

Report to MEMA  
Regarding  
**The Statewide Emergency Management Needs Assessment**

July 2021

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## Objective

Consistent with the Presidential Policy Directive 8 and the National Preparedness Goal, capability assessments and analyses are critical in building and maintaining the core capabilities essential to achieving a secure and resilient Commonwealth. The ultimate objective of this assessment was to provide MEMA, the Massachusetts Emergency Management Agency, with empirical data to better establish statewide program priorities. Specifically, our work focused on developing a repeatable statewide emergency management needs assessment methodology, conducting stakeholder engagement, collecting data, analyzing the resulting information, and synthesizing the findings into actionable insights.

## Executive Summary

This statewide needs assessment report is the culmination of a 10-month study involving dozens of interviews, multiple focus groups, and a large-scale anonymous online survey which solicited input as to how emergency management is being conducted in the Commonwealth today as well as how it could evolve going forward. The statewide emergency management stakeholder community we reached out to included:

- MEMA, the primary Massachusetts authority in statewide emergency management,
- EOPSS, the primary executive office in the field,
- Multiple additional executive offices such as:
  - EOHHS
  - MassDOT
  - EOEEA
  - ANF
- The underlying state agencies who play a major role in day-to-day emergency management such as DPH, DUA
- Regional organizations whose authority entails emergency management including:
  - Regional EMS Councils
  - Health and Medical Coordinating Coalitions
  - Homeland Security Advisory Councils
  - Higher education institutions with expertise in emergency management
- And, most notably, emergency management and first response professionals from more than 80% of municipalities across the Commonwealth.

Our key findings are as follows:

1. MEMA as an emergency management agency is a center of excellence. All stakeholders consulted in this study have extensive experience with MEMA as an organization, and they consistently find MEMA personnel to be consummate professionals with vast expertise. This was recently exemplified by the response to the Covid-19 pandemic, which showcased the capabilities and effectiveness of MEMA in an emergency circumstance.
2. Massachusetts local emergency management organizations vary in capabilities, and many are not fully equipped to fulfill their mission. While emergency management is viewed as a priority throughout the Commonwealth, emergency management organizations at the local level are constrained by funding, as exemplified by low municipal budgets; staffing, limited full-time

emergency management resources; and administrative capacity. As a result, there is limited confidence among municipalities that they are adequately prepared for the next emergency.

3. The regional emergency management organizations across the state require more robust support and more effective coordination. Emergency management stakeholders in Massachusetts currently receive a great deal of support from MEMA, however, there is demand for the bolstering of MEMA's regional offices. Additionally, communication and collaboration among regional-level organizations, such as Health and Medical Coordinating Coalitions (HMCC), Regional Emergency Medical Services Councils (REMSC), Regional Homeland Security Advisory Councils (HSAC), and MEMA Regional Offices are not as effective as they could conceivably be, as evidenced by stakeholder input on the extent of collaboration.
4. More reliable connectivity across the Commonwealth presents an opportunity area. Available emergency management technologies are currently being underutilized in many parts of the Commonwealth, particularly for small- and medium-sized cities and towns, and access to useful technology tools is inconsistent. There is a common need for not only better adoption and utilization of existing technology, but also for increased connectedness throughout the Commonwealth. Broader WebEOC adoption, general asset tracking technology, Land Mobile Radio, and broadband/wireless connectedness are among the most imminent gaps.
5. At-risk populations ranging from the elderly to individuals with disabilities are not currently accounted for consistently in emergency management planning. Massachusetts has a considerable population of at-risk individuals, and accessibility remains an ongoing challenge in the emergency management landscape in the Commonwealth. Stakeholders recognize the importance of including at-risk populations into all aspects of the emergency management process, yet current efforts do not do so adequately. There is limited visibility into at-risk populations, posing a hurdle for accessibility efforts.
6. Regionally- and locally-focused training and more frequent exercises would contribute to more robust emergency management planning and response. Many communities do not themselves have any formal training or exercise planning. There is demand for more broadly available training resources, such as onboarding documents for emergency management directors, technology-based solutions such as webinars and e-learning (including virtual classes and self-paced courses), and exercises with a regional focus. Stakeholders consistently praise MEMA for the accessibility, relevance, and effectiveness of training available, though the logistics of attending training remain a consistent challenge for some stakeholders. Furthermore, topics such as cybersecurity, community resilience, and planning are identified as areas requiring additional training support.

Accordingly, our high-level recommendations are captured below. More detailed recommendations can be found at the end of the report.

