

December, 2016

**Manchester by the Sea
Fire Study Report
Comparisons/ Observations relative to Peer Communities**

Background

Two years ago, the town of Manchester engaged Municipal Resources Inc. (MRI) to examine its public safety departments relative to other similar communities. Part of the study was intended to gather benchmarking data as a guide for budgeting and planning. While the comparable communities for the Police Department were appropriate and contained valuable data for direct comparisons, they fell short for the fire department because only three of the towns included in the study (Cohasset, Marion and Topsfield) provide advanced life support (ALS) and basic life support (BLS) emergency transport services as Manchester does, whereas the other towns examined (Carlisle, Dover, Hamilton, and Wenham) either rely on private ambulance service or offer only BLS transport.

In a scheduled Board of Selectmen/ finance committee meeting with the town administrator after the MRI report had been shared, town governing bodies reached a consensus that there was a need to augment the work undertaken by MRI with the intent of identifying like-communities and collecting data to benchmark the town's manpower, compensation and services against a more apples-to-apples set of communities. Two members of the finance committee and one selectman volunteered to undertake the study with the counsel of the town administrator. This group narrowed the peers considered to those with ALS/ BLS transport service and year round populations under 10,000 who spend more than \$100 per capita on fire/ EMS. This reduced the potential peer group to 19, and from among this group five were selected: Cohasset, Marion, Middleton, Newbury and Topsfield. The group created a detailed set of questions and one member volunteered to interview administrators and fire chiefs from the five towns.

This report and the accompanying PowerPoint presentation contain summary data and anecdotal background based on meetings with these five "peer" towns. Since the general gist of the data and conversations revealed that absolute comparisons are less than perfect given the independent natures of each community, the report also examines two additional tiers for comparison purposes: (1) How we stack up relative to our small neighboring communities (Hamilton, Ipswich, Rockport and Wenham) and (2) How we compare to the top twelve "average single family tax bill" communities in the Commonwealth (Manchester is #10).

By way of background, the town of Manchester (population of 5,249 based on 2010 national census) runs a 24/7 fulltime fire department as well as two ALS equipped ambulances. Its staffing model relies on 12 fulltime firefighters who are represented the Manchester-by-the-

Sea Firefighters Local 2912 union plus a chief who is engaged under a separate contract with the town. Four of the twelve live in town. The fire station is manned 24/7 with three fulltime firefighters (plus the chief during business hours). Staffing is based on a schedule of 24 hour shifts with one day on, one off, one on and five off. It is important to note that even though the department staffs its shifts with three, it does not backfill for vacations, personal days, holidays or sick days. Therefore, minimum staffing of two (plus the chief during business hours) is not unusual. Previous to this schedule (over 15 years ago), staffing was based on an approximate 50-hour work week with 10-hour day shifts and 14-hour night shifts with days off between them. In addition, Manchester has 12 call firefighters, but only six are considered reliable and available. Chief Kramlinger reports that call firefighter recruitment and retention are in danger not just because of shifting demographics, the high cost of housing in Manchester or the limited hours made available to call personnel, but more importantly because of the rigorous training hours required for a call firefighter to be fire 1 and fire 2 certified. The Call Volunteer Academy offers a four-month training program and requires a significant commitment from folks who likely work fulltime and have families.

Manchester had at one time a very robust call department, all of whom lived in town. Among this group were most employees of the DPW, Water Department and Tree Department. As recently as 1972, the town had 30 call firefighters on its roster, but at the time training requirements were minimal. As Tom Kehoe, former call firefighter, noted training then was done in-house and was much less extensive than it is now. The core group of call firefighters who worked with Tom have all since retired.

Approximately 15 to 20 years ago, the fire department added one fulltime person per year over a three-year period to bring the number of fulltime firefighters on duty from two to three at a time. Prior to that, the department hired a floater to backfill for vacations so that there would be a minimum of two men on during shifts. According to Tom, it was during this time frame that the fire department also added ALS service and took over ambulance service. Previous to that, while the fire department operated the ambulance, it was the EMT trained police officers who rode in the back of the ambulance and administered care.

