments report that senior housing facilities can account for a large proportion of EMS calls. **Table 5** details the number of senior housing facilities, including residential care facilities and apartment complexes, in each of the municipalities.[2] La Crosse has the most nursing homes and other senior residences while Onalaska also houses a high number of other senior residences.

Table 5: Senior facilities by municipality

Municipality	Nursing Homes	Other Senior Residences	Total Beds[3]
Holmen	0	5	161
City of Onalaska	1	12	502
La Crosse	4	15	883
City of La Crescent	1	2	N/A

Source: WI DHS, MDH

Relevant Housing and Other Characteristics

The prevalence of higher density housing, such as apartment buildings, also impacts how fire protection services are organized. **Table 6** shows the number of residential buildings in each community that exceed both three and 20 units. La Crosse, as home to three higher education institutions,[4] has a significantly larger percentage of multi-unit housing. Outside of the central urban area, prevalence of multi-unit housing is very low, with the exception of Campbell.

[2] Municipalities not listed do not have either nursing homes or other senior residences in their municipality.
[3] Minnesota Department of Health (MDH) does not keep record of total beds in nursing homes and senior residences like WI DHS
[4] The University of Wisconsin-La Crosse has about 10,600 enrollees, Western Technical College has about 4,000, and Viterbo University has about 2,700.

Table 6: Housing units by municipality

Central Urban Area Municipality	Estimated Total Units	3 to 19 units	20 + Units	Total: 3+	3+ Units as a % of Total
Holmen	3,819	439	144	583	15.3%
Onalaska	8,255	956	673	1,629	19.7%
La Crosse	22,405	3,992	3,504	7,496	33.5%
La Crescent	2,244	321	39	360	16.0%
Surrounding Towns					
Farmington	891	13	6	19	2.1%
Holland	1,294	0	0	0	0.0%
Onalaska	2,071	26	0	26	1.3%
Medary	663	0	0	0	0.0%
Campbell	2,132	400	34	434	20.4%
La Crescent	472	0	0	0	0.0%
Shelby	2,215	30	0	30	1.4%
Greenfield	802	3	10	13	1.6%

Source: US Census: American Community Survey, House Characteristics - Units in Structure 5 - Year Estimates 2017

Commercial buildings also can present unique challenges in terms of fire protection. **Table 7** shows commercial property value as a percentage of each community's total assessed value to give a sense of the relative presence of commercial properties in each municipality. Commercial development is concentrated in the central urban area, especially in La Crosse and the city of Onalaska. La Crosse, as the commercial core of the region, particularly faces unique challenges in needing to be prepared to provide services to large daytime populations.

The table also shows per capita assessed value, which can be an indicator of ability to pay for public services such as fire and EMS protection. Many of the surrounding towns have much higher per capita assessed values than the municipalities in the central urban area, including La Crosse.

Table 7: Commercial assessed value by municipality

Central Urban Area Municipality	Total Assessed Value	Commercial % of Total Assessed Value	Per Capita AV
Holmen	$ 771,084,100	21.9%	$ 75,567
Onalaska	$ 2,098,305,900	32.6%	$ 110,507
La Crosse	$ 4,022,713,300	38.4%	$ 77,068
Total	**$ 6,892,103,300**	**34.8%**	**$ 84,681**
Surrounding Towns			
Farmington	$ 186,316,700	1.4%	$ 87,927
Holland	$ 445,156,900	2.1%	$ 105,588
Onalaska	$ 617,582,600	5.7%	$ 106,187
Medary	$ 185,765,400	5.0%	$ 121,893
Campbell	$ 355,848,700	15.0%	$ 82,449
Shelby	$ 465,787,900	4.6%	$98,061
Greenfield	$ 182,691,100	3.3%	$ 85,690
Total	**$ 2,439,149,300**	**5.6%**	**$ 98,064**

Source: Wisconsin DOR Equalized Value 2019, WI DOA Municipality Final Population Estimates 2019

Finally, our discussions with fire chiefs revealed that manufactured homes (i.e. homes that are typically built in factories and transported to a site as opposed to on a permanent foundation) can be a high source of fire and EMS calls for service in light of their high population density. **Table 8** shows that manufactured homes parks are found in almost all of the municipalities in the study area but are particularly concentrated in areas served by the Holmen Area Fire Department. Shelby and Greenfield, which are both served by the Shelby Fire Department, also have a higher concentration of manufactured housing.

Table 8: Manufactured homes and home parks

Central Urban Area Municipality	Manufactured Home Parks	Total Homes
Holmen	6	470
Onalaska	5	417
La Crosse	4	325
Surrounding Towns		
Farmington	1	10
Holland	1	87
Onalaska	0	0
Medary	1	25
Campbell	2	58
Shelby	4	268
Greenfield	2	144

Summary

This brief review of demographic and other indicators shows patterns that are somewhat typical of a region with a dominant central city, in this case La Crosse, as well as surrounding suburbs and outlying rural areas. La Crosse is characterized by higher population and housing densities and by a concentration of commercial activity. The location of the University of Wisconsin-La Crosse, Western Technical College, and Viterbo University within the city – as well as the Mayo and Gundersen health systems – also contributes to its central role in the region.

As a more mature urban area, growth in La Crosse is not a significant factor in terms of future fire and EMS services. The suburban or urbanizing areas, particularly in the north, are where population growth has been concentrated and where it is projected to continue to occur over the next two decades.

The study area also includes places that could be characterized as rural, such as Farmington, La Crescent, and Shelby, which have markedly different demographic profiles of older, wealthier residents and much lower population densities.

OVERVIEW OF PARTICIPATING AGENCIES

The eight agencies that participated in the study include five fire departments, two EMS-only nonprofit agencies, and a private ambulance company. "Snapshot" descriptions of each of the agencies can be found in **Appendix I**.

The five fire departments range from a large department in La Crosse that is comprised entirely of full-time "career" employees to fire departments that rely exclusively on volunteers who are paid on an hourly basis or via stipend. The fire departments are responsible for fire suppression, prevention, inspection, special rescue, and other fire services, as well as first responder emergency medical services (EMS).

Two of the agencies (in Brice Prairie and Farmington) only provide EMS first response while a third -- Tri-State Ambulance -- is a private nonprofit agency (and subsidiary of Gundersen Health System) that contracts with municipalities through the Joint City/County Emergency Medical Services Commission to provide paramedic-level response and ambulance transport. Departments that provide EMS first response typically use individuals who are licensed as Emergency Medical Responders (EMRs) or basic Emergency Medical Technicians (EMTs), while agencies providing advanced life support (ALS) services typically use licensed Advanced EMTs (AEMTs) or paramedics (see text box on p. 12 for description of various types of licensed EMS staff).

Table 10 provides an overview of the types and variety of agencies that are included in this study,[5] while **Map 1** shows where their stations are located. The volunteer fire departments from Campbell, Bangor Burns, Farmington, West Salem, and Coon Valley and EMS-only agencies from Campbell, Bangor, Coon Valley, and West Salem elected not to participate.

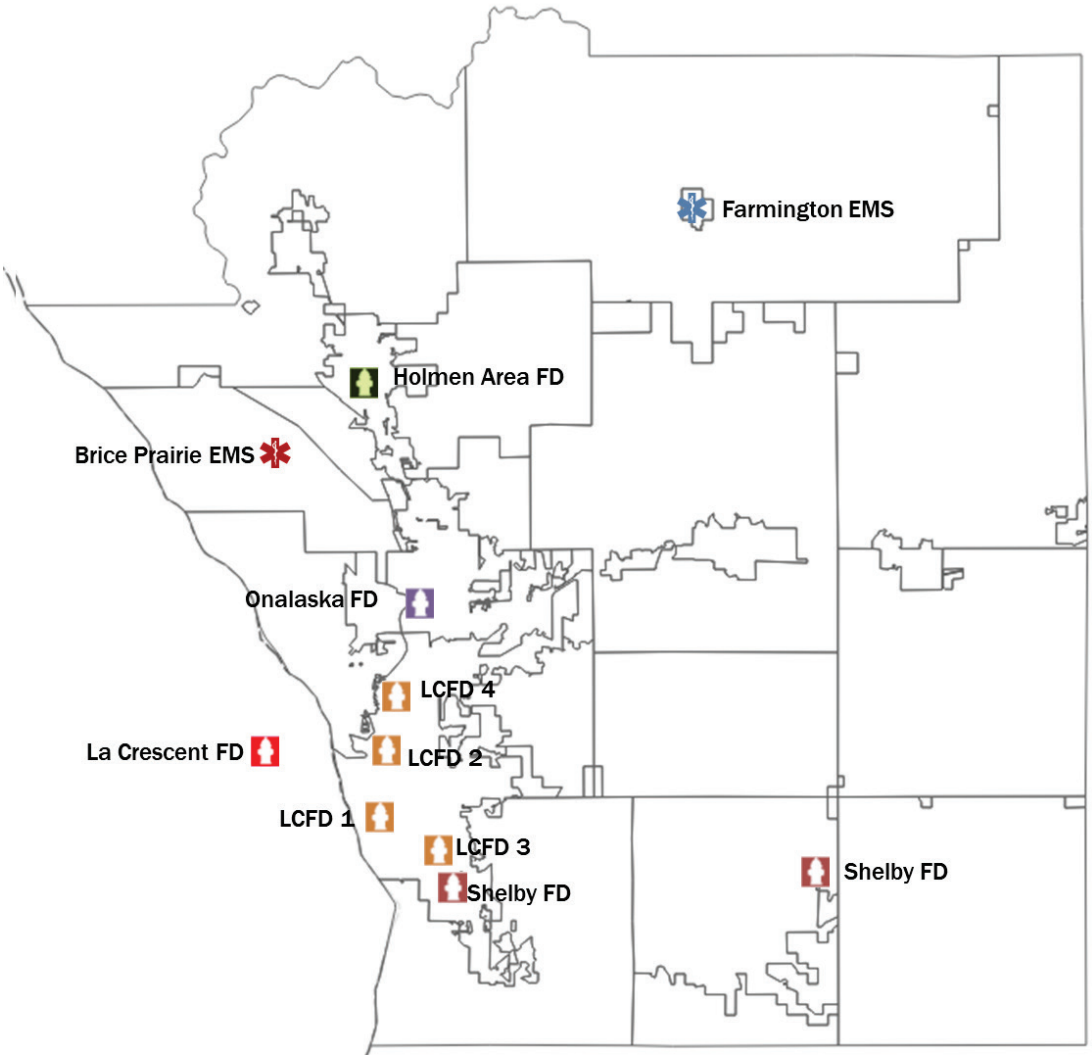
Table 10: Department and agency characteristics

Department/Agency	Type	Staffing	EMS/Fire
La Crosse City Fire	Municipal Dept.	Career	Fire/First response ALS
Onalaska City Fire	Municipal Dept.	Career and PT	Fire/First response EMT
Shelby Fire	Municipal Dept.	POC	Fire/First response EMR
Holmen Area Fire	Independent District	Career and PT	Fire/First response EMR*
City of La Crescent Fire	Municipal Dept.	POC	Fire/First response EMR
Brice Prairie EMS	Nonprofit	Volunteer	First response EMR
Farmington Emergency Medical Team	Nonprofit	Volunteer	First response EMR*
Tri-State Ambulance	Nonprofit	Career and PT	ALS and transport for entire county

* The Holmen Area and Farmington departments are transitioning from EMR to EMT

[5] The source for this and all subsequent tables and charts (unless otherwise noted) is information provided directly by the departments in our survey instrument or publicly available information obtained from their websites.

Map1: Station Locations



The map shows that La Crosse is served by four stations,[6] the Shelby area (consisting of both the towns of Shelby and Greenfield) is served by two, and the other three fire departments operate out of one station. Given the size of the geographic area served by the Holmen Area Fire Department (which includes the village of Holmen, town of Holland, and part of the town of Onalaska) and population growth in the northern part of its service area, officials have acknowledged that a second station may need to be considered. Meanwhile, La Crosse has already initiated planning for a fifth station in the southern part of the city and both La Crosse and Onalaska have cited a possible need

[6] There is also a station at the La Crosse Regional Airport that exists solely to serve the airport. In 2019, an agreement was reached to have the La Crosse FD take over emergency response by staffing the station with one firefighter/EMT. The airport station has one fire and rescue vehicle that can pump water and foam. Also, La Crosse provides service under contract to the town of Medary.

to consider an additional station in the Valley View area in the northern part of La Crosse or southern part of Onalaska (with potential to develop a shared station).