- I. Provide more robust emergency management support to municipalities.
- II. Encourage more effective regional collaboration.
- III. Close existing connectivity gaps and enable more consistent use of emergency management technology.
- IV. Enhance visibility into and communication with members of at-risk populations.
- V. Enhance the training capabilities of MEMA Regional Offices.

## Methodology

At a high level, the methodology for this statewide needs assessment study included four major steps:

1. Guidance from MEMA and EOPSS
2. Qualitative research
3. Quantitative research
4. Analysis and synthesis

As a first step in the assessment, we solicited input from the MEMA and EOPSS leadership regarding their vision for this study. Consistent with their input, we developed a list of key stakeholders to consult with including:

- State executive offices and agencies whose authority includes emergency management directly or indirectly;
- State, federal, non-profit, and private organizations with an Emergency Support Function (ESF) partner role;
- Regional governmental and functional emergency management-related organizations; and
- Municipal (local) emergency management organizations and subject matter experts.

We placed particular emphasis on soliciting input from all regions of the state and also on including organizations that work directly with at-risk populations such as the Massachusetts Commission for the Blind and the Massachusetts Commission for the Deaf and Hard of Hearing.

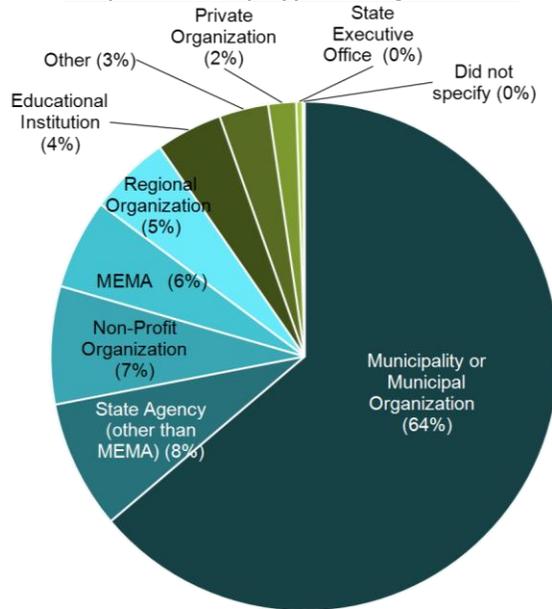
As part of the qualitative research step, we collected and studied relevant documentation such as organizational charts and organizational strategic plans, we conducted more than 70 stakeholder interviews, facilitated five regional focus groups with approximately 45 emergency management directors, including a focus group exclusively for Higher Education emergency management experts. These interviews and focus groups were conducted remotely on Zoom given the constraints imposed by the pandemic. Please see the appendix for a detailed list of stakeholders with whom we consulted.

Leveraging the information mentioned above, we developed and fielded a large-scale anonymous online survey targeted at three different respondent groups: municipal stakeholders, MEMA leadership and staff, and all other stakeholders including members of regional organizations, non-MEMA state agencies, state executive offices, educational institutions, private organizations, and non-profit organizations active in emergency management. The respective surveys varied in length from 26 to 74 questions. The resulting survey was sent out to 800 respondents, who in turn, had the ability to forward it to other key stakeholders.

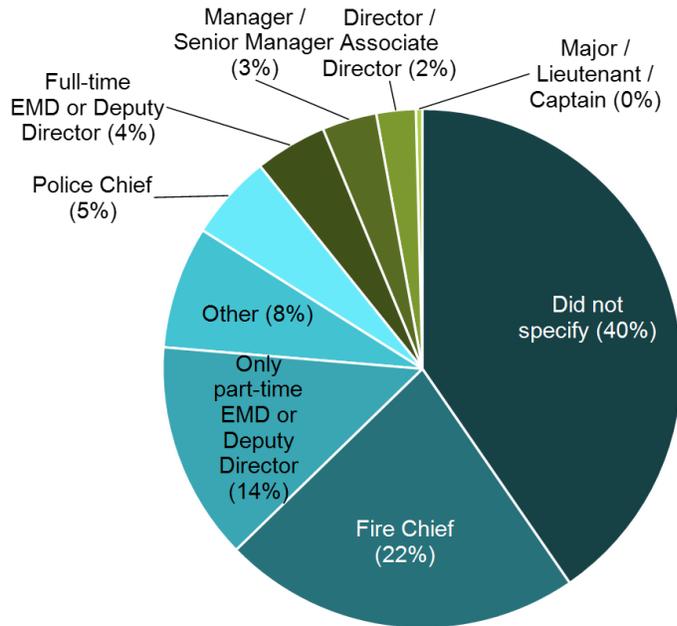
In collaboration with MEMA, we conducted multiple rounds of outreach to maximize the response rate. To date, we have collected 747 responses. The online survey is still open. The survey questionnaire is included in the appendix to this report.

