EMS Organizational Model Study

Port Chester-Rye-Rye Brook EMS

Port Chester, NY

June 2022

PUBLIC CONSULTING GROUP

TABLE OF CONTENTS

SECTION 1: PROJECT INTRODUCTION AND CONTEXT 3
SECTION 2: REPORT SUMMARY AND KEY RECOMMENDATIONS 9
SECTION 3: LOCAL COMMUNITY AND EMS SYSTEM OVERVIEW 18
SECTION 4: CURRENT PCRRBEMS ORGANIZATIONAL MODEL AND AGENCY OVERVIEW 37
SECTION 5: ORGANIZATIONAL MODEL OPTIONS AND EXAMPLES 59
SECTION 6: GENERAL OPERATIONAL/ADMINISTRATIVE RECOMMENDATIONS 67
SECTION 7: FUTURE ORGANIZATIONAL MODEL RECOMMENDATIONS 77
SECTION 8: CLOSING 90
APPENDIX A: EMPLOYEE ENGAGEMENT SURVEY RESULTS 91
APPENDIX B: WORKS CITED 101

SECTION 1: PROJECT INTRODUCTION AND CONTEXT

1.1 – Project Introduction

1.1.1 – Request for Qualifications and Proposals (RFQ/RFP) Background

This EMS Organizational Model Study (the "Study") is a joint venture between Port Chester-Rye-Rye Brook Emergency Medical Service (PCRRBEMS; the "Agency"), the Village of Port Chester, the City of Rye, and the Village of Rye Brook (the "Municipalities") within Westchester County, NY, and is designed to examine the current organizational model of the EMS Agency (PCRRBEMS) and determine a recommended course of action for the future of this organizational model type – which is a non-profit model.

1.1.2 – Study Objectives

The objectives of this Study are to provide the leaders of PCRRBEMS and the partnering municipalities with an independent review and final report that is focused on informing the stakeholders involved about the potential advantages and disadvantages of the current and alternative organizational models/structures for the provision of emergency medical services (9-1-1 ambulance response services). The Study will serve as a roadmap for the future to address short-term and long-term considerations for the Agency and Municipalities to consider regarding administration, operations, and financial changes/opportunities directed toward short-term actions and long-term sustainability recommendations. Within this Study, emphasis should be placed – as an ideal outcome – on either maintaining or improving the current level of service delivery while maintaining a cost-efficient agency with a long-term competitive compensation model for its career EMS professionals.

1.1.3 – Scope of Services/Work and Deliverables

The Final Report is constructed around the outlined Deliverables section in the RFQ/RFP which takes into consideration nine elements outlined below.

- Maintain at least the current service levels, response times, and municipal coverage area.
- Identify the positive and negative impacts of the current not-for-profit ("non-profit") tri-municipal EMS agency.
- Identify the positive and negative impacts of becoming an EMS district ("special taxing district") supported through property taxes.
- Identify the positive and negative impacts of becoming a civil service EMS agency ("municipal") under one of the partner municipalities that would then contract to provide service with the other two involved municipalities.
- Identify the structure and positive and negative impacts of any other organizational structure models.
- Provide the governance and management structure for each identified organizational structure model (outlined previously)
- Provide the short-term and long-term financial impacts to the residents of the municipalities for each identified organizational structure model (outlined previously).
- Seek to have PCRRBEMS known as having a competitive compensation package and as a great place to establish a career as an EMS professional.
- Provide specific existing examples of other successful EMS organizational models.

1.2 – Project Context

1.2.1 – Overview Status of the EMS Industry

"EMS leaders warn industry on verge of collapse." This quote is part of the headline of a recent news article from Ohio. [1] The piece goes on to point out that staffing is affected by decreased reimbursement revenues by major payors like Medicare and Medicaid. Another recent headline from Michigan reads: "EMS agencies struggling to fill EMS, paramedic positions," and also shares similar sentiments. [2] Across the country in California, yet another headline reads that a "…director voices concerns over EMS staff shortages," while a similar headline in Florida highlights some mitigating actions, stating that a local county is "increasing wages for some EMS workers amid shortage." [3,4] All of these sources cite pay and funding issues that are afflicting the EMS industry both locally and nationwide.

In New York State, urban and rural EMS agencies alike are not immune from these national challenges. A 2021 article headlines that "NY lawmakers, EMS officials announce bill to establish rural ambulance task force" as many rural EMS agencies risk closing their doors for operations because of a lack of staffing. Issues surrounding the current fee-for-service modeling along with finding and training new EMS providers – especially volunteers – are focal points within this effort. [5] Many of the hardships faced by EMS agencies across the nation revolve around decreased reimbursement funding, low comparative pay scales (between EMS and fire/law enforcement), and a lack of formal local support. This support comes in the form of designating EMS as an "essential service" – a legislative title that is designated to fire and law enforcement coverage/services in each state. What this means is that, technically, communities do not have to contract with or provide for ambulance services; it is voluntary – not "essential" – despite public belief or preference.

A 2014 report from the National Highway Traffic Safety Administration's (NHTSA) Office of EMS titled "An analysis of prehospital emergency medical services as an essential service and as a public good in economic theory" highlights the advantages of legislatively supporting this designation for EMS (9-1-1 ambulance services). The report outlines that this legislative title (1) ensures a minimum capability across the state/area, (2) provides the flexibility to organize and finance EMS systems to reflect local circumstances, and (3) it provides resources to support improvement over time. [6] With regards to EMS agencies throughout New York State, private contracting or municipal support is often locally offered to any number of municipal, fire department, commercial (private, for-profit), and/or independent (non-profit) EMS agencies, at times with several different agencies existing within the same community or township, sharing a response contract, or covering a specified portion of a community's boundaries.

While shared service and consolidated community agencies are common throughout many other states, they are not common in New York, nor are they common in some of its nearby states. This trend expands over to many local fire departments in the national region, as it is commonplace to have more registered fire departments than incorporated communities (as is seen in Connecticut – and further expanded upon later in this report). Locally, the EMS system in Westchester County, New York, shares a similar resemblance as there are just over 40 municipalities within the county, along with just over 40 registered ambulance services (EMS agencies). System examples like this further add to the hardships that individual EMS agencies face regarding the recruitment and retention of employees, due to the high level of competition.

EMS is at a crossroads throughout the nation. A lack of significant change with regards to funding support will likely lead it down a catastrophic road to collapse. Combining these national factors with some of the local factors facing PCRRBEMS, it, too, is at a similar crossroads.

1.2.2 – Volunteer Ambulance Report (1993) Review

A consultant report was conducted in 1993 for the then Port Chester-Rye-Rye Brook Volunteer Ambulance Corps which resulted in laying the framework for the Agency's transition from a volunteer-staffed organization toward a paid/career model (***Figure 1.1*** shows the cover image of this report). While this report is nearly thirty years old and does not hold direct relevance to the scope of this study, there are some unique findings within this report that do hold some observational relevance and correlation to the findings uncovered during this analysis. Outlined below are some relevant observations and recommendations correlating the 1993 report to today's current Study and state of affairs. The follow-up to each of these observations and recommendations will be addressed later in this report.

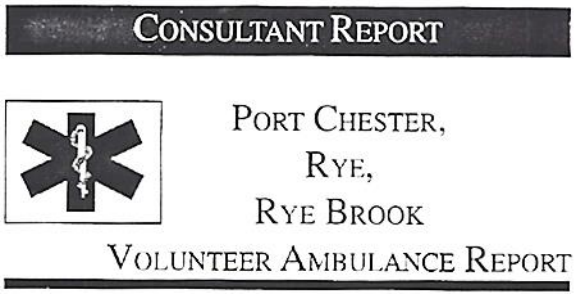

Figure 1.1 – Cover Page Image of 1993 Consultant Report

- "Service delivery is fragmented." This is a direct remark made by the 1993 consultants within the System Overview section of the report, and still holds significant relevance in describing the County's EMS system of today.
- "The consultants recommend that communications services be consolidated … to facilitate improved data collection."
- "Unfortunately, all response times reported are anecdotal in nature as there is no single dispatch point for the system. Community officials have no routine mechanism to monitor the adequacy of response times." "This information should be collected and maintained in a manner which facilitates external verification."
- "The most significant barrier to implementation is the communities' forging an agreement to equitably fund the system. The issue of equity among the communities is a long-standing issue which, upon careful listening, is quite unrelated to EMS. The friction from other agreements and shared service arrangements have influenced views of elected and appointed officials on the ambulance issue."
- "Each of the communities is better served, clinically and economically, by the shared system rather than independently attempting to develop an independent EMS system."

1.3 – Report Introduction

1.3.1 – Evaluation Methodology

This Study (2021-2022) was developed through a process of interviews, data collection, research, literature review, on-site observations, and comparisons conducted between the EMS Agency and others like it within the county, state, and/or country. The consulting firm's subject matter experts also relied on their own professional experiences and insights, as well as state and national best practices and applicable standards, to develop recommendations and highlight observations based upon practices that are as objective-based and backed as possible.

1.3.2 – Structure of the Report

This report contains eight sections and two appendices and is organized in a format to provide a flow for readers to first obtain a report summary with the final recommendations elaborated, followed by the formal start of the full report and a walkthrough of the community and operational/financial components to provide

further context for the final recommendations and organizational model overviews. Wherever possible, communities are listed in an order reflecting the EMS Agency's naming order of Port Chester, Rye, and Rye Brook. Subsequent communities listed are placed in alphabetical order unless specified otherwise.

1.3.3 – Common Abbreviations and Terms

Agency – In appropriate context (capitalized), refers to PCRRBEMS

Ambulance Service – Referencing an EMS agency that functions as a 9-1-1 ambulance response/transport service provider

ALS – Advanced Life Support; commonly referring to an ambulance crew consisting of an EMT and a paramedic, or a first response vehicle staffed solely by a paramedic; or patient care provided by a paramedic

BLS – Basic Life Support; commonly referring to an ambulance crew consisting of two EMTs (which may include Advanced EMTs); or patient care provided by an EMT

County – In appropriate context (capitalized), refers to Westchester County

EMS – Emergency Medical Service; commonly referencing an ambulance transport agency with 9-1-1 responsibilities, but may include other agencies like first responder (only) services

EMT – Emergency Medical Technician

Municipalities – In appropriate context (capitalized), refers to the Village of Port Chester, City of Rye, and Village of Rye Brook, collectively

PCRRBEMS – Abbreviated name for Port Chester-Rye-Rye Brook EMS (the "Agency")

PSAP – Public Safety Answering Point, referencing either the primary or secondary source for receiving 9-1-1 calls and dispatching public safety (police, fire, ambulance) resources

Study – Referencing this project, its Scope of Services/Work, and the consulting firm's research, observations, and recommendations

1.4 – Limitations and Extenuating Factors

Multiple limiting factors existed within this Study that revolve around a general observation of no existing dispatch/response time tracking by many of the Agency's dispatch centers, which do not utilize formal computer-aided dispatching software. This results in PCRRBEMS needing to manually track their dispatch/response times within their patient care report platform and within any spreadsheet databases that might exist. Time tracking for this process is often performed by manually replaying time-stamped recordings of radio (UHF and VHF only) transmissions and/or by supervisors directly writing response times down on a paper-tracking log. This has proven to be a highly time-consuming practice for the Agency's administrator and on-duty staff and results in an environment where human error may cause some data elements to be either inconsistent or incorrect. While the use of electronic patient care report (ePCR, PCR) platforms does exist by the Agency, there appeared to be a need for additional training to effectively utilize and extrapolate software platform data. Additionally, the Agency experienced a transition from one vendor platform to another just prior to the beginning of this Study (nearing the end of 2021), which would have resulted in the need to combine data from two different electronic sources to compile the year's statistics. As a result, manually tracked data was relied on by the consultants to perform all call volume and time analyses. Further comments related to specific data limitations may be outlined in this report in their respective places.

Two extenuating factors that existed during this Study included the midway transition of a new employee into the Administrator role and the departure of another Study Team member from the Agency around this

time. As a result, some of the observations that were initially made from the employee engagement survey (reflecting comments related to “management”) are no longer relative, nor are they reflective of the current administration. Because of this transition, our firm believes it would be unfair to highlight any comments directly reflective of the Agency’s prior management/administrative team in this final report, as it may skew the perception of the new Administrator, who has only held this role since March of 2022.

1.5 – Acknowledgements

Our firm would like to extend our appreciation to the Study Team for their investment, engagement, and insight throughout this Study (listed alphabetically by last name).

Mr. Kenny Barton, Administrator, PCRRBEMS

Mr. Christopher Bradbury, Village Administrator, Village of Rye Brook

Mr. Scott Moore, Former Administrator, PCRRBEMS

Mr. Stuart Rabin, Village Manager, Village of Port Chester

Mr. Tony Sutton, Former Supervisor, PCRRBEMS

Mr. Greg Usry, City Manager, City of Rye

We also appreciate the local context, professional insight, and representative perspective provided by the various stakeholders and entity representatives throughout this Study (listed alphabetically by last name).

Chief Greg Austin, Police Chief, Village of Rye Brook Police Department

Mr. Edward Browne, Executive Director, Stamford EMS

Mr. Robert Calandruccio, Executive Director, Harrison EMS

Mr. Josh Cohn, Mayor, City of Rye

Mr. Frank Ferrara, Trustee, Village of Port Chester

Mr. Nick Frazoso, EMS Chief, Mid-Hudson Ambulance District and Ossining Vol. Ambulance Corps

Mr. Robert Gurliacci, Paramedic Program Manager, SUNY/Westchester Community College

Mr. Bill Henderson, Councilmember/EMS Liaison, City of Rye

Ms. Carolina Johnson, Councilmember/Former EMS Liaison, City of Rye

Mr. Jason Klein, Mayor and Former Trustee, Village of Rye Brook

Mr. Michael Kopy, Public Safety Commissioner, City of Rye

Dr. Erik Larsen, Former Medical Director, PCRRBEMS

Dr. Frank Quintero, Medical Director, PCRRBEMS

Chief Christopher Rosabella, Police Chief, Village of Port Chester Police Department

Mr. Paul Rosenberg, Former Mayor, Village of Rye Brook

Mr. Michael Volk, Chief of Communications and EMS, Westchester County

Mr. Richard Wishnie, Commissioner of Public Safety, Westchester County

Lastly, this Study would not be able to provide the reflective and internal perspective that it has without the engagement of the EMT and paramedic employees from PCRRBEMS. Their survey participation and on-site interaction was exemplary, appreciative, informative, and played a key role in the recommendations provided by this firm.

1.6 – Project Team

Chief Tim Nowak brings 20 years of emergency service industry knowledge and experience to this project as its primary report author and **Lead Subject Matter Expert** within the EMS industry. Tim holds a Bachelor of Science degree in Fire Science, an Undergraduate Certificate in Human Resource Management, an Associate of Applied Science degree as a Fire Protection Technician, and a Technical Diploma as an EMT-Paramedic. He is a Nationally Registered Paramedic (NRP) with additional instructor credentials in basic, advanced cardiovascular, and pediatric advanced life support. He holds additional credentials as a Critical Care Emergency Medical Transport Paramedic (CCEMTP), Supervising Paramedic Officer (SPO), Managing Paramedic Officer (MPO), and Certified Ambulance Documentation Specialist (CADS). His background includes clinical care, training delivery and development, quality assurance and data management, and protocol development for EMS agencies ranging in rural, suburban, and urban demographics throughout four states. Chief Nowak also has executive-level chief officer experience overseeing the areas of EMS operations, special operations/emergency preparedness, logistics, accreditation, policy development, and community risk reduction/community paramedicine.

Chief Ken Riddle brings over 40 years of emergency service industry knowledge and experience to this project as its **Project Advisor** and as a **Subject Matter Expert** within the EMS industry. Ken holds multiple fire service credentials, has prior clinical and administrative experience in EMS system delivery, and is also credentialed as an Executive Fire Officer (EFO). His background includes extensive executive chief officer experience within the fire service overseeing all levels of operations within a large, metropolitan fire/EMS system. In addition to this experience, Ken has been providing fire and EMS consulting services for over 30 years.

Ms. Alina Coffman brings over 15 years of project management experience to this project as its **Project Manager** and as a point of contact for this project's execution. Alina holds a Master of Public Affairs degree and is a certified Project Management Professional (PMP). Her background includes experience in EMS agency cost collection and project management oversight for multiple fire and EMS operational studies.

Ms. Molly McDonald brings experience in ambulance service cost collection and financial analysis to this project as a **Data Analyst**. She holds a Bachelor of Science degree in Business Administration and her background extends to providing client cost reporting to over 100 EMS agencies throughout the country.

Public Consulting Group (PCG) *is a national fire and EMS consulting firm with experience in providing feasibility studies, data analysis, strategic and master planning, operational reviews, cost reporting analysis, ambulance supplemental payment program design, and professional recommendations for public safety agencies.*

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SECTION 2: REPORT SUMMARY AND KEY RECOMMENDATIONS

2.1 – Executive Summary

The completion of this *Organizational Model Study* and introduction of this report is timely. Port Chester-Rye-Rye Brook Emergency Medical Service (PCRRBEMS) is facing a pivotal transition period in its history where its last similar study was conducted in 1993 and its current administrative team has recently transitioned to new oversight. Such a vulnerable period opens the door for opportunities to revise, revisit, and reinvent the Agency as we know it.

This Study is internally focused on (1) assessing different organizational models to determine which best fits the Agency and its partnering communities for the future, and (2) identifying recruitment and retention opportunities for the Agency's success. However, its resulting pathway has been examined as one of a primarily systematic nature, expanding beyond the boundaries of PCRRBEMS. The challenges, hardships, and shortcomings faced by PCRRBEMS are not uniquely their own; these challenges are widespread and universally shared throughout Westchester County, the greater Northeast, and to some extent, throughout the nation. Locally, the unique challenges faced by PCRRBEMS are not solely because of the actions or inactions of the Agency itself. Rather, the vast majority of their challenges are merely symptoms of larger problems with the system in which the Agency resides, and its root causes are likely a statewide – or even a multistate – concern.

PCRRBEMS has locally been reputed as a quality EMS agency that hires and retains tenured EMTs and paramedics – which is certainly one of its overall strengths. Underneath this strength, however, is a realization that PCRRBEMS is an EMS agency that has been "getting by" for decades – but certainly not reaching its full potential – and that's largely due to its environment. Surrounding PCRRBEMS is a fragmented EMS system that extends far beyond the reaches of just its County. Hindered by a strong sense of local control and negative sentiments toward the practices of shared/consolidated services in this region, PCRRBEMS exists as a local anomaly in itself – having been a joint, three-community venture since 1968. While this type of shared structure is common throughout the country, it is quite uncommon in the Northeast.

This characterized fragmentation has led to local challenges toward employee recruitment and retention because of increased regional workforce competition and a disparate pay structure that hardly places EMS providers on a level playing field with their public safety and healthcare colleagues in law enforcement, fire services, or nursing. One employee directly highlights these sentiments by stating that "EMS in this County as a whole is in trouble." This employee is correct, and these challenges are not new; they have been longstanding since the Agency's prior 1993 study. Even within many of the local volunteer ambulance corps, which now predominantly staff their agency with part-time paid employees, the need for "more people" creates further opportunities for existing PCRRBEMS staff to work for other EMS agencies as a second or even third job to sustain their own financial needs. They are unable to rely on their income and overtime opportunities from PCRRBEMS (their primary employer) to accomplish this.

The recommendations in this report will be beneficial not only for the future of the Agency, but also for putting PCRRBEMS and its partnering Municipalities in a position to be a leader in promoting large-scale systemic changes within the region. This will require local agencies and communities (external to this Study) to see the same vision by admitting to the same need.

Regionally-focused, consolidated EMS efforts need to be the focus of the entire EMS system within Westchester County – and particularly toward PCRRBEMS and its partnering Municipalities – moving forward. Serving the communities of Port Chester, Rye, and Rye Brook is a great baseline, but it should not be the Agency's cap. Expanding service populations allows for the creation of EMS agencies that are inviting for employees by offering opportunities for professional growth. This also helps expand the Agency's geographic area for financial support, creates a growth opportunity to flex an economy-of-scale model that provides for efficiency, and promotes a regional climate where sustainability is favored over existence.

Implementing recommendations and a vision of this scale will not be an easy task to accomplish but will be necessary for each entity to examine if they want emergency medical services within their communities to be sustainable. Individual agency identities will be threatened, and the longstanding operations of many agencies will cease, but this is not because of a result of the changing times; rather, it is a result of a lack of change throughout the times. Coupled with the need for comparative (not just competitive) pay and benefits to allow for a thriving wage and total compensation package, these elements will be the driving factors behind whether or not EMS within the County will sustain – even thrive – or if it will remain "fragmented," "transient," and "broken," as has been frequently described by its local stakeholders.

2.2 – Summary Dashboards and Overviews

Outlined within this subsection is various information extrapolated from other sections within this report compiled in a brief, easily consumable fashion. Further details respective to each dashboard and overview can be found in the subsequent sections of this report.

2.2.1 – Community Dashboard

Port Chester
31,693
Population

2.33 sq. mi.
9072 Households
$446,900 Median Home Value

"Mighty"
Small, but mighty communities represented within Westchester County and the greater New York State

"Engaged"
Communities prided on informed, involved, and invested citizens

"History"
Remaining focused on historical pride while embracing tremendous growth

Rye
16,592
Population

5.85 sq. mi.
5491 Households
$1,392,100 Median Home Value

Westchester County

1,004,457
Population

430.5
sq. mi.

$96,610
Median Household Income
$51,758
National Median

59.2 Hours
Hours Needed to Pay for Affordable Housing

67/100
Overall Health Score
NY Average: **58**
U.S. Average: **48**

6%
Port Chester, Rye, and Rye Brook consist of approximately **6%** of Westchester County's total population and approximately

3%
of the County's total land area

Rye Brook
10,047
Population

3.43 sq. mi.
3418 Households
$725,400 Median Home Value

GROWTH RANK

Port Chester: 698

Rye: 702

Rye Brook: 429

Out of 1529 Municipalities in New York

TOTAL
58,332
POPULATION

POPULATION REPRESENTATION

54% Port Chester
29% Rye **17% Rye Brook**

SUPPLEMENTAL FINANCIAL CONTRIBUTION TO PCRRBEMS

39% Port Chester
32% Rye **29% Rye Brook**

2.2.2 – Agency and EMS System Dashboard

Annual Calls for Service

6101 (2017)
5966 (2018)
5885 (2019)
5187 (2020)
5640 (2021)
6627 (2025 Projection)

98.9%
Ability to Respond to Calls for Service

98.3%
Percentage of Calls are Within Port Chester, Rye, or Rye Brook

1 of 41
Ambulance Services
Within Westchester County

23 INDEPENDENT
7 MUNICIPAL
6 FIRE DEPARTMENT
4 COMMERCIAL
1 OTHER

On Average, there is
1 Ambulance Service
for every
24,499 Residents
within Westchester County

CALLS PER COMMUNITY

47% Port Chester **29% Rye**
17% Rye Brook **3% Other**

77%
Total Transport Percentage

70% of Patients are Transported to Greenwich Hospital

25% of Patients are Transported to White Plains Hospital

5% of Patients are Transported to Westchester Medical Center

Current Staffing
2 Ambulances Staffed 24/7
1 Additional Daytime Ambulance
1 Supervisor (When Staffing Permits)

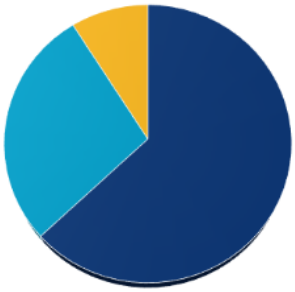
Staffing Demand
2 Ambulances Staffed 24/7
2 Additional Daytime Ambulances
1 Supervisor 24/7

Average Expense per Call
$506.55

Average Billing Revenue per Call
$323.56

Net Expense per Call
$182.99

PCRBEMS INCOME

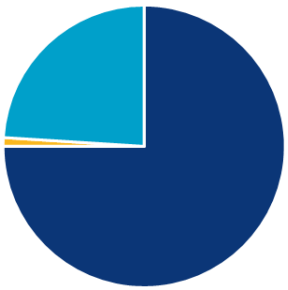


INCOME: $2,856,000
Insurance Recovery: **63%**
Municipal Contributions: **28%**
Other: **9%**

EXPENSES: $2,822,000
Employee: **75%**
Operations: **24%**
Capital: **1%**

(Rounded, Based on 3-Year Average)

PCRRBEMS EXPENSES



2.2.3 – Stakeholder Feedback and Employee Engagement Summary

Employee Engagement Survey

Common Themes

Competitive and **living-wage** (low) pay is one of the **biggest concerns** – weaknesses – of PCRRBEMS; followed very closely by (poor) benefits.

There is a strong sense of **confusion** amongst the staff related to the **roles**, **responsibilities**, and **reporting structure** surrounding **supervisory staff**, as many supervisors are highlighted as working on ambulances and not in a visible (shift) supervisory role.

Crews feel as though the **communities support them** as employees, despite their decreased/lack of knowledge of what is required of them as EMS providers, including what is required to sustain a successful EMS agency.

Crews feel as though the Agency has sufficient – even **excellent** - **equipment** and **ambulances** but **lacks in facility/station upgrades** and needs.

A majority of the **employees work multiple jobs** (60% overall), which equates to **well over 40 hours** (**even over 60 hours**) (50% work over 60 hours) per week working for both PCRRBEMS and another EMS employer.

Employees feel as though PCRRBEMS is both exemplified and seen by others as having a **positive and professional working environment**, is **respected** within the local EMS community, and is prided on upholding **high clinical expectations** and **performance standards**.

78% of employees DO NOT feel as though their pay is adequate enough for their position

93% of employees indicated that increasing their pay would encourage them to stay with PCRRBEMS

59% of employees work for at least one additional EMS agency in order to make a living

6.4

Employees rate working for PCRRBEMS as a 6.4 out of 10 when it comes to overall satisfaction

Positive Work Environment – Feeling of Camaraderie – Good Working Relationships – Great Equipment and Ambulances – High Standard of Care

Stakeholder Interview Feedback

- ▶Value a high-quality EMS agency
- ▶Agency has a positive reputation
- ▶Many stakeholders are unaware of the state of affairs of EMS locally
- ▶Do not want commercial EMS
- ▶In favor of municipal tax support
- ▶Recognized "fragmented" countywide EMS system
- ▶Mixed perspective on the need for future shared services, further consolidation efforts within EMS
- ▶Focus on "professional" organization and administration
- ▶Disconnect and mixed favor toward County-level dispatching services
- ▶Universal appreciation for equal oversight and board representation
- ▶Interest in less lights and siren use for low-acuity calls, low traffic areas
- ▶High association of "affluency" in some communities, but not all
- ▶Common sentiment that EMS employees are underpaid

Great Potential …

PCRRBEMS has great potential to become a leader in the recruitment and retention efforts among EMS agencies within Westchester County … but needs to make some updates and "uncomfortable" changes to become the thriving agency that it has the potential to become – and the Municipalities need to show their financial support in order to accomplish this, too.

Employees want …

to earn a sustainable, living wage.

to be able to grow within the organization.

to have consistency in their dispatching processes.

to have updated facilities.

to have clearly defined supervisory roles/responsibilities.

SCOT Analysis

STRENGTHS
- ▶Multi-municipal, shared service
- ▶Positive local reputation
- ▶Experienced, tenured employees
- ▶Strong support from Municipalities
- ▶Positive call volume growth trend
- ▶High reliability to respond to calls

CHALLENGES
- ▶Manual data management processes
- ▶Outdated dispatching processes
- ▶Limited upward growth potential
- ▶Outdated, insufficient facility
- ▶Oversight process needs updating

OPPORTUNITIES
- ▶Leader for future consolidation
- ▶Additional staffing potential
- ▶Optimism toward local support

THREATS
- ▶Strong sense of "local control"
- ▶Limited internal growth potential
- ▶Unwillingness to change dispatching

2.2.4 – Organizational Model Overview and Recommendations

PCRRBEMS is a Non-Profit (Independent) Organization

Private corporation that contracts with the Municipalities to provide 9-1-1 EMS/ambulance services. The Agency financially operates from transport billing revenues and contracted (supplemental) municipal contributions.

ADVANTAGES: 501(c)(3) status; autonomy/separation from municipal government limitations.
DISADVANTAGES: Employees cannot receive municipal employee benefits (health/medical, retirement/pension); agency cannot receive ambulance supplemental payment program revenues from Medicaid.

Private, For-Profit (Commercial)

Private company that operates like any other private business, contracting with municipalities to provide services.
ADVANTAGES: Limited restrictions toward vendor relations; no profit limitations; autonomy/separation from municipal government limitations
DISADVANTAGES: Limited supplemental funding opportunities

Municipal

Municipal government-operated agency that can be civil service governed (owned/operated by a municipality) or special taxing district governed. Local tax support and/or contracts for service from other nearby municipalities fund the agency.

ADVANTAGES: Employees receive municipal benefits (health/medical, retirement/pension); additional grant funding and supplemental payment program opportunities for revenue recovery; stable source of agency funding

DISADVANTAGES: Stringent procurement and vendor relations processes; "local control" sentiments can jeopardize consolidated service efforts in some models; higher post-employment benefit costs

Fire-Based (Fire Department)

Municipal government agency where EMS is tied into fire department operations and budgeting process.
ADVANTAGES: Stable tax support; municipal employee benefits; different working hour regulations; all-hazards competency approach
DISADVANTAGES: Poses a significant cultural, job requirement, and certification/credential challenge from the current model

NO SERVICE

Providing or contracting for emergency medical services is not a legal requirement in New York – yet – because EMS is not legislatively considered as an "essential service."

While it is legal to do away with ambulance service contracting and funding within the Municipalities completely, this avenue is NOT a RECOMMENDED course to follow.

Other Models

Other organizational models exist within New York such as industrial, collegiate, and hospital-based, but are not fitting or appropriate for the Municipalities or for PCRRBEMS to consider for future operations.

PRIMARY RECOMMENDATION

Special Taxing District

Transitioning toward a municipal model that is formed as a consolidated special taxing district between the Municipalities – and even expanded into other nearby communities – is the recommended course of action for PCRRBEMS. Doing this will provide for an independent governance and funding source model for the Agency to operate within, all while affording the partnering Municipalities the equal representation that they appreciate. This model will also be the most advantageous for its employees, while also presenting future opportunities for the agency to take advantage of potential ambulance supplemental payment program revenue recovery benefits.

SECONDARY RECOMMENDATION

Non-Profit (Independent) *Current Model*

If a municipal/3rd service, special taxing district model is not pursued (or successful), it is recommended that PCRRBEMS stay on its current course as a private, non-profit corporation that contracts with the Municipalities to provide its services. Additionally, maintaining this type of model allows for an easier transition of other private, non-profit corporations to consolidate into the Agency to develop a more robust entity that promotes internal growth and an economy-of-scale modeling that provides for more efficient operations and service delivery (as an expanded, consolidated special taxing district would also provide – just without the independent governance structure and municipal benefits that would be afforded to the employees).

2.3 – Recruitment and Retention Recommendations

Two of the largest factors contributing to the recruitment and retention challenges facing PCRRBEMS are (1) low pay and benefits and (2) a lack of career development opportunities. Each of these factors are not necessarily unique to PCRRBEMS (only); rather, they are common factors leading to recruitment and retention challenges for many EMS agencies within Westchester County and throughout the nation.

Regarding the Agency's low pay and benefits, the results of the employee engagement survey echo this challenging sentiment as 78% of PCRRBEMS employees do not feel their pay is adequate for their position. The Agency's poor benefits package – which does not include any retirement options – also leads to this sentiment. The disparity in pay between PCRRBEMS's EMTs/paramedics and local City/Village police officers and firefighters is also a driving point highlighting the low pay for Agency employees. Comparatively, a starting EMT is paid nearly 30% less than the lowest starting Municipal firefighter, while a starting paramedic is paid slightly higher than the lowest starting Municipal firefighter. Building into their careers, this pay disparity becomes significantly evident, as EMTs become nearly 50% underpaid and paramedics become greater than 20% underpaid at five years when compared to the lowest paid five-year Municipal firefighter. Expanding this comparison to local Municipal police officers, the disparity between a five-year PCRRBEMS paramedic and the lowest-paid five-year Municipal police officer is a gap (decrease) of 30%. Facts like these hardly play into building a positive retention culture for PCRRBEMS's EMTs and paramedics. To mitigate these challenges, PCRRBEMS needs to pay (and the Municipalities need to support pay) and provide benefits that are comparable to their law enforcement and fire service colleagues.

Because PCRRBEMS is a relatively small EMS agency, there is little opportunity for promotional or professional growth within its ranks. Employees have the potential to become a supervisor, but beyond this potential, there is no organizational structure or hierarchy that can be built into the present agency. To mitigate this, the only real opportunity for the Agency to develop upwards is for it to expand outwards, which means that it needs to get bigger through further local consolidation efforts.

Addressing these factors as outlined above will place PCRRBEMS, or its future agency, in a class well above its neighboring EMS agencies. Without both of these changes, PCRRBEMS will remain a continual competitor in an employment market with a decreased pool of new local candidates and a highly transient local workforce that is often moving from one agency to the next to capitalize on what little financial opportunity to live exists.

Further expansion of these recommendations can be found in later sections of this report.

2.4 – Organizational Model Recommendations

Within this Study, four primary organizational models were examined along with five additional sub-models, in addition to the option of the Municipalities supporting no EMS agency/9-1-1 ambulance services altogether. In its conclusion, two organizational models prevailed as recommended options for the future: (1) Special Taxing District and (2) Non-Profit (PCRRBEMS's current model).

The primary recommendation of this Study gravitates toward PCRRBEMS dissolving its 501(c)(3) corporation after it develops a special taxing district agency, along with re-branding its name to be more regionally inclusive and representative. Operating as a special taxing district will allow the Municipalities involved to maintain their equal sense of oversight and representation all while not having to budget at the municipal level to provide for contracted EMS/ambulance services. This is because a special taxing district operates as its own tax-generating entity. Within this "municipal" model, additional potential opportunities will exist for the new district/agency to qualify its employees for state health insurance and pension benefits. With regards to billing revenues and billing cost recovery, future legislation approval could also make ambulance supplemental payment program benefits available to the district which would decrease the overall tax funding needs by providing another revenue stream opportunity that is otherwise not afforded to private EMS agencies (including non-profit).

If the successful development of a special taxing district is not accomplished, it is recommended that PCRRBEMS remain as a non-profit 501(c)(3) corporation that contracts with its respective Municipalities to provide services. Remaining as a non-profit corporation, moreover, means that its employees will remain ineligible to receive state benefits and the Agency will likely remain ineligible to receive potential ambulance supplemental payment program benefits as well. Despite this difference, remaining as a non-profit corporation is still recommended over other municipally based options that are available for consideration.