As seen in **Table 10**, there is a variation in staffing models between the agencies in this study. La Crosse is a career department with 98 full-time equivalent employees (FTEs) who staff an average of 25 shifts each day at four stations. La Crosse also is the only municipal department licensed to provide paramedic-level EMS. Onalaska and Holmen are combination departments, meaning they employ some career staff but also use staff paid on an hourly basis.

EMS LICENSE LEVELS

Emergency Medical Responder - EMRs are trained to provide non-invasive first aid. This includes clearing airways manually, CPR, controlling bleeding, and taking vital signs. EMRs are trained in the use of portable defibrillator devices.

Emergency Medical Technician-Basic - in addition to all of the skills of an EMR, EMT-Bs are trained to perform more invasive medical skills such as tracheotomies, and in the use of tourniquets and cervical collars. They are also able to administer oxygen and can provide more types of medications, including Narcan for opioid overdoses.

Advanced EMT - all of the skills of EMT-B, and in addition they can start an IV and can administer a wider range of medications.

Paramedic - all of the skills of Advanced EMT with the addition of invasive procedures such as using a needle for chest decompression and intubation. Paramedics are also able to administer the widest variety of medications.

Source: WI EMS Scope of Practice, Wisconsin Department of Health Services

Part-time staff can either serve as paid-on-call (POC), which means they are called in from their home or workplace when needed for a response and paid on an hourly basis; or paid-on-premise (POP), which means they are part-time, hourly employees but work out of a station as part of a regular shift. Shelby and La Crescent operate almost entirely with POC staff. Brice Prairie and Farmington EMS are staffed with part-time volunteers who do not receive pay.

Table 11 provides additional details on the staffing levels and composition of each department. The size of the POC roster is important for those who rely on this model, and particularly for those that are facing rising call volumes. Both Shelby and La Crescent have large rosters, which position them well for the future, but other departments reported recruitment challenges. This is an issue faced by many departments in Wisconsin in light of low unemployment levels (prior to the pandemic) and other workforce and demographic factors. Risks related to COVID-19 may also have reduced the pool of volunteers.

The table also reveals the relatively low staffing level of the Holmen Area Fire Department. As we will discuss below, that department is facing a sharp increase in call volumes and now fields about two thirds as many calls annually as the Onalaska department but has less than half of its FTEs.

In its La Crosse market, Tri-State staffs six ambulances during the day with two staff each and has two back-up ambulances available. Between 10 PM and 6 AM there are four ambulances in service and one paramedic supervisor in an SUV for paramedic support. Tri-State also provides inter-facility transport in La Crosse County. Non-emergency transports represent a significant source of revenue for Tri-State which helps to subsidize the cost of EMS response.

Table 11: Department staffing

Department	Total FTE	POC Roster
Holmen FD	8.3	15
Onalaska FD	17.7	18
La Crosse FD	98.0	N/A
Shelby FD	2.3	43
La Crescent FD	2.3	27
Farmington EMS		17
Brice Prairie EMS		12
Tri-State Ambulance*	42	NA

*Some employees work for more than one department; this is seen especially between Tri-State and the La Crosse FD.

It is important to recognize that there is no "right" or "wrong" staffing model, and each of the staffing models employed in La Crosse County may be perfectly suited to the particular community based on the needs and expectations of its residents. Whether career or part-time, each of these agencies responds to calls for emergency medical services and provides competent response under medical direction. Each of the fire departments also uses modern equipment to suppress all types of fires and provides regular training in both fire and EMS protocols. Although response times and some protocols may vary, no model is correct in all circumstances.

In the next section, we provide more detail on how the agencies included in this study conduct their operations and pay for them.

SERVICE CHARACTERISTICS, EQUIPMENT, AND BUDGETS

In this section, we provide a more detailed look at the fire and EMS services provided by each of the participating departments by examining call volumes, response times, operating frameworks, apparatus, and budgets. This additional detail provides important insight into the similarities and differences between various departments that may suggest opportunities or barriers to enhanced service sharing. It also reveals various weaknesses or strengths that may impact future decision-making on the need for capacity-building and collaboration.

Calls for service

Table 12 shows total 2019 calls for service, while also breaking out EMS calls. For the five fire departments that provide both fire protection and EMS, EMS calls account for 73% of total calls.

Table 12: 2019 calls for service

	Total Calls	EMS Calls	Average Calls/Day
La Crosse FD	6,837	4,837	18.7
Onalaska FD	1,553	1,197	4.3
Holmen FD	1,057	779	2.9
Shelby FD	330	237	0.9
La Crescent FD	400	375	1.1
Farmington EMT	97	97	0.3
Brice Prairie EMT	97	70	0.3
Tri-State	9,116	9,116	25.0

Note: The data for Onalaska are from 2018. Also, the Tri-State calls are those originating through 911 in the study area.

As would be expected, La Crosse has the largest total call volume among the fire and EMS departments and accounts for about two thirds of public sector first responder calls in the study area. Tri-State responds to an average of 25 calls per day; its total "double counts" calls shown for the public sector agencies, as Tri-State responds to every EMS call in conjunction with municipal providers and is the only provider of ambulance transport.

Consideration of the number of calls per day helps explain the range of different staffing models across jurisdictions. In areas with less than one call per day, there would not be a financial justification for having two EMTs or fire crews available 24 hours per day, which means that a POC model may be reasonable and appropriate. Similarly, while city or suburban residents may expect an ambulance to arrive within five or six minutes, residents of rural areas residents may recognize that calls are infrequent and may find lengthier response times from a POC framework more acceptable.

But as call volumes increase, relying on POC response may result in staff burnout, response to pages may wane, and staff turnover may increase. As an interim measure, a fire department or EMS agency may consider staffing regular shifts using POP employees. Some municipalities with a low but growing call volume also have found ways to combine EMS response with other jobs such as police officers (village of Palmyra) or public works employees (village of Bristol).

Table 13 shows that calls for service in the study area increased by about 15% from 2016-2019. There are several possible reasons for the increase, including population growth in the northern part of the study area. In La Crescent, a more important factor is likely the aging population. Fire chiefs also noted that there is more of a tendency among all population groups to call 911 for minor injuries and to use hospital emergency rooms for basic health care.

Table 13: Calls for service trends, 2016 to 2019

	2016 CFS	2019 CFS	% Change
Holmen FD	825	1,057	28.1%
Onalaska FD	1,458	1,596	9.5%
La Crosse FD	6,009	6,837	13.8%
Shelby FD	305	330	8.2%
La Crescent FD	310	400	29.0%
Farmington EMS	75	97	29.3%
Brice Prairie EMS	60	71	18.3%
Tri-State EMS	8,520	9,810	15.1%

Notes: Onalaska FD data is for 2015 through 2018. Also, the town of Medary switched to contracting with La Crosse from Onalaska/Shelby in 2018, reducing calls for those departments and increasing total calls for La Crosse.

Table 14 shows some differences between departments in terms of per capita calls. Given that persons over age 65 tend to have the highest utilization of EMS, it is not surprising that La Crescent and Onalaska, both with more than 18% of their population over that age, have higher call rates. La Crosse, however, has a relatively low percentage of older residents and by far the highest rate of calls for service. One explanation may be the city's concentration of senior living facilities, which can generate a very high number of calls. La Crosse also has higher residential density and a variety of income levels, both of which are correlated with higher fire and EMS utilization. Finally, because La Crosse is an employment center, it has a higher daytime population than surrounding areas.

Table 14: EMS calls for service per 1,000 population*

	CFS/1,000 population
Holmen FD	39.6
Onalaska FD	68.1
La Crosse FD	94.6
Shelby FD	35.6
La Crescent FD	53.8
Farmington EMS	36.9
Brice Prairie EMS	35.5
Tri-State EMS	84.8

* Per capita calculations for this and future tables use estimated service area populations for each department and do not necessarily reflect municipal populations.

The calls for service per 1,000 population figures for Tri-State are an average across the entire study area. Tri-State rates by municipality show a similar variation to that of first responders, particularly a higher rate of calls for service in La Crosse in comparison with outlying areas.

Finally, it is important to note that the difference in the rate of calls for service may be partially related to the way in which the data were reported. Some departments, for example, may have included cancelled calls or false alarms, while others did not.

How the departments respond

Outside of the city of La Crosse, a typical EMS response in La Crosse County is two-tiered. Calls for EMS are received by the county dispatch center, which dispatches first responders and then transfers the call to Tri-State. Tri-State triages the call and dispatches an ambulance. When appropriate, Tri-State dispatchers may also offer emergency medical dispatch (EMD), with trained dispatchers providing medical instructions to the caller at the scene. More specifically:

- First responders, generally at the EMR level, arrive at the scene to provide basic life support such as controlling bleeding, CPR, assisting someone who has fallen, etc.
- First responders are followed by the arrival of an advanced life support (ALS) ambulance from Tri-State, which is generally staffed with a combination of EMTs and paramedics, but at least one paramedic. Tri-State personnel can then take over patient care and if necessary they can provide higher-level ALS services.
- Once a patient is stabilized, first responders are released back to their station. Tri-State estimates that the average time on an EMS call for first responders is 30 minutes. Tri-State then transports the patient to the hospital, if necessary. Depending on the location of the incident, transport can mean that a Tri-State ambulance is unavailable for up to 90 minutes.

There are several advantages of the two-tiered EMS system. One is that fire department personnel and apparatus are not required to transport patients, allowing for lower staffing levels. Another is that the level of EMS care is standardized across most of the region and Tri-State coordinates training and medical direction for first responders.[7] Finally, the contract with Tri-State relieves first responders from the need to provide paramedic-level services, which would require an investment both on the part of employees to obtain that level of training and departments in terms of increased wages and training costs for paramedic-level employees.

Arguably, a disadvantage of the two-tiered system is that it potentially uses more resources since two agencies and four individuals (two from the municipal first responder and two from Tri-State) respond to EMS calls. For career fire departments that provide paramedic-level services, an EMS response generally involve both an engine and an ambulance; however, depending on the type and severity of the injury, the response may involve only two people and one vehicle. It is also worth noting that under the current model, reimbursement revenue for transports from Medicaid,

[7] Tri-State coordinates continuing education training, but not training to receive the initial license.

Medicare, or private insurance goes entirely to Tri-State (though it still does not fully offset the cost of those calls), which leaves the departments with no revenue offset for first response services.

The two-tiered system also has created some specific challenges for the career department in La Crosse, which found it was losing employees to career departments in other counties that offered opportunities to develop and maintain skills as paramedics. As a result, Tri-State and the La Crosse FD have collaborated on a joint response model.

Thirteen paramedics who are employed by La Crosse FD also work voluntarily for Tri-State for 24 hours/month. They receive training through Tri-State and are certified by the same medical director. Because training and protocols are shared, if a La Crosse paramedic arrives first at the scene, he or she can begin paramedic-level response. When Tri-State arrives, patient care is seamlessly transferred from the La Crosse paramedic to Tri-State paramedics. This collaboration has benefitted the La Crosse FD because it supports a paramedic program for the department's career firefighters, while Tri-State benefits because La Crosse FD paramedics working part-time for Tri-State support its staffing needs.

It is worth noting that only a minority of EMS calls require ALS interventions. Consequently, one disadvantage of having too many paramedics in an area is that it decreases the number of calls that each paramedic handles each year, which diminishes opportunities for paramedics to maintain their skills. Tri-State management also notes that while ALS response is crucial to a small number of cases, the vast majority of patients are better served with appropriate BLS interventions within the first five minutes of an incident.

Fire response requires a much larger contingent of personnel than EMS response. For a typical house fire, a minimum response according to national standards is 16 firefighters and at least one ambulance. The La Crosse FD is the only department in the study area that can mount an immediate fire response with on-duty crews. For the other departments, a complete fire response will not begin until POC staff and/or firefighters from neighboring municipalities are on the scene. Smaller fires, such as car fires or dumpster fires, may be handled with a single engine and a lower number of staff.

Response times

Response times are an important measure of level of service. In terms of EMS, the National Fire Protection Association (NFPA) identifies a first response standard of five minutes or less for BLS calls (from dispatch to arrival on the scene) for 90% of responses for career departments. The standard for ALS calls is nine minutes. For departments relying on part-time staff or in rural areas, lengthier average response times are expected. In the minority of cases where an ALS response is required, such as for strokes or cardiac events, receiving ALS services in a timely manner may truly be the difference between life and death. In terms of fires, a quicker response time means an enhanced ability to protect life and property.