The graphics below illustrate the breakdown of respondents by organization and by role, as self-reported by the respondents:

**Respondents by Type or Organization**



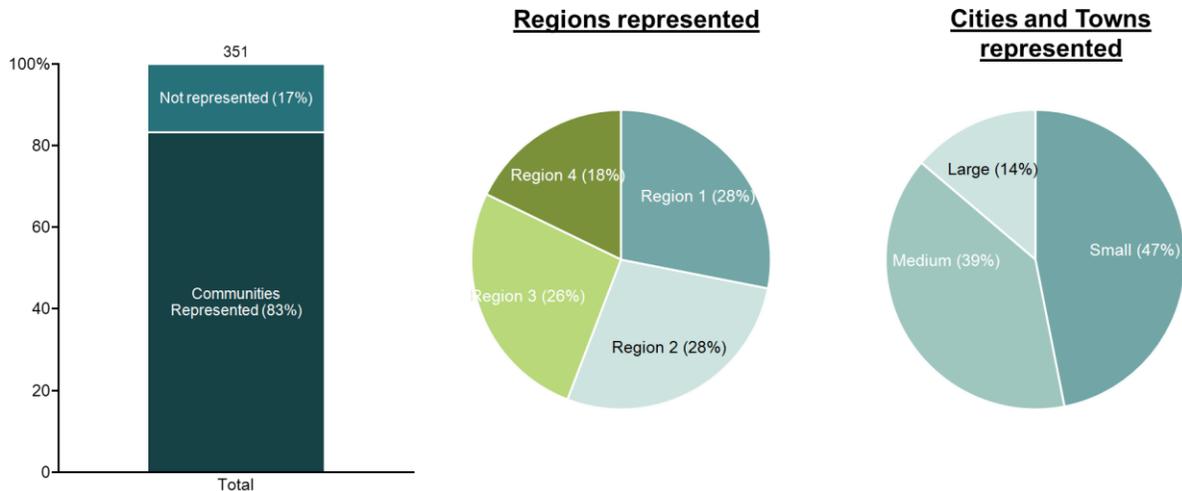
**Respondents by Role**



In the analysis and synthesis steps, we studied the resulting data first at an aggregate level. We then segmented the responses by MEMA region and by three population size categories: Small, Medium, and Large, where Small represents cities and towns with populations of less than 10,000 people,

Medium between 10,000 and 35,000, and Large with greater than 35,000 people. To ensure readability, this report displays segmentation-related information only when the segmented results vary directionally from the aggregate results.

The charts below show the breakdown of communities represented and those not represented in the survey, segmentation by region, and segmentation by size. Please note that we used the pre-consolidation 4-region MEMA structure to enable a more granular analysis. A supporting regional map is provided in the appendix.



### How to Interpret the Survey Charts

In the survey, respondents were prompted to select their response to any given statement on a scale of 1-5, where 1 represents “Strongly Disagree,” 2 represents “Disagree,” 3 represents “Neither Agree nor Disagree,” 4 represents “Agree,” and 5 represents “Strongly Agree.” Respondents could also select “I don’t know.” An example graph is shown below:



On the right-hand side of the graph, a weighted average score out of five is displayed. This weighted average is calculated by multiplying the number of “Strongly Disagree” responses by 1, the “Disagree” responses by 2, and so on, then dividing the sum by the number of responses. Respondents who answered “I don’t know” are excluded from the calculation of the weighted average. A weighted average of 3.0 out of 5.0 is neutral and scores higher than 3.0 indicate agreement or strong agreement.

Please note that A Glossary of Acronyms used in this report is provided in the appendix.

## Emergency Management In Massachusetts

Emergency management in Massachusetts is a shared responsibility. The overall organizational structure that encompasses this shared responsibility can be represented with a layered structure as illustrated below.

EOPSS, the Executive Office of Public Safety and Security is one of the nine Governor-level cabinet secretariats and operates with the mission of “ensuring the safety of residents and visitors in the Commonwealth.” MEMA, one of the agencies under the purview of EOPSS, in turn, ensures “the state is prepared to withstand, respond to and recover from all types of emergencies and disasters.”

Next, seventeen emergency support functions (ESFs) comprised of multiple other state, federal, and private organizations focus on functional emergency management areas ranging from transportation to communications to cybersecurity. Each ESF is led by a primary organization. A list of the 17 ESFs is included in the appendix.