In either recommended model (transitioning to a special taxing district or remaining as a non-profit corporation), substantially increased municipal funding will be necessary to sustain the recommended pay structure, improved benefits packages, better aligned organizational oversight/support, and capital improvements of the ambulance service. Tying into either recommendation, the Municipalities and Agency should set their sights on collaborating with neighboring communities and EMS agencies to become a larger – combined, consolidated – EMS agency. By becoming a larger agency – in either organizational model structure – there is greater ability to increase the service coverage tax base, provide for an economy-of-scale model to promote operational and financial efficiencies, and offers better success toward addressing the recruitment and retention issues of pay and benefits and career development. In either organizational model structure, this future district/agency would become a best practice example for the rest of the County and State to follow in terms of EMS organizational modeling, shared/consolidated services, and multi-community collaboration.

Further expansion of these recommendations can be found in later sections of this report.

2.5 – Key Observations

- Multiple observations and recommendations from the Agency's 1993 consultant report remain in existence today, nearly three decades later, and are current observations/recommendations of this consulting firm and final report.
- There exists a deep-rooted sense of need for "local control" which results in a highly fragmented and siloed EMS, law enforcement, fire service, and communications system within each of the stakeholder Municipalities, and throughout all of Westchester County. Port Chester, Rye, and Rye Brook, moreover, have demonstrated the ability to work together on shared services in many other service areas, which bodes well for working out a new long-term solution.
- Low pay and benefits are a primary source of vulnerability for the PCRRBEMS with regard to employee recruitment and retention efforts. This low pay structure is comparable overall to other local EMS agencies, however, it is not comparable to local fire service and law enforcement employees, which results in a disparity between the existing public safety entities.
- A PCRRBEMS paramedic makes approximately 20% less in wages than a local firefighter and 36% less than a local police officer even at five years of service. An EMS supervisor is paid nearly 40% less than the lowest-paid local police supervisor.
- PCRRBEMS's total current operating budget is hardly one-third of the combined budgets for each Municipality's fire department – which equates to nearly $9.8 million – and relies on the contractual contributions from the Municipalities to sustain its operations.
- PCRRBEMS's administrative (non-clinical/-operational) functions are consuming the availability of its EMS Administrator on a daily basis, preventing those operating in this position from focusing on strategic and master planning items.

2.6 – Key Recommendations

- **HIGH PRIORITY – SHORT-TERM, IMMEDIATE** Pay and benefits offered by PCRRBEMS must be increased substantially to be comparable to City/Village firefighters and police officers, including supervisory and administrative staff. This should initially be accomplished through contracted service support by the municipalities and eventually should be maintained by regular taxpayer support.

- **HIGH PRIORITY – SHORT-TERM, IMMEDIATE** PCRRBEMS should consider hiring or contracting a business manager to manage its non-clinical functions such as financing/budgeting, human resources, vendor relations and procurement, corporate compliance and auditing, information technology, and payroll operations.

- **MEDIUM PRIORITY – SHORT-TERM, IMMEDIATE** PCRRBEMS should consider promoting or hiring a full-time manager-level position with a rank/title of Captain (or above) assigned to planning and logistics functions like training, quality assurance, data management, and supply chain management.

- **HIGH PRIORITY – SHORT-TERM, 1-YEAR** PCRRBEMS and the Municipalities should consider transitioning their 9-1-1 call-taking and dispatching services for all medical (EMS) calls to the County's Emergency Communications Center (ECC), rather than individually though each municipality's police department (current primary public safety answering point (PSAP). While an initial short-term transfer may occur making the ECC its new secondary PSAP of preference, long-term actions should be taken to transition all 9-1-1 calls to the ECC or another combined call-taking source as a future primary PSAP.

- **HIGH PRIORITY – SHORT-TERM, 1-YEAR** PCRRBEMS and its stakeholder Municipalities need to begin communicating with their neighboring EMS agencies and communities to lay the framework for a larger, consolidated, tax-funded special taxing district model EMS agency that covers a larger portion of southern Westchester County under a re-branded name that is more regionally inclusive and represented for other EMS agencies to join.

- **MEDIUM PRIORITY – SHORT-TERM, 1-YEAR** PCRRBEMS should reconstruct its Board structure to align with a more community-representative model, placing current Municipal administrator/manager positions in a non-voting and advisory role and elected community members in voting positions.

- **MEDIUM PRIORITY – SHORT-TERM, 1-YEAR** PCRRBEMS and its partnering Municipalities should seek to work with other local/regional EMS agencies, their represented communities, and the County's EMS Division to establish a local mutual aid response system and plan. The plan would define the appropriate use of mutual aid versus supplemental response services, and outline approved countywide dispatching processes for requesting mutual aid resources. This includes unit relocations/standbys and addresses potential situations of mutual aid abuse by communities that rely on it thereby utilizing at a supplemental response service for daily operations.

- **LOW PRIORITY – LONG-TERM, 3-YEARS** The Municipalities should reexamine shared service and consolidation opportunities between their individual fire department and police department entities – including 9-1-1 call-taking and police dispatching services – to follow a model much like what is outlined in this final report for PCRRBEMS, promoting further consolidated (tri-Municipality or regional) efforts.

SECTION 3: LOCAL COMMUNITY AND EMS SYSTEM OVERVIEW

3.1 – Local Community Overview

3.1.1 – Westchester County

Starting at the county level, each of the communities represented by PCRRBEMS reside within Westchester County, New York, which is located in the southern portion of the state along the Long Island Sound (waterway) and border the southwest tip of Connecticut. The County's population of approximately 1 million residents (1,004,457 based on 2020 U.S. Census data) spans over 430 land square miles. [7] To the County's north is its bordering Putnam County and corner bordering Orange County (northwest corner). To the south, Bronx County, which is the bordering gateway into the City of New York, along with the Long Island Sound (waterway), which separates mainland New York State with Long Island. Primarily to the east is the Town of Greenwich within Fairfield County, Connecticut, and to the west is Rockland County and Bergen County, New Jersey, which are physically separated from the County by the Hudson River. Because of this convergence of population around the City of New York and its harbors, Westchester County borders two different states; one on either side of its east and west borders. While the border with New Jersey does not directly impact the residents served within – or the operations of – PCRRBEMS's system of care, its border with Connecticut does have an impact, as the majority of patient transports are brought into that state.

Figures 3.1, 3.2, and 3.3, below, outline the County's borders and municipal entities.

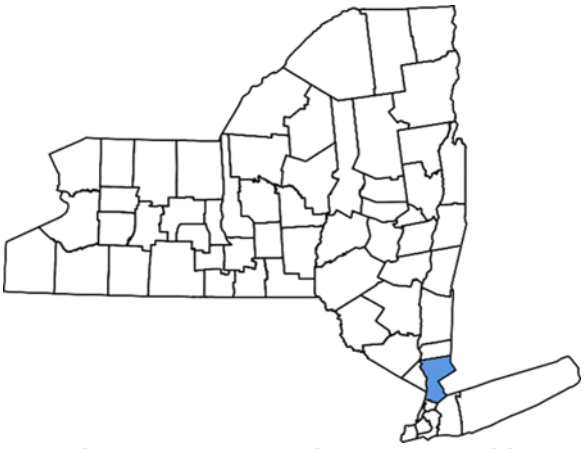


Figure 3.1: New York State Map with Westchester County [8]

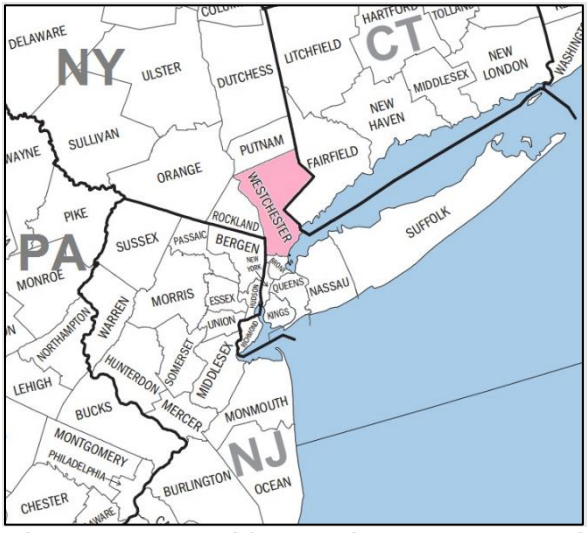


Figure 3.2: Map with Westchester County and Bordering Counties [9]

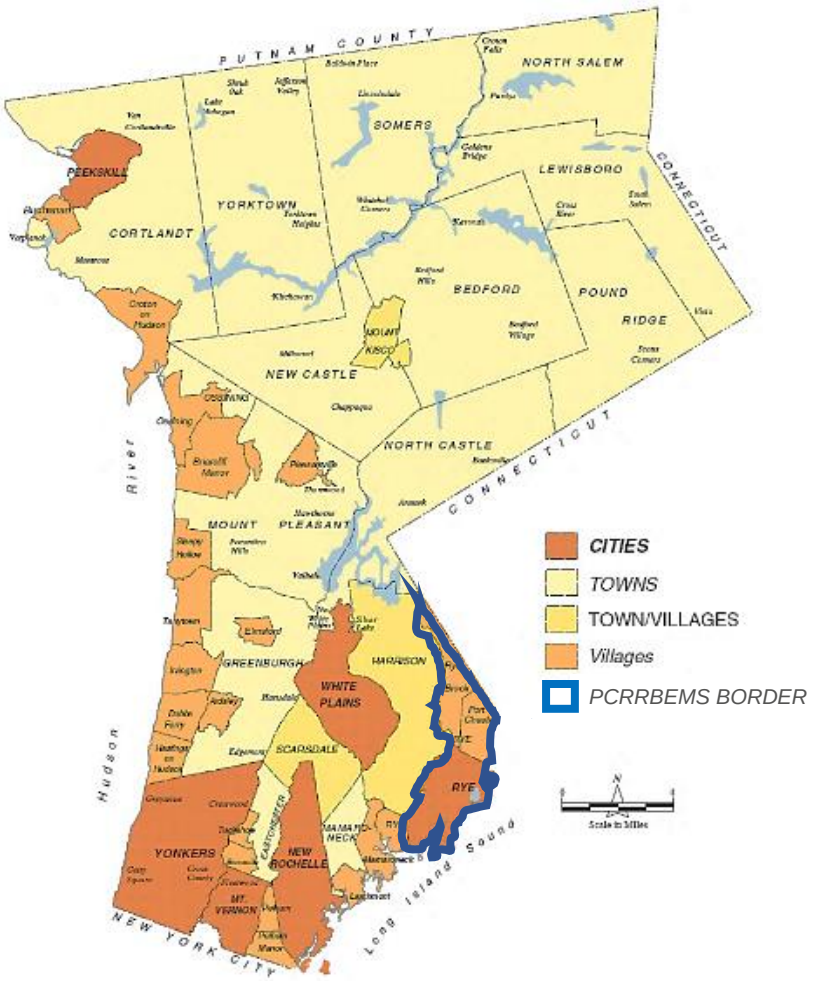


Figure 3.3: Westchester County Municipality Map [10]

Looking at Westchester County beyond its population and geographic demographics, a growing area of local interest relates to different social determinants of health, such as access to medical care, social and community outreach, neighborhood support, economic stability, and education (***Figure 3.4***). [11] An example resource that provides counties throughout the country with a comparable, numerical value reflecting 10 different community, health care, and socioeconomic factors is the "Healthiest Communities" ranking by U.S. News and World Report. Within this report, counties are assessed based on the categories of – and with subsequent subcategories within – population health, equity, education, economy, housing, food and nutrition, environment, public safety, community vitality, and infrastructure. Each category provides a 0-100-point score, along with an overall health score, as a tangible comparable for counties to reference. [8]

Figure 3.4: Social Determinants of Health Image

Figure 3.5 shares the scores of some of the categories, including the County's overall health score, which is 67 (out of 100). Statewide, other counties have an overall average score of 58, while the national average is 48. Amongst identified comparable counties – or peer groups – the average is a score of 59. The County's highest score reflects the public safety category with a score of 91. Public safety – within the context of this scoring tool – is reflective of low crime rates, few deaths from motor vehicle collisions, and access to identified emergency care. This category does not directly mention emergency medical services (9-1-1 ambulance services) as a factor. Of note within this category, it does expand to highlight that the per capita spending on health and emergency services within Westchester County is $902, while its identified peer group spends $448, and $359 is spent nationally. This elevated value may be a result of the significant number of police, fire, and EMS/ambulance agencies located within the county, as comparable counties throughout the country typically have significantly fewer total numbers of public safety agencies, which is outlined in further detail later in this report. The lowest score graded for the County relates to equity, which was a score of 17. Education equity, health equity, and income equity appear to be driving factors behind this low score. Overall, Westchester County ranked #343 out of over 3,000 evaluated counties nationwide. Its neighboring counties all ranked higher (better; lower-ranking number) with the following scores: Putnam County: #131, Rockland County: #224, Orange County: #60, Bronx County: #41, Fairfield County (CT): #311, and Bergen County (NJ): #92. [8]

Westchester County – County Overview

Population
1,004,457 *(2020)* [7]

Land Area
430.5 sq. mi. [7]

County Borders
Bronx County
Orange County (corner)
Putnam County
Rockland County
Bergen County, NJ
Fairfield County, CT
Long Island Sound (Waterway)

Population and Land Citation [7]
Additional Source Information [8]

Overall Health Score
67*/100*
(NY average: 58)
(U.S. average: 48)

Population Health Score
86*/100*
Population without Health Insurance: 5.8%
Access to Care Score: 72
Health Behaviors Score: 83
Health Conditions Score: 65
Health Outcomes Score: 80
Mental Health Score: 87

Equity Score
17*/100*
Education Equity Score: 20
Health Equity Score: 22
Income Equity Score: 25
Social Equity Score: 53

Economic Score
87*/100*
Unemployment Rate: 3.6%
(National Median: 3.7%)
Median Household Income: $96,610
(National Median: $51,758)
Poverty Rate: 8.8%
(National Median: 14.2%)
Employment Score: 79
Income Score: 88
Opportunity Score: 81

Housing Score
35*/100*
Work Hours Needed to Pay for Affordable Housing: 59.2
Housing Affordability Score: 27
Housing Quality Score: 85

Community Vitality Score
39*/100*
Community Stability Score: 35
Social Capital Score: 45

Figure 3.5: Westchester County – County Overview

3.1.2 – Village of Port Chester

The Village of Port Chester lies within the boundaries of the Town of Rye and is in the southern/southeast corner of Westchester County. It shares its largest border with the Village of Rye Brook, followed by the Town of Greenwich, Connecticut. The Village's population consists of approximately 54% of PCRRBEMS's citizen coverage and only 20% of the Agency's land area coverage (***Figure 3.6*** contains additional Village information).

Village of Port Chester – Community Overview

Population
31,693 *(2020)* [7]
Approx. Daytime: 24,260 [12]
2.33 sq. mi. [7]

Land Area
Growth Rank: 698 out of 1529 municipalities in New York [12]
Households: 9072 [12]
Median Home Value: $446,900 [12]
Median Income: $74,920 [12]

Community Borders
City of Rye
Village of Rye Brook
Town of Greenwich, CT
Long Island Sound (Waterway)

Population and Land Citation [7]
Map Citation [13]
Community Seal Citation [14]

Figure 3.6: Village of Port Chester – Community Overview

3.1.3 – City of Rye

The City of Rye is one of six cities within Westchester County and is in the southern/southeastern corner of the County. It shares its largest border with the Town/Village of Harrison but does also share borders with both the Village of Port Chester and small portion of the Village of Rye Brook. The City's population consists of approximately 28% of PCRRBEMS's citizen coverage, but 50% of the Agency's land area coverage (***Figure 3.7*** contains additional City information).

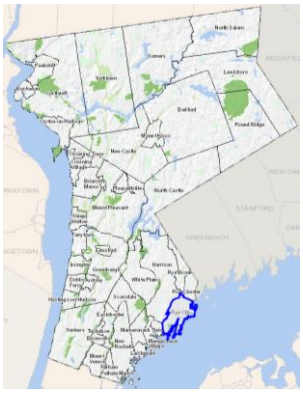
City of Rye – Community Overview

Population and Land Area
16,592 *(2020)* [7]
Approx. Daytime: 19,221 [15]
5.85 sq. mi. [7]

Demographics
Growth Rank: 702 out of 1529 municipalities in New York [15]
Households: 5491 [15]
Median Home Value: $1,392,100 [15]
Median Income: $192,688 [15]

Community Borders
Town/Village of Harrison
Village of Port Chester
Town of Rye, Village of Mamaroneck
Village of Rye Brook
Long Island Sound (Waterway)

Map Citation [13]
Community Seal Citation [16]



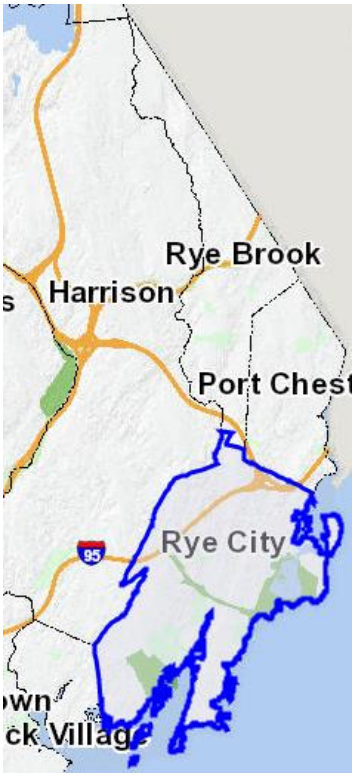


Figure 3.7: City of Rye – Community Overview

3.1.4 – Village of Rye Brook

The Village of Rye Brook lies within the boundaries of the Town of Rye and is located in the southern/southeast corner of Westchester County. It shares its largest border with the Town/Village of Harrison, followed by the Town of Greenwich, Connecticut. The Village's population consists of approximately 17% of PCRRBEMS's citizen coverage and 30% of the Agency's land area coverage (***Figure 3.8*** contains additional Village information).

Village of Rye Brook – Community Overview

Population and Land Area:
10,047 *(2020)* [7]
Approx. Daytime: 11,603 [17]
3.43 sq. mi. [7]

Demographics:
Growth Rank: 429 out of 1529 municipalities in New York [17]
Households: 3418 [17]
Median Home Value: $725,400 [17]
Median Income: $141,652 [17]

Community Borders
Town/Village of Harrison
Town of North Castle
Village of Port Chester
City of Rye
Town of Greenwich, CT
Long Island Sound (Waterway)

Map Citation [13]
Community Seal Citation [18]

Figure 3.8: Village of Rye Brook – Community Overview

3.1.5 – Town of Rye

The Town of Rye exists as a split municipal entity that contains the Villages of Port Chester and Rye Brook (to its north) – both of which are served by PCRRBEMS – as well as approximately half of the Village of Mamaroneck (to its south). The Mamaroneck portion of the Town (Rye Neck) is not covered by PCRRBEMS. *Wherever possible in this report, demographic information from each Village is attempted to be represented separately than that of the collective Town. Because of this split complexity, however, there are isolated circumstances of difficulty in breaking out specific data respective to each Village because of the combined polling/data collection presented as Town data.* While the majority of the Town has EMS coverage provided by PCRRBEMS, it is not considered a direct partner in the oversight boards of PCRRBEMS as a corporation, nor is it, as a municipality, a direct source of funding for the operation of the EMS Agency (***Figure 3.9*** contains additional Town information).

Town of Rye – Community Overview

Population and Land Area
(Contains the Village of Port Chester, Village of Rye Brook, and a portion of the Village of Mamaroneck)
7.35 sq. mi. *(approximately)* [7]

Community Borders
Town/Village of Harrison
Town of Mamaroneck
City of Rye
Town of Greenwich, CT
Long Island Sound (Waterway)

Map Citation [13]
Community Seal Citation [19]

Figure 3.9: Town of Rye – Community Overview

3.1.6 – Communities – in "One Word"

A direct challenge for any individual or municipality would be to characterize themselves into one word or phrase. To serve as a summary point and contextual reference for each of the three communities represented in this Study, our firm was able to extrapolate three commonly noted or shared words that best reflect the population, culture, demographics, and vision of the Village of Port Chester, City of Rye, and Village of Rye Brook (noted below in no particular or reflective order).

"Mighty"

Being categorized as a city or village does not reflect the full capability – or resiliency – of each of the communities represented in this Study. Each is prided upon working together with their neighboring municipalities, being strong in their local support, responsible in their actions, and focused on community strength … small, but still mighty!

"Engaged"

Community pride has fostered an environment where respective citizens want to be informed, involved, and invested in their available services. This often leads to financial support, appreciation for outreach efforts, and a sentiment of appreciation toward those who serve to keep them safe.

"History"

The overall history of the region dates back well before our nation's founding and has seen tremendous growth from its rural roots. Now characterized as an urbanized area, each community continues to have remnants of its historical pride and past visible throughout its landscape.

3.1.7 – Consultant's Local Community Observations

A unique finding through the stakeholder interviews for this Study uncovered a common sentiment that Westchester County was touted as "one of the most affluent counties in the country" and "one of the most expensive places to live in the country." These statements are supported by the County's overview data showing low overall equity scores (17/100), low overall housing score (35/100), low affordable housing score (27/100), high median household income ($96,610), and high number of hours needed to pay for affordable housing (59.2 hours/week). Factors like these significantly impact the overall EMS provider workforce as the vast majority of EMTs and paramedics – both locally and nationwide – do not earn wages that are respectively comparable to those required to live within counties like Westchester County.

The employee engagement survey conducted in conjunction with this Study (and outlined in more detail later in this report) highlights the direct impact the "affluence" and "expensiveness" of living and working in Westchester County has, as nearly 60% of PCRRBEMS's employees work for at least one additional EMS agency. Nearly 80% do not feel as though they are paid adequately for their position, and greater than 50% of the employees shared that they work more than 60 hours per week, with 15% working more than 80 hours per week covering different EMS shifts. Findings and factors like these further highlight the County's workforce stress.

3.2 – Local EMS System Overview

3.2.1 – Westchester County EMS System Overview

EMS oversight exists within the County at an advisory level, not a regulatory level. Regulations related to EMS provider licensing and ambulance inspections are handled at the state level. Locally, the advisory involvement of the County is housed within its Department of Emergency Services, Division of EMS.

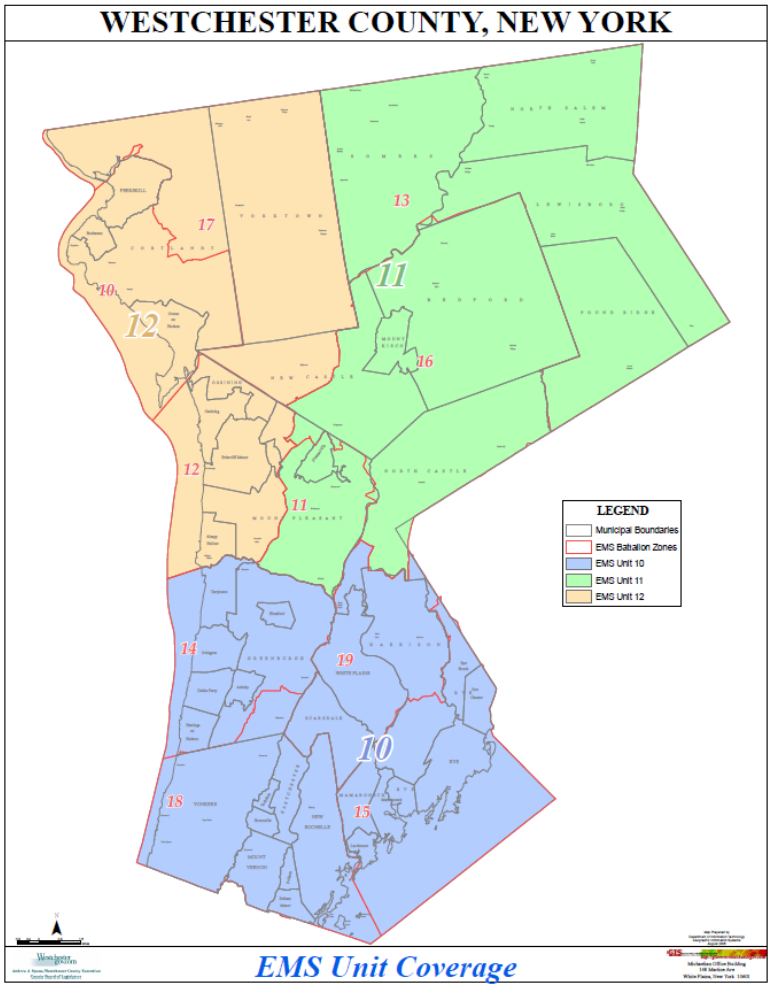


Figure 3.10: Westchester County EMS Zone Map

The EMS Division facilitates communications between EMS agencies and the County, assists with mutual aid coordination during large-scale incidents, and is available to provide on-scene incident management support when necessary. The County is divided into 10 EMS zones – or battalion zones – to help facilitate coordinated activities during large-scale incidents and multi-jurisdictional training ventures (***Figure 3.10***). [20] Part of the over-arching ambition of this Division is to focus on the local EMS system; not the individual dynamics, administration, or operations of any one EMS agency. Within this system approach is direct correlation to the County's 9-1-1 dispatch and communications center, or Emergency Communications Center (ECC), which is locally referred to as "60-Control." This robust division and integrated service provides both primary and secondary public safety answering point (PSAP) services to several fire and EMS agencies throughout the County. Further details related to dispatching services will be forthcoming in this report.

Within this advisory structure, PCRRBEMS – along with its neighboring communities including those of Mamaroneck, Larchmont, and the majority of Harrison – exist within zone 15. Because the County only serves in an advisory role, there is no regulatory oversight that it can provide to assure any form of standards compliance. Examples of standards would be service contract adherence, or local certificate of need to provide a form of self-regulation within the County to aid with keeping the number of service providers to a feasible or accountable number.

To put the number of first response and ambulance service providers into perspective, there are a total of 41 individual ambulance service providers and an additional three first response agencies listed within the County, according to the New York Department of Health, Bureau of EMS. [21] ***Table 3.1*** outlines the organizational model breakdown of each of the 41 individual ambulance services within Westchester County. Examples of different ambulance service models are outlined below.

- **Municipal** – Also referred to as "Municipal/3rd Service," this reflects ambulance services and other EMS agencies that are either owned/operated by a municipality (city, county, or special taxing

district) but are separate from local fire departments. Hereinafter within this report, such agencies may be referenced as "municipal" or "special taxing district" regarding their organizational model type.

- **Fire Department** – Ambulance services and other EMS agencies that are owned/operated by a fire department, which may be a municipal model or an independent (most-commonly a non-profit corporation) model.
- **Commercial** – Ambulance services and other EMS agencies that are owned/operated by a private, for-profit company, which contracts with municipalities to provide services. Hereinafter within this report, such agencies may be referenced as "private" regarding their organizational model type.
- **Independent** – Ambulance services and other EMS agencies that are owned/operated by a non-profit corporation, which contracts with municipalities to provide services. This is the model currently utilized by PCRRBEMS. Hereinafter within this report, such agencies may be referenced as "non-profit" regarding their organizational model type.
- **Other** – Ambulance services and other EMS agencies that are owned/operated by another source or entity, such as the federal government (as seen with Veterans' Affairs hospitals and military bases, hospitals (although, some states categorize these as commercial or independent service delivery models), colleges and universities, public safety departments and police departments, or industrial companies which typically provide services only for their site.

COUNTY	STATE	2020 POPULATION	TOTAL AMBULANCE SERVICES	*MUNICIPAL*	*FIRE DEPT.*	*COMMERCIAL*	*INDEPENDENT*	*OTHER*	POP. per AGENCY
Westchester	NY	1,004,457	**41**	*7*	*6*	*4*	*23*	*1*	24,499

Table 3.1 – Ambulance Service Model Types and Population Representation

As indicated, there are 41 individually listed ambulance services within Westchester County. Breaking this total down, 23 of these services operate under an independent organizational model, which equates to a 56% representation within the County. ***Figure 3.11*** also shows the County's ambulance service model breakdown, but in a graphic presentation. With respect to population representation, the prior table shows that there is one ambulance service for every 24,499 citizens within the county. This represents the number of ambulance services, not individual ambulance units/apparatus. A brief, non-exhaustive listing of Westchester County EMS agencies categorized within each model type is listed below, along with the listed address/municipality on file with the State of New York EMS Office – in parenthesis.

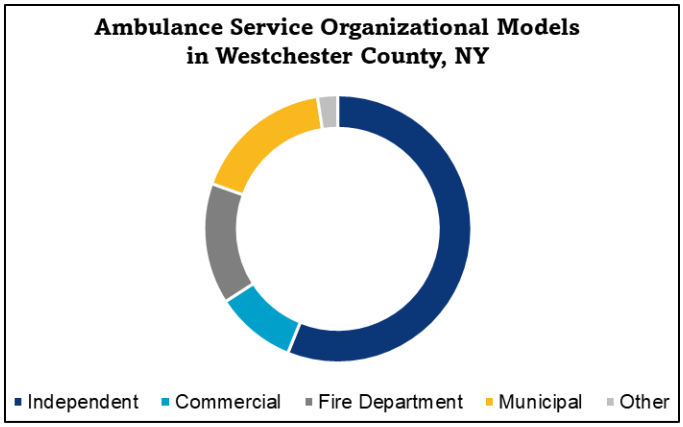


Figure 3.11: Graph of Ambulance Service Organizational Models in Westchester County

- **Municipal** – Croton-on-Hudson EMS (Croton-on-Hudson), Greensburg Police Department (White Plains), Sleepy Hollow Volunteer Ambulance Corps (Sleepy Hollow)
- **Fire Department** – Bedford Fire Department (Bedford), Hawthorne Fire District (Hawthorne), Somers Fire District (Lincolndale), Vista Fire Department (South Salem)
- **Commercial** – American Medical Response (New Rochelle), Emergacare NY (Yonkers), Empress Ambulance Service (Yonkers), Starnet Emergency Services (Mount Kisco)
- **Independent** – Cortlandt Community Volunteer Ambulance Corps (Montrose), Harrison Volunteer Ambulance Corps (Harrison), North Salem Volunteer Ambulance Corps (Croton Falls)
- **Other** – VA of Hudson Valley (Montrose)

Reflecting upon and comparing to other counties within the state that either border or have a population close to that of Westchester County, a relative pattern begins to emerge. This pattern shows high numbers of individual ambulance services populating counties, leading to a lower population base served by each ambulance service entity. ***Table 3.2***, below, displays this local and statewide comparison.

COUNTY	STATE	2020 POPULATION	TOTAL AMBULANCE SERVICES	*MUNICIPAL*	*FIRE DEPT.*	*COMMERCIAL*	*INDEPENDENT*	*OTHER*	POP. per AGENCY
Putnam	NY	98,532	**11**	*1*	*6*	*0*	*4*	*0*	8,957
Rockland	NY	326,225	**16**	*1*	*1*	*1*	*13*	*0*	20,389
Orange	NY	385,234	**22**	*0*	*0*	*2*	*19*	*1*	17,511
Erie	NY	917,241	**52**	*5*	*36*	*3*	*8*	*0*	17,693
Westchester	NY	1,004,457	**41**	*7*	*6*	*4*	*23*	*1*	24,499
Nassau	NY	1,351,334	**71**	*18*	*42*	*2*	*6*	*3*	19,033
Bronx	NY	1,401,142	**9**	*0*	*0*	*6*	*1*	*2*	155,682
Suffolk	NY	1,474,273	**101**	*31*	*36*	*5*	*25*	*4*	14,597

Table 3.2 – Local and Comparable New York County Ambulance Service Model Types and Population Representation [citations in text]

Unique to each county in New York is its breakdown of different organizational models. However, independent models like the one utilized by PCRRBEMS are common throughout the state and nation, especially amongst traditionally volunteer (or paid-on-call/paid-per-call) staffing organizations. Locally, counties like Putnam, Rockland, Orange, and Bronx appear to lean more heavily on the private contracting models, such as commercial and independent. Elsewhere in the state – and with a similar population to Westchester – counties like Erie, Nassau, and Suffolk tend to favor more municipally-oriented models that are primarily tax-supported and consist of fire departments and city ambulance services. Respective to each of these more municipally-oriented counties, the integration of ambulance services into fire departments seems to be the driver behind why this variance exists. Such fire-based EMS agencies are very common nationally, but do not necessarily reflect the local culture, history, finances, or staff availability of all communities within a given region. As such, an observed prominence alone of one type of organizational model within a given region should not necessarily reflect what is best for each municipality or neighboring region. Multiple additional factors (outlined later in this report) play into the decision-making process for local municipalities as they determine which organizational model best fits the needs of their community.

The findings within the "total ambulance services" and "population per agency" columns in the outlined tables are not atypical of many northeastern states like New York, Connecticut, or Maryland, when it comes to the representation of EMS (or fire) agencies within a given populous. While the population per agency is a total average number (not directly an exact reflection of each individual agency's representation), this value shows the overabundance of agencies covering general populations; not just the number of ambulances covering a given population. Most notably, Suffolk County has 101 different ambulance services operating within its borders, along with Nassau County following with 71 ambulance services. These numbers are both typical and staggering; typical in comparison to other New York counties but staggering when compared to other counties throughout the nation. This is often because of a longstanding "need" or sentiment for "local control" at the municipal level, even if that equates to overall system redundancies or inefficiencies. Looking elsewhere in the country, this sentiment (and these numbers) simply isn't as prominent as it is in the Northeast. ***Table 3.3***, below, shows how Westchester County compares to other counties throughout the country with a similar population with respect to its number of ambulance services and the different organizational model breakdown within each county.

COUNTY	STATE	2020 POPULATION	TOTAL AMBULANCE SERVICES	*MUNICIPAL*	*FIRE DEPT.*	*COMMERCIAL*	*INDEPENDENT*	*OTHER*	POP. per AGENCY
Denton	TX	906,614	**17**	*2*	*12*	*1*	*2*	*0*	53,330
Pierce	WA	921,130	**26**	*1*	*20*	*2*	*2*	*1*	35,428
Milwaukee	WI	939,489	**18**	*0*	*12*	*4*	*2*	*0*	52,194
Pinellas	FL	959,107	**1**	*1*	*0*	*0*	*0*	*0*	959,107
Westchester	NY	1,004,457	**41**	*7*	*6*	*4*	*23*	*1*	24,499
Fresno	CA	1,008,654	**6**	*0*	*4*	*1*	*1*	*0*	168,109
Collin	TX	1,064,465	**13**	*0*	*11*	*2*	*0*	*0*	81,882

CITATIONS: Denton County, TX [22] – Pierce County, WA [23] – Milwaukee County, WI [24] – Pinellas County, FL [25] – Fresno County, CA [26] – Collin County, TX [22]

Table 3.3 – National Comparable County Ambulance Service Model Types and Population Representation [citations in text]

When compared to other referenced counties throughout the nation, Westchester County contains more commercial and independent model ambulance services than each represented county combined. This is largely due to Westchester's (and New York's) historical tradition of maintaining longstanding volunteer ambulance corps as a primary source of ambulance service delivery, as opposed to incorporating individual or multiple smaller (prior) volunteer ambulance services into consolidated/merged fire departments or municipal EMS agencies. Factors contributing or resisting to this movement will be outlined later in this report.