Below are summaries of the peer towns, followed by summaries of our immediate neighbors. While at this stage of the data collection, there are no direct conclusions to be drawn, these basic observations are worth sharing:

- On a per capita basis, Manchester expends above average tax dollars (**\$220 for fiscal 2014 (before benefits)**) on its fire department relative to:
 - Our five peers with ALS transport (**\$179** average among Cohasset, Marion, Middleton, Newbury and Topsfield);
 - Our neighbors (**\$93.50** average including Essex, Hamilton, Ipswich and Wenham but excluding Rockport (an all call department));
 - The elite top twelve single family tax bill communities (**\$166** average of Weston, Lincoln, Wellesley, Lexington, Concord, Sudbury, Wayland and

Belmont and excluding the lower expending call oriented towns of Sherborn, Dover and Carlisle).

- Response times for most of the towns interviewed range from four to seven minutes, but given that response time is a critical measure of a department's effectiveness, more supporting data on response times for the included towns is being compiled for us by MATRIS (the Massachusetts Ambulance Trip Record Information System) as well as MFIRS (Massachusetts Fire Incident Reporting System).
- Towns with a strong history as call departments tend to be more effective in retaining a continued commitment from call firefighters. This is true of rural towns like Carlisle, Dover and Sherborn that despite ample resources have maintained a strong call force.
- The changing life demands and demographic shifts of towns away from blue collar to white collar communities cut into the number of individuals willing to volunteer as call firefighters (Weekday hours can be especially challenging to fill even for successful call departments.)
- The shift towards a fulltime department becomes a catch 22 as call firefighters find themselves less vital and unable to count on part-time shift opportunities.
- Increased training regimens also reduce the appeal. State requirements that mandate fire 1 and 2 certification take four months to complete or 240 hours and include two nights during the week as well as a couple of weekends and another 200 plus hours of on-line coursework.
- Towns with more money tend to spend more on the fire departments as a general rule, unless they have long established call departments.
- Economies of scale matter. In other words, minimum staffing numbers place smaller towns at a disadvantage relative to larger ones in terms of per capita costs.
- None of the towns examined in our size range (reported population of 5,249 in 2010 census) staff for two in, two out readiness in the event of a fire incident with the exception of Cohasset (population of 8,273 that staffs a minimum of four on every shift).
- A majority of the towns interviewed are part of a regional dispatch system and while some had initial transition issues, all report material savings, enhanced subsidized shared technology upgrades and satisfaction with the changeover.

Summary Descriptions of Five Towns Interviewed with ALS/ BLS Transport

Cohasset

The town of Cohasset (population of 8,273) has a demographic similar to Manchester's with an average single family tax bill of \$11,483 as compared to Manchester's \$11,760. As Cohasset Fire Chief, Robert Silvia, notes, "Cohasset is the southern version of what Manchester is". Because of a demographic with a predominance of residents who are educated professionals, the town is similarly challenged with a short supply of potential call firefighters (only four) and a large contingent of full-timers (22 or 2.66 firefighters per 1,000 residents as compared to 12 for Manchester or 2.86 per 1,000 residents). Historically, call positions had been filled by folks in the trade who resided in town and who would willingly put down their tools to respond to an emergency call. Now, only a small number of residents work in the trades and, in high demand, this small group is no longer willing to forfeit high paid work hours for minimal call hour pay (\$20). The four months required for a call firefighter to be certified in Fire 1 and Fire 2 rescue serves as an additional barrier. Consequently, Cohasset staffs itself 24/7 with a team of four from among 22 full-time firefighters plus the Chief and Assistant Chief (also the inspector). The town of Cohasset has only four call personnel who work an aggregate total of less than 100 hours per year. Furthermore, like Manchester, whereas forty years ago, most firefighters lived in town, now the reverse is true.

The predominance of firefighters are also paramedics and the single firehouse is staffed 24/7 with four frontline firefighters plus the Chief and Assistant Chief during business hours. Previously, the department had 25 full-timers (including the chief) with the objective of having four six-man groups and no need to back fill for vacations or leaves. Under budget pressure in recent years, this number has been cut to 22 (two six-man groups and two five-man groups with added overtime hours for occasional backfilling). Responding to demands put forth in union contract negotiations in 2001, the town moved to a 24-hour shift schedule from a 10/14 schedule, where employees work one day, take two off, work one and then have four days off. While this schedule was a desired demand of the employees represented by the union, Chief Silvia reports that it works moderately well with the exception that it makes the overtime number much higher when a 24-hour shift must be filled as opposed to a ten or twelve hour one. The department has worked around this issue by inserting a generous exchange of time allowance into the contract which helps to keep down overtime.