Response times have two main components:

- Turnout time, or the time it takes to get into a truck ready to leave the station in full gear (for fire response). For POC departments, report time to the station must also be factored into turnout time.

- Travel time, or the time to get from the station to the incident. Travel time is a function of the geographic size of the overall service area and station locations.

Other components of response times are the dispatch call processing time and, in the case of major fires, the total effective response force arrival (i.e. the time it takes for the full cadre of firefighters required to respond to house or major structure fires to arrive on the scene).

Departments that have firefighting and first response staff working out of stations on shifts obviously are able to respond more quickly than departments that must call in part-time staff to respond. **Table 15** shows typical shift staffing (i.e. the number of non-command firefighters typically on duty at the station at any point in time) at the stations managed by La Crosse FD, Onalaska FD, and Holmen Area FD, which are the only stations that maintain regular shifts. **Table 16** shows average total response times for first responders as reported by the departments and agencies, which include both turnout time and travel time. [8]

Table 15: Shift staffing by station

Station	EMS Level	Shifts/Typical No. of Individuals on Duty
La Crosse FD 1	Paramedic	10
La Crosse FD 2	Paramedic	6
La Crosse FD 3	Paramedic	5
La Crosse FD 4	Paramedic	4
Onalaska	EMT	4
Holmen Area*	EMR	1
Shelby	EMR	
La Crescent	EMR	
Brice Prairie	EMR	
Farmington	EMR	
Tri-State - EMS paramedic	Patrol near areas of high demand	10

*The Holmen Area FD has two individuals at its station each day working 12-hour shifts (from 6 AM to 6 PM), so that adds up to one total shift. At night there are no staff working shifts.

[8] For further context, the Wisconsin Department of Health Services produced a report showing total and average response times for EMS agencies across the state in 2015. That report indicates that the average EMS response time across all agencies for 2016 (measured as the time from dispatch to arrival on the scene) was 8 minutes and 6 seconds. Also, in 2017, the American Medical Association compiled EMS response times for 485 agencies across the U.S. (totaling 1.8 million 911 transport calls). It found that suburban areas with populations of 2,500 to 50,000 average 7.7 minutes from dispatch to arrival on scene. Rural areas with populations of less than 2,500 average 14.5 minutes.

Table 16: First responder average response times for first unit on scene

	EMS Response Time	Fire Response Time
Holmen FD	10:27	10:27
Onalaska FD[9]	5:52	7:40
La Crosse FD	4:08	4:13
Shelby FD	10:34	10:34
La Crescent FD	8:00	10:00
Farmington EMS	8.14	NA
Brice Prairie EMS	8.58	NA

La Crosse FD's average response times of under 4:15 reflect both the number of staff working on shifts at any given time and the number of fire stations in the city. As described above, before engaging with a significant fire such as a structure fire, a department needs to have a minimum of 14 to 16 firefighters at the scene. La Crosse FD is the only department that is able not only to respond to an incident, which marks the arrival of the first piece of apparatus, but also to mount an effective response force on its own and within a quick time frame.

The Holmen Area FD's higher average response times when compared to Onalaska are a function, in part, of its very large service area and its limited shift staffing. To reduce response times significantly, it is likely that the department would need to construct a second station and increase staffing significantly.

Because Shelby, La Crescent, Farmington EMS, and Brice Prairie EMS use primarily POC or volunteer staff, their 8- to 10-minute total average response times are considered good. Shelby's average response times would not be possible without two stations given the size of its response area.

Tri-State staff generally are not waiting in a station but are deployed in ambulances throughout the service area, so its response times involve only travel time. As shown in **Table 17**, Tri-State's average response times in 2019 ranged from about six minutes in Zone 1 to more than 15 minutes in Zone 4. Zone 1 is comprised of the city of La Crosse; Zone 2 includes the city of Onalaska, town of Shelby, and town of Campbell; Zone 3 includes the villages of Holmen and West Salem and the towns of Medary and Onalaska; and Zone 4 includes all other municipalities.

[9] Onalaska's average response times reflect calls in which there was not a delay for turnout (i.e. a crew was at the station and ready to respond).

Table 17: 2019 Tri-State average response times in La Crosse County

Coverage Area	Average Response Time
Zone 1	6:02
Zone 2	7:32
Zone 3	9:51
Zone 4	15:37

Source: Tri-State Ambulance

Comparison of response times in these zones suggests that first responders typically (but not always) arrive first at the scene and begin BLS services to stabilize a patient. In Zones 3 and 4 in particular, with an average Tri-State response of nearly 10 to more than 15 minutes, first responders have a greater responsibility for patient survival. However, in the case of a serious incident, such as a multiple-injury car accident, Tri-State would be able to send a paramedic intercept or even a helicopter transport.

ISO Ratings

ISO ratings are a widely referenced indicator of fire department service capacity and quality. ISO is the Insurance Services Office, an organization that provides information about property/casualty insurance risk to the insurance industry. The rating system used by the ISO includes items like staffing, equipment/apparatus, geographic distribution of resources, training, and water supply.

ISO ratings are based on a scale of one to 10, with a rating of one indicating superior service capacity, and a rating of 10 indicating failure to meet ISO's minimum criteria. The La Crosse FD's most recent ISO rating is two, Onalaska's is three, and the Holmen Area, Shelby, and La Crescent departments have ratings of four. For purposes of comparison, we recently found that only 21% of fire departments in the state have been awarded an ISO rating of four or better.

Mutual aid

While each department typically is able to handle the workload of an average day, multiple calls at one time or a single major incident may require more resources than a single department can muster, which requires them to rely on neighboring departments for "mutual aid" assistance. Mutual aid allows for efficient deployment of resources because departments can staff to their average workload instead of needing to staff for catastrophic incidents or peak workloads.

Mutual aid can take many forms. Wisconsin has a formalized system of mutual aid used by fire departments statewide called the Mutual Aid Box Alarm System (MABAS). Under this system, there are formal structures in place that govern the dispatch of neighboring departments depending on the type of incident. While MABAS generally is used to respond to major incidents, departments also make frequent use of other mutual aid on a less formal basis, including having neighboring departments stand by for assistance if a second call comes in when their resources are being utilized for an initial call. Some neighboring departments also have "automatic aid" agreements under which both are simultaneously dispatched to respond to certain calls in either jurisdiction.

Mutual aid is important to all departments regardless of their size. However, in an area with a large disparity in resources, a system of mutual aid can tap larger career departments more than smaller departments with part-time staffing models, raising concerns about equity and funding.

Discussions with the fire chiefs suggest that use of mutual aid in La Crosse County is not as extensive as we have observed in other regions. One reason may be that the smaller departments seem to prize their independence and their ability to manage calls within their service areas. As the largest department with the most available resources at any given time of day, the La Crosse FD does provide some mutual aid support to the Onalaska, Shelby, and Holmen area departments. Even so, La Crosse reported that mutual aid accounted for only 15 calls in 2019, which is negligible in comparison with its 6,837 total calls that year.

Holmen Area FD, with the lowest number of FTEs relative to call volume, is a more frequent user of mutual aid and the MABAS system. Given that the department only staffs with two persons per shift, when the crew is called out the station is not manned. In such situations, the chief first calls for POC staff to backfill the station, but the availability of POC staff for daytime response can be variable. Consequently, in some cases, the Holmen Area FD does rely on mutual aid to cover the station.

Equipment and budgets

Each of the agencies is well supplied with apparatus, as shown in **Table 18**. Several chiefs noted that between all of the departments there is an oversupply of ladder trucks and it is clear that each department has more apparatus than can be staffed at any one time. However, chiefs did make the case that when staffing is limited, having the right piece of apparatus can affect the success of the response.

Table 18: Station apparatus

	Fire Engine	Brush	Tender	Quint/Ladder	Rescue	Command	Total
Holmen	2	1	1	1	1	1	**7**
Onalaska	3	1	1	1	2	1	**9**
La Crosse 4	1			1		0	**2**
La Crosse 2	1		1	1	1	1	**5**
La Crosse 1	2			1	1	3	**7**
La Crosse 3				1	1	0	**2**
Shelby/GR 1	2				1	1	**4**
Shelby/GR 2	1					1	**2**
La Crescent	3	1	1		1		**6**

Department budgets

There is a wide divergence among the five fire departments with regard to annual operating expenditures, as shown in **Table 19**. La Crosse spends nearly $10.5 million annually to support its large full-time department, while the small, part-time departments in Shelby and La Crescent spend only a fraction of that amount. The table also reveals the substantial growth in costs experienced by the Holmen area and Onalaska departments over the past four years as call volumes have increased and service models have been adjusted in response to that growth.

Table 19: Operating expenditures per department, 2016-2020

Total Operating Expenditures	2016 Actual	2020 Budget	% Change (2016 - 2020)
La Crosse FD	**$10,033,886**	**$10,516,532**	**3.8%**
Personnel	$9,541,108	$10,030,961	4.1%
Non-personnel	$492,778	$485,571	-1.5%
Holmen Area FD	**$447,364**	**$753,350**	**68.4%**
Personnel	$358,444	$639,100	78.3%
Non-personnel	$88,921	$114,250	28.5%
Onalaska FD	**$1,257,917**	**$1,709,446**	**35.9%**
Personnel	$1,172,015	$1,615,166	37.8%
Non-personnel	$85,902	$94,280	9.8%
Shelby FD	**$168,925**	**$169,500**	**0.3%**
Personnel	$128,179	$114,200	-10.9%
Non-personnel	$40,746	$55,300	35.7%
La Crescent FD	**$232,927**	**$250,060**	**7.36%**
Personnel	$80,509	$94,860	17.83%
Non-personnel	$152,418	$155,200	1.83%

Several chiefs described the three larger La Crosse County departments as being on a continuum. They commented that the Holmen area department is where Onalaska found itself several years ago in terms of its need for increased resources to maintain acceptable service levels. Onalaska, meanwhile, has already met that initial need but is now looking to respond to growing demand by gradually increasing shifts and moving closer to the career staffing model used in La Crosse.

The expenditure trends shown in the table seem to bear out that description. While the Holmen Area FD still maintains a lower budget than Onalaska and La Crosse, it has seen expenditure growth of 68% since 2016. Of that total, $100,000 of the increase relates to benefits, reflecting a transition from POP or POC employees to more regular full-time staffing. Onalaska's large increase in personnel expenditures also is related to greater use of career staff.

Chart 1 provides additional perspective by showing 2020 budgeted operating costs for the five fire departments on a per capita basis. While not shown in the figure, Tri-State's cost per capita is $35.53, although that cost is entirely funded with ambulance revenues and does not require support from the property tax levy.

Chart 1: 2020 per capita expenditures by department

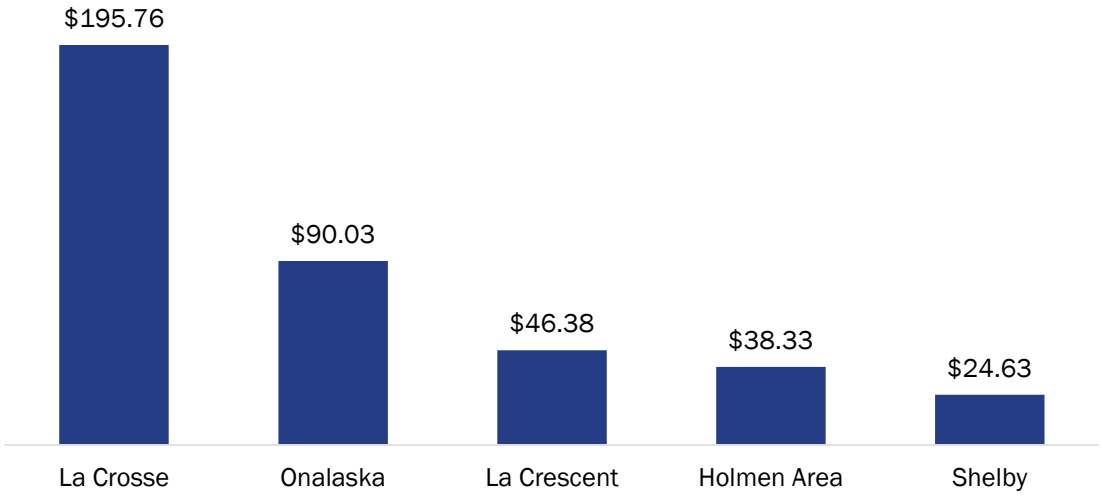


Table 20 shows capital expenditures for the five departments from 2016-2020. Capital budgets include major station repairs or replacement (but not minor maintenance), as well as major vehicle/equipment purchases. Capital costs often are financed with general obligation bonds or other forms of borrowing.