3.2.1.1 – Additional EMS Advisory Boards and Councils

Additional local/regional advisory boards and councils exist within the County/region to provide high-level direction to each of the EMS agencies that seek such assistance. Coordinated efforts such as the development of standardized medical protocols, training delivery, operational advice, and hospital liaison services are attempted through each of these various organizations/entities, but not always to much avail, as board/council positions are voluntary, and participation is often lacking. Quorums are often not met, which further limits the ability of these entities to conduct actionable business. Because they are advisory in nature, they do not hold regulatory authority over issues such as compliance or performance but may have some direct influence in the physician medical direction/oversight provided to each EMS agency. This

affords more clinical oversight than operational or administrative oversight. Listed below are some advisory organizations represented within the county.

- Westchester County EMS Advisory Board
- Westchester Regional EMS Council (WREMSCO)
- New York Regional Emergency Medical Advisory Council (REMAC)

3.2.2 – Port Chester-Rye-Rye Brook EMS

In brief, Port Chester-Rye-Rye Brook EMS is a non-profit 501(c)(3) corporation that provides contracted services to the Village of Port Chester, City of Rye, and the Village of Rye Brook. Its total coverage population is approximately 58,000 citizens and has approximately 5,600-6,000 calls for service each year. Staffing consists of two-to-three advanced life support (ALS) ambulances per day, minimally staffed with a paramedic and emergency medical technician (EMT) under a paid staffing model. A detailed overview of PCRRBEMS will be provided in **SECTION 4**.

3.2.3 – Harrison EMS

Harrison EMS operates under a similar model to PCRRBEMS, which is a non-profit organizational structure (agency patch shown in ***Figure 3.12***). They cover the Town/Village of Harrison, Town of West Harrison, and the Town of Purchase, and shares the largest border with PCRRBEMS's coverage area. They receive approximately 2,900 calls for service each year and cover a population of approximately 28,000 citizens, staffing two ALS ambulances per day with paid staffing. Uniquely, their administrative structure incorporates corporate oversight by a civilian Executive Director, who is not medically trained nor certified, followed by a clinical Director of Operations who oversees the clinical and operational aspects of the agency. [27]

Figure 3.12: Harrison EMS Patch

3.2.4 – Mamaroneck Village Ambulance Squad EMS

Referred to as Mamaroneck EMS (MEMS), this neighboring agency also operates under a non-profit organizational model and covers a population of approximately 20,000 citizens within the Village of Mamaroneck (agency patch shown in ***Figure 3.13***). MEMS receives approximately 1,500-1,700 calls for service each year and staffs one ALS ambulance per day with a primarily basic life support (BLS) volunteer staffing model, with the paramedic (ALS provider) being contracted/provided by Mamaroneck Ambulance District. [28, 29]

Figure 3.13: MEMS Patch

3.2.5 – Larchmont/Mamaroneck Volunteer Ambulance Corps

Larchmont/Mamaroneck Volunteer Ambulance Corps (LVAC) is a nearby EMS agency operating under a similar non-profit organizational model while contracting with the Town of Mamaroneck and the Village of Larchmont (agency patch shown in ***Figure 3.14***). Their primarily volunteer staffing model responds to approximately 1,200 calls for service each year and covers a population of approximately 30,000 citizens, staffing one primary ALS ambulance. [30]

Figure 3.14: LVAC Patch Design

3.2.6 – Mamaroneck Ambulance District

The Mamaroneck Ambulance District exists primarily as an oversight organization that oversees the administration, operations, and quality of ambulance services provided by both the Mamaroneck Village Ambulance Squad EMS (MEMS) and the Larchmont/Mamaroneck Volunteer Ambulance Corps (LVAC). It is overseen by an ambulance district administrator and is listed as a municipal EMS agency within the state, as it provides part-time paramedic-level (ALS) providers to staff ambulances for MEMS. [31]

3.2.7 – Greenwich EMS (Connecticut)

Greenwich EMS (GEMS) borders PCRRBEMS's coverage area to the east (in Connecticut) and operates under a similar private, non-profit organizational model. GEMS operates with a primarily paid staffing model and responds to approximately 5,400 calls for service each year, covering a population of approximately 64,000 citizens in the Town of Greenwich. [32, 33] GEMS is a CAAS-accredited (Commission on Accreditation of Ambulance Services) organization and staffs a robust administrative team consisting of an Executive Director, Deputy Director, Director of Quality Assurance, Director of Finance, four Operations Managers, and five additional administrative service managers/staffers.

3.2.8 – Additional First Response Resources

First response resources within PCRRBEMS's coverage area are limited both in quantity and scope of practice. In context to the County's 41 ambulance services and three additional ALS-level first response agencies, the County has 58 individual fire departments that provide fire protection coverage within its borders. [34] Many of these fire departments are licensed as EMT-level, BLS first response agencies, however, none of the fire departments providing coverage within PCRRBEMS's area are licensed to this level. [21] For the vast majority of medical calls that are dispatched within the three communities, fire department resources do not respond unless the situation involves a motor vehicle collision or a special rescue situation. Industrywide, this is a common dynamic between separate fire and EMS agencies in smaller communities, but is uncommon in communities the size of Port Chester, for instance.

Additionally, many police departments within the County also provide licensed EMT-level (BLS) first response services; however, no police departments within PCRRBEMS's coverage area are licensed to this level. [21] What this means is although local police departments dispatch their officers to medical calls with a lights and siren response with the intent to provide first aid and/or CPR/AED (cardiopulmonary resuscitation/automated external defibrillator) care to patients, these officers are not licensed at any EMS provider level within the state through affiliation with their police department. As a result, any care rendered is provided as a citizen and not as a state-licensed EMS provider, and is similar to any care provided by the fire departments within the area, too.

3.2.9 – Hospital System

3.2.9.1 – Greenwich Hospital

Greenwich Hospital (Greenwich, CT) serves as the primary receiving hospital for the significant majority of PCRRBEMS's patient transports, which consists of approximately 70% of their patient transport volumes. The hospital functions as a local cardiac/chest pain facility with interventional cardiology services (e.g., angioplasty/cardiac catheterization, electrophysiology, pacemaker/defibrillator implantation), is listed as a Primary Stroke Center (e.g., tPA administration), and offers limited trauma care services. [35]

3.2.9.2 – White Plains Hospital

White Plains Hospital (Westchester County – White Plains, NY) serves as the second most common receiving hospital for PCRRBEMS's patient transports, consisting of approximately 25% of their patient transport volumes. The hospital functions as a local cardiac/chest pain facility with interventional cardiology services (e.g., angioplasty/cardiac catheterization, electrophysiology, pacemaker/defibrillator implantation), provides Primary Stroke Center care (e.g., tPA administration), and offers limited trauma care services. [36]

3.2.9.3 – Westchester Medical Center

Westchester Medical Center (Westchester County – Valhalla, NY) serves as the third most common receiving hospital for PCRRBEMS's patient transports, which consists of approximately 5% of their patient transport volumes. The hospital functions as a local cardiac/chest pain facility with interventional cardiology services (e.g., angioplasty/cardiac catheterization, electrophysiology, pacemaker/defibrillator implantation, coronary artery bypass grafting), is listed as a Comprehensive Stroke Center (e.g., tPA administration,

thrombectomy-capable, interventional neurovascular care), is the region's only Level-I trauma center for both adult and pediatric patients, and is the region's only burn care center. [37]

3.2.10 – Public Safety Answering Points (PSAP)

3.2.10.1 – PSAP System Overview

Five PSAPs act as touch points for 9-1-1 calls placed within PCRRBEMS's coverage area, while four of the five offer dispatching services with vast differences between one and the others. Primarily, landline-based 9-1-1 calls are received locally by each community's respective police department (servicing as a primary PSAP). Cellphone calls, however, are received throughout the entire state by the New York State Police (as a primary PSAP) and then transferred to an appropriate local secondary PSAP for individual unit dispatching, which is typically Westchester County Emergency Communications Center (ECC), or "60-Control" as it is referred to. Overall, there are approximately 40 individual PSAPs within Westchester County, primarily consisting of local police departments.

Nationally, standards published by the National Fire Protection Association (NFPA) outline call processing times and dispatching times that have been adopted by many PSAP agencies, accrediting bodies, and have even been scripted in service contractual language by many municipalities nationwide. Additionally, emergency medical dispatch (EMD) services and standards have been acclaimed as best practices within the EMS industry with regards to 9-1-1 call-taking and dispatching services – which are typically provided by dedicated staff resources. These EMS services include medical priority dispatching services (MPDS), which prioritize unit responses based on medically- and data-driven algorithms designed to (1) prioritize calls to be dispatched by order of highest-acuity first, (2) provide response recommendations for or against the use of lights and siren by responding BLS and ALS units, and (3) provide telephonic pre-arrival care instructions to callers to provide on-scene care for life-threatening emergencies such as choking, cardiac arrest, and major bleeding. Agencies that deploy these best practice resources are held to high standards with regards to call-taker/dispatcher training, protocol adherence and quality assurance, technological upgrades and advancements, call time compliance benchmarks, data management, and utilizing physician medical director services for process/procedure development and program oversight. Additional enhancements often utilized by such PSAP centers include Next Gen 911 (NG911) services, text-to-911 call receiving, utilizing advanced mapping systems and geolocation services, and integrating computer-aided dispatching (CAD) software and data management systems.

Within Westchester County, most PSAPs do not meet the aforementioned best practice standards of providing EMD/MPDS services for medical 9-1-1 calls. Regarding dispatching services for PCRRBEMS, only one affiliated PSAP entity has the ability to provide such services. Of note, none of the PSAPs have reliable Spanish language capabilities for 9-1-1 call intake/processing or EMD.

3.2.10.2 – Port Chester Police Department

The Port Chester Police Department functions as the primary PSAP for 9-1-1 calls that are placed via landline within the Village of Port Chester. The Department staffs its dispatch center with a rotating group of desk-assigned Sergeants (police officers), who also perform jail inmate processing and paperwork duties between 9-1-1 calls and radio transmissions. These officers alternate on a daily/shift basis and have minimal training with regards to medical communications center operations beyond their system's operations. The department does not have any EMD/MPDS capabilities and offers minimal unscripted pre-arrival phone instructions for callers to care for life-threatening emergencies. Their data management consists of tracking only the dispatch address, time of dispatch, units assigned, and the call type (e.g., police, medical) via records management software without integrated CAD or mapping capabilities. Because of their simplistic records management system, raw data cannot be extrapolated for comprehensive analysis. The Department does not have established process improvement or quality assurance standards with regards to medical dispatch procedures, nor does it have physician medical director oversight integrated into its process/procedure development or program oversight. Ambulance response times, on-scene times, transport en route times, hospital arrival times, and call clear times are not tracked by the police department's dispatch center and, therefore, need to be tracked by PCRRBEMS

manually. In the event that mutual aid resources are needed from elsewhere in the County, communication is made with the County Emergency Communications Center (ECC) to facilitate further unit dispatching.

3.2.10.3 – Rye Police Department

The Rye Police Department functions as the primary PSAP for 9-1-1 calls that are placed via landline within the City of Rye. The Department staffs its dispatch center with a rotating cadre of police officers who are typically assigned to patrol duties, except for their occasional rotation shift into the dispatch center. These officers alternate on a daily/shift basis and have minimal training with regards to medical communications center operations beyond their system's operations. The department does not have any EMD/MPDS capabilities and offers minimal unscripted pre-arrival phone instructions for callers to care for life-threatening emergencies. Their data management consists of tracking only the dispatch address, time of dispatch, units assigned, and the call type (e.g., police, medical) via records management software without integrated CAD or mapping capabilities. Because of their simplistic records management system, raw data cannot be extrapolated for comprehensive analysis. The department does not have established process improvement or quality assurance standards with regards to medical dispatch procedures; nor does it have physician medical director oversight integrated into its process/procedure development or program oversight. Ambulance response times, on-scene times, transport en route times, hospital arrival times, and call clear times are not tracked by the police department's dispatch center and, therefore, need to be tracked by PCRRBEMS manually. In the event that mutual aid resources are needed from elsewhere in the County, communication is made with the County ECC to facilitate further unit dispatching.

3.2.10.4 – Rye Brook Police Department

The Rye Brook Police Department functions as the primary PSAP for 9-1-1 calls that are placed via landline within the Village of Rye Brook. The Department staffs its dispatch center with a rotating cadre of Sergeants/police officers who are typically assigned to patrol duties, except for their occasional rotation shift into the dispatch center. These officers alternate on a daily/shift basis and have minimal training with regards to medical communications center operations beyond their system's operations. The Department does not have any EMD/MPDS capabilities and offers minimal unscripted pre-arrival phone instructions for callers to care for life-threatening emergencies. Their data management consists of tracking only the dispatch address, time of dispatch, units assigned, and the call type (e.g., police, medical) via records management software without integrated CAD or mapping capabilities. Because of their simplistic records management system, raw data cannot be extrapolated for comprehensive analysis. The Department does not have established process improvement or quality assurance standards with regards to medical dispatch procedures; nor does it have physician medical director oversight integrated into its process/procedure development or program oversight. Ambulance response times, on-scene times, transport en route times, hospital arrival times, and call clear times are not tracked by the police department's dispatch center and, therefore, need to be tracked by PCRRBEMS manually. In the event that mutual aid resources are needed from elsewhere in the county, communication is made with the County ECC to facilitate further unit dispatching.

3.2.10.5 – Westchester County Emergency Communications Center

Westchester County Emergency Communications Center (ECC) – or "60-Control," as it is referred to – functions as a secondary PSAP for many of the County's fire and EMS agencies. For some communities, all fire and EMS calls are immediately transferred to the ECC for further call processing and unit dispatching. For any situations that require mutual aid responses – or the need to dispatch a unit from a neighboring community for whatever reason – the ECC serves as the communication point that primary PSAPs refer to. The ECC is staffed by a minimum of five dedicated call-taker/dispatchers around the clock. The ECC utilizes an established EMD software to provide MPDS for all calls where they are the direct 9-1-1 call recipient (as is standard with EMS processes). PCRRBEMS does report that the ECC reportedly stops performing EMD procedures when they are faced with higher volumes of calls during any given time period, thus, making any subsequent response code recommendations less reliable. Part of this may also stem from the fact that the ECC is acting as a secondary PSAP to multiple other primary PSAPs – primarily the New York State Police – who receive all cellphone 9-1-1 calls within the region. In such instances where calls are

transferred from one PSAP to another, the “chain” links created restrict the ability of many EMD processes to be utilized because of the potential breech in reliability created.

The ECC does integrate a state-of-the-art geographic information system (GIS) based computer-aided dispatch (CAD) software into their comprehensive communications platform. Their communications center is supported by a CAD team to assure software functionality, a quality assurance team to provide process improvement and standards adherence, and physician medical director oversight to provide advisory services and protocol development for EMD process quality assurance. The ECC follows established NFPA standards for call answering and call processing time benchmarks and is able to share consumable data and reports with its current CAD software, including the capability of tracking all relevant call times with full data integration into established electronic patient care reporting (ePCR) software and mobile data terminal/computer (MDC/MDT) platforms. The services offered by the County’s ECC are scalable to handle large events, natural disasters, and increased/new community client additions. The ECC already provides primary dispatch services for the Port Chester, Rye, and Rye Brook fire departments (respectively).

Not without any shortcomings of their own, both anecdotal and evidenced stories can be shared by PCRRBEMS outlining the ECC’s variance away from EMD use for different 9-1-1 calls – particularly when the dispatch/call-taking center is busy – and instances where EMD recommendations did not match the chief complaint (or acuity level) of the patient. As such, further benchmarking metrics should be outlined to assure that appropriate EMD processes and performance standards are met if continued services are to be delivered by the ECC.

3.2.10.6 – New York State Police

The New York State Police functions as a primary PSAP for all cellular phone 9-1-1 calls within the state. Once received and the incident’s location is determined, the communications center transfers each call to its appropriate county communications center for further call processing and unit dispatching.

3.2.11 – Consultant’s Local EMS System Observations

3.2.11.1 – EMS System and Ambulance Service Observations

Our firm agrees with the common stakeholder observation and statement that the overall EMS system that exists within Westchester County is extremely “fragmented.” In general, and outside of a few examples such as PCRRBEMS and its Municipalities, there seems to exist a negative regional/statewide sentiment toward the concept of shared emergency services (via consolidation or merger) between many communities, which results in a need for local control and resulting siloed delivery models. This observation was also made in the 1993 consultant’s report, and likely existed for decades prior to their study. More related to this observation will be addressed further in this report, as this is seen as a high area of both concern and opportunity for PCRRBEMS (and its communities and all of Westchester County) moving forward.

3.2.11.2 – PSAP Observations

In agreement with the 1993 consultant’s report, our firm continues the recommendation that the communities of Port Chester, Rye, and Rye Brook – including PCRRBEMS – transition their dispatching services away from the three individual police departments and toward the existing Westchester County ECC operation.

While there has been speculation that there are delays in the County’s dispatching operations, the County’s ECC is fully capable of disputing such perceptions through time-validated data records and EMD-driven quality and performance standards, according to their interview statements. Throughout the interview process, many of the identified time delays and operational efficiencies stemmed from isolated reflections on Hurricane Sandy in 2012. Other similar EMS agencies within the County utilize the ECC’s services and note that the “benefits outweigh any perceived negatives,” as there is a distinctly positive difference when shifting to the County for 9-1-1 call-taking and EMS dispatching services.

PCRRBEMS does tout that its current practices afford the quickest response times because time is not dedicated toward further call screening by the 9-1-1 call-takers. EMS crews are routinely monitoring police radio traffic throughout the entire duration of their shift, and nearly all of their ambulance responses are with lights and siren activated. PCRRBEMS employees have shared that it can be very difficult – even distracting or "numbing" – to listen to police department radio traffic from three different police departments throughout the duration of their shift, rather than simply waiting and listening to their own (EMS) call/dispatch and radio traffic. While this may currently be the practice of the prior and present EMS administrative staff, it does not align with the EMS and 9-1-1 communications industries' best practices of today in regards to 9-1-1 call-taking processes, crew fatigue mitigation, and ambulance response recommendations.

Although a comprehensive evaluation and analysis of 9-1-1/PSAP operations was not performed as a part of this study, it is our firm's observation that the police departments do not follow established standards or best practices with respect to medical dispatching processes or procedures, nor do their assigned officers have formalized training within this discipline. The 9-1-1 call-taking and dispatching services offered by each of the police departments is sub-par with respect to industry best practices and recommended standards. Because the primary focus of the police departments' dispatching services is law enforcement focused, they fall short on meeting the dynamic needs of EMS agencies with respect to medical emergency call-taking and prioritization, EMS data management, and CAD software capabilities.

Reflectively, the departments have been filling a longstanding local need and believe that they are best equipped to continue in providing these services. Both PCRRBEMS and each police departments' administrative leaders perceive that the community benefits more from the current police dispatching services compared to the evidence-based best-practices that have been implemented nationwide through EMD/MPDS processes and better technological advancements. Both have expressed that they can understand and mitigate the nuances of their individual communities better than a County service can, citing "what if the caller uses a landmark" to describe their location; or "what if the 9-1-1 caller is a frequent caller, how will someone else know who the individual is?" In high population centers throughout the country, however, dispatching services are not typically performed by individual (local/municipal) police departments; they are performed by regional centers with full-time staff with a medical-discipline focus, including EMD (emergency medical dispatch) and call response recommendations.

Advanced and evidence-based technologies exist to combat these concerns and perceptions. These technologies and systems are built upon reliability standards, advanced locating technology, and artificial intelligence advancements. Looking at five-year data reflecting dispatch chief complaint (what the EMS units were dispatched for) compared to the EMS provider's primary impression (what they believed the patient complaint/issue is after an initial assessment), we can see the overall inconsistencies and lack of specificity provided by the dispatching entities (***Table 3.4***).

DISPATCH CHIEF COMPLAINT	% OF TOTAL CALLS	PROVIDER PRIMARY IMPRESSION	% OF TOTAL CALLS
Fall	11.3%	Musculoskeletal Injury	12.5%
Diabetic	5.3%	Trauma – Blunt	6.0%
Sick Person	3.6%	General Illness/Malaise	5.9%
Chest Pain	3.1%	Respiratory Distress	5.5%
Emotionally Disturbed Person	3.0%	Altered Level of Consciousness	4.5%
Intoxication	2.7%	Syncope/Fainting	3.9%
Syncope	2.5%	Soft Tissue Injury	3.8%
Unconsciousness	2.5%	Pain – Non-Traumatic	3.6%

Table 3.4: Comparison of Top 5-Year Dispatch Chief Complaints to Top 5-Year Provider Primary Impressions (2016-2020)

While the dispatch complaint of a fall (11.3%) seems to accurately align with provider impressions like musculoskeletal injury (12.5%), it seems understated when you add in other relevant impressions like trauma-blunt (6%), and soft tissue injury (3.8%), which bring the total to 22.8%. This is double what the dispatched chief complaint is. This is likely due to the absence of a call screening/triage process which asks a few evidence-based and -guided questions to help narrow and specify the actual emergency (or urgency) rather than relying solely on what the caller first states. More concerning than this example is the completely missed primary impression of respiratory distress (5.5% of calls) in the dispatched chief complaint category. What's missing as a result of this data is a higher level of specificity and accuracy that EMD/MPDS processes can provide – rather than relying on unscripted or even inconsistent questions posed to the 9-1-1 caller or patient by a medically-untrained 9-1-1 call-taker.

In the recommended (best practice) environment, dispatch chief complaints would lead to a response determinant code for the ambulance crew to consider or follow (such as "emergent" – with lights & siren, or "non-emergent"). The current practice of PCRRBEMS is to respond to all (nearly all) calls with the use of lights & siren. Multiple studies, articles, and position statements have been published criticizing this practice. Many arguments for the exclusive use of lights and siren for responses comes with justification toward meeting contractual response time standards by contracting or oversight entities. In situations where this may be the case, such response time standards should be re-clarified to differentiate between 9-1-1 calls that are determined to be "emergent" in nature (justifying the use of a lights and siren response), versus those that are determined to be "urgent" or "non-emergent" (which do not justify the use of a lights and siren response). Current industry standards that are often referenced indicate an "emergent" response standard or benchmark of 90% of such responses having a unit on-scene within 08:59 (8 minutes, 59 seconds), and a "non-emergent" response having a unit on-scene within 15-20 minutes of its dispatch time. Nevertheless, the information obtained in the call-taking phase of the 9-1-1 dispatch process should guide the response mode – with high reliability – that ambulance crews should follow. This, unfortunately, is not the practice for PCRRBEMS.

As a result of the current practices surrounding 9-1-1 call-taking and EMS dispatching services offered by the police departments, it is time that all parties involved put aside any differences that they might have and work collectively to promote a best-practice, efficient, and collaborative service where these responsibilities are transitioned to the County's ECC operations. The 40-or-so individual PSAPs within the County are another example of the widespread fragmentation that exists within the region and now is the time to take corrective, long-term actions to build a sustainable and more professional standard-aligned system. This is all to say that there are still some valid considerations that should be discussed in further detail related to: (1) County staffing needs and changes to account for the added call load, (2) foreign language translation processes to account for Spanish-speaking callers (as an example), (3) technology needs for PCRRBEMS to become fully-integrated in terms of information exchange and unit location monitoring, and (4) process changes to eliminate direct-to-station calls for ambulance services (as opposed to directly calling 9-1-1, which remains a very low quantity of overall means for the Agency receiving calls for service).

SECTION 4: CURRENT PCRRBEMS ORGANIZATIONAL MODEL AND AGENCY OVERVIEW

4.1 – Agency Background and Organizational Model Overview

4.1.1 – Historical Context

PCRRBEMS was founded in 1968 as the Port Chester-Rye-Rye Brook Volunteer Ambulance Corps (VAC) as a volunteer-staffed EMS agency serving the three municipalities as its primary response area. As call volumes and local system demands increased, this volunteer model began its transition toward a paid staffing model upgrading from an EMT (emergency medical technician) level of care to a paramedic level of care, thus, becoming an advanced life support (ALS) service (compared to BLS – basic life support). This transition began in the early 1990s and was further supported through the recommendations that resulted from the Agency's 1993 independent consultant report, which helped to form the career department that PCRRBEMS currently is, rather than the volunteer ambulance corps that it was developed as. This was seen as a pivotal time in the Agency's history. Below is a brief outline of the historical timeline of PCRRBEMS – or the prior PCRRBVAC – for genesis context.

- 1967 – VAC was conceived, and fundraising began
- 1968 – PCRRBVAC was formally developed and began operations as a BLS (EMT level) agency
- 1985 – PCRRBVAC upgraded to an ALS (paramedic-level) agency on a part-time basis
- 1988 – PCRRVAC began providing full-coverage (24-hour) ALS primary response services
- 1993 – PCRRBVAC consultant report released
- 1994 – PCRRBVAC implemented some of the recommendations of the 1993 consultant report to transition itself into a career-based staffing model, which included the hiring of a full-time administrator to oversee daily operations and administration of the Agency
- 2019 – Corporation By-Laws were updated, and the organization's name formally changed from PCRRVAC to PCRRBEMS

4.1.2 – Organizational Model Overview

PCRRBEMS is a non-profit (private, not-for-profit) 501(c)(3) corporation that is contracted for emergency medical (ambulance response/transport) services through an inter-municipal agreement (IMA) with the Village of Port Chester, City of Rye, and Village of Rye Brook, in addition to providing these services within the geographic boundaries of the Town of Rye and other unincorporated areas within Westchester County, New York.

4.1.2.1 – Board Oversight and Inter-Municipal Agreement

There are two governing boards overseeing PCRRBEMS: one serving as a tri-municipal EMS Committee (EMSC) that consists of the chief administrative officer (i.e., City Manager, Village Manager, Village Administrator) of each contracted municipality as well as a civilian representative from each municipality. The EMSC reviews relevant call data and financial information for the Agency and approves the Agency's budget and municipal payments. The second governing board is the Corporate Board of Directors (the "Corporate Board"), whose membership primarily consists of the prior volunteer ambulance corps organization, and is tasked with approving major purchases, capital improvements and projects, determining the hiring/pay/benefit status of the Agency's administrator, and deciding on other relevant topics as recommended by the EMS Administrator. The corporation of Port Chester-Rye-Rye Brook Emergency Medical Services, Inc. (PCRRBEMS) has adopted recent Corporation By-Laws dated from November 4, 2019. The IMA outlines the formation of the EMS Committee and includes its general

responsibilities (e.g., response time compliance, financial report review, citizen input review). It was signed in 1994 and references General Municipal Law articles (5-G) and sections (122-b) respective to its development. The EMSC meets quarterly – sometimes even monthly – to discuss business and receive Agency updates, while the Board meets infrequently and does not appear to have a strong impact on the overall strategy, operations, or finances of the Agency.

4.1.3 – Consultant's Agency and Model Observations

There appears to be some confusion related to the purpose behind the current Board, as it does not act or meet in a manner that is consistent with a traditional corporate oversight Board of Directors. The impression received throughout this study is that the Corporate Board membership is constructed of the "old guard" of the Agency's past which, if perceived correctly, may lead to conflicts of interest and may continue to perpetuate based on the construct of the By-Laws which indicates that "All members of the Corporate Board of Directors must be approved by a majority vote of the members …" (as outlined in Article III, Section 1.d.). This may mean that there is little opportunity for communitywide representation to be introduced onto the Board because there is not an external voting process – or even a formalized recruitment process – which would allow for "new voice" representation. Considering the current limited role that the Board plays on the overall operations and oversight of the Agency, a complete restructuring and By-Law revision may be beneficial to consolidate the Corporate Board and EMSC roles and responsibilities, and to provide an opportunity for broader Municipality, public stakeholder/citizen, and non-affiliated (having no former or formalized ties to the Agency) Corporate Board membership. Within this new Board structure, a more active role could be brought in to take on the responsibilities that the current EMSC plays, while still maintaining current Municipality administrative involvement in more of an advisory capacity rather than a voting one.

This streamlined approach would be better suited to place voting responsibilities on elected officials and citizen members, rather than on Municipal administrators who are not voting members on their respective councils. This newfound Corporate Board would also reduce the potential redundancies, inefficiencies, and points of authoritative contention that may exist between the current Corporate Board and the EMSC. The EMSC's overall involvement could be maintained as outlined in the 1994 IMA, but a contractual language update would likely be needed to have it reflect any updated membership, voting, and responsibility structures. Outlined below is a potential Corporate Board membership and terms, which includes the current EMSC membership.

- Village of Port Chester Elected Representative (Voting, elected official appointed by Municipality)
- City of Rye Elected Representative (Voting, elected official appointed by Municipality)
- Village of Rye Brook Elected Representative (Voting, elected official appointed by Municipality)
- Village of Port Chester Citizen Representative (Voting, voted by Corporate Board or community)
- City of Rye Citizen Representative (Voting, voted by Corporate Board or community)
- Village of Rye Brook Citizen Representative (Voting, voted by Corporate Board or community)
- Ad Hoc Citizen Representative (Voting, voted by Corporate Board or appointed by the Agency)
- Village of Port Chester Municipal Administrator (Non-voting)
- City of Rye Municipal Administrator (Non-voting)
- Village of Rye Brook Municipal Administrator (Non-voting)

4.2 – Agency Operational Analysis

4.2.1 – Call and Response Data Analysis

Numerical data highlighted within this subsection of the report is based on a five-year time period consisting of calendar years 2017 through 2021. Unique to this time period – but not necessarily to the entire EMS industry, overall – is the impact that the COVID-19 pandemic played on the respective data values in 2020 for the Agency. Considering the atypical, trend-breaking reality that COVID-19 presented, call volume modeling and data projections were performed (where appropriate and as indicated) to show what values would have likely been had the pandemic never happened, in addition to showing actual call volume data for a real time perspective.

LIMITATIONS: Manual tracking of all data was performed by PCRRBEMS, as the Agency's three primary PSAP agencies do not utilize a CAD platform, nor do they track/share call/response data with PCRRBEMS on a regular or even annual basis. As a result, manually tracked data was provided for this study for 2017-2021, however, 2020's data was only provided for 6 months. Given the trends noted within those six months, the remainder of the year was projected based on the appropriate correlation to prior years' trends, resulting in the projected values outlined. Overall, our firm feels confident that the data presented forthcoming is relatively-to-highly accurate and contains minimal variances from what different data sources might otherwise present.

4.2.1.1 – Calls for Service and Response Comparison

Table 4.1 shows the total call volume data for 2017-2021 which includes the total calls for service (total times the Agency was dispatched), the total number of calls that the Agency actually responded to, the Agency's ability to respond, and a reflective comparison of the number and percentage of calls that were within the Agency's primary response district, which consists of the Village of Port Chester, City of Rye, and Village of Rye Brook.

YEAR	TOTAL CALLS FOR SERVICE	TOTAL RESPONSES*	*ABILITY TO RESPOND %*	TOTAL CALLS IN DISTRICT	CALLS IN DISTRICT %
2017	**6101**	6035	*98.9%*	5961	98.8%
2018	**5966**	5919	*99.2%*	5811	98.2%
2019	**5885**	5839	*99.2%*	5705	97.7%
2020	**5187**	5140	*99.1%*	5060	98.4%
2021	**5640**	5523	*97.9%*	5448	98.6%
AVG	**5756**	**5691**	***98.9%***	**5597**	**98.3%**

** Total Responses includes Total Calls for Service minus Unable to Respond/Mutual Aid Received Calls.*

Table 4.1: Total Call Volume Data (2017-2021)

From this data, we are able to glean that PCRRBEMS ambulances are able to respond to the significant majority of their calls for service each year, both inside and outside of their primary response district. This makes PCRRBEMS a highly reliable resource to the area, which has been described as having mutual aid requests that are "out of control" within the County. 2021 did show a decrease in the Agency's ability to respond to calls with a drop of 1.2% from 2020 and 1% less than the five-year average. While this overall percentage is minimal in comparison to the overall call volume for the year, the actual number equates to 117 calls which equates to approximately one call every three days that PCRRBEMS is unable to respond to because of a variety of different factors. Providing mutual aid services (responding to other communities) is likely one of the factors. The impacts of the COVID-19 pandemic were also factors that played into the staffing challenges faced by PCRRBEMS throughout some of this time period, as these staffing challenges translated into decreased unit availability and the need to request more often (both in terms of PCRRBEMS requesting mutual aid and other local EMS agencies requesting mutual aid responses into their own respective communities, too).

Breaking down the call volume (run statistics) data for this time period, additional insight respective to operations can be interpreted (***Table 4.2***), especially as it related to the impact of mutual aid provided by PCRRBEMS to other communities, which is perceived to greatly impact the Agency.

YEAR	TOTAL CALLS FOR SERVICE	TOTAL RESPONSES	MUTUAL AID GIVEN	*% MUTUAL AID GIVEN**	UNABLE TO RESPOND (MUTUAL AID RECEIVED)	*% UNABLE TO RESPOND***
2017	**6101**	6035	**140**	*2.3%*	66	*1.1%*
2018	**5966**	5919	**155**	*2.6%*	47	*0.8%*
2019	**5885**	5839	**180**	*3.1%*	46	*0.8%*
2020	**5187**	5140	**127**	*2.5%*	47	*0.9%*
2021	**5640**	5523	**192**	*3.5%*	117	*2.1%*
AVG	**5756**	**5691**	**159**	***2.8%***	**65**	***1.1%***

** Reflects a percentage of Mutual Aid Given based on the Total Responses.*
*** Reflects a percentage of Unable to Respond based on the Total Calls for Service.*

Table 4.2: Calls for Service Breakdown – Mutual Aid (2017-2021)

Regarding mutual aid provided to other nearby communities, PCRRBEMS has seen a fluctuating percentage of its call/response volume respective to this category with 2021 seeing its highest percentage within the past five years. The significant portion of the mutual aid that PCRRBEMS provides to another community is the Town/Village of Harrison, whose EMS agency is similar in organizational modeling to that of PCRRBEMS, but smaller in terms of staffed ambulances and overall call volume. Countywide, these numbers are small in comparison to the nearly 7,000 instances where mutual aid is requested each year for emergency services. Mutual aid should not be confused with automatic aid, which is a predetermined agreement that multiple/different agencies will be assigned to a call to automatically assist the local agency which is also responding to the same call. Mutual aid, on the other hand, involves instances where the primary agency is unable to respond to a call within their district, so a nearby agency is requested to respond instead. A total like this – 7,000 calls – leads to the assessment that some, if not many, communities and agencies within Westchester County rely on mutual aid agreements as a form of regularly providing service delivery response within their boundaries. This is likely due to widespread staffing challenges and is another symptom of the County's already characterized "fragmented" system.