Newbury

The town of Newbury (population of 6,853 and average single family tax bill of \$5,052) operates two firehouses to serve its geographically dispersed community that encompasses old town, Byfield, and Plum Island, essentially three distinct centers. Operating a non-union fire department, the town provides ALS/ BLS coverage from 7 AM-5 PM weekdays, relying on a call department from 5 PM on. On weekends, the town relies on call firefighters/ EMTs who are paid for coverage of shifts. In addition, Newbury has back up ambulance coverage with: the town of Georgetown, Cataldo Atlantic and Paramedic Intercept Services. The town employs a chief (strong chief model who serves under a board of fire engineers), two deputies to man each firehouse and two firefighters. On weekdays, two firefighters man each house and the chief

travels between the two. The town successfully relies on its 40 call firefighters/ EMTs to provide back up and to staff after hours.

The current service and structure of Newbury's department are relatively new. Until two years ago, fire coverage was provided by outside vendors (Byfield Fire Company and Newbury Fire Company) in a hybrid arrangement where the vendors received \$90,000 annually to provide fire coverage, but the firefighters were actually employed by the town. Two years ago, the town purchased the two firehouses and took over management of the department. FY 2016 was Newbury's first year of providing its own ALS/ BLS coverage. The town runs two ambulances out of each of its two stations; one is BLS equipped and the other ALS equipped.

Footnote: The town of Newbury experienced financial problems that it resolved by making an across the board budget cut of 25% in 2009. The police department, for example, at the time employed 13 officers including the chief and deputy chief. It now employs nine in total. While the deep cuts were initially painful, the town has since adjusted to more efficient staffing levels.

Middleton

The town of Middleton (population 9,419 and average single family tax bill of \$7,320) operates one firehouse to serve its 14 square mile area. Operating a unionized fire department, the town provides 24/7 ALS/BLS coverage relying on eight fulltime firefighters plus the chief and 24 unionized part-timers/ call firefighters. The terms of Middleton's union contract with The Middleton Firefighter's Local #3097, I. A. F.F. are similar to Manchester's in terms of vacation, paid holidays, sick days, personal days and hours which are based on the same 24-hour shift schedule (two 24 hour shifts per eight-day cycle). However, pay rates for Middleton are approximately 10% lower across the board and the town covers only 60% health coverage.

Middleton also is one of the original members of the RECC and despite initial challenges in the transition, the town is pleased with the regional dispatch model. The assessment for each community has been \$16.26 per capita and there has been no increase since the RECC opened.

The town is able to respond to its 731 annual medical calls as well as approximately 500 fire calls (most false alarms) with a fulltime crew of nine plus 24 call firefighters. This lean department handles a call volume that is twice the size of Manchester's.

Topsfield

The town of Topsfield (population 6,388 and average single family tax bill of \$8,836) operates one firehouse to serve its 12.8 square mile community. Operating a unionized station, the town employs four full-time firefighters plus the chief and 18 on call firefighters to man the firehouse from 6 AM to 6 PM seven days per week. At a minimum, during these hours, there are two firefighters on duty plus the chief. Firefighters are on call after hours. And, in general, a full-time firefighter volunteers to take an emergency vehicle home with him/ her at night. The 18 call firefighters also have a labor contract between the town and the Topsfield Call Firefighters' Association. This contract specifies annual hourly rate increases based on credential levels at an hourly rate of approximately \$20 for 2016 for an EMT/ Firefighter. The contract also protects

seniority and it includes longevity payments, double time rates for twelve holidays, and a defined \$52 hourly detail rate, but the contract does not include any provision for benefits.

In order to compensate for lack of full time manning, Topsfield contracts with a private ambulance company, Northeast Ambulance, to provide transport for its residents. While town EMTs and paramedics are the first responders, Northeast Ambulance arrives on average 14 minutes thereafter to provide transport as needed. Regardless of time of day, the town acts as first responder (even at night and on weekends), but Northeast Ambulance (at no charge to the town) provides transport, retaining transport revenues as compensation. There is no guarantee of level of service from Northeast and no guarantee of a response if their resources are unavailable. Thus, the town of Topsfield provides ALS staffing and/or transporting when needed. There is revenue for both those situations. While the town does forfeit revenues, this model alleviates the cost of backfilling, minimizing the time elapsed that firefighters are out of the station. Both the chief and assistant chief openly acknowledge that the Topsfield department does not meet national standards; nor is it a sustainable or acceptable model.