Unlike operating costs, capital expenditures vary considerably from year to year depending on whether vehicle purchases or major station-related projects are planned for that year. One way to "smooth out" variations in capital spending is to look at actual total capital spending over the four years. That analysis shows that capital expenditures represent a significant expense. In fact, on a per capita basis, capital expenses are larger than operating expenses for the Holmen area and Shelby departments. This comparison shows that fire apparatus is an expensive and fixed cost no matter the size of a fire district. In departments with smaller service populations, per capita capital investments in fire apparatus and equipment can be significant.

Table 20: Capital expenditures per department, 2016-2020

FD Capital Exp	2016 Actual	2017 Actual	2018 Actual	2019 Actual/ Projected	2020 Budget	2016-2019 Total	Total Per Capita
La Crosse FD[10]	$327,837	$1,897,944	$614,016	$1,007,419	$4,634,995	$3,847,220	$71.61
Holmen Area FD	$57,901	$153,933	$1,043,661	$102,613	$149,538	$1,358,108	$68.09
Onalaska FD	$26,967	$605,505	$52,757	$124,619	$1,257,385	$809,848	$42.65
Shelby FD	$0	$0	$0	$635,897	$14,777	$635,897	$92.40

Summary

Our data collection and interviews with chiefs and other key informants reveal that the agencies in this study vary widely in terms of their service models, staffing, and operating budgets. There also

[10] Capital costs for the La Crosse FD in 2019 and 2020 reflect funding for a new fire station in the southern part of the city.

are clear differences in demand for both fire and EMS service between the urban and urbanizing areas and more rural parts of the region. La Crosse is clearly the "big brother" of the region, both in terms of calls for service and overall resources.

Despite these differences in service models and service expansion needs, we have identified a handful of key issues that affect each of the study participants and that may benefit from collective planning and coordination as departments seek to resolve them:

- The **Holmen Area FD is in a period of transition because of growing call volumes and development**, which has required increases in spending and staffing that will need to continue or even escalate. Despite the large increase in operating expenditures since 2016, this department has the lowest staffing relative to calls for service and covers a large geographic area. How the Holmen Area FD responds to this challenge could impact other departments, either positively by providing opportunities for greater mutual aid support; or negatively by requiring the department to seek greater mutual aid from its neighbors.

- We observe **lower levels of mutual aid** than we have seen in other regions, and our stakeholder interviews suggest this may be partly due to longstanding political disagreements, which limit requests for assistance or may cause departments to request aid from a department that is not the closest or best able to provide it. La Crosse, with 25 shifts around the clock, is in the best position to provide mutual aid to surrounding departments when called upon, but growth in the region is projected to occur relatively far from that department in the north. Still, enhancements to the mutual aid framework used by the departments – and potential extension to concepts like "closest unit response" or automatic aid – could address some service challenges and benefit the entire county.

- The two-tiered response used for EMS by the municipal departments and independent EMS agencies in conjunction with Tri-State appears to work well, though **there may be an overuse of EMS resources in La Crosse. In addition, response times in Zones 3 and 4 for Tri-State are lengthy**, which puts added pressure on first responders.

- The smaller departments and EMS agencies appear to be functioning well and managing calls within their service areas. Shelby and La Crescent have healthy rosters of POC employees, but we also heard that **recruitment is growing more difficult for all departments**. This problem is common to many fire departments throughout the state as younger generations react to changing economic conditions, family pressures, etc. Whatever its cause, recruiting POC staff may become more difficult at the same time that call volumes are increasing.

- While several departments face operating budget challenges, **there appears to be an overabundance of apparatus** for the region as a whole. This suggests possible opportunities for shared services on the capital side that may free up resources on the operating side. We have also noted that the investment in apparatus in some of the smaller departments is quite large on a per capita basis, mainly because the cost of required apparatus is spread over a much smaller service population.

- Each of the three large departments in the western part of the county has cited the **potential need for a new station or stations to meet increasing service demands** and Shelby has cited the need for significant repairs or replacement of its western station. This suggests an opportunity to join forces to plan for new station development and possible sharing and joint staffing of stations after they are built.

In the following sections of this report, we will discuss possible opportunities for the participating agencies and departments to collaborate to address the challenges noted above. The fire and EMS providers covered by this study have some specific advantages that suggest considerable potential to use enhanced service sharing as a strategy to address these challenges collectively and improve service levels throughout the region, including the following:

- All of the agencies are dispatched by La Crosse County. Consolidated dispatch is a prerequisite for significant service sharing or even implementing a "closest unit response" framework under which the closest engine or ambulance will respond to a call regardless of geographic boundaries. Also, as noted above, Tri-State performs "emergency medical dispatch" services throughout the county, which means that 911 calls involving medical emergencies can be transferred to a medical professional who provides medical instructions to a patient or others on the scene before the first responder arrives.

- Department leaders understand the benefits that could be gained through greater coordination and are committed to moving past historical impediments to service sharing. Certain service sharing arrangements are already in place and could be built upon, including the La Crosse FD's contractual arrangement to provide vehicle maintenance services to the Holmen Area FD and regular meetings of training officers from the various departments.

- The municipal departments' joint contract with Tri-State allows for paramedic response to all areas of the county and unified medical direction and training opportunities. While there are differences in response between the city of La Crosse and outlying areas, Tri-State has brought consistency to EMS and is a cornerstone of coordination that is already in place.

In terms of challenges to further service sharing, one that stands out immediately is the wide variation between departments in terms of staffing models and funding. Some of these differences stem from variations between urban, urbanizing, and rural areas. Service sharing initiatives, such as joint training or sharing of apparatus, require a degree of standardization which may not provide equal benefits to all departments.

Variations in per capita operating expenditures also present an obstacle to service sharing. La Crosse taxpayers fund a higher level of service in their city and should not be expected to subsidize improved response in other jurisdictions or vastly enhanced levels of mutual aid; at the same time, other jurisdictions may be largely satisfied with their service levels and may not wish to pay more to achieve a level of service that more closely approximates that of La Crosse.

Finally, we would be remiss not to mention the effect of the COVID-19 pandemic on fire and EMS services. The effects noted so far have been a temporary reduction in EMS calls along with the need for greater attention to infection prevention. Longer-term effects are unknown at this time but should be considered as part of any future service sharing and planning discussions.

OPTIONS FOR CHANGE

As discussed in the preceding pages, while there are no glaring red flags with regard to the current level and quality of fire and EMS services provided to residents in the La Crosse County region, several challenges have emerged. In particular, a common challenge for each of the participants is the need to manage ongoing budgetary pressures while, at the same time, determining ways to address growing call volumes and continued new development.

This section considers both service sharing and consolidation options that may allow the study participants to grapple with their challenges in a manner that would be less expensive and more effective than if they attempted to do so individually. None of these options are mutually exclusive, and they could be pursued progressively over time from smaller-scale initiatives which could create a stronger basis for collaboration to more in-depth service sharing initiatives over the longer term.

The first tier of service coordination, and the easiest to implement, involves support functions that are common to all fire/EMS agencies, such as training, recruitment, and fire prevention. An example of functional service sharing that is already occurring is a contractual agreement under which the La Crosse FD handles vehicle maintenance for the Holmen Area and La Crescent departments.

A more ambitious level of cooperation involves options relating to collaborative fire or EMS response. Those options can range from formalizing arrangements for mutual aid to more advanced forms of cooperative response that could include automatic aid agreements or a “closest unit response” framework.

Finally, a third tier of options relates to sharing stations or staff or contracting or consolidation between two or more departments. While we do not detect strong interest by some of the participating agencies in consolidation options at this time, we felt it was important to include them given the growing challenges in the region and the possibility that local officials might be more open to them in the future.

Tier 1: Enhanced Functional Service Sharing

There are several options to improve existing service sharing arrangements between departments and to forge additional collaboration around specific support functions that are common to each. Typical support functions that could be shared include training, recruitment and retention, and EMS case management, among others.

Joint Training

While training is a requirement for any job, for fire and EMS professionals it can be a matter of life and death for both the providers themselves and the public. Training is an ongoing and essential function for all departments, and joint training between departments is important preparation for the major incidents that require multiple agencies to work together on the scene.

In La Crosse County, training officers already meet regularly and some joint training does occur. However, common obstacles are the difficulty involved with scheduling training sessions for part-time staff, many of whom have jobs during the day and family matters to attend to at night; and the need to pay for staff to backfill stations when those scheduled for regular shifts must take time away for training. Another obstacle noted by the Holmen Area chief is that the travel time between Holmen and La Crosse's training facility is 35 to 45 minutes. A joint training solution may need to include a more centrally located facility, or possibly the addition of a northern La Crosse training facility.

Tier 1: Enhanced Functional Service Sharing Options

Option	Description
Joint Training	1. La Crosse coordinates training for region 2. Tri-State enhances & coordinates EMS training 3. Create joint training bureau
Joint Recruitment & Retention	Departments with part-time staff recruit jointly & standardize pay and advancement opportunities.
EMS Case Management	Departments jointly pay for EMS case managers to proactively serve frequent 911 callers.
Other	Build on La Crosse-Holmen Area vehicle maintenance arrangement and explore applying to prevention, inspections, investigations.

Some possibilities for collaboratively addressing these common challenges include:

- **La Crosse takes the training lead**. La Crosse already owns a training facility (which is shared for some training) and it has established a strong training program which could be extended to all departments in the region. This approach would allow all departments to access La Crosse's training facility (instead of having to travel to Sparta for some training) and it would relieve smaller departments from having to dedicate staff to training administration. Some financial participation by those departments likely would be appropriate to help maintain the training facility and pay for extra training staff hours in La Crosse, but all departments would benefit from having staff dedicated solely to training, as well as an assurance that all personnel across the region are trained to the same standards and protocols. While different training needs and scheduling obstacles among the different departments may still pose barriers to this approach, it is certainly possible that training staff housed in the La Crosse FD could design programming and scheduling that would meet the needs of both La Crosse and the smaller departments.

- **Tri- State provides enhanced EMS training**. Gundersen Health System, in conjunction with its subsidiary, Tri-State Ambulance, already plays a large role in training personnel across the region for EMS first response and in many respects already provides county-wide coordinated training in this area. That role could possibly be expanded even more to include cross-credentialing of AEMTs and paramedics in Zones 2 through 4 similar to the practice currently used in La Crosse. This would create a larger pool of responders who might be able to respond to a scene more quickly than Tri-State and improve ALS response times in those communities.

- **Regional training bureau** The most comprehensive option for joint training would be the creation of a regional training bureau that would operate similarly to the La Crosse option outlined above but with independent staff and a regional training facility that would be governed by all of the departments jointly. This may be more politically palatable to the other departments than having

the La Crosse FD administer training, and it may also benefit La Crosse by allowing it to dedicate its training staff to other needs. It is possible that Western Technical College could be contracted to house and coordinate such a bureau and training facility. This approach likely would require a significant annual investment, which could be shared proportionally by the participating departments based on factors like population, property values, and calls for service. Once the cost was determined, each jurisdiction would need to decide for itself whether it would be justified by the potential benefits.

Joint Recruitment and Retention Strategies

All of the departments cited recruitment and retention of qualified staff as an ongoing challenge. Smaller departments are especially challenged, as it was noted that recruits may start their career in such departments but then leave for larger departments with more opportunities for advancement and better training. POC employees may also pursue additional EMS licenses and look to larger departments that offer them a greater opportunity to use their skills.

The departments that rely on POC staff could establish joint human resources strategies that would involve standardizing POC pay rates and joint recruiting for part-time staff, who could be assigned POP shifts based on departmental vacancies and needs. The participating departments also could consider jointly paying for recruitment incentives like subsidizing the cost of training required for advanced EMS licenses. Any implementation of joint recruitment would require all departments to agree on minimum employment standards, such as physical fitness exams, training requirements, and certification and licensing standards.

On the retention front, many chiefs noted that the people most likely to stay are those who already have roots in the community. A retention program that identifies more options for advancement between departments may help keep employees in the region, although it could facilitate transfers between departments.

EMS case management

EMS providers across the country are increasingly using EMS staff to proactively serve heavy users of 911 services and hospital ERs. Also known as “community paramedicine,” this approach involves using paramedics to perform a range of services outside of emergency care, such as:

- providing or connecting patients to primary care services
- completing post-hospital follow-up care
- providing health education programs
- helping patients integrate with local health care systems and providers

The city of Greenfield in Milwaukee County is an example of a combined fire/EMS department that has hired a case management officer to conduct such follow-up to reduce service calls among heavy users, as well as to conduct educational activities aimed at promoting health and safety and discouraging 911 calls for non-emergency medical issues. An EMS case manager or case managers also could work more closely with senior facilities to reduce usage by those facilities.