Evaluating data trends beginning in 2001, we can look at a long-range picture of the overall actual call volume growth that PCRRBEMS has experienced (***Figure 4.1***).

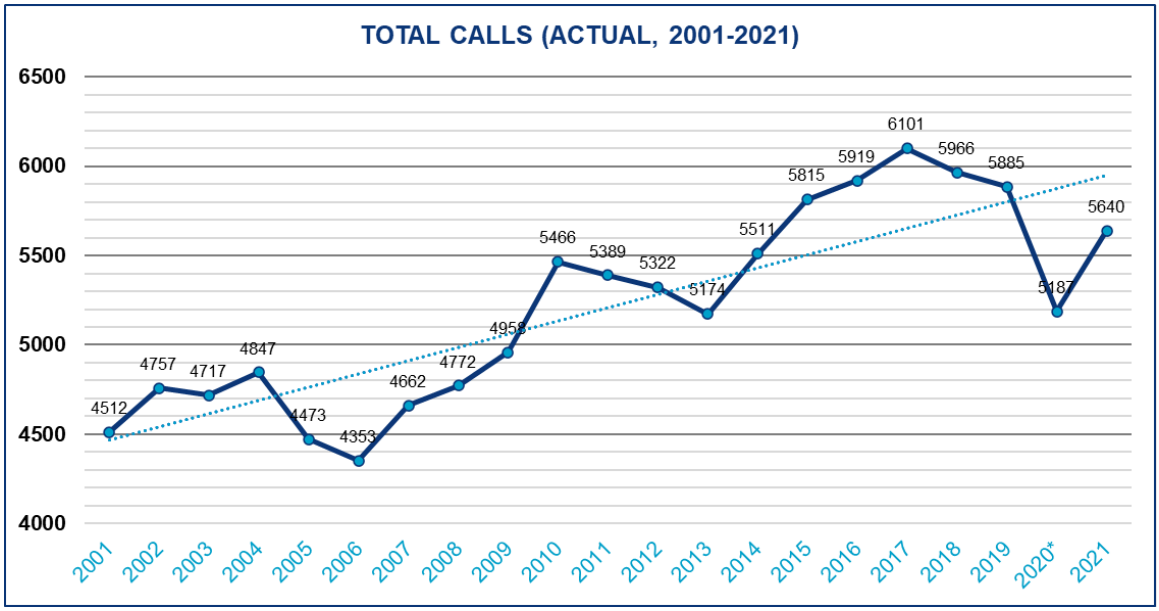


Figure 4.1: Total Calls with Trending (Actual, 2001-2021)

Respective to the actual data presented, there is a long-range annual increase of 1% each year in call volumes (2001-2021). Factoring in the impact of the COVID-19 pandemic and the resulting call volume drop (-13.5%) that occurred from 2019-2020, the trending that otherwise would have likely occurred for 2020 and 2021 would have seen a 2% increase in annual volume. ***Figures 4.2 and 4.3*** show call volume projections through 2025 using two different models (respectively): one with the 2020 call volume decrease factored (and a subsequent 1% annual call volume increase trended), and another without the 2020 call volume decrease which shows what 2020 should have seen for a call volume (and a subsequent 2% annual call volume increase trended).

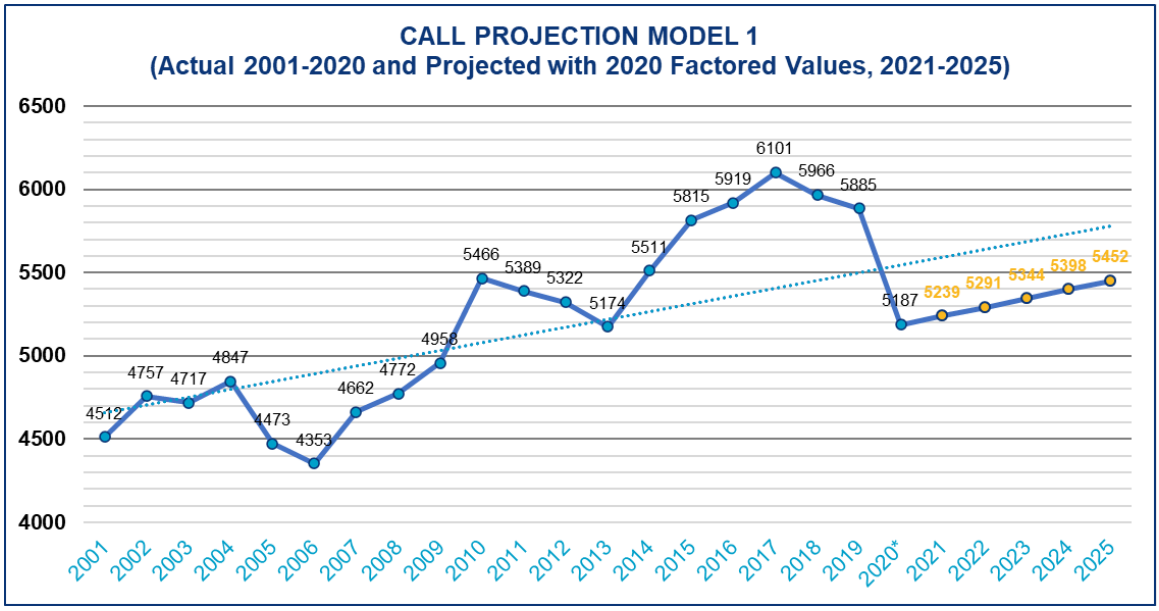


Figure 4.2: Call Projection Model 1

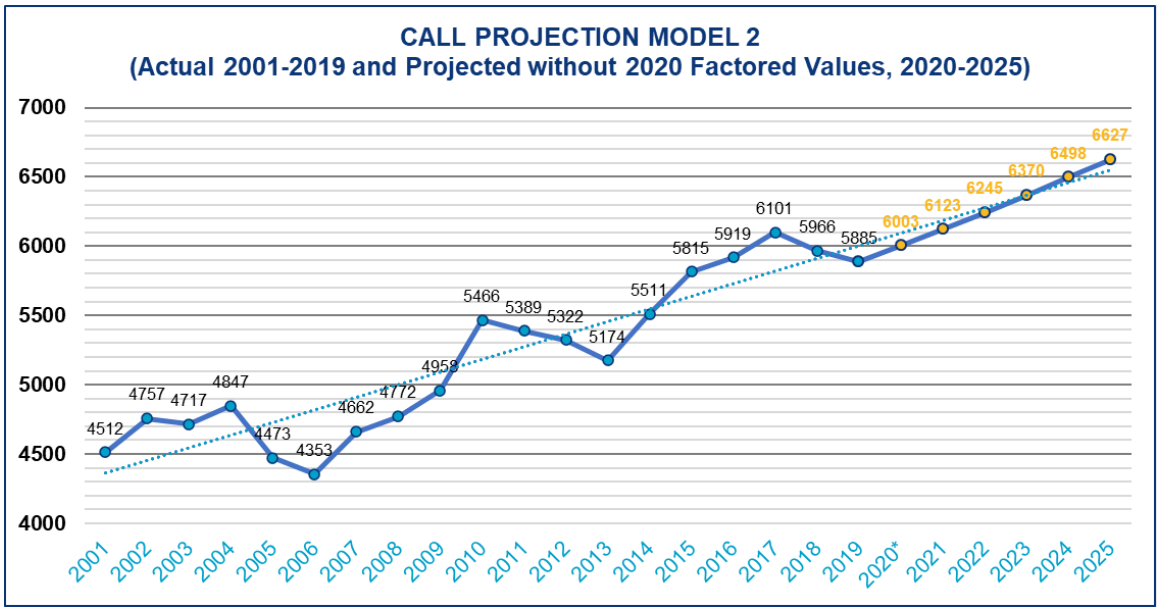


Figure 4.3: Call Projection Model 2

Considering that the actual total call volume for 2021 was 5,640 calls for service – which was 7.7% higher than the value trended in ***Figure 4.2*** and 8.7% higher than the actual call volume for 2020 – our firm assesses that PCRRBEMS will likely see a rapid climb in its annual call volumes that returns it to the Agency's long-range trend of seeing a growth pattern better reflecting the 2025 numbers projected in ***Figure 4.3***. This rapid growth pattern is not – or will not likely be – unique just to PCRRBEMS. EMS agencies throughout the nation are seeing a rapid return to pre-COVID trends and projections, making 2020 appear as an "asterisk" (anomaly) in their data charts, rather than a new baseline from where they'll begin to climb.

4.2.1.2 – Community Calls for Service

Uniquely providing emergency medical services to three primary municipalities, ***Table 4.3*** shows a five-year representation of call volumes within each respective municipality. Of note, this table shows data from 2016-2020, not 2017-2021, as other previous tables have represented. This is because of the manual tracking process and reliance on the Agency's patient care reporting platform to manage data. Also noted in this table is the incomplete data represented in 2020, which shows only six months of the year. In comparing this data month-to-month with prior years, it appears to be appropriately representative of the months accounted for and, therefore, valid for use in terms of percentage of municipality representation. Also added to this table was the municipality population (referenced from the Agency's 2021 Municipal Contributions document which references 2010 U.S. Census figures), since the basis for the Agency's community funding is based on population percentages. Further financial information and breakdown will be provided in later subsections of this report.

YEAR	PORT CHESTER	RYE (CITY)	RYE BROOK	OTHER*
2016	2890 (48%)	1687 (28%)	1360 (22%)	110 (2%)
2017	2842 (46%)	1821 (29%)	1405 (23%)	163 (2%)
2018	2726 (45%)	1830 (30%)	1334 (22%)	160 (3%)
2019	2643 (44%)	1892 (32%)	1245 (21%)	184 (3%)
2020**	1378 (52%)	692 (26%)	507 (19%)	70 (3%)
AVG %	47%	29%	21%	3%
POP. %***	54%	29%	17%	-----

** Reflects calls that were out-of-district, mostly from mutual aid provided.*
*** 2020 data only displays approximately 6 months of the years' total call data.*
**** Based on population numbers reflected in the 2021 Municipal Contributions matrix*

Table 4.3: Calls per Community (2016-2020)

Comparing the call volume division and population representation from the table, it appears as though the actual call volume fairly closely matches the population representation of the municipalities. While the table does point out, for example, that an average of 47% of the call volume is in Port Chester – which represents 54% of the total population – individual yearly comparison shows the shifting in these percentages and the vulnerability of utilizing call volume representation as a source for funding representation. Factors that may influence annual call volume shifts within different communities and municipalities include population shifts, new construction/opening of assisted living and elder care facilities, changes in commuter patterns, factors affecting social determinants of care, high-frequency utilizer instances, and age/demographic dynamics.

While a formal analysis was not conducted respective toward identifying most common or high-frequency call/incident locations, PCRRBEMS administrative staff have identified those locations like the train station (Port Chester), Kingsport Apartments (Port Chester), The Enclave at Rye (Port Chester), Osborn Retirement Community (Rye), Rye Manor (Rye), Atria Senior Living (Rye Brook), King Street Nursing and Rehab (Rye Brook), and the Westchester County Airport (Rye Brook) are among the top locations the Agency responds to within each community. In addition, Playland Amusement Park (Rye) has seasonal EMS response activity that impacts the Agency's call volume patterns.

Generalized data was received to review average response times and total call duration times but does come with a key limitation that stations/bases were not identified as the source for where units/ambulances were dispatched from. Operationally, all on-duty crews start their day at the Agency's primary station located on Ellendale Avenue in Port Chester and, when the availability of units permits, crews will post at fire stations in Rye and Rye Brook during primarily daytime hours (according to past practices prior to the COVID-19 pandemic). As such, it is not known if the forthcoming response times in ***Table 4.4*** represent responses from the primary station only, or all response times from all locations (or even while roaming or while returning from a local hospital after a prior transport).

TIME	PORT CHESTER	RYE (CITY)	RYE BROOK	TOTAL AVG
AVG Response (Travel) Time mm:ss	03:06	05:54	05:00	04:24
AVG Total Call Duration Time mm:ss	51:30	56:00	51:12	52:48

Table 4.4: 5-year Average Response Time and Total Call Duration Time per Community (2016-2020)

As a point of reference, PCRRBEMS deploys a practice of responding to nearly all of their calls with the use of lights and siren regardless of the nature of the call, the time of day, or the proximity to the scene. This is a practice that our firm and the growing majority of the entire EMS industry does not recommend

(***Figure 4.4***). If the primary dispatching entities that PCRRBEMS utilizes had the availability of response-prioritizing emergency medical dispatching procedures, recommendations would be made reflecting nationally accepted criteria to categorize calls fitting a response mode of "with lights and siren" or "without lights and siren" use. Currently, only the dispatch services offered by the County (ECC/"60-Control") affords this option. Calls could then be divided to reflect response times with and without the use of lights and siren (i.e., emergent/non-emergent, Priority 1/Priority 2). Provided below is supplemental information regarding national recommendations and findings related to the use of lights and siren for EMS responses.

U.S. Department of Transportation, National Highway Traffic Safety Administration (NHTSA), Office of EMS
"Lights and Siren Use by Emergency Medical Services (EMS): Above All Do No Harm" [38]

This report is based on information provided to the National EMS Information System (NEMSIS) from patient care reports analyzed throughout the country and correlates attributes from the Uniform Vehicle Code into discussion points and examples of variations in laws and regulations related to the use of lights and siren for ambulances.

- *"While [the use of L&S] may be of clinical importance to patient outcome[s] in critical time-sensitive conditions like cardiac arrest, the consensus among the researchers in this field is that the time is not significant in most of the responses or transports."*
- *"For most conditions, EMS professionals can provide appropriate care to reduce the importance of saving a few minutes by L&S transport."*
- *"Each agency should measure their L&S use during response and transport, and quality improvement processes should be used to reduce the use of L&S response and transport to the minimum effective rate."*
- *"Justification is given for using benchmark targets of reducing L&S use during response to less than 50% and during transport to less than 5%."*
- *"Myths and facts must be separated from tradition and emotion when discussing [the use of L&S]."*
- *"… L&S use is a medical therapy. Like all therapies, it has potential benefits and potential risks…."*

Figure 4.4: Lights and Siren Abstract

Overall, call response and duration times appear adequate. Common national benchmarks for response times come from the National Fire Protection Association (NFPA) standard of 90% of responses having the first unit arrive on-scene within 08:59 (8 minutes, 59 seconds). This standard is more anecdotal than it is evidence-based, as its premise is focused on the longstanding adage that a patient's chance of survival – in a witnessed cardiac arrest event – decrease by 10% every minute. As such, responding before nine minutes should provide a better than 0% chance of survival for patients who experienced a witnessed cardiac arrest event. Cardiac arrest (including similar respiratory arrest and unresponsive patient chief complaints), for reference, comprises less than 2% of the Agency's total annual call volume.

Respective to the total call duration time, this value is purely anecdotal and specific to each agency as an internal reference point. One of the largest factors that contributes to this is the transport time from the scene to the receiving hospital which can change depending on the patient's location to the different hospital(s) they may be transported to. Reflectively, this metric holds more internal agency value than external community value but does help to put unit hour utilization (UHU) into perspective, as this metric is based upon the average call time taking 1 hour (60 minutes), which the Agency's calls are close to. This metric will be further explained in the next subsection of this report.

4.2.1.3 – Call Workload and Peak Trends

Reflecting on call workload, different calendar trends reflecting month-to-month and day-to-day comparisons, and peak hour timeframe call volumes, PCRRBEMS appears to have a fairly stable trending pattern regarding *when* calls occur. ***Tables 4.5 and 4.6*** highlight the annual calls by the month of the year and day of the week for PCRRBEMS. Of note, the month-to-month data was received from the regular manually tallied Agency reports that are developed for their respective oversight boards while the day-to-day data was extrapolated from the Agency's former patient care reporting platform, which only had full-year data through 2020 – and is why 2016-2020 was utilized as the five-year analysis period (as opposed to 2017-2021, which has consistently been used throughout this report).

MONTH	2017	2018	2019	2020	2021	AVG
January	529	510	494	431	468	468
February	441	454	456	387	436	435
March	483	488	506	476	481	487
April	507	489	447	455	465	473
May	551	503	519	456	370	480
June	516	480	534	481	410	484
July	507	502	506	529	427	494
August	497	548	501	517	461	505
September	533	480	512	471	407	481
October	533	551	486	447	401	484
November	503	469	435	474	413	459
December	501	492	489	516	448	489
AVG						*480*

Numbers in Red indicate the lowest number/month for the year, while those in Green indicate the highest.

Table 4.5: Annual Calls by Month of Year (2017-2021)

DAY OF WEEK	2016	2017	2018	2019	2020*	AVG %
Sunday	804	835	817	787	358	13.4%
Monday	854	875	855	856	386	14.2%
Tuesday	830	872	850	872	379	14.1%
Wednesday	859	918	886	848	340	14.3%
Thursday	831	867	850	817	387	13.9%
Friday	970	1027	933	918	405	15.8%
Saturday	899	837	859	866	392	14.3%

** 2020 data only displays approximately 6 months of the years' total call data.*
NOTE: Red numbers indicate the lowest daily volume in the year while green numbers indicate the highest.

Table 4.6: Annual Calls by Day of Week (2016-2020)

What this data shows is that there is little variance between traditional spring/summer versus fall/winter months and there is no significant difference between the days of the week. This means that there is not a need to adjust staffing according to the months of the year or days of the week. As an example, some destination locations see higher call volumes on weekends compared to weekdays, or even busier summer months compared to winter months due to increased travel and vacationing. Findings like these may sway an agency's decision to increase its staffing based on such cyclical trends.

Respective to the hours of each day, PCRRBEMS currently operates with a mix of 12-hour and 24-hour staffing schedules. ***Tables 4.7 and 4.8*** show an analysis of the busiest 8-hour and 12-hour timeframes (respectively) using the 2016-2020 call data. One limitation to this data is that the five-year call volume

reflected in previous tables and analysis equals 29,058 calls for service during the 2016-2020 time periods, but the data in the forthcoming tables only equals 26,919 calls for the same time period. Despite this discrepancy, our firm feels confident that the focus on identifying peak timeframes in these tables will remain accurate in its nature.

TIMEFRAME	07:00-14:59	08:00-15:59	09:00-16:59	10:00-17:59	11:00-18:59	12:00-19:59
8-Hour Call Volume	2350	2518	**2580**	**2580**	2566	2460

Table 4.7: Average Annual Call Volumes based on an 8-Hour Timeframe (2016-2020 Averages)

TIMEFRAME	06:00-17:59	07:00-18:59	08:00-19:59	09:00-20:59	10:00-21:59	11:00-22:59
12-Hour Call Volume	3383	3574	**3674**	**3669**	3592	3464

Table 4.8: Average Annual Call Volumes based on a 12-Hour Timeframe (2016-2020 Averages)

In identifying the peak 8-hour and 12-hour timeframes for the Agency, 09:00-16:59 and 10:00-17:59 appear as the busiest 8-hour periods, while 08:00-19:59 and 09:00-20:59 appear as the busiest 12-hour periods. Putting this data to practical use, PCRRBEMS may consider adjusting its staffing model, if needed, to best reflect these timeframes with regards to its additional peak staffed ambulance, as the outlined 12-hour timeframes reflect approximately 70% of the day's total call volume. Data like this highlights the "bedroom community" atmosphere around the municipalities, as more residents/travelers are active during daytime/business hours, compared to overnight.

Given the identification of peak timeframes for the Agency, a workload analysis helps to outline opportunities for when, or if, such peak units are necessary. A common metric utilized within the EMS industry is unit hour utilization (UHU). While it is not a perfect metric, it is a simple mathematical equation that can be utilized to highlight unit workload with respect to call volumes. As a point of caution, this metric does not account for adequate periods of rest/recovery, additional assignments or duties, or training hours, nor does it provide or account for context surrounding *when* such units should be in-service. The benchmarks determined to be "average" (or "below"/"above") do try to account for these added daily items. UHU is calculated by taking the number of calls and dividing them by the on-duty time period. For example, if a unit/ambulance responds to six calls within their 24-hour on-duty time period, the UHU equals 0.25. A UHU of 0.25-0.35 is determined to be "average" and fitting for a low-volume EMS agency like PCRRBEMS. In many of these systems, 24-hour work schedules are common as the number of ambulances needed to maintain an average UHU value remains quite low. In systems of much higher call volumes, UHUs of 0.35-0.45 are more common, as are 8-, 10-, and 12-hour shifts (which are more appropriate because of the rapid pace). ***Table 4.9*** analyzes system demand for the Agency in somewhat of a reverse fashion, starting with the annual calls for service, the calls per day, and then determining the number of units/ambulances needed to maintain the respective UHU. The whole numbers indicated are rounded values of those in parenthesis.

YEAR	TOTAL CALLS FOR SERVICE	*CALLS PER DAY*	UNITS NEEDED FOR UHU = 0.25	UNITS NEEDED FOR UHU = 0.35
2017	**6101**	*16.7*	3 (2.8)	2
2018	**5966**	*16.3*	3 (2.7)	2 (1.9)
2019	**5885**	*16.1*	3 (2.7)	2 (1.9)
2020*	**5187**	*14.1*	2 (2.4)	2 (1.7)
2021	**5640**	*15.5*	3 (2.6)	2 (1.8)
Projected Values				
2022	**5887**	*16.1*	3 (2.7)	2 (1.9)
2023	**6133**	*16.8*	3 (2.8)	2
2024*	**6379**	*17.4*	3 (2.9)	2 (2.1)
2025	**6627**	*18.2*	3	2 (2.2)

** 2020 was a leap year and contained 366 calendar days (2024 will be a leap year).*
NOTE: Parenthesis values are actual mathematical values, while the whole number is a rounded value.

Table 4.9: Agency Demand Analysis (2017-2021 with projections for 2022-2025)

PCRRBEMS's current staffing matrix utilizes two ambulances that are staffed covering a 24-hour period and a third ambulance that is staffed during a daytime 8-hour period (which is intended to be staffed for 12 hours but has not been recently due to staffing shortages) – equaling approximately 2.3-2.5 units/ambulances per day. Given the generalized and averaged information presented in ***Table 4.9***, our firm affirms that the current staffing matrix utilized is appropriate for the Agency's current call volume demands in a basic, mathematical sense, but is possibly slightly lacking when accounting for the context of mutual aid use/demand within the municipalities and the County. Considering the data outlined in previous tables within this study, it is a likely correlation that many of the instances that PCRRBEMS is unable to respond to in-district calls because of no units being available is due to some of their units responding to calls outside of their district in the form of mutual aid given (refer to ***Table 4.2***). Keeping this possibility in mind, it is recommended that PCRRBEMS follow a staffing demand model utilizing a UHU benchmark of 0.25, which rounds the number of units needed for adequate coverage to three per day. For these three units, our firm would recommend a staffing matrix that provides for two of the units providing 24-hour total coverage, and two additional half-day (12-hour) units to cover the peak periods of the day (resulting in a 1+1+0.5+0.5 formula). This staffing matrix would also be justified by the data presented in ***Table 4.8*** and how the 12-hour peak periods identified represent approximately 70% of the day's call volume. During time periods when the EMS Administrator and a supervisor are present, an additional ambulance may also be staffed as a last resort resource in order to maintain a response presence within the communities, rather than having to rely on a mutual aid response into PCRRBEMS's coverage area by another local ambulance service.

4.2.1.4 – Transport Data

SECTION 3.2.9 highlights that approximately 70% of PCRRBEMS's patients who receive transport to a hospital are brought to Greenwich Hospital, while approximately 25% are brought to White Plains Hospital, and approximately 5% are brought to Westchester Medical Center, with less than 1%, on average, transported to other hospitals. In many of these situations, either medical protocols or the patient's choice dictates which hospital patients are transported to. Regarding the percentage of transport versus no-transport calls, there is not a standardized national benchmark to compare one's agency against, as multiple factors related to local/regional social determinants of health can impact these values. Our firm's research has discovered variances in this percentage between different communities/agencies, ranging from 31.8% to 84.8%, with 64.3% serving as an average for transport rates. ***Table 4.10*** outlines the response breakdown for PCRRBEMS and highlights the situations where no transport is provided to the hospital (which equates to no revenue being generated by the Agency).

YEAR	TOTAL RESPONSES	REFUSALS	CANCELLED	STANDBY	*NON-TRANSPORT %*	TOTAL TRANSPORTS	*TRANSPORT %*
2017	6035	568	571	118	***20.8%***	4778	*79.2%*
2018	5919	540	642	134	***22.2%***	4603	*77.8%*
2019	5839	439	799	127	***23.4%***	4474	*76.6%*
2020	5140	434	768	52	***24.4%***	3886	*75.6%*
2021	5523	385	896	61	***24.3%***	4181	*75.7%*
AVG	6035	473	735	98	***23%***	4384	***77%***

Table 4.10: Response Breakdown – Non-Transport Responses (2017-2021)

Averaging this data, PCRRBEMS has a transport percentage of 77% and a non-transport percentage of 23%. Values like these play a large role in both the operations and finances respective to operating an ambulance service and, ultimately, helping to determine an organizational model that is the best fit for the communities that it serves.

4.2.2 – Consultant's Agency Operational Observations

Overall, PCRRBEMS's data reflects that of an EMS agency operating as expected. There are no glaring surprises or abnormalities, however, there are some opportunities for operational improvement in the future. Our firm highly recommends that PCRRBEMS decreases its lights and siren utilization in response to calls and places future master planning emphasis on operating out of multiple 24-hour-staffed stations on a regular basis, as opposed to only utilizing its satellite fire stations for occasional daytime staffing dispersing. Considering that the primary focus of this study is not directed toward the operations of PCRRBEMS, it would be beneficial for the Agency and its respective Municipalities to conduct a more thorough operational analysis in the future, particularly if some of the forthcoming recommendations of this study are explored in more detail or implemented outright.

4.3 – Agency Financial Analysis

4.3.1 – Budget Overview

Financially, PCRRBEMS is supported by two primary revenue resources: ambulance transport billing revenues and municipal contract fees. ***Table 4.11*** shows a three-year history of the Agency's income and expenses. ***Table 4.12*** outlines average net costs per call and transport performed by the Agency.

ITEM	2019	2020	2021	AVERAGE
Insurance Recovery	$1,880,416.86	$1,670,398.64	$1,856,786.39	$1,802,533.96
Municipal Contracts	$918,200.24	$749,490.00	$713,800.00	$793,830.08
Grants	$0.00	$232,610.34	$0.00	$77,536.78
Other	$141,522.94	$104,361.89	$300,692.11	$182,192.31
Other Adjusted Income	$0.00	$0.00	$11,311.29	$3,770.43
TOTAL INCOME	**$2,940,140.04**	**$2,756,860.87**	**$2,871,278.50**	**$2,856,093.14**
Billing Charge	$115,616.14	$105,229.67	$111,635.47	$110,827.09
Capital	$18,365.00	$112,084.46	$0.00	$43,483.15
Depreciation	$109,200.00	$109,200.00	$192,139.00	$136,846.33
Insurance	$165,956.00	$177,228.92	$163,407.49	$168,864.14
Medical Supplies	$55,923.42	$102,356.43	$56,001.81	$71,427.22
Payroll	$1,935,315.40	$2,295,965.34	$2,094,702.53	$2,108,661.09
Other	$167,352.80	$172,574.04	$205,693.83	$181,873.56
TOTAL EXPENSE	**$2,567,728.76**	**$3,074,638.86**	**$2,823,580.13**	**$2,821,982.58**
NET INCOME	***$372,411.28***	***-$317,777.99***	***$59,009.66***	***$37,880.98***

Table 4.11: Annual Budget Overview (2019-2021)

INCOME/EXPENSE	COSTS PER CALL	COSTS PER TRANSPORT
Total Expenses	*$2,821,982.58*	*$2,821,982.58*
Total Billing Income	*$1,802,533.96*	*$1,802,533.96*
Total Calls/Transports	5571	4180
Expense per Call/Transport	$506.55	$675.12
Income per Transport	$323.56	$431.23
Net Expense per Call/Transport	$182.99	$243.89

Table 4.12: 3-Year Average Net Costs per Call and Costs per Transport Comparison (2019-2021)

A few general observations can be gleaned from these tables, especially after taking into context the Agency's respective annual call volume and transport volume:

- 2020 resulted in a remarkable net loss to the Agency, likely as a result of the COVID-19 pandemic.
- Payroll expenses total approximately 75% of all expenses.
- Insurance recovery (ambulance transport billing) totals approximately 63% of all revenues.
- An average expense of $13.05 for medical supplies in incurred with each call for service. The actual average expense in 2019 and 2021 was $9.92 and $9.52 (respectively) per call, while that amount significantly increased to $19.73 per call in 2020.
- In general, the average three-year overall expense cost to operate the ambulance service per call is $506.55. The average three-year income from ambulance billing revenues per call is $323.56, which leaves an average net expense per call of $182.99. This indicates that every time PCRRBEMS is requested for a call, they incur a net loss of ~$183, which is why they rely on supplemental municipal funding to sustain operations.
- Based on transport volumes, the average three-year expense per transport (rather than per call) is $675.12. The average three-year income from ambulance billing revenues per transport is $431.23, which leaves an average net expense per transport of $243.89. (Note: these values are used when determining potential recovery revenues from Medicaid supplemental payment programs, which will be expanded upon later in this report).

4.3.2 – Billing Revenues

Regarding billing revenues, PCRRBEMS traditionally only bills for service if they transport a patient to the hospital. Considering that approximately 23% of their responses (not total call volumes) do not result in a patient being transported to the hospital, there is not only a large area of weakness for the Agency, but also an opportunity for it to change its practices to actively bill for certain non-transport calls such as patient refusals from first- or second-party caller incidents. These would be where the patient calls 9-1-1 or someone immediately in the presence of the patient calls 9-1-1 on their behalf. Under certain circumstances, various insurance payors are recognizing the benefit of EMS agencies providing on-scene care for patients and keeping them out of the hospitals, where they will incur even higher costs for services. As a result, some of these payors are affording EMS agencies some form of minimal reimbursement value for treat-and-release situations. These can include the treatment of diabetic patients, aiding patients who have fallen and need lifting assistance, on-scene treatment of cardiac arrest resuscitation attempts, and the treatment of other minor injuries and illnesses. Considering nearly 10% of the Agency's responses result in a patient refusal of transportation to a hospital, it may be correlated that there is an opportunity to increase the Agency's revenues slightly more if it began non-aggressively billing for treatment/release situations. A rough approximation of this amount may equate to $10,000 annually in additional revenues.

Opportunities for additional billing revenue may also exist if the Agency increases its current transport fee schedule, but simply sending a larger bill to insurance companies, Medicare, or Medicaid, does not necessarily equate to gaining more billing revenue. Many payors follow reimbursement schedules of their own and stick to traditional fee-for-service models of reimbursement for EMS agencies, rather than a true

reimbursement-for-service (or care provided) schedule. The EMS industry is anticipating the results of the Medicare Ground Ambulance Data Collection (MGADC) initiative underway by the Centers for Medicare and Medicaid Services (CMS), which will optimistically show the patient care (treatment) value and true costs associated with operating an ambulance service, which is viewed primarily as a transport agency in the funding eyes of CMS. The results from this initiative, however, are not anticipated to be determined until 2025 or some time thereafter, which is a long enough period of time that many EMS agencies cannot hold out to wait for such hopefully improved treatment and reimbursement rates to take effect.

Further future opportunities may also exist for municipal EMS agencies, including fire-based and special taxing district, within the state regarding the development of ambulance supplemental payment program (ASPP) or ground emergency medical transport (GEMT) reimbursement recovery services. Since PCRRBEMS is currently organized as a non-profit corporation, it likely would not be eligible for such potential future funds unless it and its Municipalities decide to transition toward a municipal organizational model in the future (further details on these types of programs will be provided later in this report).

4.3.3 – Municipality Funding

Quarterly contributions (contract fees) are provided by each of the Municipalities to PCRRBEMS to supplement some of the difference between its revenues versus expenses. In total, this equates to approximately $768,000 based on the recent 2021 Municipal Contributions document proposed to the EMS Committee. Noting in the 2021 budget, however, the actual amount paid was over $918,000. The formula utilized to determine each Municipality's contribution amount is first divided into four equal quarters, where each community pays an equal one-quarter amount (totaling to three-quarters of the equation). The remaining quarter is funded based on the percentage of population for each community. ***Table 4.13*** shows the 2021 Municipal Contributions schedule and how it impacts each Municipality.

CONTRIBUTION	PORT CHESTER	RYE (CITY)	RYE BROOK
Equal ¼ Community Contribution	**$192,056.81**	**$192,056.81**	**$192,056.81**
2010 U.S. Census Population	*29,247*	*15,868*	*9,347*
% of Total Pop. per Comm.	*54%*	*29%*	*17%*
Pop.-based Comm. Contribution	**$103,710.68**	**$55,696.47**	**$32,649.66**
TOTAL ANNUAL CONTRIBUTION	**$295,767.49**	**$247,753.29**	**$224,706.47**
MUNICIPAL CONTRIBUTION %	*39%*	*32%*	*29%*

Table 4.13: Municipal Contribution Schedule

Considering that PCRRBEMS covers over 60% of its expenses from ambulance transport revenues, the Municipalities are fortunate in that they are not having to cover the entire expenses of the Agency. If this were the case, the equal one-quarter amount would increase to approximately $642,000 plus the additional population-based (fourth-quarter) amount. This would increase Port Chester's annual contribution to approximately $988,000, Rye's to approximately $828,000, and Rye Brook's to approximately $751,000. While these numbers are certainly higher than what the actual contribution amounts are, they still pale in comparison to what each community has budgeted for its respective fire services: $741,000 in Port Chester, $6.8 million in Rye, and $2.25 million in Rye Brook. This combined tri-municipality fire department budget equates to nearly $9.8 million, while PCRRBEMS's total budget is hardly one-third of that.