Marion

The town of Marion (population 4,919 and average single family tax bill of \$6, 197) has two firehouses to serve its 14 square mile community. While the town has two fully fire equipped stations, only one station is manned 24-7 and both ALS equipped ambulances are housed in the manned station. Marion employs only two firefighters fulltime: the Chief and a captain who also acts as fire inspector. Neither is represented by a union. Otherwise, the firehouse is manned 24-7 by call/ part-time firefighters/ EMTs based on scheduled shifts with two on duty at night and on weekends and four (including the Chief and captain) on duty Monday through Friday from 8 AM – 4 PM. Marion has 34 part-time call firefighters of whom eleven also serve in the EMS division. The town has another 23 part-time employees who exclusively fill EMS shifts and call hours.

Marion's current structure as a joint call EMS/ fire department is relatively new. It was reorganized three years ago under pressure from the state based on substandard response times, occasionally as long as 15-minutes. Previously, the EMS department was independent of the fire department and relied on EMTs to carry pagers. Not only was the system unreliable but it was inherently slow because responders first had to get to the firehouse (where the ambulance was housed) in order to respond to a call. Before adopting the current model which staffs the firehouse 24/7 with trained part-time EMTs and firefighters, the town solicited bids from private ambulance companies, but the \$1 Million quotes were deemed cost prohibitive. The high rate, according to town administrator Paul Dawson, was the result of Marion's relatively modest call volume (400 or so transports per year) as well as the town's RFP asking for a dedicated ambulance housed in the town's fire department as well as the ability to call in a back up as needed.

According to both the Chief and Town administrator, the current call department structure works well in the sense that response times are excellent, but it does require strong management and organization as turnover is high. Part-time employees often use their experience and training with the town of Marion as a stepping stone to a full-time position elsewhere. As a result, Fire

Chief Brian Jackvony must keep a pipeline of five or six trainees to fill vacant spots. In addition, the department must carefully juggle part-time schedules and call hours to keep employees below the 20-hour threshold that would trigger entitlement to benefits.

Summary of Neighboring Communities similar in size to Manchester

Essex

The town of Essex, population of 3,606 according to the federal 2013 census, runs an all call department, relying on a call force of approximately 40 firefighters. The fire station is manned only Monday through Friday from 8 AM to 4 PM by one call person based on a rotating schedule that keeps individuals below the 19 hour weekly threshold that would mandate benefits. The acting chief, elected by the town's Board of Engineers, is paid a stipend of \$7,344 annually plus \$21.07 per hour for hours worked. The chief works one day a week on average. While the town is the first responder for medical emergencies, it provides only BLS transport and relies on Lyons as its provider of ALS service.

The town expends \$127,000 annually on personnel and another \$40,000 for miscellaneous expenses including training and stipends. In addition, Essex moved to the RECC in 2013 and since joining has saved over \$1 Million. The town's per capita costs for dispatch went from \$80 to \$16, and the town has benefitted from the technology improvements made available through the RECC.

Hamilton

The town of Hamilton, population of 8,131, employs three fulltime firefighters (who work four ten hour shifts a week) plus a chief. The department relies on 22 call firefighters. The firehouse is manned 8 AM – 5 PM with only three firefighters (chief plus two firefighters) three days a week, four (chief plus three) two days, and call firefighters at night and on weekends. The call force mans the firehouse 24-7 on weekends but the firehouse is dark weeknights with folks on call. The town has had good experience with its call force, approximately half of whom live out of town. Their pay ranges from \$21.41 per hour to \$26.81 per hour depending on experience and seniority.

As for EMS transport, Hamilton has evaluated taking on transport multiple times but financially it has not made sense. In their evaluation, Hamilton's close proximity to Beverly Hospital limits the dollar revenue value of transport. In other words, if the town were to provide transport it would expend much more than it would recoup in revenues. Instead, the town has opted to contract with a private ambulance company (Beauport) that retains the transport revenues while paying Hamilton rent of approximately \$600 monthly for a designated space at the fire station. According to Town Manager, Michael Lombardo, for the town's approximate 900 calls annually, response times have been below six minutes on average. This is well within the terms of the Beauport contract with the town which specifies average response times between six and seven minutes.