One or more departments may wish to consider jointly funding one or more case management positions to cover multiple jurisdictions on a regional or countywide level. Similar to the training officer, case management staff could be housed in one of the participating agencies with the cost shared by all.[11]

Other Functional Service Sharing

Vehicle maintenance, fire prevention and education, fire inspections, and investigations also are functions that could be unified and provided regionally. This could occur either by housing the service in one of the existing departments and having others chip in for the cost, or grouping all of these functions together into a jointly funded freestanding administrative bureau (which also could handle training and recruitment).

Similar to training and recruitment, the calculus for each department would be whether paying another department or a jointly-funded entity to perform the function would produce a higher level of service than the department could realistically effectuate itself. If so, then key questions are whether outsourcing the service would actually reduce costs by freeing up internal resources or allowing for the elimination of positions. In most smaller departments, fire prevention and inspection are jobs taken on by shift staff who also respond to calls, so removing those duties would not equate to a reduction in staffing costs.

An example of the potential benefit of service sharing for support functions is a vehicle maintenance arrangement that the Holmen Area FD has entered into with the La Crosse FD. La Crosse had excess capacity that it could devote to Holmen Area FD vehicles and it now performs maintenance on those vehicles and bills the Holmen Area FD for its service (a similar agreement exists for La Crescent). This produces a small revenue stream that the La Crosse FD can use to offset other costs. In the meantime, the Holmen Area FD is able to avoid hiring vehicle maintenance staff or using existing staff who would have to be pulled away from other duties or who may not have the expertise of the La Crosse mechanics.

Tier 2: Enhanced Coordination of Operations

Collaboration with regard to support functions may improve the ability of individual departments to meet common challenges, gain efficiency, and work more cohesively when engaged in a joint response. However, if the goal is to improve service quality and response times, then a higher level of service sharing options involving operational coordination should be considered.

Operational coordination options address how departments respond to a call and operate at a scene. While they do offer potential benefits in terms of response, these options also may entail extra financial cost and involve an investment of time in planning and preparation.

[11] Some EMS case management already exists in the region via Gundersen Health System's use of two hospital-based community paramedics to perform follow-up with high utilizers.

Improved Mutual Aid

Tier 2: Enhanced Coordination of Operations Options

Option	Description
Improved Mutual Aid	Formalize mutual aid agreements and practices to enhance cohesion and effectiveness; consider automatic aid, change of quarters, closest unit response as part of such agreements.
Work with Tri-State to Improve EMS Response	Departments outside of La Crosse work jointly with Tri-State to improve first response times and ALS response in Zones 2,3,4.
Share Apparatus	Develop service sharing agreements to share ladder trucks, tenders/tankers, back-up equipment.

As noted in the previous section, mutual aid in the study region does not function as cohesively as it does in other regions we have examined. While the MABAS framework works well for large structure fires or other major incidents, there could be improvements in the use of mutual aid for minor incidents or during times of heavy call volumes.

The most notable issue that was conveyed to us anecdotally is that calls for mutual aid do not always involve the nearest and most appropriate department. For example, while the La Crosse FD has the capacity to play a larger role in providing mutual aid to smaller departments, we were told by several of our interviewees that La Crosse often is not asked to assist. Some cited longstanding political tension between the city and its suburbs as the cause, while others cited concern among smaller departments that if dispatched to a scene in their community simultaneously, La Crosse would arrive first despite the longer travel time because it does not have to call in POC staff to respond.

All of the chiefs agreed that this is far from an ideal circumstance and that further discussion and agreement on more formal and/or enhanced mutual aid practices and procedures would benefit the region. Such formalization and enhancement could take many forms, including the following:

- Automatic aid, where two or more departments are dispatched automatically for a structure fire or major incident.
- Change of quarters, in which an adjacent department covers empty stations when crews are responding to a call.
- Closest unit response, in which the closest and most appropriate unit is dispatched to an incident without regard to service area boundaries.
- Paramedic directive, which designates the highest level of EMS responder, whether an AEMT or paramedic, to lead at the scene, regardless of service area boundaries.

It is important to note that most of these options would require investment in upgraded dispatch equipment and technology at the La Crosse County Public Safety Communications Center. For example, the communications center does not currently possess the computer-aided dispatch (CAD) technology to track the activities of each department and determine when one is sufficiently busy to trigger an automatic call for back-up. The county already is in the midst of pursuing dispatch technology improvements but this process may need to be expedited and enhanced if some of the more advanced forms of operational collaboration are pursued. County leaders may also wish to collaborate with Tri-State on such improvements, as Tri-State already possesses its own dispatching capacity that allows it to utilize a closest unit response framework.

Questions also could arise regarding reimbursement under certain forms of enhanced mutual aid and response. As noted above, the La Crosse FD could play a more prominent role in backing up smaller departments or may be able to respond to incidents in other jurisdictions more quickly given its full-time status, but it also pays far more per capita for that level of service than each of the surrounding communities. Consequently, any agreement in which La Crosse would play a much bigger role in mutual aid may need to consider some type of cost sharing. Shared costs might be palatable if departments receiving enhanced mutual aid from La Crosse are thereby able to avoid investments in extra capacity that they would otherwise have to make.

Identifying the resources to pay for dispatch improvements and reconciling cost sharing issues would be challenges, but we have reported on formalized mutual aid arrangements in other parts of the state. For example, in Jefferson County, a pending agreement between the city of Watertown and villages of Lake Mills and Johnson Creek stipulates the following cooperative activities between the three fire departments:

- The departments agree to jointly respond (when available) to any structure fires within their collective service area.

- In the event that one department's resources are temporarily depleted (either because existing units are deployed or it is experiencing an equipment failure or other challenge), that department can request a neighboring department to send apparatus and staff or to otherwise be available to respond to a new incident.

- The departments agree "to work together to facilitate other forms of providing shared services, including joint staffing, shared equipment, community risk analysis, creation of standard operating procedures, and joint training, administration, fire prevention and education."

While the agreement has not yet been effectuated among the three fire departments, and while not all of its provisions may be appropriate for the La Crosse area departments, it could serve as a model for the study participants.

Improved EMS Response

Our data collection and interviews revealed a need to consider strategies to improve EMS first response times in some parts of the region (including the northern part served by the Holmen Area FD and the eastern part of Onalaska's service area). Also, some chiefs expressed concerns about Tri-State's ability to respond soon enough to ALS calls in certain parts of the study area, particularly during times of high call volumes. While enhanced mutual aid (as described above) could address these issues to some extent, continued discussion regarding EMS response times is recommended.

Beefing up EMS first response times in the Holmen area and Onalaska likely would require additional full-time staff at those departments and/or new stations. To help offset those increased costs, some stakeholders suggested that consideration be given to allowing those fire departments to take over some or all ambulance transports from Tri-State as a means of generating patient revenue, as there are no revenue offsets for first response activities they currently conduct. That possibility had

previously been the subject of discussion between Tri-State and the La Crosse FD, but the two parties instead agreed on the joint paramedic staffing arrangement that currently exists.

While ambulance transport revenue would provide some fiscal benefit to fire departments in the region, the loss of that revenue could prompt Tri-State to discontinue operations there, which would create the need for all of the departments (including Shelby and La Crescent) either to add paramedic-level staff or contract with another department for ALS services. Also, neither the Onalaska nor Holmen Area departments are currently licensed at the paramedic level, and upgrading to ALS would involve additional costs besides simply adding personnel.

This is not to say that there should not be continued operational review with Tri-State aimed at improving both first and paramedic-level responses. As noted earlier in this report, efforts to lower response times in Zones 2, 3, and 4 appear warranted, and it may be fruitful for Tri-State and the departments to consider ways that they could coordinate and perhaps jointly expand resources to generate such improvement. It may also be beneficial for the Onalaska and Holmen Area departments to discuss with Tri-State an agreement similar to the one it has with the La Crosse FD involving cross-trained paramedics who work for both entities. This could potentially improve paramedic-level first response in those jurisdictions and help the two departments with recruitment and retention by providing career opportunities for interested personnel.

Shared Apparatus

As noted earlier in this report, the chiefs acknowledge that collectively, there are more vehicles in the region than would be required if it were served by one consolidated department. Indeed, given that most structure fires outside of the city of La Crosse require mutual aid because of the relatively low staffing levels of the other departments, there should not be a need for each department to maintain its own full complement of engines and trucks. However, as individual departments, each has continued to purchase a wide range of vehicles so as not to be dependent on others. ISO ratings also depend to some extent on the size and variety of fire equipment, and that may be another reason for some duplication of vehicles within the county.

To address this situation, departments could enter into formal agreements to share specific vehicles or to borrow back-up vehicles from one another when mechanical problems arise and a vehicle is out of service. It is possible that a regional pool of back-up vehicles also could be created and jointly funded so that individual departments would not have to maintain back-ups themselves.

Tier 3: Advanced Options

The final set of options we present for consideration would involve a higher level of collaboration and sharing than the first two sets. Perhaps more consequential, they may require a decision by one or more municipalities to give up some or all of their independence and contract with a larger neighboring department or join a consolidated department.

Tier 3: Advanced Options

Option	Description
Station Sharing	Existing and potential new stations are shared by one or more communities to reduce staffing and/or construction costs and encourage new contracting arrangements.
Consolidation Through Contracting	The heavily-resourced La Crosse FD would provide fire and first response service under contract to Shelby, Greenfield, and La Crescent, thus reducing the number of departments from five to three.
Consolidated Department	A single consolidated department would replace the five departments, which would function under the governance of a board of directors formed by the participating municipalities.

We acknowledge that none of the study participants expressed an immediate desire to disband their individual departments and join forces with others. However, most agreed that such action may need to be contemplated within the next few years as financial and staffing challenges intensify, and that it would be worthwhile to identify consolidation options so that informed consideration might occur – if not now, then in the future.

Station Sharing

As noted in previous sections, several departments are considering new stations, including La Crosse (which is considering two), Onalaska, and the Holmen Area FD. In addition, Shelby has cited a need to replace its western station in the not-too-distant future.

While communities typically consider new stations to respond to increased call volumes created by new development or other factors, they seldom consider an alternative option of tapping into a neighboring community's station as a slightly less effective but far less costly option for serving new economic growth; or perhaps teaming up with a neighboring community to share the cost of building and staffing a new station that could be constructed near their mutual border.

Consideration of station sharing also may be logical given that station locations within a region may have made sense when the stations were first built, but development and population patterns may have reduced that sensibility over time. That appears true in the La Crosse region, where there is little question that if the current chiefs were to plot ideal station locations on a map for the region as a whole, then they would not be located where they are today.

For example, Station 3 in southern La Crosse and Station 1 in western Shelby are spaced far more closely together than would be appropriate if each municipality was not handling its own fire and EMS operations. Stations at the regional airport and Campbell also are located in close proximity. The desire of the current departments to maintain their independence dictates that that these close-by stations will continue to exist, but station sharing may at least be worthy of consideration.

While station sharing is not common, it does exist in Racine County, where the South Shore and Caledonia departments share a station staffed with 24-hour shifts of three firefighters apiece on the

border of Mount Pleasant and Caledonia. A prime advantage is that each is able to maintain its independence. However, as a result, each feels it necessary to maintain three shifts (for a total of six) despite the fact that call volumes likely would justify only four.

Other options for station sharing also exist. For example, two departments could combine forces and apparatus and respond to calls jointly from a shared station; or one of the departments can be tapped to serve the entire radius covered by the station regardless of municipal boundaries.

We believe there is considerable potential for station sharing in the La Crosse area that the individual departments could pursue if each wishes to maintain its independence. Below we cite a handful of possibilities.