4.3.4 – Consultant's Agency Financial Observations

PCRRBEMS appears to have been a very frugal organization that only asked for additional funding when it was deemed necessary, which was often as a reaction to some form of event or change, rather than proactively to drive future changes. Reflecting upon the Agency's capital expenditures, its three-year average equates to the approximate price of one ALS cardiac monitor, which indicates that little if any money has been invested in the Agency's facility; this was apparent in our firm's on-site visit. In objective hindsight, this financial and living condition decision might have played into the Agency's advantage as it

has been able to save its nominal net income over the years to be prepared for unanticipated large future expenses such as the need for cardiac monitor, ambulance replacement, or even facility replacement. This frugal capital approach now results in an aesthetically unpleasing, ill-equipped amenity, and logistically overstocked facility that is uncomfortable and clearly substandard in terms of agency and staffing needs. Now, moreover, the agency must face a decision to either drastically remodel and renovate its current facility or find a new one that can accommodate its expanded fleet, dormitory/restroom/living needs, storage demands, and administrative/support office needs.

The Agency, like many others across the nation, faces hardships with regard to reimbursement/ambulance transport billing revenues not equaling the actual cost to operate their service. As a result, substantially increased municipal funding (contracting) is a necessity for the Agency to survive. Looking toward future sustainability and equity to their public safety counterparts, PCRRBEMS needs to take assertive steps to communicate its financial future and needs with stakeholders throughout the communities and gather support to either transition toward another funding and organizational model or increase its contractual support (municipal contributions) in order to become a competitive, sustainable, and thriving EMS agency, especially as it relates to employee pay and benefits. Each of these focal points are the basis for this Study and will be addressed later in this report.

4.4 – Stakeholder Interviews, Employee Engagement, and SCOT Analysis

4.4.1 – Stakeholder Interview Feedback

Over 22 individual stakeholder interviews were conducted that included local elected officials, external EMS agency and system representatives, fire chiefs, police chiefs, and members of the Study Team. Throughout these interviews, various comments and focal points for feedback were gathered that were reflective of the history of PCRRBEMS, the state of current affairs for the Agency, and directed toward the future sustainability of the Agency and its represented Municipalities. Outlined below is a representation of both individual perspectives and mutually shared comments that were gleaned from these interviews (in no particular order of importance or chronology).

- Uniformly, interviewees from within the represented communities valued having a high-quality, fiscally responsible, competitive (referring to salary/benefits), and “professional” EMS agency providing their ambulance services, and expressed support toward funding/building that service.
- Within the local EMS community, PCRRBEMS has a positive reputation for providing quality clinical care and maintaining positive patient/citizen interactions.
- There appears to be a common perception (from the non-elected stakeholder interviewees) that the elected officials within the Municipalities (and throughout the County, for that matter) are unaware of the grim reality of the state of affairs that many EMS agencies are facing. Many of these same elected officials conversely expressed that their perception is that the state of affairs for local EMS agencies has not been properly or regularly communicated to them, either.
- There is a uniform sentiment that transitioning services away from the current PCRRBEMS non-profit corporation and toward a private (for-profit) company/vendor for its ambulance services would be a detrimental move for the Municipalities.
- A common sentiment exists among the vast majority of the stakeholders – including the elected officials – that operating under a municipal organizational model (where one community “owns” the ambulance service while the others pay a contract fee to it) would be a detrimental move for the Agency and Municipalities in the future. This was commonly expressed as a community sentimental need for “local control” as a result of longstanding “fiefdoms” (both were terms quoted from multiple interviewees) within each community’s municipal services. Additionally, there is added difficulty in having to “renegotiate” a new intermunicipal agreement with financial terms every five years, as this may jeopardize financial progress for the organization as a result of new elected board

initiatives or agendas. Nearly all interviewees, however, did agree that transitioning toward a special taxing district organizational model would be "efficient" and "supported."

- The EMS system within Westchester County (unrelated to any government structures/entities) was often described as "fragmented" and having a "transient" workforce. Comments like these often reflected upon the high number of EMS agencies within the county and region, in addition to the highly competitive work environment that results from each agency trying to recruit from the same limited pool of EMTs and paramedics. It was also articulated that there needs to be a more standardized system countywide; not just a "fragmented" system from town-to-town.
- When the topic of future consolidation or shared services was discussed amongst different public safety interviewees, many referred to the difficulty in the renewal negotiation process between Port Chester and Rye Brook's fire departments – although, the service delivery model works very well and the firefighter/staff relationships between the two municipalities are expressed as very strong. Additional reference to prior shared consolidation and service efforts were also mentioned but were commonly dated to the late 1990s or early 2000s as a source for why it "does not" or "would not" work. When this same topic was discussed amongst many of the Municipality representatives, there was a positive sentiment toward the need for more shared services in the future among many communities and service lines.
- PCRRBEMS was commonly referred to as a "mom and pop" or "family-operated" organization in terms of its operations and administration, all while identifying the need to build a more professional organization related to its overall business management.
- There appears to be a disconnect and seemingly one-sided lack of confidence on the part of PCRRBEMS toward the County's ECC. Uniformly, nearly all interviewees outside of PCRRBEMS were strongly in favor of moving all EMS dispatching services (or even all 9-1-1 call-taking services) over to the County's ECC.
- There was a common sentiment that – whatever the future organizational model is for the Agency – it should closely reflect the equal-representation model that exists within PCRRBEMS's oversight boards of today and should remain apolitical in nature. Additional comments related to this proposed the idea of having Municipality leaders engaged in an advisory (non-voting) capacity, while citizens held voting oversight responsibilities/roles.
- There exists a split perception among the local public safety (EMS, fire, police) interviewees and local Municipality (elected officials, managers/administrators) interviewees related to the use of lights and siren for all EMS responses, where the public safety perception is that citizens want or even expect the use of lights and siren for all responses, and the perception of the Municipality leaders is that the citizens would like less use of lights and siren for responses.
- The region was commonly referred to as being very "affluent," all while isolating Port Chester from this characterization on many occasions.
- It was a common sentiment that EMS providers are not adequately paid for their work – and certainly not paid enough to live within the communities that they serve. Equally, it was also a common sentiment (amongst Municipal interviewees) that there is adequate community support to properly fund and sustain a strong EMS agency.
- Interviewees commonly (positively) expressed that creating a larger, consolidated/shared service EMS agency among more bordering communities besides Port Chester, Rye, and Rye Brook would be a "game changer" for the overall health and sustainability of the EMS system within the county.

4.4.2 – Employee Engagement Survey Feedback

An employee engagement survey was developed by the consulting firm with question recommendations and approval provided by the Study Team, and electronically dispersed by the consultants to each PCRRBEMS employee (29 in total). The survey was designed to provide anonymous results and received responses from 27 participants. Single-choice, multiple-choice, Likert scale, 0-10 rating, and free text options were available for each participant in the survey.

Disclaimer: There was an instance of duplication of responses (likely from one individual, inadvertently) noted in some of the free-text options of this survey. Because of the anonymity of the responses, our firm was not able to isolate these responses or delete them from the datasets. As a result, there is a possibility (strong likelihood) that there were only 26 participants, as opposed to the tracked 27. Because of this, all results/percentages represented may have a margin of error that could result in a 2-4% increase/decrease from their posted values.

Of note, this survey was completed by employees prior to the Agency's change in EMS Administrators and implementation of a 100% insurance premium coverage benefit for eligible employees. As such, our firm recognizes that some of the presented results may likely be represented differently if this same survey was conducted today (after such changes took effect).

Overall, the pool of employee participants ranged proportionately (to all staff members employed by the Agency) and equally between EMT and paramedic providers (12 and 15, respectively), and full- and part-time employees (16 and 11, respectively). Within the overview of all of the responses, a few noticeable trends were observed and are outlined below. Further expansion is also provided based upon different survey question topics.

- Competitive and living wage (low) pay is one of the biggest concerns and weaknesses of PCRRBEMS; followed very closely by poor benefits.
- There is a strong sense of confusion amongst the staff related to the roles, responsibilities, and reporting structure surrounding supervisory staff, as many supervisors are highlighted as working on ambulances and not in a visible (shift) supervisory role.
- Crews feel as though the communities support them as employees, despite their decreased/lack of knowledge of what is required of them as EMS providers, including what is required to sustain a successful EMS agency.
- Crews feel as though the Agency has sufficient – even excellent - equipment and ambulances but lacks in facility/station upgrades and needs.
- A majority (60%) of the employees work multiple jobs, resulting in many employees working well over 40 hours (even over 60 hours) per week working for both PCRRBEMS and another EMS employer (as 50% of the employees expressed working over 60 hours per week).
- Employees feel as though PCRRBEMS is both exemplified and seen by others as having a positive and professional working environment, is respected within the local EMS community, and is prided on upholding high clinical expectations and performance standards.

*For easier and direct correlation, direct employee quotes and survey data citations are referenced by listing the survey question's number in brackets (e.g., [Q1]). Further information related to the employee engagement survey can be found in **APPENDIX A** of this report.*

4.4.2.1 – Pay and Benefits

Overwhelmingly, pay and benefits are seen as a weakness of PCRRBEMS on behalf of the employees. Overall, 78% of employees do not feel as though their pay is fair and adequate for their position [Q9] and only 7% of employees identified the Agency's benefits as a reason for choosing to work for PCRRBEMS [Q11]. Coincidingly, only 29% indicated satisfaction (very satisfied or somewhat satisfied) with their current

pay [Q22]. Looking at retention for the Agency, 93% of employees highlighted that increasing their pay would encourage them to stay with the Agency [Q12] and 52% had the same sentiment if lower-cost benefit options were available [Q12]. Each of these factors accurately reflects the employees' sentiments that receiving a livable wage, affordable medical/dental benefits, and adequate retirement benefits are either very important or somewhat important to them as employees (100%, 89%, and 93%, respectively) [Q19].

With regards to hardships facing the Agency, pay and benefits remain a top priority by the employees. "Despite increases in pay, we need to be compensated better … [thus, allowing employees to be committed] to one job" [Q21]. This is further exemplified by the fact that 59% of PCRRBEMS employees work for another EMS agency in order to obtain a sustainable, living wage [Q7]. Of the part-time employees at the Agency, 45% highlight that better pay with their full-time job prevents them from working for PCRRBEMS in a full-time role, along with 64% of the same employees identifying better benefits with their current full-time employer dissuades them from making this move [Q6].

For those employees that are EMTs (EMT or AEMT), 67% expressed that they would consider advancing to the paramedic level and staying with PCRRBEMS if the Agency was willing to pay for their tuition and class time (at a regular pay rate), even if that meant signing a three-year employment commitment contract [Q2]. Remaining within the EMS industry is also a question of highlight, as 89% of the employees stated that they would be interested in staying in the industry if overall pay/compensation and benefits were equal with other comparable healthcare, law enforcement, and/or fire service colleagues [Q26].

4.4.2.2 – Work Environment

Overall, the employees of PCRRBEMS are generally satisfied working for the Agency, rating it with an average score of 6.4 out of 10 (Lowest Rating: 2; Mode: 5; Median: 6; Highest Rating: 10, 33% rating with 8 or above) [Q23]. 61% of employees feel as though they have a positive working relationship with other employees and 44% feel as though they have a positive working relationship with their supervisors [Q22]. Much of what seems to lead to this satisfaction is their work schedule, which 70% seem satisfied with [Q22]. One employee mentions that "the environment at PCRRBEMS is welcoming and challenges you to excel in all categories in the field of medicine" [Q18]. Another employee points to positive comradery between staff members [Q18], while another employee echoes that "everyone looks out for each other and the good of the [A]gency" [Q18].

Stress factors impacting the employees seem to stem from their relationship with management, with 81% stating that this is a cause of some-to-high stress; while the other leading factor stems from station amenities and the overall quality of their facilities, with 73% of employees expressing this is a cause of some-to-high stress [Q20]. Clinical protocols, ambulance/vehicle quality, and equipment quality all are the lowest causes of stress, with many employees feeling no stress because of these factors (93%, 82%, and 63%, respectively) [Q20].

Considering rest, recovery, and rehabilitation, however, 63% of employees felt as though they were not able to take time off from work (e.g., vacation, personal days) when they needed a break. This total increased to 78% when adding in the employees that feel this is only possible when using sick time to accomplish this. Overall, only 22% of the employees feel as though they are able to take time off from work when they feel they need a break [Q10]. Fortunately, 44% of employees state that they do not feel any added stress from the Agency's call volume, while an equal 44% state they feel some stress, and ~11% state that the call volume causes high stress for them [Q20]. Of the full-time employees (only), these findings are equally reflected.

4.4.2.3 – Operations

Operationally, four key themes were identified as a result of the employees' responses: equipment and ambulances are great, facilities are lacking, supervision is confusing, and dispatch operations are suboptimal. Overall, the EMTs and paramedics working for PCRRBEMS are very tenured in their working experiences. Nearly 50% of the employees have been working for the Agency for five years or greater [Q3] and many of the employees had nearly five years (or more) of working experience before they came to

PCRRBEMS [Q4]. This can be seen as a strength for the Agency, as many others like it have their workforce rapidly rotating with a replenishment of newer clinicians, meaning that their employees typically do not stay beyond five years, and that their prior working experience is typically less than five years.

Addressing the Agency's satisfactory (or even great) equipment and ambulances, 44% of employees identified this as a reason for why they chose to work for PCRRBEMS [Q11]. Nearly 100% of the employees feel as though their ambulances are reliable and adequate, and the same standard is felt related to patient movement equipment amongst 85% of the employees [Q17]. Great satisfaction and adequacy is also expressed toward medication options, airway management tools, trauma care tools, and other forms of PPE (personal protective equipment) [Q17].

PCRRBEMS's facilities, however, are addressed as a weakness by many of the Agency's employees. One employee expresses that "… in terms of station amenities, updating and renovating the station for bunking and as well as updating the buildings, HVAC system, or even changing the floors. The building definitely deserves a new look and updated to more modern standards" [Q21]. Related to the level of importance that facilities play for the employees, 96% express that having updated facilities/stations is either very or somewhat important to them [Q19], and 78% of employees express that the current state of station amenities cause them some-to-high levels of stress throughout their workday [Q20].

Confusion surrounding the Agency's supervisors – particularly their assigned responsibilities and transitioned role back onto ambulances (rather than in their own supervisor vehicle) – was another challenge/concern expressed by many of the employees. While many feel as though they have a positive working relationship with their supervisors [Q22], one employee cites that they are "unclear what roles supervisors and directors play. It makes it very hard to do your primary job when [you] do not know who to report to for scheduling, equipment, or vehicle issues … [there are] not enough road supervisors to assist crews on critical calls due to them either staffing an ambulance or no supervisor [is] scheduled besides an administrator" [Q21].

A strong sentiment amongst the employees was also expressed – unprompted – relating to the dispatching operations in place by the Agency. When asked "what do you feel are some of the greatest hardships or challenges facing PCRRBEMS," nearly one-third of all employees expressed a concern related to an "outdated" dispatching system [Q21]. Comments like "we have to listen to police audio all day long … there is no 'mental downtime'" and reference to 3 or more different agencies dispatching them to calls, with some "calling a phone overnight" – a "hotline" – as a means to dispatch the on-duty crews, and then having to manually track response times as a result of a lack of adequate communications systems [Q21].

Separate from the identified themes was a survey question [Q14] related to shift schedule preferences where, overall, 60% of employees preferred working a fixed 12-hour shift schedule, meaning they work only AM or PM hours, without a rotating daily/weekly AM/PM schedule. 24-hour schedules were less-favored by the overall group (37%). Of the full-time employees (only), approximately 75% preferred working a 12-hour shift schedule, while approximately 25% preferred working a 24-hour shift schedule.

4.4.3 – On-Site Visit and Observations

PCG performed an on-site visit with PCRRBEMS and its Study Team members spanning over the course of two days. Throughout this visit, results from the employee engagement survey were reviewed and productive discussions were initiated with on-duty employees related to recruitment and retention opportunities, pay and benefit challenges, and concepts for agency sustainability. Overall engagement was positive, enthusiastic, and worthwhile, as the employees were eager to see the Agency progress into the future and build into to its full potential.

Overall employee sentiments were consistent and reflective of their prior engagement study, focusing attention on the need for a higher living or thriving wage, better benefits, a desire for better retirement/pension options, and an ambition for career development and growth. Some operational considerations and recommendations were also presented, however, many employees felt content with how the Agency operated on a daily basis.

The employees' operational recommendations, combined with our firm's observations, are still worth noting as consideration points for this study as many align with and help to support our firm's overall recommendations toward Agency and system development. These observations are outlined below (in no particular order of importance or chronology).

- Many within the Agency feel as though their primary station is appropriately centrally located within the three communities, with fairly easy response capabilities around the area, resulting in generally low and acceptable response times. The sentiment is that separating crews into multiple stations would only create service coverage gaps once calls came in, resulting in the need for units to have to move from station-to-station to maintain new reasonable response times.

- The on-duty crews present as having a positive overall outlook and morale towards the Agency, its daily operations, and its future. While there are always opportunities for small improvements and changes, there was not an overwhelming sense of urgency to drastically change any particular item of concern that challenges the organization (that is, not to downplay the need to increase pay, improve benefits, or address the Agency's outdated facility). The current single-station model seems to work effectively for the Agency by promoting a high sense of morale and a "family" or even "firehouse" atmosphere of comradery.

- The Agency not only operates with four PSAPs for dispatching services, but also operates off of three different physical radios for such services. One radio (VHF) communicates with the police departments/PSAPs, a second (UHF) allows for internal PCRRBEMS communications, and a third (digital, trunked) is used for communications with the County's ECC PSAP. As a result, employees/crews must always carry a minimum of two radios with them. Additionally, the use of "10-codes" remains common in daily use, despite national guidance toward the use of plain text language, as outlined in National Incident Management System (NIMS) recommendations, which many gained their basis from in New York after the events of 9/11. For these radios, there is also no active GPS tracking mechanism, nor do their emergency/alert "orange button" features work to notify dispatching services of situations of distress.

- For unit dispatching, how crews were notified for calls by the police department PSAPs was markedly different than by the County's ECC. The police departments dispatched by a means that sounded like ordinary radio traffic amongst other police unit communications and dispatching. This means that you constantly must be listening for the phrase "EMS" to be announced. For the County dispatches, an internal station tone is heard overhead, followed by a consistent message and a response recommendation (when EMD procedures allow from a direct caller/source process). Within the Agency, there appears to be a preference to transition toward a single radio, ECC-dispatched process from the newer employees, while the tenured employees are either indifferent or lean toward the continued practice of carrying multiple radios and working with multiple PSAPs based off their long-term exposure to this practice.

- Universally, employees agreed with shared sentiments that there is a decreased overall sense of employment permanency within the agency because of a lacking pension system or adequate retirement plan when compared to other municipal-based agencies (such as Greenburg Police/EMS) or other fire/police department colleagues.

- While the employees felt as though the community has a high level of respect for them as EMS providers, they also felt as though there was a common sense of "confusion" or greater "relief" once any first responder arrived on scene, which is commonly the police department, as they often respond to the majority of EMS incidents within their respective community. This sentiment was not presented in a negative spotlight, however, it was a common perception that the patients, as a result of the police arriving first, place greater appreciation toward them simply because they arrived on scene first, despite the ambulance crew being the sole provider of their actual care.

- There is a complete manual tracking system of call response times which includes the supervisor listening to all radio traffic, then writing response/arrival times down on paper in a collective binder,

and then the crews retrieving their documented call times in order to enter them into their ePCR. For the employees that work in other agencies within the County that utilize ECC as their PSAP, many incorporate CAD platforms and integrated in-unit tablets/laptops that allow for push-button time stamping (along with direct radio communications), and an upload feature to auto-populate all respective call/response times into their ePCR before its completion.

- The facility utilized as the Agency's headquarters and primary station appears outdated, non-aesthetically pleasing, and ill-equipped to accommodate the logistics/supply needs and sleeping/rest/privacy needs for its crews. Stained carpet, peeling paint, improperly or poorly sealed exterior doors and windows, interior wood panel walls, narrow hallways, and non-ADA-compliant features are present throughout the entire structure, which only includes two small bathrooms and two dorm rooms (each have two beds in them) but need to accommodate a minimum of five personnel for 24/7 operations. There is narrow spacing around the ambulances in its garage/bay, which does not allow for passenger-side entry for one of the parked ambulances. It also lacks an exhaust mitigation system and is an overall cramped space once all three ambulances are parked inside (***Figure 4.5***). Since the Agency has three additional ambulances and two SUVs, these remaining vehicles need to be parked outside of the structure, which does not have a gated/locked exterior perimeter. These parked ambulances, as a result, need to remain plugged-in with automatic unit heaters remaining active while the vehicles are not used during cold months to avoid medication and solution freezing. Overall, significant interior updates are warranted to bring the facility up to more appropriate use and aesthetic standards, and long-term considerations should also be made with respect to additional ambulance and equipment storage needs.

Figure 4.5: Ambulance in Garage/Bay with Cramped Parking Space

4.4.4 – SCOT Analysis

Throughout the course of this study, multiple themes, trends, observations, and identifiable factors have been either communicated or identified as queues for developing a brief agency SCOT (strengths, challenges, opportunities, threats) analysis. Of note, the Agency does not have an identified or shared mission statement or vision statement. Given its current environment surrounding a new administrator at the helm, now may be an appropriate time for the Agency's administrative, supervisory, and employee teams to develop each of these. Outlined within each subsection below is the foundation for an externally developed SCOT analysis for PCRRBEMS.

4.4.4.1 – Strengths

- PCRRBEMS exists as a rare example of a multi-municipal shared service that not only has a positive reputation, but also has the growing potential to become a best practice example for other communities to model after.
- Employees tend to be experienced, tenured EMS providers that are seeking a lower call volume and workload that allows for a better workplace culture.
- PCRRBEMS has updated and high-quality patient care equipment that is fitting to its agency needs.
- The Agency has outstanding support from its Municipality Village/City Manager/Administrator partners, who are all willing to help to build and sustain a quality, efficient, and reliable EMS agency with whatever collaborative support they can provide.
- Positive overall call volume growth trend with a high level of reliability to respond to calls within the contracting municipalities.

4.4.4.2 – Challenges

- There is a significantly decreased ability to easily extrapolate data for interpretation and consumption because of a lack of a CAD system that is capable of internally tracking or auto-populating call data into the Agency's ePCR platform. Current practices rely on manual data entry to perform all necessary data tracking and uploading tasks.
- PCRRBEMS has often been characterized as a "mom and pop" organization that lacks many of the formalities necessary to be recognized as a professionally oriented organization or business.
- The Agency's current small size limits its ability to scale upward in terms of organizational/career growth potential, unless proactive funding and support are received to dedicate FTEs toward positions designed to promote employee retention and responsibility/task delegation.
- The Agency's facility is outdated, insufficient for current operations, and needs significant capital improvement to better its security, amenities, storage, ambulance bay space, and aesthetics.
- The oversight structure seems inefficient and lacks a streamlined governance approach because of two oversight bodies, of which, the Board does not seem to be as involved as the EMSC is.

4.4.4.3 – Opportunities

- Expanding EMS consolidated/shared services to involve more bordering communities could lay the framework for significant EMS system improvements within Westchester County.
- Call volume trends have shown a positive upward trending pattern, opening up the opportunity for additional future ambulances and incorporating more supervisory and administrative positions.
- There is an optimistic sentiment by the Municipalities toward financially supporting PCRRBEMS and its employees for the future.

4.4.4.4 – Threats

- A strong sense of "local control" and resulting "fiefdoms" has the risk of plaguing the Agency and its Municipalities with regards to future progress and service line sustainability, even outside of providing ambulance services.
- There is a sense of unwillingness to change on behalf of the police departments regarding current 9-1-1 dispatching practices, including the implementation of an emergency medical dispatch (EMD) software or an adequate computer-aided dispatch (CAD) platform.

4.4.5 – Consultant's Engagement and SCOT Analysis Observations

PCRRBEMS has great potential and is by no means off track or derailed, but without making some seemingly uncomfortable changes in the future, it runs the risk of being derailed and falling further behind. This discomfort will be felt in the sense of Municipality contract needs to increase employee pay/benefits, Agency needs to focus on internal capital improvements, a focus toward career path development for its employees, and mutual Agency/Municipality needs to support the long-term sustainability of a further consolidated agency approach toward new EMS system organization and support.

SECTION 5: ORGANIZATIONAL MODEL OPTIONS AND EXAMPLES

5.1 – Organizational Model Options

From a general perspective, EMS agencies throughout the U.S. commonly are categorized as one of four primary organizational models: non-profit, private (for-profit), municipal, and fire-based. Within each primary category are additional sub-model representations such as hospital-based, special taxing district, and collegiate. In the state of New York, eight model categories are outlined by the state's EMS office: independent, commercial, municipal, fire department, hospital, college, industrial, and state/federal government. For the remainder of this section, the prior four-model categories will serve as the reference point for different organizational models. This four-model approach also better aligns with the Scope of Services outlined in the request for proposal (RFP). Referenced within these models will be the category terms used by the state of New York for familiarity purposes.

5.1.1 – Non-Profit (Independent)

PCRBEMS currently is organized as a non-profit corporation offering 9-1-1 ambulance services to the Municipalities. In non-profit (independent) models, agency oversight is seen by represented boards, and the legal composition of many of these agencies is as a 501(c)(3) corporation (e.g., Inc.). Within this model are not only agencies like PCRRBEMS, but also hospital-based EMS agencies and some college-based EMS agencies (assuming that they are structured with the same non-profit status). Many traditional volunteer EMS agencies are organized in this fashion, including numerous volunteer fire departments throughout the country. Non-profit EMS agencies are typically contracted to provide services to local municipalities as either the sole provider of 9-1-1 response and transport services or as one of potentially many other vendors serving within geographic boundaries. Many non-profit EMS agencies are also engaged in providing inter-facility transport (IFT) services such as ambulance transport from one hospital to another, or from hospitals back to the patient's residence. Agencies that typically offer IFT services may or may not have local municipal contracts to provide 9-1-1 response and transport service within their local communities. Within Westchester County, this is the most common organizational model utilized by its local ambulance services.

5.1.1.1 – Organizational Model Advantages

- Agencies are able to take advantage of 501(c)(3) tax exempt status (if structured as such) for various purchases.
- Agencies have seen an increasing number of grant funding opportunities that were otherwise traditionally reserved for municipal and fire-based EMS models.
- Structure allows for agency autonomy and separation from municipal/government bureaucracy, procurement processes, and other open-records requirements.

5.1.1.2 – Organizational Model Disadvantages

- Agencies must rely on contracts with municipalities or other clients to provide services and obtain potential funding.
- Employees are not classified as municipal/government employees; therefore, they are not afforded municipal benefits such as state pensions, protective classifications as workers, or other state/municipal benefits otherwise offered to such employees.
- Agencies are not typically eligible for the same funding as similar municipal or fire-based agencies are, such as ambulance supplemental payment program (ASPP) funding, ground emergency medical transport (GEMT) funding, or state income tax refund intercept program benefits.
- Agencies are restricted by IRS non-profit corporation laws regarding generated profits.

5.1.2 – Private (For-Profit, Commercial)

Private (for-profit, commercial) EMS organizational models are traditionally located in medium-to-large urban settings where 9-1-1 call volumes are high enough to sustain operations. Many of these companies operate on a contract-basis – even sole-source contract – after completing a rigorous bidding process. Other private ambulance services exist solely (or supplement their 9-1-1 calls/billing revenue) by providing inter-facility transport services for patients between or to and from different medical facilities. Such companies can be formed as incorporated companies (e.g., Inc.) or as limited liability corporations or partnerships (e.g., LLC, LLP), and may be owned/operated by hospital systems. Some of the largest ambulance services in the U.S. are private corporations; many of which are financially backed by investment/equity firms. Others exist regionally or locally and have longstanding relationships within their individual communities, even engaging in public-private partnerships to provide 9-1-1 ambulance services. Within Westchester County, this is the least common organizational model utilized by local ambulance services.

5.1.2.1 – Organizational Model Advantages

- Agencies have the least amount of restrictions related to vendor relations, procurement processes, and profit generation.
- Structure allows for agency autonomy and separation from municipal/government bureaucracy, procurement processes, and other open-records requirements.
- Agencies are often involved in inter-facility transport services as a means to increase revenues.

5.1.2.2 – Organizational Model Disadvantages

- Agencies must rely on contracts with municipalities or other clients to provide services and obtain potential funding.
- Employees are not classified as municipal/government employees; therefore, they are not afforded municipal benefits such as state pensions, protective classifications as workers, or other state/municipal benefits otherwise offered to such employees.
- Agencies are not typically eligible for the same funding as similar municipal or fire-based agencies are, such as ambulance supplemental payment program (ASPP) funding, ground emergency medical transport (GEMT) funding, or state income tax refund intercept program benefits.
- Agencies have a common reputation on focusing heavily on business sustainability practices such as providing lower wages to their employees and driving higher unit hour utilization deployment and staffing practices.

5.1.3 – Municipal (3rd Service, Civil Service)

Municipal (3rd service, civil service) organizational models traditionally are owned and operated by an individual municipality such as a county, city, village, or town. While the ambulance service may provide services to communities outside of the chartering municipality's borders, these are typically on a contractual (or inter-municipal agreement) basis. These services are primarily funded by tax support via municipal general budgets along with ambulance transport billing. Some of these agencies exist as a special taxing district separate from any local municipal government ownership. Another potential option – although uncommon for ambulance services – is a special legislative option that functions similar to a special taxing district but with different bylaw/charter and contract approval processes. These agencies function very similarly to their traditional municipal counterparts, receiving tax support to supplement their expenses, but are often less burdened by bureaucratic processes and are afforded with keeping their revenues within their own operating budget, rather than going to the municipality's general fund budget. Special taxing districts essentially function as their own local government entity. Other less common forms of municipal EMS agencies are found at military bases, federal-owned hospitals (typically Veterans' Affairs facilities), or other large state/federal properties or installations. An extremely rare form of municipal EMS agencies

involves EMS providers affiliated as dual-role police officers and as EMTs/paramedics, and occasionally triple-role affiliated as police officers, firefighters, and as EMTs/paramedics (often referred to as a "public safety" model). Police-based EMS agencies are an extreme rarity throughout the country, though they are somewhat common in the lower parts of New York. There are likely more police-based EMS agencies existing within the state of New York than within all other states combined. Overall, most agencies that operate under a municipal organizational model provide primarily – or even solely – 9-1-1 ambulance services, however, some do still provide inter-facility transport services much like their private agency colleagues. Within Westchester County, this remains an uncommon model; however, it is much more prominent in other counties within the state and nation.

5.1.3.1 – Organizational Model Advantages

- Agencies receive tax support to supplement their budgets, along with receiving revenues from ambulance transport services.
- Employees are single-role providers that focus on EMS roles/responsibilities, not firefighting.
- Employees are eligible for state/municipal benefits such as state pensions (even with protective class designations), state healthcare plans, and other associated public workforce benefits.
- Employees are traditionally paid higher than their private agency counterparts.
- Agencies are often eligible (state-dependent) for additional revenue recovery options such as ambulance supplemental payment program (ASPP) funding, ground emergency medical transport (GEMT) funding, or state income tax refund intercept program benefits.

5.1.3.2 – Organizational Model Disadvantages

- Agencies often have more stringent procurement and purchasing practices to follow.
- When other municipalities contract with the primary municipality/agency, the contracting municipalities often lose their "local control" with regards to agency mission and vision, operations, and strategic direction. While this is not always a negative thing, some municipalities perceive it as a disadvantage.
- Higher post-employment benefit costs are associated with this type of model due to pension contributions and other benefit options including those potentially involving labor unions and collective bargaining agreements.

5.1.4 – Fire-Based (Fire Department)

Fire-based EMS organizational models operate nearly identical to municipal EMS agencies, except that the municipal fire department maintains the oversight and operations of the ambulance service. This can exist within county and local municipal governments as well as within special taxing districts. For most fire-based EMS agencies, personnel are dual-trained as either firefighter EMTs or firefighter paramedics, and the ambulance services are integrated directly into fire service operations. For a smaller subset of fire-based EMS agencies – like the Fire Department of New York (FDNY) – EMS employees and operations are kept separate from their fire service colleagues, all while wearing the same uniforms and having identical apparatus design schemes. A common point of discontent with this model, especially within the FDNY, is the disparity that exists between both the operational focus between fire and EMS, as well as the disparity related to pay between firefighters and EMTs/paramedics, as the EMTs/paramedics are often paid less than their firefighter colleagues. Within Westchester County and even throughout the entire state of New York, this remains an uncommon organizational model because fire-based EMS agencies have not traditionally been able to bill their patients for ambulance transport services. However, the Governor's recently approved budget has announced changes to this longstanding practice. This practice has been exclusive to New York State, as it is the only recent state with legislation prohibiting fire department ambulance services billing. Throughout the rest of the country, fire-based EMS agencies are the most common organizational model utilized by medium-to-large communities.

5.1.4.1 – Organizational Model Advantages

- Agencies receive tax support to supplement their budgets, along with receiving revenues from ambulance transport services, with New York State being the traditional exception to this rule until now.
- Employees are eligible for state/municipal benefits such as state pensions (even with protective class designations), state healthcare plans, and other associated public workforce benefits.
- Employees are traditionally the highest paid out of all of the existing organizational models.
- Agencies may provide a staffing benefit to communities that have lower fire call volumes but higher EMS call volumes, as employees are cross-trained to respond to both fire and EMS calls.
- Agencies are often afforded different Fair Labor Standards Act (FLSA) work hour requirements than other municipal entities or employees, allowing employees to work based on a 56-hour workweek schedule before overtime is accrued (accounting for 24-hour shifts), rather than employees accruing overtime after a 40-hour workweek.
- Agencies are often eligible (state-dependent) for additional revenue recovery options such as ambulance supplemental payment program (ASPP) funding, ground emergency medical transport (GEMT) funding, or state income tax refund intercept program benefits.

5.1.4.2 – Organizational Model Disadvantages

- Employees are often dual-role providers that must be cross-trained as firefighters and EMTs/paramedics, which adds to an employee's training and industry discipline repertoire, sometimes despite their personal preference of being a single-role-focused employee.
- Agencies are typically the most expense to operate in terms of employee, operational, and capital expenses, but may be less expensive than operating a separate municipal EMS agency and fire department.
- Agencies typically respond to significantly more EMS calls than fire calls, while the bulk of the agency's administrative organizational table is higher toward the fire service side of the agency, resulting in an agency identity prided as a fire department, first, rather than an EMS agency, first.
- Fire-based EMS agencies have not traditionally been allowed to bill for ambulance transport services within New York State; however, the Governor's current budget approval may change this longstanding practice.