Final notes on Hamilton: 1. Experience with private EMT transport providers has been positive and the math for moving this service in-house is considered cost prohibitive; 2. The town successfully relies on a largely call based department; 3. With the exception of two ten-hour weekday shifts, the town does not staff its fire station with four firemen to meet the two in, two out requirement in the event of a fire. Instead, the department calls on firefighters at the time of incident. 4. Overall personnel costs are much lower than Manchester's at approximately \$606,000 (\$78 per resident) versus Manchester's \$1,150,000 (\$219 per resident).

Ipswich

The town of Ipswich, population of 13,574, operates a 24-7 department manned by 17 fulltime firefighters, not including the chief. Similar to Manchester, personnel work one day on (24 hours), one off, one on, five days off in an eight-day cycle. The town also has 12 call firefighters but has struggled to keep up this force because of training challenges. The hourly rate ranges from \$16-\$19 and most live in town. The town schedules one lieutenant and three firefighters for each shift but with vacations, it often runs on three total and only backfills when it is down to two on a given shift. Ipswich, despite a population of more than twice Manchester's, does not staff its shifts to meet the two in, two out OSHA requirement.

Ipswich has opted not to move EMT transport in house for two reasons. First, it has been satisfied with response times and experience with private vendors. And second, it has evaluated the cost/returns and deemed it cost prohibitive. The town currently contracts with Action Ambulance and is pleased with its response times and service.

Wenham

The town of Wenham, population of 5,055, staffs its firehouse Monday through Friday from 6:30 AM to 6 PM with at least one full-time firefighter. On Saturdays, the station is manned by a call firefighter during business hours (8 AM-4 PM). The town employs three full-time firefighters (including the Chief, fire prevention officer and one firefighter) and depends largely on its 26 call firefighters to respond to incidents. During hours when the station is dark, the department has an assigned on call person based on a rotating schedule with seven individuals (deputy chief, captain, and five lieutenants) receiving an annual stipend to take one eight hour call shift every two weeks as well as one 24 hour shift every other month. The stipend ranges from \$3,125-\$9,422 annually.)

The town acts as first responder to medical emergencies and holds a BLS non-transporting ambulance license, but it relies on Lyons with whom it has a contract to provide transport and ALS treatment as needed. Although the contract is zero bid, Lyons retains all transport revenues and it does not guarantee having an ambulance in town. Generally, Lyons is coming from its Brimbal Avenue, Beverly or Maples Street, Danvers locations to respond to calls. Given Wenham's proximity to both Beverly Hospital as well as Lyons' locations, the Chief reports that response times have been very good. At present, the town of Wenham responds to calls with a

BLS equipped fire truck. However, the town is considering the purchase of an ambulance as a means of generating transport revenues. If the town moves forward, it will still require a back up contract for ALS and multiple calls. Wenham also is part of the RECC, and despite initial problems with their radio technology, the town is now pleased with this regionalized dispatch and the shared/ subsidized cost of the state of the art CAD technology it affords as well as the much lower per capita cost.

The town's 2016 fire expenditures of \$571,582 equated to \$113 per capita.

Final notes on Wenham: The Chief who is salaried is largely the reason Wenham has had success with its limited staffing model. Most notably, the Chief takes a BLS equipped vehicle home with him every day and responds to all calls, not because he is required to respond but because he is dedicated to his work.

Rockport

The town of Rockport, population of 7,131, is an all call department. The Fire Chief, also the inspector, is a call position with two scheduled eight hour shifts per week. The town has approximately 50 call firefighters, a small handful of whom receive annual stipends ranging from \$2,000-9,000 to be on call. The majority of the department earns \$20 per hour when called in. According to the Chief, there are no requirements for volunteers to complete Fire 1 and 2 training, but over half of the department has completed this training. The department also does a lot of training in house. All dispatch for the town is handled out of the police department.

Ambulance service is handled by a town department separate of the fire department. The towns two BLS equipped ambulances are housed in the police department and from among 15 call EMTs two act as first responders for medical emergency transports. All 15 are on call during the day. At night, ten of the EMTs receive an annual stipend of \$1,200 for being on call. The town also has a back up contract with Beauport and Gloucester Rescue as needed for ALS service.