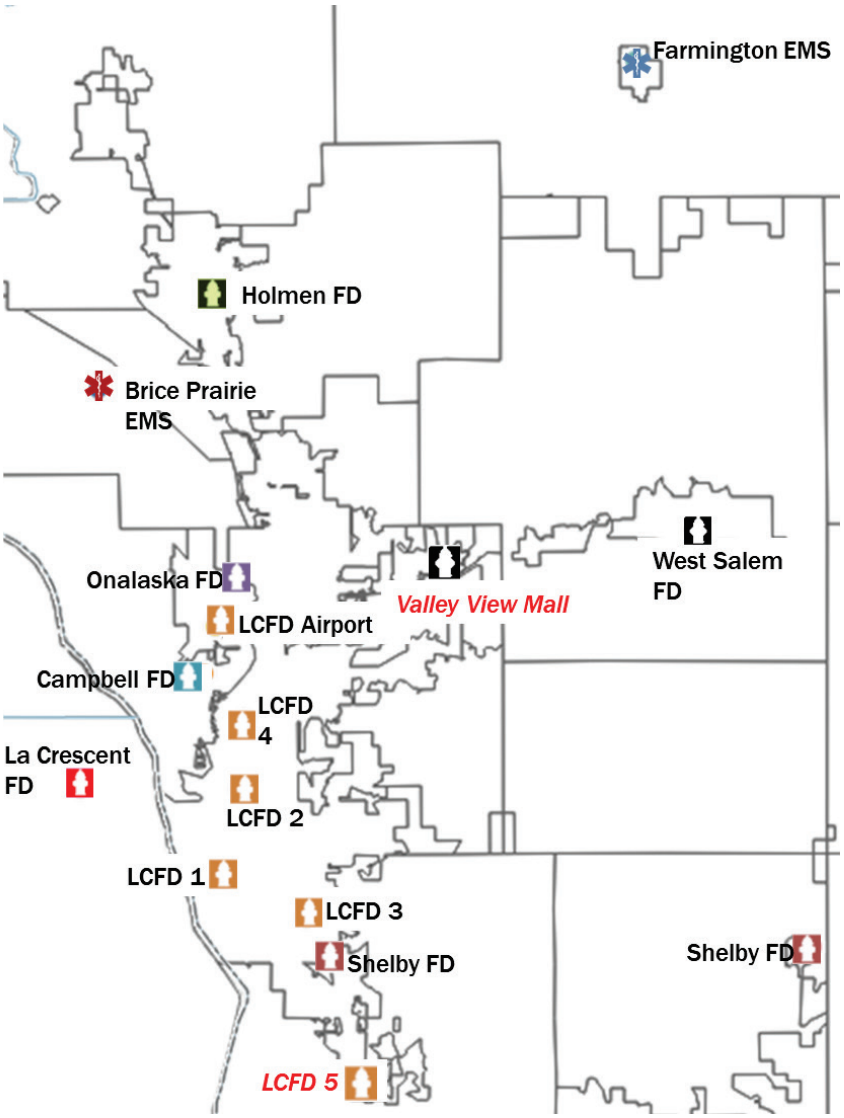
- **New station in the Valley View area**. Both La Crosse and Onalaska have cited the need for a new station in the area near the Valley View Mall (shown in **Map 2** on the following page) in light of increased call volumes on each side of the municipal border. Tri-State often locates an ambulance in that area and has also discussed a new station there. The town of Medary – which currently contracts for fire and rescue service with the La Crosse FD – also could see improved response times from such a station and West Salem could be approached about having some or all of its service area covered by a new station in this area.

  Under a scenario in which a new Valley View station is shared between the La Crosse and Onalaska FDs, construction costs for the two departments could be split and they potentially could share contractual payments from smaller communities. Depending on the staffing arrangement and the possible inclusion of a Tri-State ambulance, a shared station also could dramatically reduce personnel and apparatus costs (compared to the cost of two individual stations) while improving both BLS and ALS response. It is also worth noting that difficulties often associated with site selection and acquisition could be alleviated, as Onalaska has identified a site in the vicinity for a new municipal facility that could possibility include a fire house as well as space for law enforcement and public works.

- **New station to serve southern La Crosse and Shelby**. La Crosse has already initiated planning for a new Station 5 in the southern part of the city to improve response times in that area (also shown in **Map 2**). At the same time, Shelby has cited the need for major repairs or replacement of its western station, which is in close proximity to La Crosse's Station 3. With a new Station 5, La Crosse could absorb call volume for much of Shelby's service area using both that station and Station 3, potentially setting the stage for a contractual arrangement between Shelby and La Crosse that would negate the need for replacement or rehabilitation of Shelby's station.

  Conversely, the two departments could jointly staff Stations 3 and/or 5 and cover calls in their own jurisdictions, though that may not make sense given that Shelby would need to call in POC staff to respond to incidents while La Crosse staff would already be at the stations and ready to respond. A third option would be for Shelby to move forward with replacement or rehabilitation of its western station and have that station be jointly staffed to serve the southern part of La Crosse, thus eliminating the need either for Station 3 or a new Station 5.

Map 2: Existing and possible new stations in La Crosse region



- **Station sharing between the Holmen Area FD and Tri-State.** Tri State currently staffs an ambulance station in the town of Onalaska that has room for a fire engine. The Holmen Area FD could explore the possibility of housing an engine and potentially a three-person shift at that station (with either full-time or POP staff or a combination). A joint staffing arrangement for paramedics similar to the one that currently exists between La Crosse and Tri-State also could be explored for that station.

- **Sharing of La Crosse Regional Airport station.** The small fire station located at the regional airport currently houses one vehicle and a single firefighter/EMT. According to the La Crosse chief, with some capital investment it could accommodate a two-person ambulance crew or a four-person engine company in addition to the current position. While La Crosse does not currently have sufficient call volume in the vicinity of the airport to justify taking that step on its own, such

expansion could make sense if it also served parts of Onalaska and Campbell, as can be seen in **Map 2**. Such an option could involve station sharing or an arrangement under which La Crosse would staff the station and serve parts of Onalaska and Campbell on a contractual basis.

Consolidated Service Through Contracting

Building off the station sharing possibilities described above, one option for consolidated service in the southern end of the study area would be for La Crosse to contract with Shelby, Greenfield, and La Crescent to provide fire and first response EMS. While they chose not to participate in this study, West Salem and Campbell also could logically be included in such an arrangement.

In terms of fire response, a contractual arrangement may be logical given that any structure fire outside of the city of La Crosse already requires mutual aid in order to assemble the required staff to fight the fire. In many cases, La Crosse FD engines are already responding to these larger fires.

In regard to EMS response, **Table 21** shows that rough travel times between the nearest La Crosse station and the adjacent municipalities of Shelby, La Crescent, and Campbell are reasonable. In fact, it's possible that the full-time La Crosse FD could respond as fast or faster than any of those municipalities' departments in light of their use of a POC model. Greenfield would likely be too geographically distant for La Crosse to serve from its existing stations, however.

Table 21: Approximate travel times from La Crosse stations to neighboring jurisdictions

Travel scenario	Approx. travel time
La Crosse Station 1 to La Crescent FD	8 minutes
La Crosse Station 2 to Campbell	7 minutes
La Crosse Station 3 to Shelby Town Hall	3 minutes
La Crosse Station 3 to Greenfield	15 minutes

La Crosse officials would need to consider call volumes in relation to each of their existing stations to determine their capacity to serve the adjacent communities. If additional call volumes could be absorbed without adding substantial staff to existing stations or without needing to staff stations in adjacent communities, then the added cost to serve these areas would be minimal. That, in turn, could allow La Crosse to hold down the cost of any contractual charge to the communities it would add. In fact, while contractual terms obviously would need to be negotiated, it is possible that La Crosse could charge an amount that is comparable to the cost currently being incurred by each community (particularly if amortized capital costs are included). This would create a "win-win" by providing a higher level of service to those communities at little or no added cost while providing new revenue streams for La Crosse.

It may be determined, however, that the existing stations in Shelby, Greenfield, Campbell, and La Crescent still would need to be staffed in order to appropriately serve those areas. In that case, La Crosse could add shifts to those stations, which would benefit the affected communities by giving them the presence of full-time, career staff at their stations. However, given that the cost of a 24-

hour shift is approximately $350,000,[12] such a move may not be deemed affordable. A far less costly option would be for La Crosse to build its own POC roster to staff those stations, which could allow existing POC staff from the smaller communities to be re-hired by the La Crosse FD.

Departmental Consolidation

The final "advanced" option is the most comprehensive – a single consolidated department that would serve the entire region. Here we model one hypothetical scenario for a consolidated department and compare the cost and general service levels to existing fire and EMS services in the La Crosse region. Because each department is likely to face increased costs going forward to meet increased service demands, we also offer perspective on how those future cost increases might compare to our consolidation scenario.

The consolidated department modeled here relies on hypothetical assumptions on where stations would be located, how they would be staffed and equipped, how command and administration would be structured, and other factors based on our own knowledge and input from the five chiefs. It is important to note, however, that this is just one scenario for a consolidated department and there are many other possibilities.

Current staffing levels

The first step in modeling the fiscal impacts of a consolidated department is to carefully document current salary expenditures, benefit ratios, and staffing. It is particularly important to consider shift staffing, which refers to how many firefighters are needed to staff a single 24-hour shift. While this would appear to be a simple exercise, it is complicated by the fact that career firefighters are entitled to various forms of time off (e.g. sick leave, vacation, family and medical leave). Depending on the union contract and the age/tenure of staff, most departments will need to hire between 3.5 and 4.0 career firefighters/EMTs to staff a single 24-hour shift. Overtime also is relevant to the shift staffing ratio because departments frequently fill shifts using overtime.

When a department uses part-time firefighters to staff shifts, the calculation is different. POC/POP firefighters are paid straight time based on hours worked, but they are also paid for non-shift activities such as training and meetings. Consequently, a reasonable staffing ratio for POC departments is somewhere between 3.15 and 3.25 FTEs.[13] Calculating the pay of part-time employees is based simply on an hourly rate times the number of hours, plus FICA (7.65%).

Finally, several employees, including uniformed personnel, work eight-hour shifts in administrative or command positions. We refer to these individuals as non-shift staff and they are accounted for in our analysis outside of the shift staffing ratio. Battalion chiefs are also considered as a separate category.

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[12] This cost includes salaries and benefits based on the La Crosse FD's averages. It also reflects 3.5 to 4 firefighters to cover a 24-hour shift seven days per week because of the need to account for various forms of time off.
[13] An FTE is not the same as an individual employee. We use FTEs as a way to standardize the hours worked by multiple employees into a comparable measure.

We examined personnel and budget figures for the five departments and developed current shift staffing ratios where appropriate. We then broke down each department's 2020 budget into four categories: general staffing, battalion chiefs (who work on shifts), non-shift staffing, and non-personnel costs (e.g. supplies, utilities, contracts, fleet maintenance, etc.). A shown in **Table 22**, in 2020, the five departments were budgeted to spend a combined $13.4 million for fire and EMS.

Table 22: Breakdown of fire department 2020 budgeted expenditures

	Non-Shift Staffing	Battalion Chiefs	General Staffing	Total Personnel	Non-Personnel	Total Budget
La Crosse	$1,452,324	$528,182	$8,050,455	$10,036,961	$485,571	$10,516,532
Onalaska	$264,010		$1,351,156	$1,615,166	$94,280	$1,709,446
Holmen	$142,158		$496,942	$639,100	$114,250	$753,350
Shelby	$33,000		$81,200	$114,200	$55,300	$169,500
La Crescent	$12,900		$81,960	$94,860	$155,200	$250,060
Total	$1,904,392	$528,182	$10,061,713	$12,494,287	$904,601	$13,398,888