5.1.5 – No EMS/Ambulance Services Provided

Emergency medical services – or 9-1-1 ambulance response and transport services – in New York State are not presently a required service that local municipalities (whether at the township or county level) need to account for. This means that despite the sentiment that ambulance services are essential, the actual provision of 9-1-1 ambulance services is not a requirement within the state, therefore not affording it the respective title as an "essential service." While there are active efforts within the state to change this, the current reality is that there does exist an option for the Municipalities to end their contract with PCRRBEMS and pay for no ambulance services whatsoever (***Figure 5.1***). [39]

5.1.5.1 – No EMS Agency/Ambulance Service Advantages

- Any form of line-item budgeting related to this organizational model would be deleted, potentially allowing municipalities to allocate their funds elsewhere within their total budget.

5.1.5.2 – No EMS Agency/Ambulance Service Disadvantages

- There would be no active ambulance assigned or at-the-ready to provide 9-1-1 ambulance response and transport services to the citizens. Citizens would have to rely solely on neighboring EMS agencies to provide a mutual aid response to provide any form of patient care to their citizens.
- Perception and opinions surrounding this type of decision would reach a national scale with an extremely high level of scrutiny and likely discontent.

N.Y. bill would classify EMS as 'essential services'

State Senator Shelley Mayer and Assemblyman Steve Otis say the measure also would make health and pension benefits available for providers

Mar 18, 2022

By Leila Merrill

PORT CHESTER, N.Y. — Two Westchester County Democrats are asking New York state lawmakers to pass their bill that would classify EMS as "essential services," Mid Hudson News reported Thursday.

The measure is intended to address the EMS workforce shortage and would give providers access to health and pension benefits. In rural areas, entire EMS squads have closed.

State Senator Shelley Mayer said it is "outrageous" that the EMS responders "can be denied health benefits when we turn to them to address our own medical emergencies." (Photo/Office of N.Y. State Sen. Shelley Mayer)

If the bill passes, municipal governments would have to provide emergency medical services, and a minimum standard of care would be established, the lawmakers said, according to Spectrum Local News.

State Senator Shelley Mayer and Assemblyman Steve Otis said that making the benefits available would help EMS agencies recruit and retain personnel.

Mayer said it is "outrageous" that the responders "can be denied health benefits when we turn to them to address our own medical emergencies."

Figure 5.1: Article Excerpt

5.1.6 – Consultant's Organizational Model Observations

Each organizational model holds its own set of unique advantages and disadvantages, which is why different patterns of utilization are seen throughout the country with regards to their selection. Among smaller, typically volunteer agencies, non-profit models are highly common, while fire-based and private (for-profit) are more common in larger communities. In between, municipal models have seen an incline in popularity over the recent decades. Each of these models is tailored to best fit the needs of the communities that they serve, and PCRRBEMS has not been an exception to that. Focusing on sustainability and future opportunities, our firm believes there are particular models (or sub-models) that would be most advantageous for PCRRBEMS and the Municipalities to explore, along with a number of models that our firm would strongly discourage from considering. These recommendations will be expanded upon further in this report.

5.2 – Organizational Model Examples

A brief listing of comparable EMS agencies is provided as a reference for this project. Comparable criteria reflects EMS agencies that provide services to multiple municipalities covering a similar combined population, and/or have a similar call volume.

5.2.1 –Non-Profit – Community Rescue Service (MD)

Community Rescue Service, Inc., (CRS) is a non-profit EMS agency located in Hagerstown, MD, (northwest of Washington, DC) that covers a population of 40,000-50,000 residents between portions of two counties and within the City itself. The agency also has borders with two additional states (West Virginia and Pennsylvania) and provides contracted 9-1-1 ambulance response services to multiple local municipalities. It is governed by a 501(c)(3) board similar to that of PCRRBEMS, with community/citizen representatives in attendance. Unique to this EMS agency is also the "fragmented" system in which it resides – but more particularly toward its fire services. Within the City of Hagerstown, there is a City/Municipal fire department (paid, career/combination) along with four additional volunteer fire departments who all cover their own small portion of the City's geography. Similar to PCRRBEMS, CRS began its roots as a volunteer EMT organization, but has since transitioned into a primarily fully paid model. Up until the past few years, CRS also staffed a heavy rescue unit and responded with cross-trained firefighter staff as another fire department resource (making it the sixth total within its city), but its staffing and response focus has since transitioned to EMS only operations. The agency's expenses are estimated at approximately $4.7 million annually. [40, 41, 42]

5.2.2 – Private (For-Profit) – Lifestar EMS (WI)

Lifestar EMS, LLC, is a private (for-profit) EMS agency located in West Bend, WI (northwest of Milwaukee) that provides 9-1-1 ambulance services (contracted) for five communities within a larger region of the state, covering a total population of approximately 30,000 residents. In addition to 9-1-1 coverage, Lifestar also provides critical care-level inter-facility transport services for multiple health care entities throughout the region. Like PCRRBEMS, Lifestar offers 24-hour and 12-hour shift opportunities for its employees to account for different operational elements within its service offerings. [43]

5.2.3 – Municipal – Sandusky County EMS (OH)

Sandusky County EMS is a municipal EMS agency located in Fremont, OH (southeast of Toledo) that provides 9-1-1 ambulance services throughout a county encompassing over 60,000 residents. They respond to approximately 6,000 calls per year – which is similar to that of PCRRBEMS – and are a tax-funded entity operated at the county level of government. They are a CAAS Accredited (Commission on Accreditation of Ambulance Services) EMS agency that staffs five ambulances throughout the county, with an additional supervisor (Captain) also on-duty, in addition to the staffed ambulances. As a municipal entity, its employees are eligible for public employee statewide retirement benefits, are offered medical/dental/vision insurance, and paid time off at the county level. [44]

5.2.4 – Municipal, Special Taxing District – Oldham County EMS (KY)

Oldham County EMS is a municipal, special taxing district EMS agency located in La Grange, KY (northeast of Louisville) that provides 9-1-1 ambulance services throughout a county encompassing a population of approximately 60,000 residents. While titled with a county name, the entity is governed and funded by a special taxing district (Oldham County Ambulance Taxing District) with a five-member Board of Directors. The agency is also CAAS Accredited and is a has a management agreement with nearby Baptist Health to provide management and staffing of the service as partners within the agency. [45]

5.2.5 – Municipal, Special Legislative Option

One potential option to create a consolidated municipal EMS agency without the need for a single municipality to claim ownership or to have others provide contracted fees that are based on a limited contractual timeframe is to obtain special legislation approval from the State Legislature to form a consolidated (multi-municipality) EMS agency. No current EMS agency examples exist within the state as of yet. Considering the risk of placing one's EMS agency at the timeline and mercy of the State's Legislature to make any contractual changes (such as community additions), there is a high potential for any processes/changes/updates that need to be defined within a short period of time may take months – even years – to seek approval.

5.2.6 – Hybrid, Tax-Supported Private Contract – Ossining Volunteer Ambulance Corps (NY)

Similar in overall organizational model to PCRRBEMS is the Ossining Volunteer Ambulance Corps (OVAC), a non-profit corporation based in Westchester County, NY. Instead of relying solely on municipal contract fees for supplemental budgetary support, the Town of Ossining has developed its own special taxing district to provide this supplement. OVAC responds to approximately 3,100 calls each year and covers a primary 9-1-1 population base that is smaller than PCRRBEMS's. Uniquely, OVAC also provides contracted ALS provider (paramedic) staffing services to local BLS EMS agencies, along with intercept/response vehicle support. [46] Regarding its revenues, OVAC bills for ambulance transport services just like PCRRBEMS and levies tax support from its greater than 7,300 residences, which have a combined assessed property tax value of over $3.3 billion. The ambulance district – Mid-Hudson Ambulance District – has a millage rate of just over 0.2 mills, which generates approximately $500,000 in additional tax-funded financial support. [47] Being organized as a private, non-profit corporation, however, and not as a municipal/3rd service, special taxing district agency, OVAC's employees are not eligible to state/municipal benefits, nor is the agency eligible for ambulance supplemental payment program opportunities (if they were to become available within the state).

5.2.7 – Hybrid, Public-Private Partnership – Falck Rocky Mountain (CO)

Another hybrid municipal/private model can be found in Aurora, CO, (east of Denver) which has a private (for-profit) EMS agency, Falck Rock Mountain, providing ambulance units and response personnel to assist the City's fire department personnel, Aurora Fire Department, who ultimately transport patients to the hospital inside of the private ambulance service unit, while the private ambulance service bills the patient for the respective transport costs and the fire department, interne, bills the ambulance service for the services provided by their fire department staff. Models like this are very uncommon throughout the U.S. but do exist within Colorado and California more commonly than elsewhere.

5.2.8 – Fire-Based, Municipal – Camas-Washougal Fire Department (WA)

One of the most common EMS agency organizational models is the fire-based EMS model, which can be found in the similar-sized Camas-Washougal Fire Department in Camas, WA (north of Portland, OR). This consolidated fire department is municipal-based and provides EMS to both municipalities, encompassing a population of over 30,000 residents. Employees are formally employed by the City of Camas, while additional contract fees are gathered from the City of Washougal for their consolidated services. The agency responds to approximately 4,000 EMS calls and collects approximately $1.8 million in ambulance transport revenues annually. [48]

5.2.9 – Fire-Based, Special Taxing District – Huntley Fire Protection District (IL)

Huntley Fire Protection District (HFPD) is a fire-based, special taxing district EMS agency located in Huntly, IL (northwest of Chicago) that provides consolidated fire/EMS services to four communities within two counties, with a total population of approximately 60,000 residents. HFD is a CFAI Accredited (Commission on Fire Accreditation International) department that responds to approximately 6,000 calls per year and

staffs four ambulances within its district. A Board of Trustees governs the taxing district and meets on a monthly basis. [49]

5.2.10 – Local Successful Model Example – Stamford EMS (CT)

Another local EMS agency identified as having a positive reputation is Stamford EMS, which is located in Stamford, CT. Stamford EMS is a private, non-profit EMS agency that provides 9-1-1 ambulance services to Stamford and responding out of four stations, covering a population of nearly 130,000 residents. The agency responds to approximately 16,000 calls annually and operates on a nearly $10 million budget, with approximately $1.8 million of subsidy support provided by the City/Town of Stamford. The agency is CAAS Accredited and is dispatched by EMD-credentialed dispatchers. Being close in proximity to PCRRBEMS's border, Stamford EMS faces many of the same highly competitive staffing challenges as other local EMS agencies, but their unionized workforce and competitive benefits afford the agency to have a very low employee turnover rate. [50]

5.2.11 – Consultant's Model Example Observations

While multiple sub-varieties of EMS agencies exist throughout the country, nearly all fit into one of the four identified primary categories mentioned prior. PCRRBEMS's existence as a non-profit EMS agency is quite common throughout New York State and even the country, and is not directly a cause for concern with respect to its future. Other outlined and exemplified organizational models present similar challenges that PCRRBEMS encounters, with the primary exception that not all are facing the systemwide fragmentation that PCRRBEMS encounters within the Northeast.

SECTION 6: GENERAL OPERATIONAL/ADMINISTRATIVE RECOMMENDATIONS

6.1 – Preface

Regardless of the organizational model that PCRRBEMS and its Municipalities choose to pursue, this section outlines various general recommendations that are designed to improve the overall recruitment and retention, succession planning, and operations of the future Agency.

6.2 – Recruitment and Retention

6.2.1 – Recruitment Efforts

A 2019 report by the New York EMS Council titled "EMS workforce shortage in NYS: where are the emergency medical responders?" highlights that the number of certified EMS providers in the state has declined by 9% since 2009. This report is based on survey results from approximately 900 EMS agencies throughout the state, where respondents outlined four key elements affecting EMS workforce shortages, with low wages being one of them (items listed below).

- Low wages for career EMTs and paramedics, despite the tremendous responsibilities that come with the job
- A very limited capacity to raise wages, due to the declining financial health and negative fiscal outlook facing most ambulance services
- A need for more EMS responders to meet increasing demands for ambulance service due to aging communities, drug and alcohol abuse, behavioral health challenges, and chronic care needs
- A decline in the number of new volunteers to replace long-time volunteers aging into retirement

Reflecting agencies like PCRRBEMS, this report points out that "62% of agencies utilizing only paid responders reported that the shortage in the number of qualified paramedics diminished their ability to cover their calls or scheduled shifts." "Similarly, 38% reported that the shortage of qualified EMTs diminished their ability to cover their calls or scheduled shifts." 40% of respondents to this report's survey consider their EMS responder workforce to be "distressed," and 62% of the respondents had an "unfavorable outlook on their Agency's ability to recruit enough certified EMS responders to adequately serve their community in the future. As a result of decreased available staff, nearly 60% of respondents indicate that their Agency has had to increase the number of paid overtime hours (over the last two years) to compensate for EMS responder shortages.

Alarmingly, the report continues to show salary comparisons of seven communities outlining wages for EMTs and paramedics compared to firefighters, police officers, and registered nurses. In all instances, EMTs and paramedics were paid anywhere from 39% to 122% less than their public safety or healthcare colleagues. Putting this into perspective, a salary for a FDNY (Fire Department of New York) paramedic was outlined as being $61,464, while a FDNY firefighter was $85,292 (39% higher), a police officer was $85,292 (39% higher), and a registered nurse was $89,400 (45% higher). Highlights like these show a clear picture of exactly why 42% of the report's survey respondents noted that "nearly all" of their paid paramedic staff members work more than one EMS job, which also aligns with the employee engagement survey results from PCRRBEMS's staff. [51]

Report information like this goes to show the state of affairs facing EMS agencies and providers within New York State and throughout the nation. In order to become and remain competitive within the arena of recruitment and retention efforts, industry subject matter experts are assisting by outlining some of the key elements that are highly recommended (if not required) to become successful at obtaining and retaining

new staff. One such recent article outlines four key approaches EMS agencies can take to improve their recruitment efforts (outlined below). [52]

- **Join a Winning Team vs. We Need You** – No one wants to join a sinking ship. Instead, people are attracted to a winning team or being a part of something great, so focus your recruitment efforts on the positive aspects of your agency and the job, rather than simply a "help wanted" mantra (***Figure 6.1***).
- **Benefits vs. Struggles** – Focus your public communications and recruitment efforts on the benefits of what's working, not all of the struggles that your agency is facing. This isn't to say that you're ignoring your troubles; rather, you're highlighting the positivity that exists and trying to foster momentum to keep this positivity contagious and continuous.
- **High-Performing, Engaged Team Members vs. Warm Bodies** – Much like the first point, if you're looking for "warm bodies" to fill a shift, then that's exactly what you'll get. If you give people a reason to become engaged and high-performing, you're more likely to attract employees who want to be surrounded by that type of work environment and culture.

Figure 6.1: PCRRBEMS Recruitment Flyer [53]

- **Team Approach vs. Lone Ranger** – If you (as an administrator) are perceived as a self-sacrificing, struggling person, it will not be conducive to recruiting high-performing and engaged team members. Asking for help on how to better and more creatively recruit is an important element of tackling this challenge holistically, rather than individually.

Locally, the recruitment pool of new EMTs and paramedics is nearly depleted. EMS program enrollment at Westchester Community College (overall) is down by 40%, and paramedic program enrollment is down by at least 10%. Much of this is perceived to be because of low pay and a gross lack of career advancement opportunities within many agencies. Our firm believes this lack of advancement is the result of at least one key observation: an exorbitant number of EMS agencies that exist within the county (as was exemplified in **Section 3**). Due to the high number of overall EMS agencies and the overall low represented population that is covered by each agency (approximately one EMS agency for every 25,000 citizens), there isn't an ability for EMS agencies to build a meaningful organizational structure and career development path for its employees, not to mention producing an efficient economy-of-scale with regards to their operations. The individual "fiefdoms" and "siloed" agencies that comprise the "fragmented system" (quoted terms from many stakeholder interviews) that comprises the EMS system in Westchester County – and even throughout New York State – is negatively impacting the entire industry's ability to recruit, retain, and grow.

When an EMS agency offers little to no opportunities for career variety, the only remaining option to provide some sort of variety is to go elsewhere. Even in agencies where supervisory roles are offered, doing so in title alone doesn't help the situation, it leads to further frustration because those supervisors aren't able to actually perform their titled job. Such individuals need to have the ability to work autonomously and to respond to high-acuity calls as both an additional resource and as a form of incident oversight (command). In an agency like PCRRBEMS, accomplishing this with a staffing level of two ambulances is difficult, and unnecessary in smaller agencies that only have one staffed ambulance. For agencies that have than two ambulances in operation a span of control can exist whereby a supervisor role needs to and can exist. To continue expanding, there exists an opportunity for additional dedicated middle-management and program management positions to exist like training coordinator/officer, quality assurance coordinator/officer, operations manager, and a community risk reduction coordinator.

Looking beyond these elements, recruitment and retention can be improved through targeted partnerships with local EMS training centers (including community colleges) to host clinical ride-alongs and internships (which is already being done), and to engage with high school students to try to promote a career choice in

EMS. Further, the National Association of EMTs (NAEMT) has outlined eight strategies to build a successful recruiting program to help identify, attract, and hire the best candidates for open positions (***Figure 6.2***), which PCRRBEMS should consider.

National Association of EMTs (NAEMT)
"Innovative Recruitment Strategies for EMS Agencies"
February 2022 [54]

GETTING STARTED: 8 Strategies to Build a Successful Recruiting Program

1) Assess what your agency is currently doing. Are you working with local hiring and job training entities? Where do you post job openings? What's working and what isn't?

2) Define your agency's needs. How many positions need to be filled and in what timeframe?

3) Determine who internally can help. Determine which internal personnel have the time, capacity, and skills to participate in recruitment efforts. Who is enthusiastic about their job and passionate about their work?

4) Determine what external resources can help. Identify who in the community does this kind of work and would be willing to help your agency.

5) Define why someone should work for your agency. What is your agency culture? What do you have to offer as far as pay, benefits, bonuses or incentives, and advancement opportunities? Ask your employees why they chose to work for your agency and what keeps them there?

6) Create an enticing job description. Highlight key words for traits that you desire in applicants and tout any lucrative agency benefits.

7) Determine your recruitment activities. Utilize digital strategies and in-person activities to reach different audiences.

8) Evaluate your results. Did you meet your objectives – attract more applicants? What can you modify for your next hiring push or process?

Figure 6.2: NAEMT Innovative Recruitment Strategies for EMS Agencies (Abstract)

Recruitment and retention are certainly active challenges for PCRRBEMS. Throughout the course of this Study, at least five employees have left the Agency: three for new (local) emergency service job opportunities and two left the industry altogether. This equates to an approximately 20% turnover rate just within six months. Pay and benefits are certainly factors contributing to three of these losses, although, there are changes actively underway to address this. For others that are still considering leaving, a lack of career advancement remains as a high factor for what might facilitate their exit from the Agency. Each of these items if left unaddressed will lead to further hardships for PCRRBEMS (and many other EMS agencies within the county) and will potentially lead to the Agency's collapse in the not-too-distant future.

6.2.2 – Salaries/Wages

"How can NY fix EMT shortages, worsened by COVID, that threaten emergency response times?" This is the headline from a 2021 *Rockland/Westchester Journal News* article highlighting low pay as a primary reason for the hardships facing recruitment and retention efforts [55] What is not adequately putting this issue into full perspective are two factors: (1) the difference between what is considered a minimum, living/sustainable, and thriving wage, and (2) the massive disparity issue between different emergency

responders – particularly firefighters, police officers, and EMS providers – within the area. PCRRBEMS has recently increased its salaries/wages to better align with its neighboring EMS agencies, creating a fairly even playing field with that respect (regarding wages only, not benefits). This wage increase, however, is hardly a livable/sustainable wage for the area and hardly compares to the starting, Year 2, or even Year 5 wages of its community's firefighters and police officers. ***Tables 6.1 and 6.2*** highlight comparable salaries for PCRRBEMS EMT/Paramedic/Supervisor positions and comparable Port Chester, [56] Rye, [57] and Rye Brook [58] fire and police department employees. These values are a testament to why the majority of PCRRBEMS's employees work more than one EMS job and live outside of the service area; they simply cannot afford to sustain a modest family/personal life on their PCRRBEMS salary, alone.

COMMUNITY	DEPARTMENT / POSITION	SALARY START	YEAR 2	YEAR 3	YEAR 4	YEAR 5
PCRRBEMS	**EMS / EMT**	**$41,600**	**$43,680**	**$45,864**	**$48,157**	**$50,565**
PCRRBEMS	**EMS / Paramedic**	**$62,400**	**$65,520**	**$68,796**	**$72,236**	**$75,848**
Port Chester	**Police / Officer**	Start: $63,199; 6mo: $94,500; Grade 1-2: $102,667 - $118,909				
Rye	**Fire / Firefighter**	$58,654	$67,826	$77,005	$86,182	$95,359
Rye	**Police / Officer**	$79,618	$87,810	$96,004	$104,196	$108,528
Rye Brook	**Fire / Firefighter**	Start: $67,315; Highest/Majority: $110,108				
Rye Brook	**Police / Officer**	Start: $59,641; Highest/Majority: $118,624				

Table 6.1: PCRRBEMS and Community Fire/Police Salary Comparisons

COMMUNITY	DEPARTMENT / POSITION	SALARY START	YEAR 2	YEAR 3	YEAR 4	YEAR 5
PCRRBEMS	**EMS / Supervisor**	**$83,200**	**$85,528**	**$89,124**	**$91,798**	**$94,551**
Port Chester	**Police / Sergeant**	$136,746	*(No further data)*			
Port Chester	**Police / Lieutenant**	$154,579	*(No further data)*			
Port Chester	**Police / Captain**	$174,164	*(No further data)*			
Rye	**Police / Sergeant**	$138,337	*(Additional Longevity Pay offered after 7, 12, and 17 years)*			
Rye	**Police / Lieutenant**	$148,684	*(Additional Longevity Pay offered after 7, 12, and 17 years)*			
Rye Brook	**Police / Sergeant**	$136,416	*(Average salary)*			
Rye Brook	**Police / Lieutenant**	$154,706	*(Average salary)*			

Table 6.2: PCRRBEMS and Community Police Supervisor Salary Comparisons

To add to the perspective, a Senior Office Assistant with the Port Chester Police Department has a salary of $77,942, which is higher than a paramedic's wage entering their 5th year with PCRRBEMS. [pc] At the executive level, the Chief of Police earns a salary of $180,888 in Rye Brook [rb] and $192,336 in Port Chester. [pc] While the salary for the EMS Administrator for PCRRBEMS is not a public figure, it is safe to presume that it does not compare to that of the police chiefs of the two communities, or likely even a police sergeant within any of the communities (a supervisory position).

In order to recruit and retain dedicated staff, a livable or even thriving wage must be offered. A thriving wage is one that allows employees to pay for their own daily expenses (e.g., food, housing, utilities, transportation, childcare), build up an emergency savings fund, contribute to a retirement account/fund, and save for a big purchase. Employers should also offer affordable health/medical insurance, paid time for training, tuition reimbursement, paid time off and sick leave, maternal/paternal time off, and financial planning/career coaching options to its employees as a part of their thriving wage and benefits. [59] Based on the starting and progressing wages of PCRRBEMS's fire and police department colleagues, our firm recommends a substantial increase in the salary/wage schedule for its employees, which is reflected in ***Table 6.3***.

POSITION	SALARY START	YEAR 2	YEAR 3	YEAR 5	YEAR 7	YEAR 10
EMT (Base Salary)	$57,000	$60,000	$63,000	$69,000	$76,000	$84,000
EMT, Coordinator (Lieutenant)	$63,000	$66,000	$69,000	$76,000	$84,000	$92,000
Paramedic (Base Salary)	$75,000	$79,000	$83,000	$91,000	$100,000	$110,000
Paramedic, Supervisor / Coordinator (Lieutenant)	$83,000	$87,000	$91,000	$100,000	$110,00	$121,000
Paramedic, Manager (Captain)	$91,000	$96,000	$100,000	$110,000	$121,000	$133,000
Assistant Director / Chief	Starting Minimum: $153,000					
Director / Chief	Starting Minimum: $168,000					

NOTE: Annual Start-through Year 3 salary increases are approximately 5%, with 10% increases at the Year 5, 7, and 10 marks; promotional salaries are based on the employee's total Agency tenure, not their tenure in the position (only).

Table 6.3: Recommended Minimum PCRRBEMS Salary/Wage Schedule

While these substantial salary increases may come as a monetary shock to the Agency – and to the communities contracting for the Agency's services – our firm is confident in stating that if reflective substantial pay increases are not implemented in the very near future (within months of this report's release), PCRRBEMS will be left in a potentially detrimental and uncompetitive position to recruit and retain personnel and will undoubtedly face further staffing hardships. If left unmitigated until the end of the calendar year, PCRRBEMS will likely not be able to maintain its current level of minimum staffing. This will, undoubtedly, lead to a drastic increase in the need for mutual aid responses into its communities, further retention issues amongst its current staff and will eventually place the communities in a position where they will need to seek services from another (additional or new) contracting EMS agency.

EMS agencies throughout Westchester County – and the greater region – are at a breaking point with regards to staffing, recruitment, and retention, and it all stems from issues reflecting pay. Currently, administrators and stakeholders from throughout the region characterize employees as "transient"; chasing the next job opportunity "that will pay $1 more per hour." This culture exists within the EMS industry – locally and nationally – because of the lack of municipal support that EMS agencies traditionally receive, the lack of being considered an "essential service" by many states, and the lack of sufficient insurance billing/reimbursement that payors, such as Medicare/Medicaid, afford to EMS/ambulance transport agencies. To combat all of this, the only remaining option for the immediate future is to support EMS agencies with taxpayer funding. This is not to say that the Agency's organizational model needs to change because of this. Not all EMS agencies need to become municipal/3rd-service models, but the contractual support that EMS agencies receive (if any) needs to be sufficient to maintain a taxpayer-approved level of service.

In our observations through stakeholder interviews, our firm believes sufficient elected official and taxpayer support exists within the communities of Port Chester, Rye, and Rye Brook. As is exemplified through the payrolls of their local fire and police departments, our firm believes the perspective of the communities is in line with increasing the salaries of its contracted EMS providers to these levels given the shared information outlined in this report.

6.2.3 – Benefits

PCRRBEMS traditionally has offered a high-cost medical insurance plan to its full-time employees, which only a small minority had enrolled in. Recent support by the Agency has promoted this insurance plan option with 100% premium coverage provided for Agency employees. They currently offer a 401k plan with a 3% employer match, but its enrollment has traditionally been very poor. They do not offer tuition reimbursement for the pursuit of higher education but do offer on-duty continued education options to maintain one's required EMS credentials. Items like these – while an added expense to the Agency – are absolutely necessary in today's workforce climate in order to effectively recruit and retain long-term employees.

Nearby Stamford EMS (Stamford, CT) advertises that it offers its employees competitive salaries, excellent benefits, and paid continued medical education classes. [60] Mobile Life Support, a private (for-profit) EMS agency in nearby Orange County outlines that it offers medical insurance coverage for individuals or families, a vision plan, dental insurance, employee life insurance, employee assistance program (EAP) offerings, 401k retirement with matching options, paid time off (personal, sick, vacation, and a buy-back option for unused hours), annual raises, longevity raises, health club reimbursement, regular overtime opportunities, bonuses for working on busier units/ambulances, free training opportunities, supplemental disability insurance plans, tuition assistance, and professional growth opportunities. [61] All of this is clearly listed on their website. PCRRBEMS's website makes no mention to any of this. [62]

Competing with the benefits offered by various municipal entities is another significant challenge for PCRRBEMS. The Town of Greenburgh Police Department offers one of the municipal EMS delivery models contracted throughout the county and is a rival competitor with PCRRBEMS. This particular delivery model – one where police officers are dual-trained as EMTs and paramedics and operate within a cross-trained ambulance service (or) civilian EMTs/paramedics operate under the employment umbrella of the police department – is not one that is recommended through this Study or by our firm but does serve as an example of what competing with a municipal (protective class, civil service) agency looks like. Town benefits include medical insurance, dental insurance, vision insurance, 529 college savings program enrollment, credit union membership, deferred compensation retirement plan options, employee assistance program offerings, flexible spending accounts, state and local retirement system plan enrollment, savings bond opportunities, and additional injury/disability insurance options. [63]

In order to become a truly competitive EMS agency within the existing highly competitive employment market, PCRRBEMS needs to offer benefit options that will promote security and long-term support for its employees, rather than short-term paychecks that further exacerbates the "transient" staffing cycle that exists within many local EMS agencies. While it was often commented that younger generations "don't care" about benefits, this may be perceived as the present case because of the poor offerings in existence by the Agency in the moment. Turning to the comments and sentiments outlined in the employee engagement survey, over 60% of part-time employees cited PCRRBEMS's decreased benefits as a hinderance toward them becoming a full-time employee with the Agency, and 60% of current full-time employees highlighted that improved benefits would influence them to stay with the Agency.

6.3 – Succession Planning

6.3.1 – Organizational Chart and Staffing

PCRRBEMS's organizational size is at a pivotal juncture where dedicated, single-resource shift supervisors are necessary to maintain agency span of control, handle low-level administrative functions, and to function as a supplemental resource for high-acuity calls. Currently, the Agency does have shift supervisors on its roster, however, these shift supervisors have been pulled from their single-resource function and have been utilized to staff necessary ambulances to maintain daily operations. While this practice may be warranted on a short-term basis, it should not become a normal practice for the Agency, nor should it be considered as a long-term solution to supplement staffing needs. If PCRRBEMS had a lower call volume and only staffed two ambulances on a full-time basis, this practice may be considered as a long-term solution. With more than two ambulances being staffed and a limited administrative staff also in existence, the need for dedicated supervisors is necessary. Maintaining this dedicated supervisor role also serves a purpose with regards to employee retention, as this is a promotable position that employees can strive to obtain. When supervisors are utilized as a primary resource to staff ambulances, it has a negative trickle-down effect on the agency's operations, oversight, and administrative functions.

Looking above the supervisory level, PCRRBEMS is also at a pivotal juncture where it needs to consider full-time dedication of a manager-level position assigned to planning and logistics functions like training, quality assurance, data management, and supply chain management. This position does not necessarily need to be titled as a chief officer or as an administrator; it could be titled and paid as a captain position. A

structure like this will likely serve the current operational model well for the next decade. If PCRRBEMS were to expand and begin coverage of another local community or consolidate with another local EMS agency, then the integration of an additional /assistant/deputy administrator position would be warranted, along with the potential of dividing the manager position into two dedicated positions with different functional responsibilities.

Additionally, there exists a need for an administrative-focused (non-clinical) position that has dedicated responsibilities outlined toward business management items. It may be possible for such services to be contracted to one of the partnering Municipalities as a form of shared services, however, further legal consultation should be evaluated to assure there are not issues with municipalities providing services for corporate entities (including non-profit, 501(c)(3) organizations). A position such as a business manager could handle financial budgeting, payroll, human resources, vendor contract, and general high-level administrative/reception work for the corporation. Administrative items related to EMS agency operations, compliance, clinical oversight, and specific purchasing needs would be better suited for the Agency's administrator. Keeping a title differentiation between the two, referencing "business" and "administration", would be recommended to reduce potential role confusion.

Regarding position titles, our firm recommends changing the Agency's position titles to better align with fire service and law enforcement colleagues, who understand position titles and ranking structures like "chief," "captain," and "lieutenant;" rather than "administrator" and "supervisor." Following suit with this format, we recommend the transition of the Agency's current position titles to align with the following organizational structure (with the Agency's current titles shown in parenthesis):

- EMS Chief (Administrator) – Executive-level position
    - Assistant or Deputy Chief (potential future position) – Executive-level position
        - Captain (recommended new/re-instituted position) – Manager-level position
            - Lieutenant (Supervisor) – Supervisor position

Organizational growth will likely be slow considering the Agency's current projections, which serves as a potential weakness as PCRRBEMS tries to recruit new and retain current employees. Even with marked community population increases expected, these organic increases will not likely raise the call volume enough for PCRRBEMS to consider an organizational structure much beyond what has already been outlined. In order to build a more solid middle-management and upper-management structure, significant changes would need to take place that involve regional consolidation efforts involving the Agency and its neighbors, which this firm is in favor of and recommends all parties pursuing (more details regarding this concept will be discussed later in this report).

6.3.2 – Career Path Development

Whether it is the integration of dedicated supervisor- and management-level positions or a creative "job share" opportunity that allows existing employees to split their roles between being a field/response paramedic and a program manager of sorts, dynamic and progressive career path development plans need to become a focal point for PCRRBEMS as it looks to recruit and retain staff. Trends with workforce generation shifts indicate that many EMS providers leave the EMS industry altogether because of a lack of career progression. Particularly in smaller agencies – like PCRRBEMS – there are often limited opportunities for career growth, meaning that many employees remain an EMT or paramedic for their entire career, not having a chance to gain managerial or administrative skills because of the limitations of their agency's size. This creates a downstream issue as current EMS chiefs/directors/administrators leave their positions and no one within the agency is fully prepared to fill that role.

Even in a smaller EMS agency like PCRRBEMS, career path development can be integrated into its structure and ranks in smaller portions. This requires some creativity, however, as the current static model that many EMS agencies operate with does not promote growth. One opportunity to accomplish this would be to explore a "job share" model where paramedics (or even EMTs, for some functions) work a dynamic

shift structure splitting their rotating/regular 24-hour shifts (with an average of 56-hours/week) into a dynamic 24/8/8 model. In current 24-hour shift models, three paramedics would be required to maintain a 3-platoon A/B/C-shift rotation, working 24 hours "on," followed by 48 hours "off." On a calendar, this would show a repeating pattern of A/B/C/A/B/C/etc. With the "job share" model, however, five would be necessary (but respective additional dedicated daytime management staff would not be necessary), as the three employees would share the A-shift (24-hour shift) responsibility on a rotating basis, working every third A-shift as their 24-hour assignment, while both B-shift and C-shift would have a dedicated 24-hour paramedic assigned (working on an average 56-hour/week rotation). Within the rest of the week, each of these "job share" employees would work two additional 8-hour shifts functioning in a program management capacity, such as training, quality assurance, community risk reduction/planning, logistics, etc. Their work schedule would be a regular 40-hour workweek (with overtime availability) and their title should also align with their added responsibility, affording them the rank of either lieutenant or captain. For the days that two of the three "job share" positions are working their 8-hour daytime shifts, this also creates an opportunity to add additional ambulance staffing in the event of a large incident or of system depletion; these positions should not be relied upon to staff regularly assigned ambulance positions. Incorporating dynamic options like this not only promotes an organizational structure that fulfills operational and administrative role benefits, but also provides a work environment where career growth is possible.