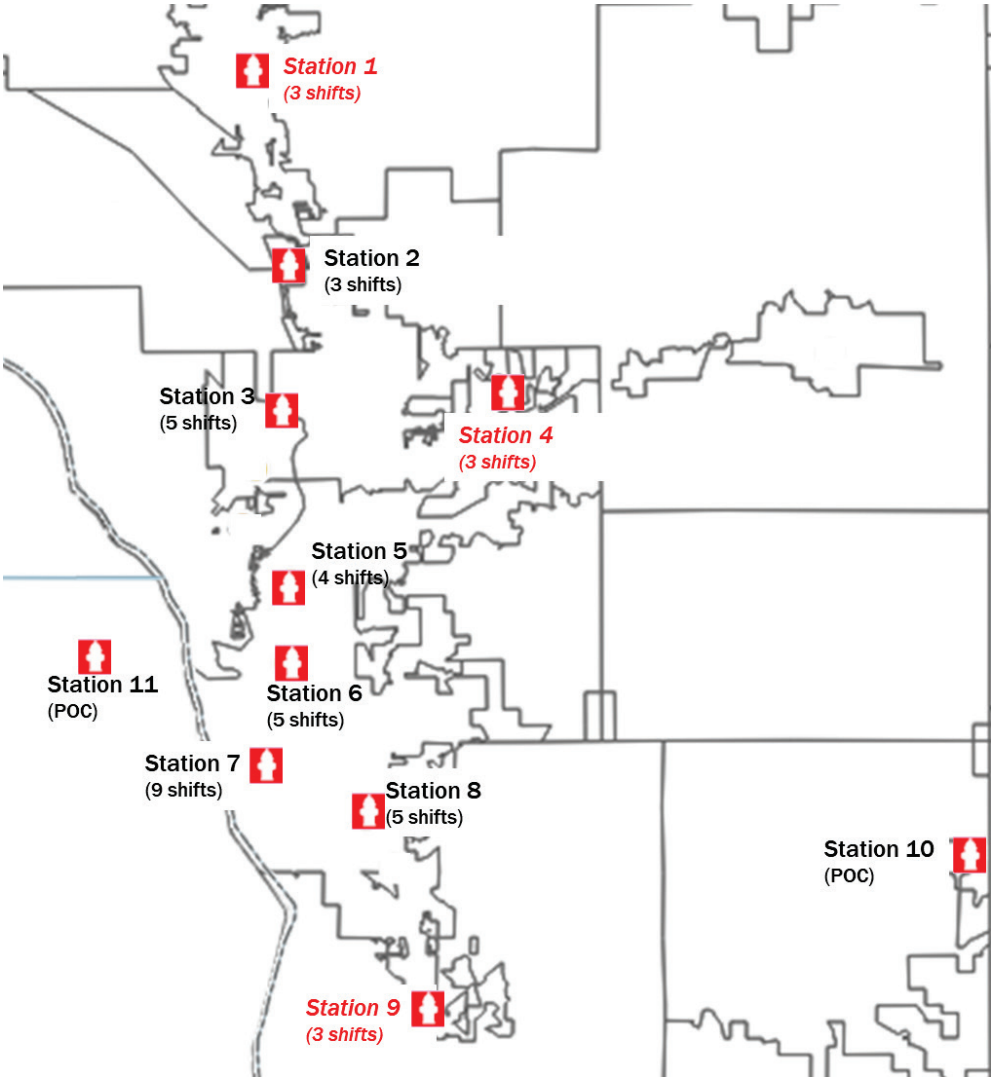
Comparing the general staffing cost to FTEs gives a cost per employee of $100,845 in La Crosse. This includes base salary, overtime, and benefits, which amount to 48.4% of salary. La Crosse has the highest cost per FTE because it exclusively uses full-time employees who receive a full benefit package. The Onalaska FD, as a combined department, has a cost per employee of $81,641 and a benefits ratio of 41.1%. The Holmen Area FD's cost per general employee is $68,261, which reflects a lower number of shifts overall and a higher percentage of POCs in its staffing plan. Shelby and La Crescent rely exclusively on POC staff and their cost per FTE is approximately $35,000.

Modeling a consolidated department

Our next step was to model station locations and daily shifts for a consolidated department, which we show in **Map 3** on the following page. Instead of having municipal barriers determine station coverage areas, we divide the region into a northern and a southern division, each with a battalion chief on a 24-hour basis. Per our earlier discussion of station sharing, we assume new stations near the Valley View Mall and another to serve southern La Crosse and Shelby (which could be located in either community) – as well as elimination of the existing Shelby station. We also assume a new station in the northern part of the Holmen area to serve new development there. Consequently, the region would have 11 stations instead of the current nine (not including the airport station).

We also assume an increase of 10 shifts – these are required both to staff the new stations and to otherwise address service challenges discussed earlier in this report. These shifts are assumed to consist of both full-time and part-time positions. Specifically, our model assumes 17.5 FTEs are filled with full-time positions and 16 FTEs are assumed to be filled with POP staff. Our model increases the percentage of POC/POP labor from 8.2% of total hours currently to almost 17% of total hours, which is similar to the ratio of POCs to total FTEs in Onalaska currently.

Map 3: Hypothetical consolidated department station locations and shifts (new stations in red)



The following provides greater detail on specific operating characteristics of the hypothetical consolidated department:

- The northern division would have five stations including the current Onalaska and Holmen area stations and La Crosse's Station 4. Two new stations are added to serve this part of the region: one northern station in the current Holmen area jurisdiction east of Highway 53, and a station to serve the area near the Valley View Mall. Currently, there are nine shifts serving the stations in this area, but we envision an increase to 18 under our consolidated model. Three new shifts are required at each of the new stations, and an additional two shifts are added to Station 2 (currently the Holmen area station) to increase its staffing level from one to three shifts. An additional shift is also added to the Onalaska station, mainly because this station would be the central station for the northern division and would also house its battalion chief. The northern division also would support the volunteer operations of Farmington Fire and EMS and Brice

Prairie EMS. Even with these increases in service capacity, the Holmen area chief noted that development in rural areas north of the village of Holmen may still experience delays in response, especially at times when there are simultaneous medical unit calls. Also, even with additional staff in the north, a structure fire in the northernmost area would need to draw on crews as far south as La Crosse Station 4 to assemble 16 firefighters. That station is 15 minutes away from the future northern station assuming good road conditions.

- The southern division would consist of the existing La Crosse Stations 1 ,2, 3 and a new southern station. As noted above, the Shelby station, which currently requires significant repair, could be eliminated. POC operations at the current stations located in Greenfield and La Crescent would also be included in the southern region. Currently, about three quarters of calls for service occur in the southern region and there are 21 shifts in the area. Because population and call volumes are not projected to grow substantially in La Crosse (with the exception of some areas to the south) only one additional shift is added for a total of 22. Three shifts are located at the new southernmost station, with two relocated from La Crosse Stations 1 and 2. Nine shifts would be located at Station 7 (formerly La Crosse 1), which would also house command and administrative functions.

- In terms of the two outlying stations in La Crescent and Greenfield, it is assumed that they would be staffed primarily with POC staff, although they would be administratively connected to the southern command. There are several possibilities for adding to response capacity if call volumes continue to increase in either area. One option would be to fund a 24-hour POP EMT position that could respond immediately to calls with backup from POC staff and possibly a paramedic intercept from La Crosse. In the case of a structure fire in either Greenfield or La Crescent, apparatus from stations 7, 8 or 9 would be on the road immediately, which would improve the level of resources available for fire response in La Crescent.

Personnel costs

As described above, the consolidated department envisioned here would add one station and 10 additional shifts to the current service level. Given the wider and more diverse service area and based on our discussions with the chiefs, **we modeled a combination department using both full-time and part-time staff, with a ratio similar to that of the Onalaska FD**. We assume that the new shifts would be split equally between career firefighters/EMTs and POP staff.

There are several advantages to a combination model. One is that having a variety of part-time and full-time options would offer greater opportunities to recruit, train, and promote employees. Also, the flexibility of a combination department would offer the chief much greater flexibility in scheduling staff and controlling overtime costs by using part-time staff to cover time off.

A final benefit relates to the existing POC operations at Shelby and La Crescent, where staff are highly trained and an important resource for the region. A consolidated department using both part-time and full-time staff could offer continued employment for these first responders, as well as enhanced opportunities for those interested in either part-time or full-time employment.

Table 23 shows the cost of the 10 additional shifts.[14] The cost per FTE of a career position is $68,000 in salary and overtime and approximately $33,000 in benefits, based on the current benefits ratio for the La Crosse FD. POP pay is assumed to be $17 per hour but the only benefit added to that amount is FICA.

Table 23: Cost of new shifts for hypothetical consolidated department

	Shifts	FTE	Personnel Cost
Career	5.0	17.5	$1,765,554
POP	5.0	16.0	$597,328
Total	10.0	33.5	$2,362,882

In addition, we add two battalion chiefs to ensure two are on duty per 24-hour shift, one in the northern and one in the southern region. The addition of two new positions, at a cost of $264,091, would allow for a total of six FTE battalion chief positions. We assume that captains or other officers would need to cover battalion chief shifts to accommodate paid and unpaid time off.

With regard to non-shift staffing, the departments currently have 16 administrative and command positions combined, with 11 of those in the La Crosse FD. The consolidated model is based on the existing command structure of the La Crosse FD but adds a division chief to help manage overall operations and a captain to oversee POC recruitment, training and operations. Because four chief positions and an assistant chief position are eliminated, there would be a net decrease of three command FTEs, as shown in **Table 24**. The projected savings total about $158,000, which appears modest but is understandable given that two of the eliminated chief positions are not full-time.

Table 24: Command and administrative positions in hypothetical consolidated department

	Current	Consolidated
Chief	5	1
Assistant Chief	3	2
Division Chief	2	3
Captains	3	4
Fleet Mechanic	1	1
Admin Assistant	1	1
Community Risk Coordinator	1	1
Total	**16**	**13**

[14] FTE calculations for career shifts are based on a shift staffing ratio of 3.5 based on current staffing patterns of the La Crosse FD. Overtime is converted to FTEs and included in the shift staffing ratio. The shift staffing ratio for POP shifts is assumed to be 3.2 FTEs per shift.

Apparatus and capital costs

Generally, a consolidated department yields considerable potential savings on the capital side given its ability to deploy its apparatus more effectively than several individual departments, as well as its ability to reduce both the number of back-up vehicles and the total number of apparatus needed. A ladder truck, for example, could be housed in a central station and respond throughout a division.

In this case, however, we assume a net increase in stations, and tenders need to be maintained in parts of the region that do not have hydrants. Without going into great depth about needed apparatus, we conservatively estimate that the consolidated department could eliminate five engines, one ladder track, one brush rig, and a command vehicle. Because of the need to add a tender there would be a net reduction of seven vehicles.

The approximate replacement cost of these seven vehicles is about $6 million. If the consolidated department retained those vehicles and created a sinking fund to provide for their replacement, then it would need to appropriate about $386,000 per year for that purpose. Given that those vehicles would be eliminated, however, **we assign an annual savings of $386,000 to the consolidated department for the smaller fleet.**

Finally, despite the fact that our consolidated model includes two new stations, we do not include the construction cost of those stations in our analysis. That decision is predicated mainly on the fact that both new stations already have been proposed outside of any discussion of consolidation, so the cost would occur regardless. Also, station construction costs are very difficult to estimate without knowing factors like site location, and it would be similarly difficult for us to estimate offsetting savings from elimination of the Shelby station and its rehabilitation or replacement costs.

Supplies and other non-personnel costs

Non-personnel costs include supplies, utilities, fuel, insurance, contracts with other agencies, etc. As shown earlier, the five departments currently spend just over $900,000 per year on non-personnel costs. We expect that consolidation would allow for some savings in those costs because of greater purchasing power and administrative coordination. For modeling purposes, we conservatively assume a 10% savings in non-personnel costs.

Summary of consolidated department costs compared to current state

Table 25 summarizes our rough fiscal projection of additional costs and offsetting savings for our hypothetical consolidated department relative to current combined expenditures among the five fire departments that participated in this study. The table shows **a net additional annual cost of about $2 million.**

Table 25: Cost summary for hypothetical consolidated department

Expenditure	Cost/Saving
Shift staffing	$2,362,882
Battalion chiefs	$264,091
Non shift staffing	($158,304)
Apparatus	($386,486)
Non personnel costs	($90,460)
Total Cost/(Savings)	**$1,991,723**

"Future state" costs

In addition to considering the added cost of a consolidated department in comparison to current combined costs, policymakers also should weigh that added cost against costs that may need to be incurred by the five departments individually as they seek to respond to increased call volumes and service demands, new development, and other factors. Of course, it is impossible to know precisely how, when, and the extent to which these jurisdictions would add capacity and incur additional costs, but our interviews with chiefs and administrators revealed that consideration of capacity enhancements already is occurring.

Consequently, to provide some context on how the cost of consolidation might compare to the cost of having each individual department pursue enhancements on its own, we developed an estimate of the "future state" shift staffing cost if the five departments individually add and staff stations currently under discussion and address POC staffing concerns. That estimate is based on the following assumptions:

- The La Crosse FD adds two shifts at the new station in the Valley View Mall area (we assume that station would be jointly staffed with Onalaska). The La Crosse chief has committed to staff a new southern station by shifting existing staff with no net increase in staffing.
- The Onalaska FD adds two shifts: one at a new station in the Valley View area and one at its current station to address increasing call volumes.
- The Holmen Area FD adds five shifts, two at its current station and three at a new northern station, to meet growing call volumes.
- Shelby and La Crescent fund one POP shift at $17/hour to meet growing call volumes.

Based on current shift staffing costs at each department, **we assume that the additional annual cost of the above would be about $2.8 million, or about $800,000 more than the jurisdictions would need to incur collectively under our hypothetical consolidated department scenario.**[15]

[15] Shift staffing ratios for these projections are assumed to be 3.5, and cost/FTE is $100,845 for La Crosse, $81,641 for Onalaska, and $68,261 for Holmen.

It is important to note that this cost comparison assumes that a consolidated department would have a staffing model similar to that currently used by the Onalaska FD. If all of the 10 additional shifts were filled with career positions instead, then the cost of the consolidated model (which would still employ POC but at a lower percentage) would exceed the cost of the "future state" scenario by about $367,000.

Cost allocation and governance

Of course, key considerations for each community would be how the cost of a consolidated department would be distributed among the participating communities and how the new department would be governed. We cannot hypothesize how the La Crosse area communities would agree to allocate the costs of a consolidated fire department, as there are several possible allocation methodologies that could be considered. The North Shore Fire Department uses a formula that equally weights each jurisdiction's proportional share of calls for service, its population, and its equalized property value, but several additional factors or different combinations could be used.

There are also several potential governance models for a consolidated fire department. A logical one when consolidation involves several different communities is for the consolidated department to function as an independent entity that reports to a new board of directors established by the participants. Board representation could be determined based on a "one member/one vote" basis or proportionally based on population or other factors.

Finally, considerations like ownership of current stations and apparatus (i.e. would they remain the property of each municipality or turned over to the new department) and possible establishment of a separate fire commission would need to be determined.

Service-level impacts

The potential benefits of fire department consolidation have been documented in several of our previous studies and generally include the following:

- A larger workforce that might reduce the need for overtime to cover for injury, illness, and vacation, and that might aid in recruitment and retention by providing greater opportunities for career ladders and possibly increased compensation.
- Consolidation of non-response tasks such as planning, finance, and inspections to produce greater cost efficiency.
- Consolidation of training and other specialized functions to produce greater cohesion at the scene of incidents.
- Opportunity to redeploy the existing workforce based on actual demand, thus possibly eliminating the need to add staff to serve areas that are currently under-resourced.
- Opportunity to reduce leadership positions while enhancing the effectiveness of command by allowing leaders to strategically manage and deploy staff and apparatus on a regional level.
- Potential cost savings through more efficient procurement and possible reduction of apparatus and backup apparatus.

There are also potential drawbacks, which generally include a partial loss of local control by each community over fire and EMS operational and financial decision-making; the possibility that some communities would benefit operationally and fiscally more than others; the possibility that some may need to pay more for fire and EMS than they are paying today or are willing to pay in the future; and the challenges involved in consolidating labor contracts, staffing frameworks, and other personnel issues.

In this report, we have presented a consolidated model for the La Crosse region that includes two additional stations and 10 additional shifts across the region. Those factors alone would bring a higher level of service to some areas, particularly in the northern part of the region and to those areas now served by POC departments.

However, **it is not just the additional station and shifts, but the opportunity for coordinated and seamless response from stations that span municipal boundaries that could bring the greatest benefit in terms of improved response times and the potential to reduce the loss of life and property**. The improved response capability also could improve current insurance-based ratings (i.e. ISO ratings) for some communities, reducing insurance costs to residents and businesses.

CONCLUSION

Our analysis of fire and EMS service sharing in the La Crosse region finds the participating departments already possess a spirit of cooperation that has resulted in some shared fleet maintenance, regular joint meetings of training officers and chiefs, and an effective countywide contractual relationship with a private ambulance service for advanced life support coverage.

Yet, we also observe several emerging challenges that suggest a need for enhanced collaboration. Those include growing demand for service in the northern and southern parts of the service area; a growing concern that some departments have sufficient capacity to respond to normal conditions but are stretched too thin during times of high call volumes; and challenges associated with retention and recruitment of paid-on-call staff. It also appears the region may not be making the best use of the full-time, well-resourced La Crosse department for mutual aid and other forms of support.

The question that prompted this study was whether, by working more collaboratively, the individual departments could address their mutual challenges in a more effective fashion than if they did so independently. We present a series of options that could be considered to answer that question affirmatively, including the following:

- **Enhanced service sharing options** include joint training, joint recruitment of part-time staff, joint case management of high-volume EMS users, and joint conduct of other non-response functions like fire prevention, inspections, and investigations. These options could be pursued via contractual agreements between individual departments or the possible creation of a regional bureau to conduct these activities under a cost sharing agreement. Benefits could include cost efficiencies through economies of scale; improved service for smaller departments (in particular); and, in the case of training, better cohesion during mutual aid incidents.

- **Enhanced coordination of operations options** would directly address fire and EMS response and capacity. They include formalization and expansion of current mutual aid protocols, including a possible move to “closest unit response” or automatic aid; working with Tri-State on strategies to improve EMS response times outside of the city of La Crosse (where they are already strong); and greater sharing of apparatus. The enhanced mutual aid and EMS options hold promise to improve service levels and response times while the shared apparatus option could lower costs.

- **Advanced options** could require some departments to relinquish some or all of their existing autonomy but hold the greatest potential for regional service improvement and enhanced efficiency. One would involve sharing new or existing stations between multiple communities as a means of cutting costs, while another would make greater use of the La Crosse FD’s capacity by having it provide contracted service to Shelby/Greenfield and La Crescent, potentially providing better service at a similar cost for the smaller communities while establishing new revenue streams for La Crosse. We also model a single consolidated department to serve the entire region, which we believe would be the most efficient and effective solution if policymakers are willing to spend more to pursue enhanced service levels.

Each of these sets of options would involve cost sharing agreements and/or a willingness by larger departments to shoulder greater responsibility for the benefit of the entire region. The more advanced options not only would require acceptance by some or all jurisdictions to relinquish some amount of local control over their fire and EMS operations, but also may cost more than the impacted communities are willing to spend.

Nevertheless, our analysis suggests that each of the departments likely will need to increase spending in the not-too-distant future, and that collaborative action could achieve at least some desired improvements at a lower cost and a higher level of service than could be achieved by acting alone. We also see potential – if advanced options are deemed too expensive for now – for the communities to start slowly with some of the less comprehensive service sharing options and then build toward consideration and implementation of more advanced options.

Overall, we hope this analysis sheds further light on the current and future challenges associated with fire response and EMS in the La Crosse area. Going forward, we would be pleased to support any efforts to implement the policy options cited in this report or otherwise assist the region in pursuing greater intergovernmental cooperation.

APPENDIX I: SNAPSHOT DESCRIPTIONS OF AGENCIES

City of La Crosse FD

The City of La Crosse Fire Department is the largest fire protection service in the County with 98 Fire Department FTE and a budget of over $10 million.[16] La Crosse FD's service area includes the City itself and three surrounding townships for a total service population of approximately 54,000. In addition to fire suppression services, La Crosse FD offers specialized rescue including (but not limited to) water, technical rope, and confined space rescue. The department also provides fire inspection, plan review, and fire prevention/education services. La Crosse FD is licensed at the paramedic level and collaborates closely with Tri-State in a coordinated EMS response.

City of La Crosse FD, At a Glance

		Notes
Number of Stations	4	Looking to build one or perhaps two new stations and remodel or move two existing stations
Total FTE (including hourly)	98	Fire only
Staff on Shifts	29	Min 25, max 31
Population Served (Est)	53,721	City of La Crosse and Town of Medary, North/South sections of French Island/Campbell for Fire protection
Total Calls (2019)	6,837	
Total Budget	$9,374,079	Fire/EMS (excludes est Inspection costs, 10% of total)

Onalaska Fire Department

Onalaska FD is a municipal department that services both the city and town of Onalaska. It is staffed with a combination of both career personnel and POC staff. Onalaska's service area for fire is the entire city and a small portion of the town of Onalaska.

[16] La Crosse FD has 114 total FTEs according to payroll documents, but 16 of those are building inspectors and are not counted here.

Onalaska FD, At a Glance

		Notes
Number of Stations	1	Discussion of building one near the mall
Total FTE (including hourly)	25.03	
Staff on Shifts	4	Average
Population Served (Est)	18,988	City of Onalaska and portions of the town of Onalaska
Total Calls (2019)	1,553	
Total Budget (2020)	$1,709,446	

Holmen Area FD

The Holmen Area Fire department is an independent fire district that covers the village of Holmen, town of Holland, and portions of the town of Onalaska. Holmen Area FD is staffed with both career and part-time employees. While service demands are increasing in and around Holmen, the organizational model of serving three different municipalities complicates the department's ability to address funding challenges. As a consequence, Holmen Area FD has less of an ability to address ancillary services such as fire inspections, plan review, and strategic planning. New development in the northern part of the service area is problematic since response times are longer there for both Holmen Area FD and Tri-State.

Holmen Area FD, At a Glance

		Notes
Number of Stations	1	Considering the need for one additional station
Total FTE (including hourly)	8.29	
Staff on Shifts	2	1 day shift 1 Command/Supervisor on staff as well
Population Served (Est)	19,945	Village of Holmen, town of Holland, and portions of the town of Onalaska
Total Calls (2019)	1057	
Total Budget (2020)	$753,350	

Shelby Fire Department

The Shelby Fire Department, part of the town government of Shelby, is a volunteer fire department licensed at the EMR level. The department's two stations serve Shelby and about 90% of the town of Greenfield. Shelby FD has a large POC roster of 43 personnel. Shelby FD also conducts safety inspections and plan reviews. Personnel are trained in HazMat response and water rescue.

Shelby FD, At a Glance

		Notes
Number of Stations	2	One in Shelby and one in Greenfield at St Joseph's Ridge
Total FTE (including hourly)	2.3	43 PT
Staff on Shifts	NA	
Population Served (Est)	6,882	Town of Shelby, Town of Greenfield
Total Calls (2019)	330	
Total Budget	$169,500	Excludes $45,000 in hydrant rental

La Crescent FD

The La Crescent Fire Department is a volunteer department housed within La Crescent, Minnesota city government. La Crescent FD is licensed at the EMR level and provides fire and EMS first responder service to the city and township of La Crescent and portions of the townships of Dresbach and Mount Prairie. Unlike the La Crosse County departments, La Crescent FD is dispatched out of Houston County, MN. Tri-State provides ALS and all transport services for the La Crescent FD.

City of La Crescent FD, At a Glance

		Notes
Number of Stations	1	
Total FTE (including hourly)	2.3	
Staff on Shifts	NA	27 POC
Population Served (Est)	5,392	City of La Crescent, township of La Crescent, portions of Mound Prairie and Dresbach townships
Total Calls (2018)	400	375 were EMS, 25 were fire
Total Budget	$250,060	Fire/EMS, net of capital

Tri-State Ambulance Service

Tri-State is a non-profit corporation that provides 911 response and transport to 2,200 square miles in Minnesota and Wisconsin. It is licensed at the paramedic level and staffs six ambulances in La Crosse County during the day and four at night. Tri-State also provides all ambulance facility transfers. Tri-State sponsors EMS training and provides medical direction to first responders.

Tri-State, At a Glance

		Notes
Number of Stations	3	
Total FTE (including hourly)	42	Shift Staffing ratio of 4.0
Staff on Shifts	10.5	12 during the day and 9 at night
Population Served (Est)	102,742	Study areas only
Total Calls (2019)	9,116	Study areas only
Total Budget	$4,110,116	For entire county

Brice Prairie First Responders

Brice Prairie First Responders is a standalone EMR non-profit agency that provides EMR services to the census designated place of Brice Prairie within the town of Onalaska's borders. Brice Prairie is a volunteer agency which has been serving the area for more than 30 years. ALS services and transports are handled by Tri-State Ambulance.

Brice Prairie First Responders, At a Glance

		Notes
Number of Stations	1	
Total FTE (including hourly)		
Staff on Shifts	NA	12 volunteers
Population Served (Est)	~ 2,000	Brice Prairie, CDP (town of Onalaska), Lake Onalaska (town of Onalaska) Great River State Bike Trail (town of Onalaska, town of Holland)
Total Calls (2018)	70	
Total Budget	NA	EMS only

Farmington Emergency Medical Team

The Farmington Emergency Medical Team is a stand-alone EMR non-profit agency that has been operating since 1928. In 2014, Farmington EMT merged with North Bend EMT, creating an organization that serves two communities in two counties. Farmington EMT is a volunteer agency.

Farmington First Responders, At a Glance

		Notes
Number of Stations	1	
Total FTE (including hourly)		17 Volunteers
Staff on Shifts	NA	
Population Served (Est)	~ 2,100	Town of Farmington, town of North Bend in Jackson County
Total Calls (2018)	98	
Total Budget	$53,000	EMS only