In short, organizational growth and career path development are difficult in smaller EMS agencies because in order to grow "up," the agency needs to grow "out" (***Figure 6.3***). This means that it is hard to financially justify increases to an agency's structure without either (or both) financial support from its billing revenues or its supplemental funding source (e.g., tax base, municipal contracts, grants). Proactively supporting upward development opportunities within EMS agencies of all sizes promotes retention efforts, allows for career variability without having to leave the organization, and fosters an environment around succession planning through appropriately delegating tasks and authorities to employees who may be seen as future administrators of the agency. Without upward mobility and career variability, the agency risks losing particular staff to other agencies that do offer career path development opportunities. This costs the agency money in the long run through having to retain new employees to fill positions that could have potentially been prevented from that loss.

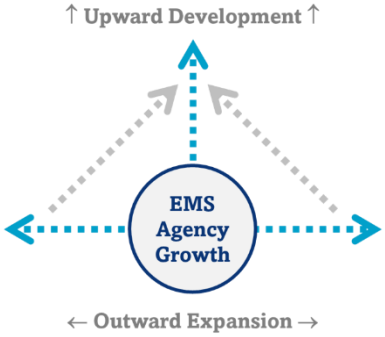


Figure 6.3: EMS Agency Growth Visual – Upward/Outward

6.4 – Operational Recommendations

6.4.1 – Regional, Consolidated, and Shared Services

Because there is such an overabundance of EMS agencies within Westchester County – and particularly, agencies that are in a very similar position to that of PCRRBEMS – there is a large opportunity for future regional, consolidated, and shared services. While outside of the identified scope of this project, our firm strongly recommends that all EMS agencies within Westchester County explore regionalization opportunities with their neighboring communities to either consolidate current agencies, or to even consider the dissolution of some entities while contracting for the shared services by other local agencies. We also fully understand that this is and always has been a highly undesirable recommendation for many County EMS agencies to consider, and presents a very uncomfortable conversation for many of the agencies to engage in. However, it remains a valid recommendation that should be explored, regardless of any one agency or municipality's sentiments. Regionalization and consolidated efforts are not the best option for all EMS agencies across the country; but given the patterns and trends that we have observed within this study reflective of the County's EMS system, it is one that we have for them.

Specifically, for PCRRBEMS, our firm believes that this is the right move for the Agency looking forward. Getting bigger and growing outward will produce a more stable financial and operational environment by lessening the local competitiveness toward recruiting and retaining employees by having less agencies to compete with. It will also provide an economy-of-scale that can be melded to best impact the agency's staffing/deployment and logistics by having more stations and an efficient number of units/resources, and will provide a more logical opportunity for upward development of the employees within the agency, rather than outside of it. This is done by building a robust organizational structure that lessens administrative burnout and promotes career path development.

6.4.2 – Data Management

The current data management practices of PCRRBEMS are manually tedious, resource-intensive, and antiquated with respect to some of the Agency's existing software and the industry's existing technologies. The brunt of the Agency's data management issues is rooted in its dispatching process, which does not involve an integrated CAD system (with its police department PSAP entities) that auto-populates or electronically tracks call data into the Agency's ePCR platform. Within the current ePCR platform, there is ample opportunity to create appropriate reports, graphs/tables, and identify patient care benchmarks that are relevant for both administrative and operational data management needs. The Agency's current practice of having a supervisor manually track call times on paper in a binder or by having the crews have to listen to recorded radio chatter to retrieve time-tracked transmissions is tedious, especially to the employees who work in other EMS agencies that do not have to encounter these practices while there.

Updated data management practices by utilizing the agency's current ePCR platform more to its fullest potential will allow for clinical benchmarking and tracking of skills performance/success, documentation compliance, protocol compliance, call volume trending, and even billing status tracking.

6.4.3 – Centralized Dispatch Services

Our firm believes that transitioning all of the Agency's/Municipality's EMS dispatching services and all of the County's municipal public safety dispatching services to the County's ECC would promote a more cost-efficient, data managing, operationally cooperative, and systematically progressive environment for all involved. Taking this a step further, we recommend that the County explore the necessary processes to become the primary PSAP for all 9-1-1 calls placed within the County, even those by cellular phone. While some appropriate funding and scaling would be necessary to accomplish this larger goal, the short-term goal of becoming the preferred PSAP and transitioning all 9-1-1 EMS dispatching operations for PCRRBEMS to the County's ECC could be accomplished relatively easily and with minimal or no cost involved (according to our conversations with the ECC). Accomplishing this would also play a benefit to PCRRBEMS's employees as they would only need to operate on one radio platform, rather than the current three. While some within PCRRBEMS believe that there is a benefit in having direct access to police radio frequencies (and direct police department/unit contact via radio), this practice is highly uncommon throughout the EMS industry as a whole and there are no significant benefits to be gleaned from continuing such a practice.

6.4.4 – Branding, Marketing, and Outreach

While PCRRBEMS has an overall positive image in the minds of its patients, it – as an agency/organization – is largely perceived to be unheard of or unrecognized within the community. Citizens, rather, know that when they call 9-1-1 and request an ambulance, one shows up. The name of Port Chester-Rye-Rye Brook EMS (especially in the length of its name) is largely unrecognized and lacks marketing appeal. With regards to social media and online presence, the Agency's website and Facebook page are largely outdated as their website holds minimal content and their Facebook page was last updated in October of 2021. These platforms should serve as an avenue for Agency recruitment and retention, community engagement, and stakeholder informing, but are lacking in all of the above. As a result, the Agency's branding, marketing, and outreach are sub-optimal, yet full of future potential.

Coinciding with forthcoming recommendations, PCRRBEMS should consider a name change that provides for easier recognition, is more open toward the welcoming of other communities into its service offerings and is more appealing to prospective employees who are seeking a regional-sounding (yet still personal) agency to work for. This rebranding effort should also come with a more vibrant ambulance design scheme and respective patch/logo design that aligns with a rebranded name. Even without a name change, PCRRBEMS should consider embracing the concept that their ambulances are "rolling billboards" for their service and organization and should consider a more vibrant design scheme while still entailing appropriate simple designs and retro-reflectivity that promotes roadway safety (***Figures 6.4-6.6***). Branding changes can show a company's vibrancy, progressiveness, and responsiveness toward change. All of these branding (and re-branding options could be spearheaded by current employees and could become an opportunity to promote further internal employee valuing.

Figure 6.4: PCRRBEMS Ambulance [62]

Figure 6.5: Vibrant Ambulance Example 1 [64]

Figure 6.6: Vibrant Ambulance Example 2 [65]

6.4.6 – Organizational Chart and Staffing

At a minimum, PCRRBEMS should consider efforts – once their daily staffing levels remain consistent and full – to remove their supervisors as a regular source of staffing ambulances and to internally promote an existing employee into a middle-manager position that performs agency training, quality, data management, and operational/logistics functions. Beyond these clinical positions, the Agency should also highly consider hiring/contracting a business manager to maintain the financial and non-clinical administrative functions of the business/organization (as outlined earlier in this report).

SECTION 7: FUTURE ORGANIZATIONAL MODEL RECOMMENDATIONS

7.1 – Preface

The premise behind this study is to evaluate which organizational model(s) may be best suited for PCRRBEMS's future. Within this evaluation is an opportunity to address short-term needs for change and transition along with long-term options to promote organizational sustainability. Symptoms such as recruitment and retention difficulties stem from problems related to low pay and comparable funding disparities – which have all been addressed in prior sections within this report – but each of these are not the root cause behind this experienced competitiveness. Throughout our firm's research and analysis during the course of this study, we have uncovered a seemingly uncomfortable truth that must be highlighted as PCRRBEMS and its Municipalities forge forward. The current organizational model is not the root cause of the Agency's issues, it is the entire local system in which the Agency exists; there are simply too many EMS agencies (***Figure 7.1***). In order to truly "fix" the cause of each of the problems and symptoms that the Agency faces – and in order to be able to provide course-correcting, sustainable actions for the future – our firm believes that long-term efforts must be taken to address PCRRBEMS's impact on the entire Westchester County EMS system. It must take an active approach to welcome in (consolidate-in or merge with) its neighboring EMS agencies and decrease the County's 41 total ambulance services down to 40, or even 37.

Figure 7.1: Root Cause Image

For years, many EMS professionals throughout the industry have been in search of the "silver bullet" that will fix all of the industry's symptoms and problems. Declining and dying volunteerism models, inadequate pay-for-service (reimbursement) transport models, lower wage parity compared to other public safety and health colleagues; these are all symptoms and direct problems rooted in a cause related to an inconsistent professional industry, one that lacks identity. Looking at the challenges that PCRRBEMS has been facing for decades now – ever since and even before its prior 1993 consultant's study – it is all rooted in the system in which PCRRBEMS exists.

Looking forward, our firm believes that PCRRBEMS and the Municipalities need to take an approach of focusing on the root cause, not just the problems and symptoms related to that cause. It is true that employee pay (a symptom) needs to be drastically increased to better align in parity with fire service and law enforcement colleagues, which will play a large role in addressing the Agency's recruitment and retention issues (a problem). Not addressing the root cause of all these problems and symptoms, however, will result in the Agency being in the same predicament in a few years to come. The root of these issues stems down to a systemwide cause of having too many ambulance services. Collectively working together to reduce this number through further consolidations and/or mergers will play as a benefit toward addressing the outlined problems and symptoms.

Applying scientific thinking into concept that the entire local EMS system is the root cause of many of the direct, local challenges that its EMS agencies are facing (PCRRBEMS included), a published workpiece in the 2013 *American Journal of Systems Science* sought to look at various system theories and how they applied in healthcare. "Throughout the course of human evolution, humans have been solving complex problems. There are multiple, hierarchical, and complex systems that exist in the world, which make problem solving challenging. Philosophers like Aristotle and Descartes have conceptualized how to best address systematic complex problems. Aristotle described the importance of looking at systems as a whole and introduced the notion that the whole is greater than the sum of its parts."

Within this document, the General Systems Theory (GST) was evaluated and outlined as a general science of “wholeness”, meaning that it is important to look at systems as a whole. GST was developed in order to identify universal principles applying to systems in general and was needed in order to avoid duplication. Further correlating this theory toward the healthcare industry (which EMS holds stake in), it goes on to address that “To facilitate change, health care providers and leaders must be system thinkers. They need to be able to identify the different elements and units, large or small that affect [the] way care is provided to patients. They also need to be able to mobilize the health care organization into learning how to become a learning organization.” [66]

These same principles hold true in this case. The “whole is greater than the sum of its parts” and EMS leaders “must be system thinkers.” Despite the fact that PCRRBEMS and its respective Municipalities only have authority over their own organization and communities, the importance of how each of these entities fits within their respective systems (counties) cannot be overlooked.

7.2 – Key Considerations

7.2.1 – Insights from Connecticut

Action in neighboring Connecticut sheds light on the threat that systematic fragmentation can have over a region and even an entire state. Similar to Westchester County, the entire state of Connecticut has an abundance in the pure number of fire and EMS agencies providing services within its communities. Providing some context, Connecticut has a total of 169 towns dispersed amongst its eight counties and total statewide population of approximately 3.6 million people. [67]

A recently published final report (January 2022) related to a Special Act from the State’s Office of Policy and Management “requiring a study of the obstacles to merging or consolidating municipal fire districts and fire departments” exemplifies a comparison to the similar situation that exists within Westchester County – and other New York counties – related to its number of ambulance services (***Figure 7.2***). This study is the direct result of the State’s overabundance of fire departments covering each of its towns, equaling 310 individual fire departments covering 169 municipalities. Comparing the State’s ambulance services to these figures, there are approximately 250 individual ambulance services covering these same 169 municipalities. [68, 69]

State of Connecticut, Office of Policy and Management
Special Act No. 21-12
"An Act Requiring a Study of the Obstacles to Merging or Consolidating Municipal Fire Districts and Fire Departments"
Final Report – January 12, 2022 [68]

The Senate and House of Representatives within the State of Connecticut convened in June of 2021 and proposed moving forward with an Act recommended by the Secretary of the Office of Policy and Management, in consultation with municipal officials and the Uniformed Professional Firefighters Association of Connecticut, to conduct a study regarding the obstacles to merging or consolidating statewide fire districts or fire departments to consist of two or more municipalities, in result.

The findings from this study outline a state consisting of 169 municipalities covered by 310 individual fire departments. It not only outlined the various obstacles to merging or consolidating fire departments, but also the advantages of doing so within various regions in the state. This included different paths to improve services, highlighted different success stories within the state, and outlined various next step actions to be taken as a result of the culmination of this study.

As a result of this study, its closing remarks highlighted that "staying the status quo will not address the issues that [the] fire service is facing regarding staffing, resources, and operations. Merging and consolidating, as well as sharing services, may be an option to provide efficient fire service while minimizing the risk to the firefighters, paramedics, emergency medical technicians, and the public." It further states that "there is a need for support, collaboration, and coordination between all stakeholders – fire service, municipalities, and the public."

Figure 7.2: Connecticut Fire Department Study Abstract

This study from Connecticut highlights that "staying the status quo will not address the issues that [the] fire service is facing regarding staffing, resources, and operations." [69] The same could be said regarding the course of PCRRBEMS and within Westchester County, in general.

7.2.2 – Key Actions for Long-Term Success

While still addressing the short-term needs to increase employee pay to provide parity with fire service and law enforcement colleagues, PCRRBEMS's long-term sustainability likely needs to focus efforts toward the various key actions and elements outlined as subsections below. These generalized key actions are applicable to any organizational model that PCRRBEMS and its Municipalities choose to pursue in the future.

7.2.2.1 – Regional Approach – Shared Services, Consolidation, and Mergers

The fact that PCRRBEMS already exists as a three-municipality-covering agency is an uncommon sight within Westchester County and it should be applauded for having been as such since the 1960s. This consolidated existence cannot stop. Momentum must be gained to reach further and higher to explore consolidation or merger efforts with its neighboring EMS agencies.

An anecdotal goal of building toward a combined population of between 100,000-150,000 residents should be the goal of the shared service efforts by/with PCRRBEMS, and even throughout the entire County. Accomplishing this affords the Agency an opportunity to grow upward in terms of employee development opportunities because of its outward growth. This outward growth also allows for an economy-of-scale model to be built whereby multiple stations and ambulances/units construct a mini-system within the boundaries of the County, deploying resources, providing oversight, and providing more opportunities for its employees.

7.2.2.2 – Branding, Marketing, and Outreach

"Port Chester-Rye-Rye Brook EMS" is a mouthful of an organizational name. Aside from that, the agency itself – while appreciated within the community – is not known within the community by its full name; rather, more by "Port Chester EMS," "Rye EMS," or "Rye Brook EMS." This unfortunate reality affords PCRRBEMS an opportunity to better brand or re-brand, market, and provide outreach related to its existence and services provided. Currently, the Agency's website remains present, but is by no means active or up to date and should be a source of information, pride, and local influence. The same can be said about the Agency's Facebook page, which has not had a post created since October 2021.

Coinciding with the need to expand exists an opportunity to rebrand PCRRBEMS (a name that is restrictive and specific to its represented municipalities) into an agency that is welcoming, open to additions/growth, and easier to recognize: Sound Shore Ambulance District (or EMS). The name "Sound Shore" was a commonly-referred-to name whenever the topic of additional consolidation efforts was reflected upon from prior years. Names like "Sound Shore" and "South Chester" offer geographic personality all while not being restrictive, and titles like "Ambulance District" and "EMS" define *what* you are. If PCRRBEMS and its Municipalities decide to transition down a path of becoming a special taxing district, for instance, the title "Ambulance District" is entirely appropriate. If it decides to remain as a private, non-profit corporation – or even transition toward any other organizational model for that matter – the title "EMS" remains a universally-adaptable title to use. Either way, PCRRBEMS should strongly consider re-branding itself as a less-restrictive name in order to promote consolidation/merger efforts and to provide an easier name to recognize for the general public. This name re-branding also comes with the opportunity to creatively design a new patch, ambulance design scheme, uniform, etc., while still retaining some of the traditional visual values that hold some historical context or aesthetic value, respecting the past of the revitalized agency (***Figure 7.3***).

Figure 7.3: Example Sound Shore Ambulance District Logo

7.2.2.3 – Operational-Fiscal Stability

In accounting for the recommended new pay structure, need for facility capital improvement, and long-term sustainability of the Agency (be it PCRRBEMS or another name), additional funding should be sought in the form of state/federal grants and tax base supplemental support through either Municipality contributions or through special taxing options. It is unlikely that any significant changes with respect to ambulance transport reimbursement rates will be made before 2025, as they will likely hinge upon the impact and decisions made off of the completion of the Centers for Medicare and Medicaid Services' ET3 initiative and Medicare Ground Ambulance Data Collection (MGADC) cost analysis. Until that time, changes within the State may allow for municipal (e.g., civil, fire-based, special taxing district) EMS agencies to enroll in a statewide Ground Emergency Medical Transport (GEMT) program or Ambulance Supplemental Payment Program (ASPP), which could afford a potential future municipal version of PCRRBEMS to become eligible for additional revenue recovery options.

7.2.2.4 – Administration-Operations Balance

The current organizational structure of PCRRBEMS is limited in its opportunities for role/responsibility delegation in terms of administrative duties, and as a result, all of these responsibilities are weighing on the EMS Administrator. To alleviate this burden and delegate some responsibilities like payroll, human resources, vendor contract, insurance compliance, and general invoice payment functions, PCRRBEMS should highly consider employing a civilian Business Manager to work as a non-clinical subordinate to the EMS Administrator. Another option to delegate these responsibilities could be to work with the respective Municipalities to explore opportunities for return contracted labor, utilizing City/Village staff to perform Agency administrative functions as a part of the Agency's contractual service agreement in lieu of financial costs. Before this option can be explored, however, respective corporate counsel should be consulted to assure compliance with municipal laws/regulations, tax codes, and other 501(c)(3) regulations related to

shared or reciprocated services. Adding a position like this – or turning over specific functions to be performed – allows the EMS Administrator to be able to better address the high-level operational and administrative needs of the agency, while the supervisors focus on the primary operational needs.

7.2.2.5 – Career Advancement and Professional Growth

Coinciding with other subsections within this report, PCRRBEMS needs to proactively focus on the career advancement, path development, and professional growth of its employees. This can be accomplished through developing a plan to add to its organizational structure, integrating an online learning management system with existing continued education content into its training program offerings, exploring "job share" opportunities for its full-time employees, and supporting current EMTs financially as they pursue paramedic education and future upgraded credentialing with the Agency.

7.2.2.6 – Recommendations with Caution

Without acting upon the aforementioned Preface and Key Actions for Long-Term Success, especially the actions related to addressing the root cause of the Agency's symptoms and problems, our firm is confident in projecting that the future of PCRRBEMS will remain much as it is today: uncertain and at-risk.

7.3 – Organizational Model Recommendations

7.3.1 – Recommendation Model 1 –Special Taxing District

There are four focal reasons for the recommendation of PCRRBEMS and the Municipalities to explore (and transition toward) the development of a special taxing district for 9-1-1 ambulance services: (1) developing a stable tax-based funding source for operations, (2) promoting an open model approach for further community consolidation of services, (3) potentially benefiting from state employee benefit options, and (4) potentially capitalizing on ambulance supplemental payment program revenue recovery opportunities. Transitioning toward this organizational model also allows for the Municipalities to maintain an equal representation approach toward entity governance/oversight, which is a factor that is mutually seen as a benefit in the Agency's current model.

7.3.1.1 – Tax Funding

Establishing a special taxing district for providing 9-1-1 ambulance response and transport services provides the Municipalities a financial benefit by removing funding responsibilities from their municipal budgets and placing responsibility directly on the taxpayers. This allows taxpayers to form a representative board of directors to directly oversee and govern the district and its incurred impact. The taxing income would come from respective property taxes through an imposed millage rate and would be designed to serve as a form of primary financial support for the newfound district, also accounting for anticipated transport billing revenues, which would likely stay similar to what PCRRBEMS currently generates.

Considering this information – and other relative payroll/financial information outlined in this report – our firm anticipates that this new agency would have a complete annual budget of approximately $4 million, with approximately $1.8 million in billing revenues generated, leaving a need to supplement the budget with $2.2 million in tax support. Considering that there are approximately 18,000 residences within the combined Municipalities and the combined home value of these residences appraises at over $14 billion, their taxed assess value may be closer to approximately $10 billion. With a millage rate of 0.2, this would equate to an approximate tax revenue generation of $2.1 million in residential properties alone. This would equal an approximate taxpayer impact of $100 per year on a residence assessed at $500,000. These numbers are approximate and are subject to specific municipal values, assessed home rates, the addition of commercial/industrial properties, and other valuation factors. Nevertheless, the direct annual impact on taxpayers in transitioning to this type of organizational model would be less than a household's monthly cellular phone bill (in most cases).

7.3.1.2 – Further Consolidation

The fact that PCRRBEMS exists as a tri-municipality shared service within Westchester County or even the greater New York State is a rarity worthy of local applause, but even this consolidated effort isn't enough. Within the context of forming a special taxing district, the newfound agency needs to explore the welcoming and inclusion of its surrounding neighbors to build a stronger, sustainable local system as opposed to remaining a smaller, localized effort.

7.3.1.3 – Employee Benefits

Recently proposed state legislation could afford EMS providers working for special taxing district EMS agencies the opportunity to qualify for state-sponsored health/medical insurance benefits and state retirement/pension programs. These types of benefits are traditionally superior, lower cost for employees to be engaged in, and would serve as a significant improvement from what has traditionally been available to PCRRBEMS employees. Recent legislative initiatives by Senator Mayer and Assemblyman Otis have been introduced to classify municipal (including special taxing district) EMS employees as "essential service" workers and afford them access to statewide health/medical benefits and pension program participation. [70]

7.3.1.4 – Revenue Recovery

While not presently an option available within the State of New York, there is growing optimism surrounding the adoption of a statewide ambulance supplemental payment program (ASPP) or ground emergency medical transport (GEMT) program for municipal-based EMS agencies within the state, which would likely include all municipal models and fire-based EMS models including special taxing districts. Currently, however, there are two State Plan Amendments under the Centers for Medicare and Medicaid Services (CMS) review that would combine to implement one Amendment to form such a program, and potentially be retroactive to April of 2020.

Providing some context into SPP/GEMT programs, current Medicaid payment (reimbursement) rates for ambulance transport services are often 70% less than the cost of actually proving such services to patients. ASPP/GEMT programs allow government-owned or -operated ambulance service providers to recover up to the federal share of the cost of providing transport services that are currently paid through Medicaid Fee-for-Service (FFS) and Medicaid Managed Care Organization (MCO) delivery systems. This is at no cost to the State's Medicaid agency, as this money is provided by the federal government. Our firm works with over 500 EMS agencies throughout the country to gain this added recovery revenue, which has resulted in over $300 million being returned to ambulance services as a result of their state's enrollment in these programs.

Presuming that an ASPP/GEMT program is approved and implemented within New York State, the enhanced reimbursement that would become available would be dependent upon a provider's ambulance service costs, total transport volume, and Medicaid payor mix for a given reporting period (as only Medicaid transports would be eligible for revenue recovery under such programs). For the purpose of this Study and this primary recommendation, our firm has provided an estimated cost and reimbursement analysis based on the Agency's 2021 data (Note: prior financial estimates are provided in **SECTION 4** of this report, which were based on three-year average financial data). ***Table 7.1***, below, outlines the potential recovery revenue that could be generated if New York adopts an ASPP/GEMT program for its municipal EMS agencies (ambulance transport, only) in the future, based on PCRRBEMS's 2021 data. ***Table 7.2*** outlines the same 2021 data but with a budget increase to $4 million, which reflects the recommended pay increase and an estimated annual budget that correlates to agency sustainability.

Data Source	Low Projection	Middle Projection	High Projection
Total Expenses	$2,823,580	$2,823,580	$2,823,580
Total Transports	4181	4181	4181
Cost Per Transport	**$675**	**$675**	**$675**
Total Medicaid Transports	418	627	836
Total Medicaid Costs	$282,358	$432,537	$564,716
Total Medicaid Payments	$83,620	$125,430	$167,240
Total Computable Value	$198,738	$298,107	$397,476
NY Fed. Med. Assist %	50%	50%	50%
PROJECTED REVENUE	**$99,369**	**$149,054**	**$198,738**

Table 7.1: Projected ASPP/GEMT Revenues Based on PCRRBEMS 2021 Actual Data

Data Source	Low Projection	Middle Projection	High Projection
Total Expenses	$4,000,000	$4,000,000	$4,000,000
Total Transports	4181	4181	4181
Cost Per Transport	**$957**	**$957**	**$957**
Total Medicaid Transports	418	627	836
Total Medicaid Costs	$400,000	$600,000	$800,000
Total Medicaid Payments	$83,620	$125,430	$167,240
Total Computable Value	$316,380	$474,570	$632,760
NY Fed. Med. Assist %	50%	50%	50%
PROJECTED REVENUE	**$158,190**	**$237,285**	**$316,380**

Table 7.2: Projected ASPP/GEMT Revenues Based on PCRRBEMS 2021 Actual Data and Proposed New Budget Expenses

Based on these projections, the new special taxing district (ambulance district, agency) would be eligible to receive between approximately $100,000-200,000 in revenue recovery with its current budget model, or between $150,000-320,000 with its recommended estimated increased budget model. Examining some of our firm's client data from EMS agencies of a comparable call/transport volume, such clients receive recovery revenues that equate to $75,000 (Client 1), $225,000 (Client 2), and $1,275,000 (Client 3), with each of their sums varying based on their respective total costs per transport.

7.3.1.5 – Additional Organizational Model Considerations

Transitioning toward a special taxing district model brings about two primary considerations for both the Agency and Municipalities to consider: (1) its formation would lead to the dissolution of PCRRBEMS as a 501(c)(3) corporation, and (2) cities cannot form taxing districts – only towns can. Such considerations would require the further expertise of the Agency's corporate counsel to disseminate the By-Law language respective to corporate dissolution, in addition to local government and potentially the State Comptroller's expertise with regard to tax district formation that involves the City of Rye as an inclusionary member.

7.3.2 – Recommendation Model 2 –Non-Profit (*Current Model*)

The easiest move would be for PCRRBEMS to remain as a non-profit EMS agency that bills for ambulance transports and contracts with its municipalities for supplemental funds. Under the current model, nothing organizationally would change. While there is an opportunity to restructure the Corporate Board of Directors to better align with the represented business, civil/social, and demographic mixes within each Municipality, this may be one of the only changes necessary to help progress this model forward. Looking more at this model's funding, however, PCRRBEMS should engage in contract discussions with the Municipalities to discuss the necessary financial support that it needs to implement some of the operational and structure recommendations highlighted in this report. Progress should still be taken by PCRRBEMS to consolidate with its neighboring EMS agencies and either form into a new "Sound Shore" 501(c)(3) corporation, or function as a DBA reflecting this new branding option. Considering that many of PCRRBEMS's neighboring

EMS agencies are also 501(c)(3) non-profit corporations, it should be easier to transfer assets from one to another through a consolidation process.

7.3.3 – Non-Recommendations and Rationale

7.3.3.1 – Private (For-Profit) (Commercial)

Universally, all respective stakeholders interviewed agreed that ceasing contractual service with PCRRBEMS and seeking a private (for-profit) vendor to provide 9-1-1 ambulance services was not desired. While this may be a viable option for other communities within the County, our firm finds no need to make this type of transition and does not believe that there would be enough community support to transition toward this model given the current landscape and positive perspective toward PCRRBEMS.

7.3.3.2 – Municipal (3rd Service, Civil Service)

While this option seems viable "on paper," one of the largest reasons that our firm opposes the transition toward this model for PCRRBEMS and the Municipalities – in this particular case – is reflective in the shared sentiment toward each Municipality's desire to remain as an "equal" with respect to the oversight and representation toward the agency. In this type of model, one municipality would essentially own the agency and the others would contract with it for ambulance services. These contracts are typically no more than five years in duration because of state restrictions on drafting municipal contracts that could potentially shadow over the full term of a succeeding elected official. This results in a continual need to renegotiate service contracts during potentially vulnerable periods of elected official turnover and shifting board priorities. Our firm believes that transitioning to a model such as this would create a heightened sense of "local control" for all communities involved and would place an unnecessary amount of stress on each Municipality, which would likely bleed over onto any other existing inter-municipal agreements or direct contracts for service.

7.3.3.3 – Special Legislation Option

While the potential benefits of this model replicate those of a special taxing district model, the logistics behind the construction and maintenance of this type of model – which relies on the State Legislature to make systematic changes – presents a significant risk for the agency to remain dynamic in the rapid-pace environment that is emergency medical services. The risk of slow-paced legislative processes could derail any form of progress that the agency might otherwise see in regard to community expansion, the option to provide additional contracted services, or the ability for the agency to seek additional tax support within a timely manner. Additionally, our firm does not feel that this type of model would gain enough community support to even entertain it as a viable option for pursuit. As a result, our firm does not recommend the transition of PCRRBEMS and its partnering Municipalities toward this model.

7.3.3.4 – Public-Private Partnership

The extent to which PCRRBEMS currently is engaged in a public-private partnership with its Municipalities is the maximum extent to which our firm would consider this type of model. Transitioning to another reflective format whereby PCRRBEMS provides primary ambulance (vehicle) support while another municipal entity – such as the fire department – provides primary clinical care within this vehicle is seen as a model with a high likelihood for clinical care and morale degradation over the entire system. Even within other related public-private partnership models, the complexity and split-focus design of the system is not one that our firm sees as being conducive for the environment surrounding the Municipalities or PCRRBEMS.

7.3.3.5 – Fire-Based

Due to the historical limits/restrictions on fire-based EMS agency billing (although this is actively in the process of changing), the current fire/EMS cultural environment that exists in many Northeast communities, the current separation/division of fire/EMS services within each of the Municipalities, and the concerns that our firm has expressed transitioning toward a municipal organizational model related to agency "ownership,"

our firm does not recommend that the Municipalities pursue the transition of PCRRBEMS toward a fire-based EMS organizational model for the immediate future.

While this model can be highly successful in other environments (and our firm has recommended it elsewhere), the Municipalities are not presently primed for a consolidated model of this sort – and undertaking the task of combining the current three (respective) fire departments with PCRRBEMS to form a single, municipal fire department (fire-based EMS agency) would be a seemingly astronomical feat in the immediate future. If the Municipalities could manage to consolidate their three (respective) departments into one department within the next decade, this combined fire-based EMS organizational model could be considered as a possibility after the fact.

7.3.3.6 – Fire-Based, Special Taxing District

For the same reasons and concerns outlined in the non-recommendation of transitioning toward a fire-based EMS agency for the Municipalities and PCRRBEMS, a fire-based special taxing district model is not recommended at this time. If the Municipalities would be able to successfully facilitate the consolidation of their three (respective) fire departments into a consolidated fire district, then further integrating/consolidating PCRRBEMS into this department could be considered at a later time.

7.3.3.7 – No EMS/Ambulance Service

Our firm in no way recommends that the Municipalities make a bold move to discontinue all funding and support for 9-1-1 ambulance service coverage within their respective boundaries. While it may be considered a legal option now, we feel as though it is not an ethical option, nor is it one that would politically bode well for the municipality that chooses this option.

7.4 – Ideal Recommendation Model and Operational System

7.4.1 – Organizational Model Structure

An ideal recommendation for the future of PCRRBEMS and its partnering Municipalities would not only be the formation of a special taxing district, but also the re-branded and expanded approach of this model to include its neighboring communities encompassing the Town/Village of Harrison, Town/Village of Mamaroneck, and the Village of Larchmont, to form the new “Sound Shore Ambulance District” (or another regionally identifiable title).

7.4.2 – Community Expansion

This proposed expansion would bring the new district’s population base to nearly 140,000 residents (or greater, with updated data values) covering approximately 35 square miles, as outlined in ***Tables 7.3 & 7.4***.

MUNICIPALITY	2020 POPULATION
Town of Rye (Village of Port Chester, Village of Rye Brook; excludes Village of Mamaroneck)	41,740
City of Rye	16,592
Town of Mamaroneck* (Town of Mamaroneck, Village of Larchmont)	30,306
Village of Mamaroneck (Includes portion of the Town of Rye where the Village is located)	20,151
Town/Village of Harrison	28,218
TOTAL:	**137,007**
Estimated Total Population	***140,000***

** Town of Mamaroneck data based on 2017 values with estimated annual increases based on 2010-2017 data changes.*
NOTE: Difficult to obtain specific township data; best estimations and reliable resources were utilized to determine values.

Table 7.3: 2020 Population Estimation for Recommended Ambulance District [7]

MUNICIPALITY	Land Area
Village of Port Chester	2.33 sq. mi.
City of Rye	5.85 sq. mi.
Village of Rye Brook	3.43 sq. mi.
Village of Larchmont	1.08 sq. mi.
Town of Mamaroneck*	2.4 sq. mi.
Village of Mamaroneck	3.17 sq. mi.
Town/Village of Harrison	16.77 sq. mi.
TOTAL:	**35.03 sq. mi.**
Estimated Land Area	***35 sq. mi.***

** Town of Mamaroneck land area value based on older data (2016, compared to 2020) from the same source.*

Table 7.4: Land Area (Sq. Mi.) Estimation for Recommended Ambulance District [7]

This more than doubling in population volume and tripling in coverage land area would allow the district's EMS agency to be a system-designed model that would allow for an appropriate internal organizational infrastructure, fostering employee professional growth and day-to-day variance. ***Figures 7.4 – 7.7*** show the added municipal/geographic territory for this ambulance district.

Figure 7.4: Town of Mamaroneck Borders [13]

Figure 7.5: Village of Larchmont Borders [13]

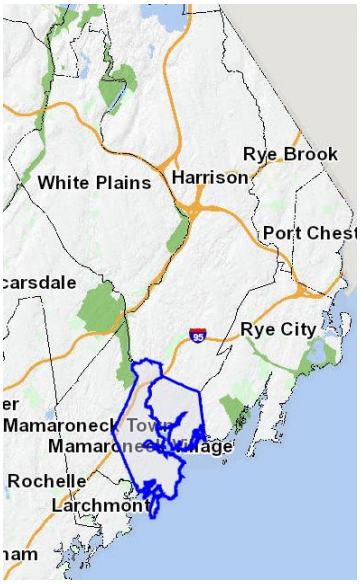


Figure 7.6: Village of Mamaroneck Borders [13]

Figure 7.7: Town/Village of Harrison Borders [13]

This expanded territory also coincides with the County's established EMS Battalion 15 Zone and expands to include all of Harrison, as shown in an excerpt of an earlier image from this report (***Figure 7.8***).

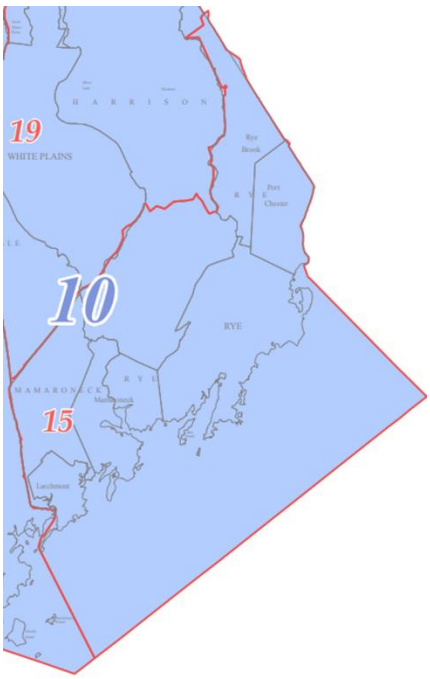


Figure 7.8: Excerpt Image of Westchester County's EMS Zone Map

Expanding to cover this larger territory would equate to a need for additional ambulance staffing and stations – approximately three to four total stations and six to eight ambulances during daytime operations, and approximately five to six overnight – plus operational supervision and increased administrative support. To fully outline this expanded agency, a more comprehensive operational analysis should be considered which outlines station locations, unit/system demand and staffing needs, and call location projections for resource deployment and coverage.

Putting this expanded agency into context, two agencies outside of New York State have been identified as potential operational comparables, both of which reflect a comparable coverage population and land area. The Warren Fire Department (Michigan) has six ambulances located at six stations and covers a population of approximately 139,000 residents located over 34 square miles of land. [71] The Naperville Fire Department (Illinois) covers a similar population of 141,000 residents spanning over 52 square miles, and staffs seven ambulances at seven stations for its operations. [72]

An expanded agency model of this coverage size would serve as a best practice example for the rest of Westchester County EMS agencies/municipalities to follow, aiming for a coverage population of 100,000-150,000 residents per consolidated ambulance service, as opposed to the County's current coverage of one ambulance service for every 24,499 residents.

7.4.3 – Expanded Financial Opportunity

If this expanded EMS agency were to be developed as a special taxing district, there is the potential for future ASPP/GEMT recovery revenue to be afforded to the new agency as a result of its municipal/government status. In this event and considering a projected increase in call/transport volume and overall budget values, our firm has provided a projected revenue estimate based on very rough increased (doubled) call/transport and budget values (***Table 7.5***).

Data Source	Low Projection	Middle Projection	High Projection
Total Expenses	$8,000,000	$8,000,000	$8,000,000
Total Transports	8400	8400	8400
Cost Per Transport	**$952**	**$952**	**$952**
Total Medicaid Transports	840	1260	1680
Total Medicaid Costs	$800,000	$1,200,000	$1,600,000
Total Medicaid Payments	$168,000	$252,000	$336,000
Total Computable Value	$632,000	$948,000	$1,264,000
NY Fed. Med. Assist %	50%	50%	50%
PROJECTED REVENUE	**$316,000**	**$474,000**	**$632,000**

Table 7.5: Projected ASPP/GEMT Revenues Based on Estimated Values for a New, Expanded Ambulance District

Based on these projections, the expanded district agency may be able to recover upwards of 8% of its total expenses through ASPP/GEMT participation if New York State participated in such a program.

7.4.4 – Expanded Operational Growth Potential

One of the largest advantages of promoting a larger, expanded, further consolidated EMS agency is the "system" that it creates. This system allows for an economy-of-scale that promotes operational and administrative efficiencies, reduction in logistics redundancies, and opportunities for internal employee professional growth. As an example, ***Figure 7.9*** shows a proposed organizational chart for an expanded ambulance district agency (with daily staffing levels at 24-hour full-time and 12-hour part-time).

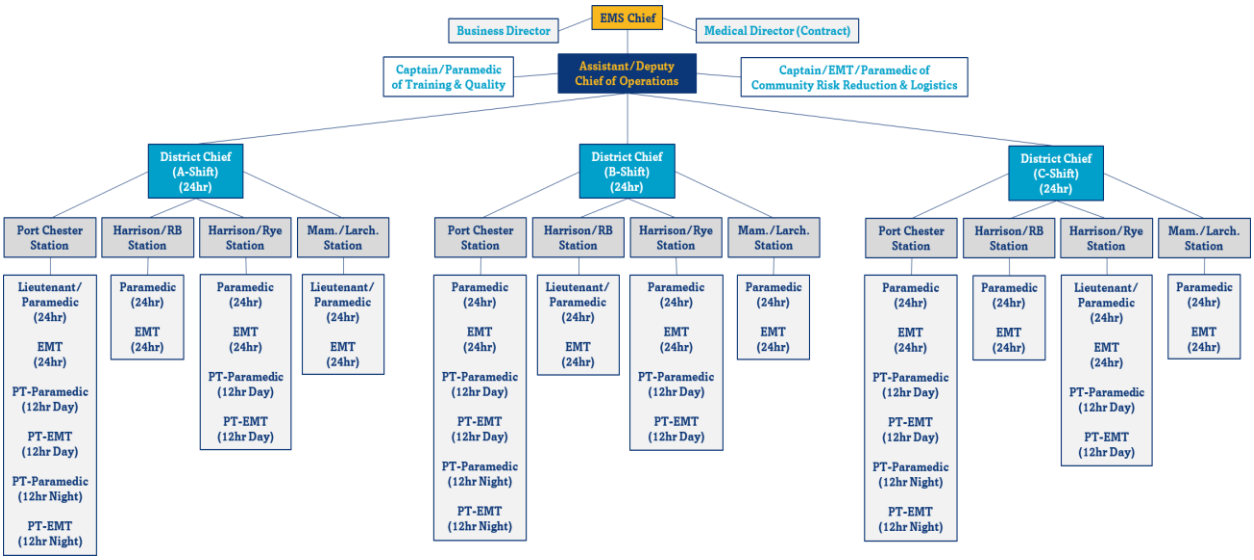


Figure 7.9: Proposed Expanded Ambulance District Organizational Chart

Providing an organizational table such as this promotes employee growth which in turn promotes recruitment and retention efforts as many employees want to work for an EMS agency that affords them opportunities beyond just being a street EMT or paramedic.

7.4.5 – Further Recommendations

- ► Further in-depth operational call volume and heat map (call location) analysis would be necessary to determine future station locations and unit deployment matrix/opportunities.
- ► Additional 501(c)(3) corporation dissolution would be necessary to account for this larger expansion toward a special taxing district model.

SECTION 8: CLOSING

8.1 – Closing Summary

There exists an uncomfortable truth at the root of each of the issues that PCRRBEMS and its neighbors are facing. They are all falling victim to a fragmented local, regional, and statewide system of EMS delivery models that are steeped in isolated and siloed local control, rather than cooperative systematic efforts. All of Westchester County – and its neighbors – are facing this similar fact: massive fragmentation within each local EMS ecosystem is leading to a complete system decline, all due to a "need" for local control. PCRRBEMS competes locally with nearly 100 other EMS agencies like it just within its neighboring, adjoining counties. This extent of competition in any industry is only a testament to its vulnerability, not its strength. The neighboring State of Connecticut has recently publicized this realization within its fire service industry, as it is calling for the examination of large-scale consolidation and merger efforts by local fire departments throughout their entire state. This is something that the State of New York – and the County of Westchester – can, and should, take an example from with regards to its EMS system and 9-1-1 ambulance response services.

Currently, the only substantiating difference that PCRRBEMS offers from any of its nearby EMS agencies like it is the fact that it pays all of its employees on a full-time or part-time basis. When the items like pay and benefits are equalized amongst one another, the Agency seemingly blends into the mix of the other nearly 100 EMS agencies surrounding it and offers no tangible reason for potential employees to gravitate toward it, or for current employees to stay with it. If it were not for its employees' sense of personal pride and value in their work culture, PCRRBEMS would be in more dire straits and would be at risk of a nearing collapse. PCRRBEMS remains in a local loop of regional competition where each agency is constantly trying to "one-up" another by paying barely more than its neighbor to try to entice its employees to stay, and to potentially recruit some of the local "transient" workforce to join it. There is little sense of permanency within EMS agencies throughout the County because there are too many similar agencies for employees to choose from, and minimal opportunities for employees to professionally grow into beyond supervisory levels, which are superficial in existence for many of these agencies.

PCRRBEMS needs to make an uncomfortable decision to grow and re-brand in order for it to survive long-term. Its Municipalities need to provide supplemental financial support that provides pay parity with the Agency's public safety colleagues in the fire and law enforcement services and welcome the opportunity for more of its neighboring communities to join in this newfound agency. Outward expansion needs to be the long-term focus for PCRRBEMS and the Municipalities in order for the Agency to recruit and retain invested employees. This outward growth can be accomplished through the development of a special taxing district that welcomes more of its neighbors to join into its sustainability efforts, or through the expansion of its current non-profit organizational model with further consolidation efforts taken.

Without immediate efforts to increase employee pay, short-term efforts to provide administrative support, and long-term efforts to build a sustainable system, PCRRBEMS will remain in a continual state of need and – aside from its own cash savings – the Municipalities will be its only sustaining source of "giving" for the foreseeable future. Delaying these decisions and this progress will only exacerbate the Agency's hardships exponentially, not gradually, and the Municipalities will eventually be faced with a need to find alternative means to provide 9-1-1 ambulance services within their respective communities (likely apart, and not unified).

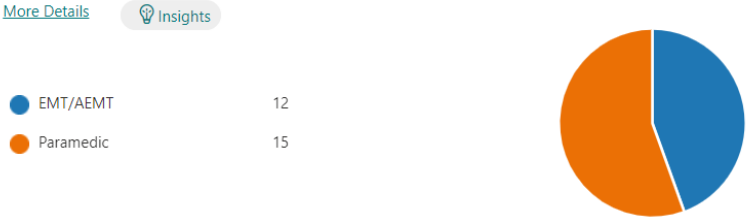
APPENDIX A: EMPLOYEE ENGAGEMENT SURVEY RESULTS

An employee engagement survey was developed by PCG – with the guidance of the Study Team – and circulated to each PCRRBEMS employee anonymously by the firm. Employee participation was both high and expeditious, and provided valuable insight into the Agency respective to recruitment and retention elements that played a key role in the recommendations of this study.

Disclaimer: There was an instance of duplication of responses noted in some of the free-text options of this survey. Because of the anonymity of the responses, our firm was not able to isolate these responses or delete them from the datasets. As a result, there is a possibility that there were only 26 participants, as opposed to the tracked 27. Because of this, all results/percentages represented may have a margin of error that could result in a 2-4% increase/decrease from their posted values.

1. Which EMS provider level do you operate as with PCRRBEMS?

More Details Insights

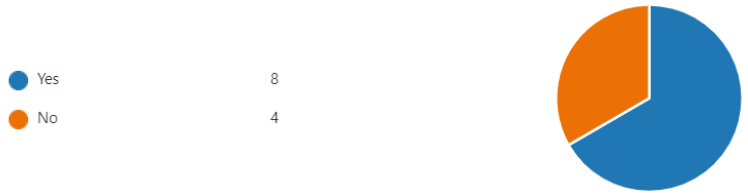


Observations and Details:

- 56% of respondents were paramedics, while the remaining 44% were EMTs.

2. As an EMT/AEMT, would you consider becoming a Paramedic if PCRRBEMS paid for your tuition AND class time (at a regular pay rate), even if that meant signing a contract committing to work for the agency for another 3 years?

More Details



Observations and Details:

- Two-thirds of surveyed EMTs indicated that they would consider progressing to the paramedic level with Agency financial support – even with an employment obligation to remain with the Agency for an additional (minimum) three years.

3. How long have you worked for PCRRBEMS?

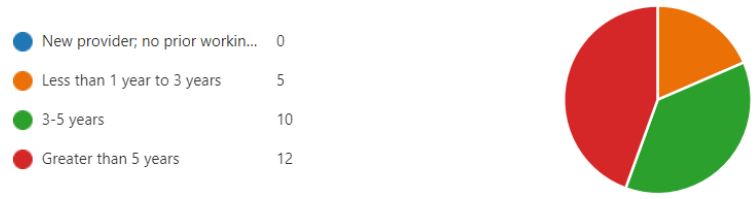
More Details

Observations and Details:

- Nearly one-half of PCRRBEMS's employees have been with the Agency for over five years.
- Approximately 20% of PCRRBEMS's employees indicated that they were new to the agency (up to one year of employment).

4. How much EMS working experience did you have prior to working for PCRRBEMS?

More Details

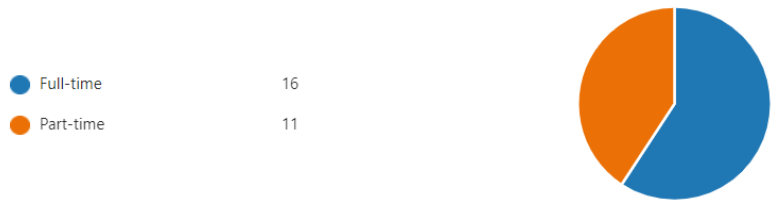


Observations and Details:

- Overall, PCRRBEMS tends to attract and hire EMS employees with at least three years of experience within the industry before being employed with the Agency (~ 80%).

5. Do you work for PCRRBEMS full-time or part-time?

More Details

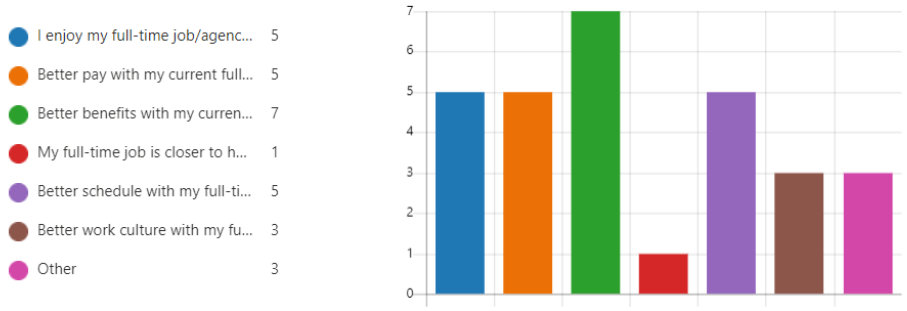


Observations and Details:

- PCRRBEMS rosters its agency with a nearly 60/40 split between full-time and part-time (respective) employees.

6. If you work part-time for PCRRBEMS, what prevents you from working full-time for PCRRBEMS? (Select all that apply)

More Details

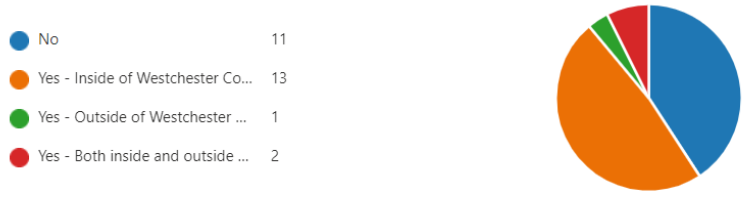


Observations and Details:

- Better pay and benefits at their full-time jobs are key factors behind why current part-time employees with PCRRBEMS do not become full-time employees with the Agency.

7. Do you work for another EMS agency

More Details

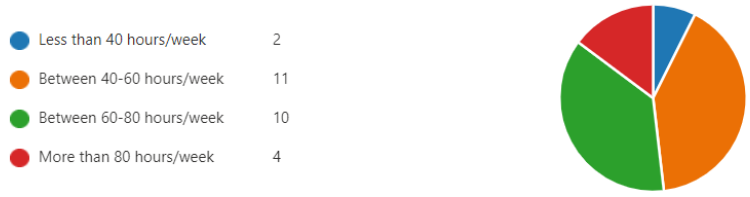


Observations and Details:

- Approximately 60% of all PCRRBEMS employees work for at least one additional EMS agency to maintain a living (combined) wage.

8. On average, how many hours per week do you work at all of your jobs (including with PCRRBEMS and including any overtime)?

More Details

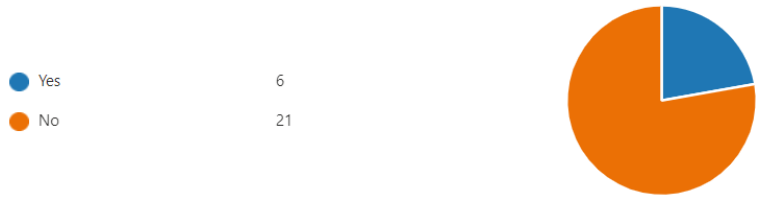


Observations and Details:

- Considering that an average full-time employee working a 24-hour shift schedule averages 56 hours/week, while an average 12-hour shift schedule full-time employee averages 42 hours/week, more than half of all PCRRBEMS employees still work more than 60 hours per week between all of their different full-/part-time jobs.
- Nearly 60% of all full-time PCRRBEMS employees work over 60 (combined) hours per week.

9. Do you feel your pay is fair and adequate for your position?

More Details

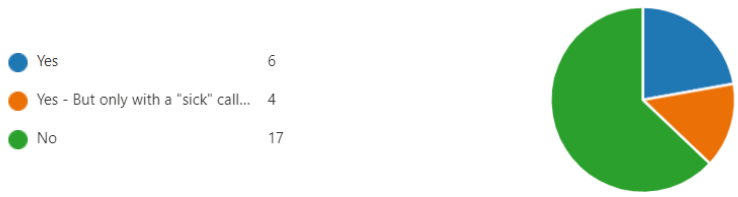


Observations and Details:

- Approximately 75% of all PCRRBEMS employees (and 75% of its full-time employees) feel as though their pay is not adequate for their position.

10. Do you feel as though you are able to take time off from work (e.g., vacation, personal days) when you need a break?

More Details

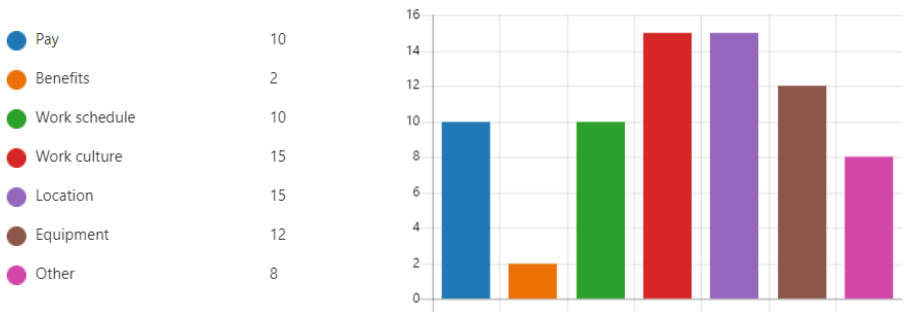


Observations and Details:

- Greater than 75% of Agency employees feel as though it is difficult to be granted time-off from work.

11. What factors influenced you to choose to work for PCRRBEMS? (Select all that apply)

More Details

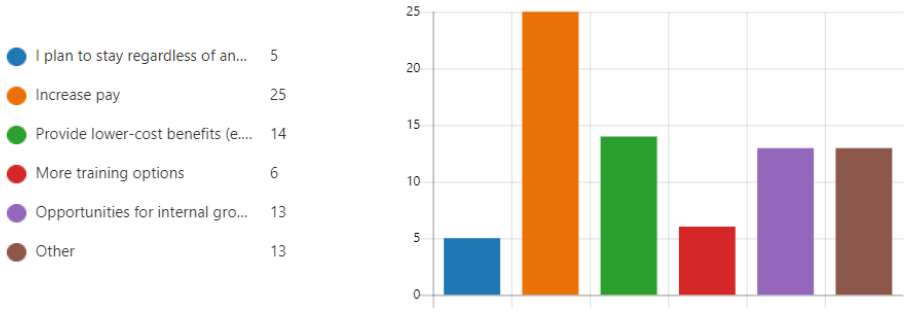


Observations and Details:

- The Agency's positive work culture, overall (community) location, and their high-quality equipment are all driving factors that influences employees to work for PCRRBEMS.

12. What potential changes (if any) could be made that would encourage you to stay another 5 years (or longer) with PCRRBEMS? (Select all that apply)

More Details

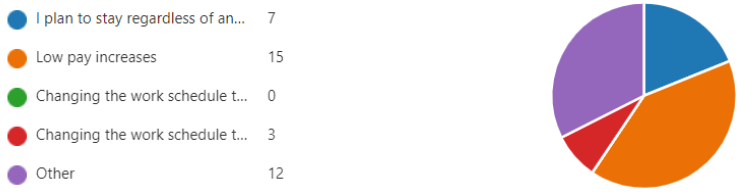


Observations and Details:

- Greater than 90% of employees indicated that increasing their pay would be a key retention factor to influence them to stay with the Agency for the next five years.

13. What potential changes (if any) would prompt you to seek work elsewhere? (Select all that apply)

More Details

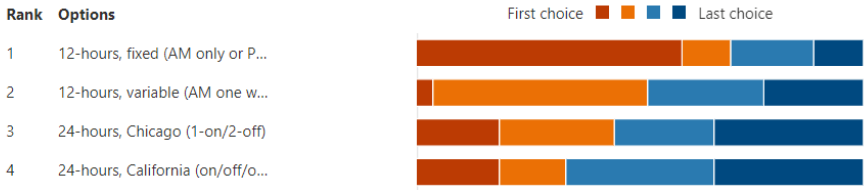


Observations and Details:

- Only one-fifth of PCRRBEMS employees indicate that they plan to stay with the Agency regardless of any future changes.
- Greater than half of the Agency's employees indicate that receiving low pay increases in the near future would influence them to leave the Agency.
- Less than 10% of PCRRBEMS employees indicated that transitioning to 24-hour shifts would drive them away from working for the Agency in the future.

14. Which shift schedule do you prefer from MOST to LEAST (even if this is the correct order, make sure to click and drag at least once)?

More Details



Observations and Details:

- Overall, most employees preferred to work a fix 12-hour work schedule when compared to others.
- Of the employees who preferred to work a 12-hour shift schedule, nearly 60% preferred a fixed rotation while less than 5% preferred a variable rotation.
- Of the employees that preferred to work a 24-hour shift rotation, the majority preferred working a Chicago-style schedule over a California-style schedule, where they would work one day, followed by having two days off.

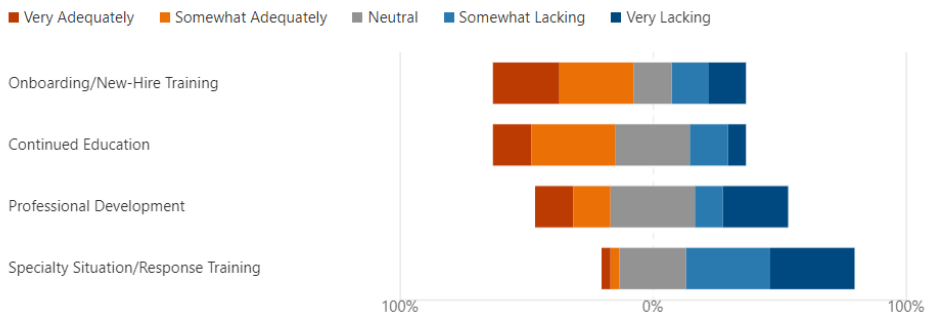
15. Do you feel there is another EMS agency that is "doing it right" – is a model to follow after? If so, please elaborate which agency and why.

Observations and Details:

- Many employees referenced Ossining (OVAC) as a good agency to work for respective to their management, equipment, and facilities.
- Greenburg was commonly referenced as a good agency to work for because of its municipal structure, which afforded employees to be a part of the state's pension system.

16. Do you feel as though PCRRBEMS prepares you well enough to function as an EMT or Paramedic in the following categories:

More Details

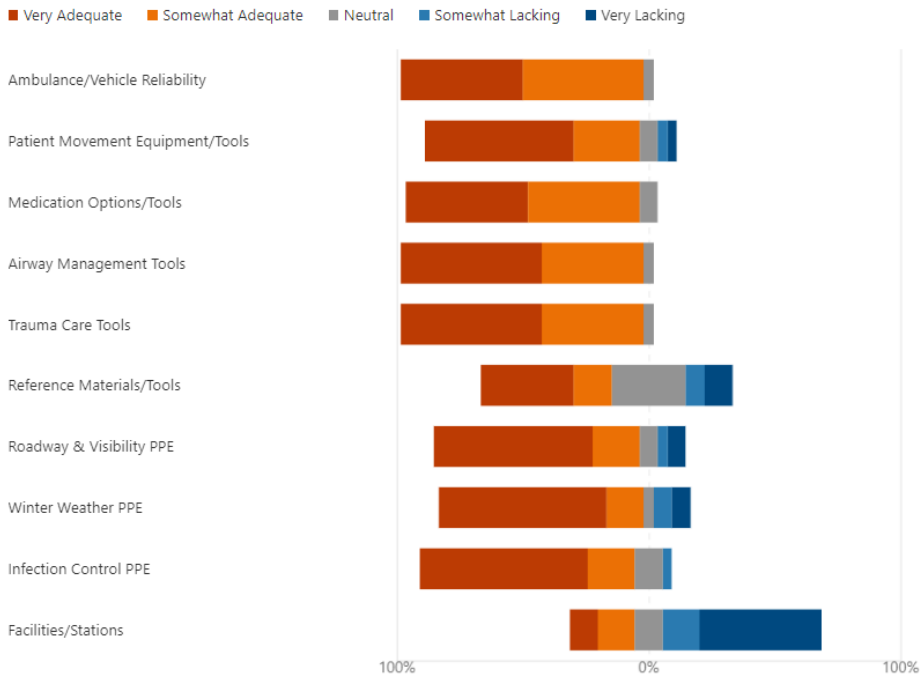


Observations and Details:

- Overall, employees feel as though the onboarding process and continued education training have adequately prepared them to function as an EMT/paramedic, while the Agency lacks in professional development and specialty situation/response training opportunities.

17. Do you feel as though the equipment/tools available to you at PCRRBEMS are adequate in the following categories:

More Details



Observations and Details:

- Overall, employees are satisfied with the equipment and ambulances/vehicles afforded to them at the Agency – but are dissatisfied with the Agency's facility/station.

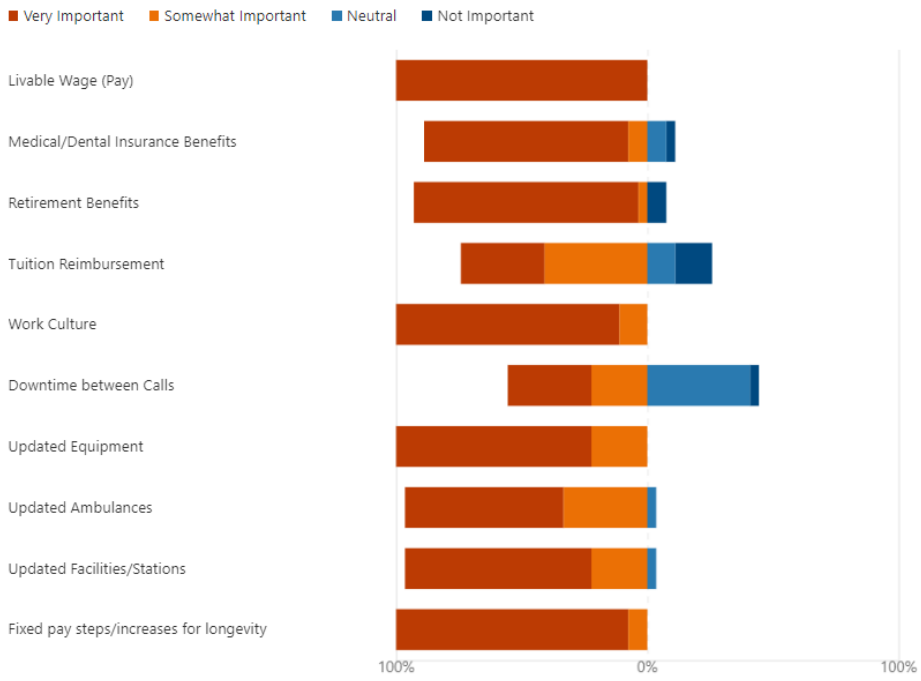
18. What does PCRRBEMS do well? What are some of its strengths?

Observations and Details:

- Providing quality clinical care, a positive work culture, and high employee expectations were commonly identified as strengths of PCRRBEMS.

19. How important are the following items/considerations to you as an employee:

More Details

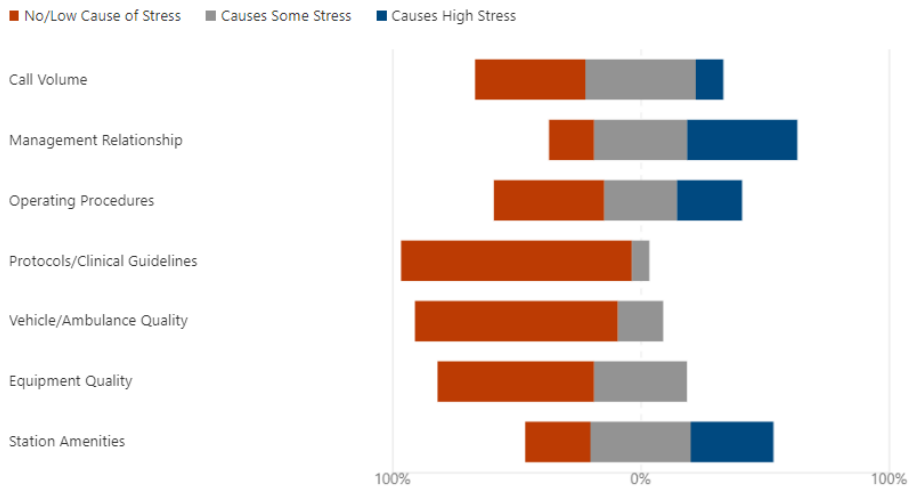


Observations and Details:

- 100% of employees indicated that receiving a livable wage was a priority to them as an employee of PCRRBEMS. Regular/fixed raises, adequate benefits, and updated equipment/stations were also very important items/considerations to them as employees of the Agency.

20. How do the following impact your stress level while at work?

More Details



Observations and Details:

- The highest causes of stress for the employees were their management relationship (> 40% indicated “high stress”) and their station amenities (> 30% indicated “high stress”).

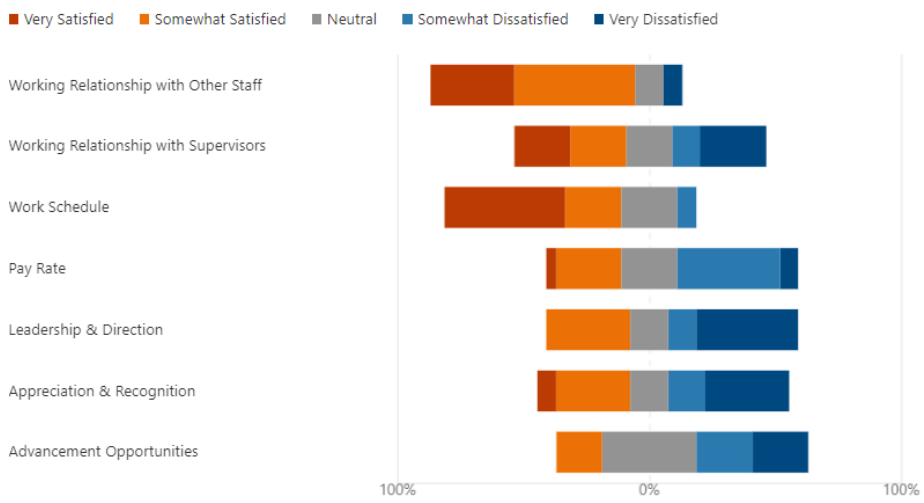
21. What do you feel are some of the greatest hardships or challenges facing PCRRBEMS?

Observations and Details:

- Low/inadequate pay and benefits were commonly indicated as challenges for the Agency and its employees.
- The transition of putting supervisors back on ambulances to make up for staffing shortfalls caused a lot of role and reporting confusion for the employees related to "who" was handling daily operational/administrative tasks that were otherwise/typically assigned to the supervisors.
- The Agency's radio system and dispatching processes were a common hardship/challenge outlined by many employees – stressing that constant (police department, unnecessary) radio chatter was distracting and a cause of unnecessary stress throughout their shift.

22. Please rate your level of satisfaction with the following:

More Details



Observations and Details:

- Positive working relationships remain a high point of satisfaction amongst PCRRBEMS employees.
- Points of dissatisfaction were often related to decreased Agency direction, a lack of advancement opportunities, and low pay.

23. How would you rate your overall experience working at PCRRBEMS? (10 Stars = Highest)

More Details Insights

27
Responses

★★★★★★½☆☆☆☆
6.37 Average Rating

Observations and Details:

- Mean/Average: 6.4; Median: 6; Mode: 5

24. How well do you feel the communities support or appreciate PCRRBEMS and your work as an EMS provider? (10 Stars = Highest)

More Details Insights

27
Responses

★★★★★★★★☆☆☆
7.22 Average Rating

Observations and Details:

- Mean/Average: 7.2; Median: 8; Mode: 8

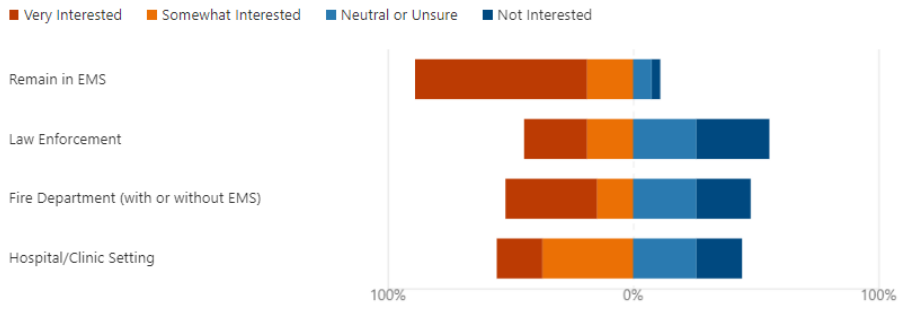
25. Based on how well you feel the communities support or appreciate PCRRBEMS and your work as an EMS provider, please describe your star rating (from the prior question) below.

Observations and Details:

- Employees often feel that the communities/citizens appreciate PCRRBEMS for "what" it does but are not aware of "who" they are as an organization.
- While the communities/citizens seem to appreciate the work of PCRRBEMS as an EMS agency, they still do not seem to provide them with the same level of support as they do their police and fire departments.

26. If overall pay/compensation and benefits were all equal - or if they weren't an issue, please rate your interest/passion to work in the following professions:

More Details



Observations and Details:

- Addressing employee retention, 70% of employees indicated that they would stay working in the EMS industry if their pay was equal/commensurate to their colleagues in law enforcement, the fire service, or in healthcare.

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