The next layer in the structure includes regional governmental and functional organizations. It is important to note that Massachusetts does not have a formal county government layer. The top of the structure is represented by 351 municipalities across the Commonwealth where experienced and dedicated emergency management, fire, law enforcement, and EMS professionals deliver exemplary local and regional first response and emergency management services to more than 7 million Massachusetts residents on a “24/7/365” basis.



## Background On MEMA

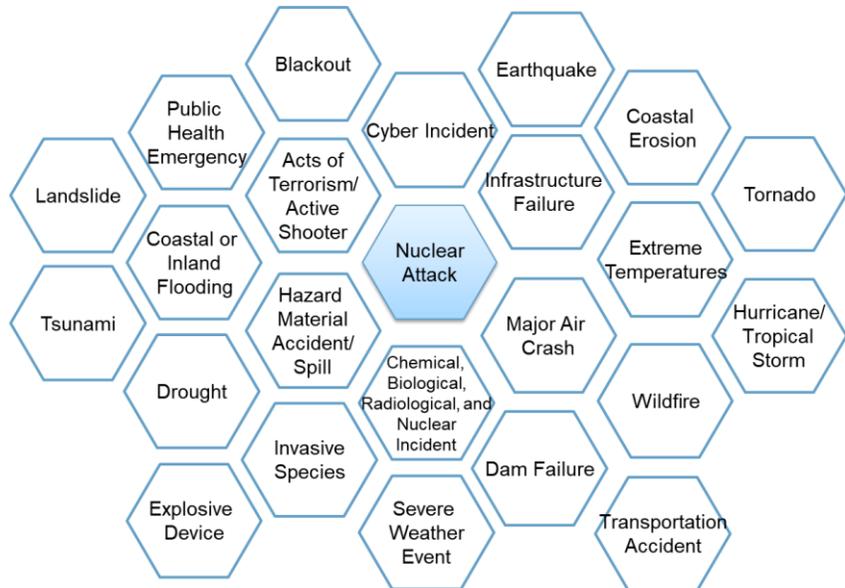
The Massachusetts Emergency Management Agency (MEMA) was formed in 1950 as a civil defense agency. MEMA today operates with the mission of “ensuring the Commonwealth’s resilience to disasters and ensuring that every municipality develops and sustains a capacity to plan for, respond to, and recover from disasters, as well as mitigate the anticipated consequences of natural, technological and man-made hazards and threats.”

To fulfill its comprehensive mission, MEMA collaborates with a broad stakeholder universe including municipal emergency management organizations, emergency support function (ESF) partners, and serves the 7.1 million residents of the Commonwealth. As implied by its mission statement, MEMA's scope expanded significantly over time from an almost exclusive civil defense focus to a multi-dimensional emergency management focus as illustrated below:

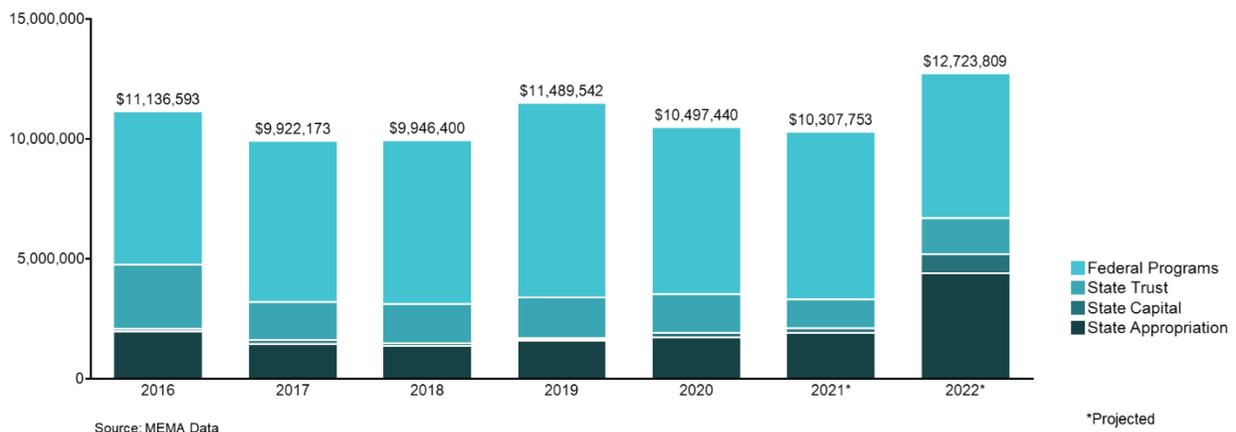
**MEMA's Scope Yesterday**



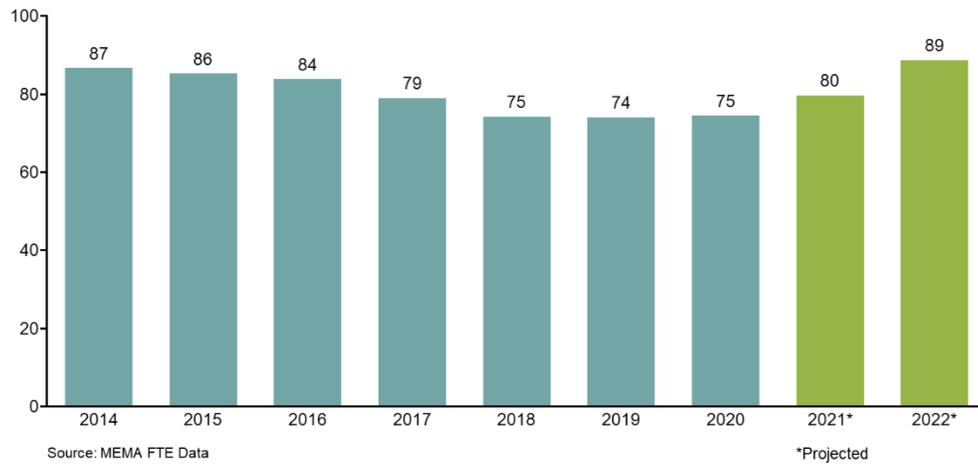
**MEMA's Scope Today**



Recent emergencies such as the 2011 Springfield tornadoes, 2013 Boston Marathon bombing, 2018 Merrimack Valley explosions, and, most recently, the 2019 Covid-19 pandemic provide concrete evidence for this scope expansion. To support this rapid increase in potential threats, MEMA has recently been receiving higher levels of funding and enhanced levels of staffing support as illustrated below:



Note: Does not include pass-through grants or emergency response costs

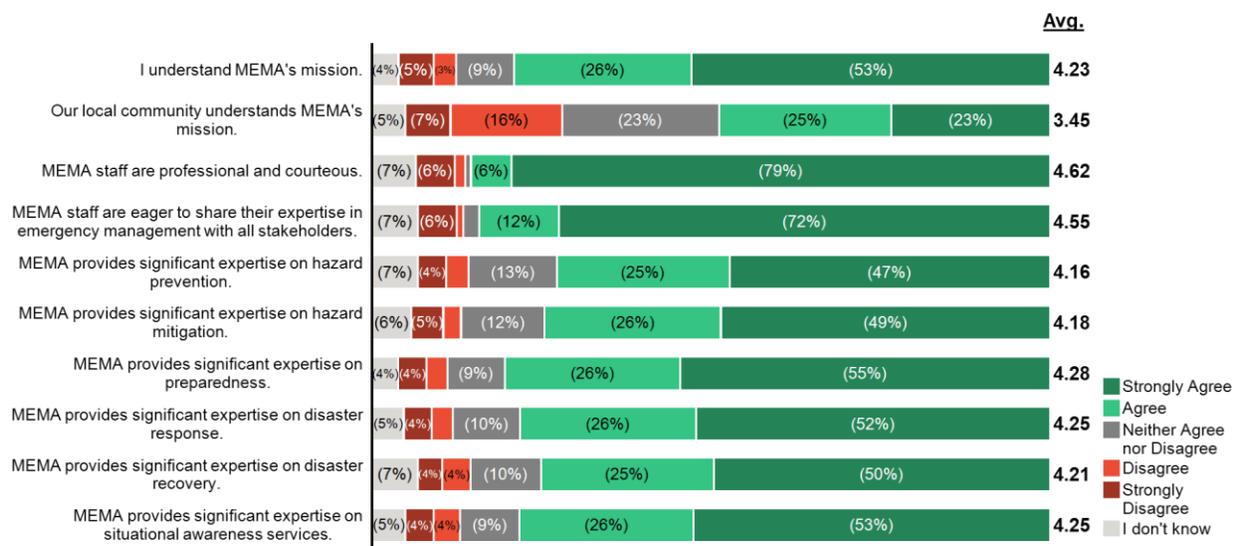


## Key Findings

### Finding 1: MEMA as an emergency management agency is a center of excellence

Survey results indicated that 100% of respondents are familiar with MEMA and 90% have worked with the agency in the past 24 months, including 73% of respondents who were personally involved in a medium- or large-scale emergency in their community or region in the past five years and, of whom 95% were personally involved in pandemic response.

Survey respondents rated MEMA very highly along the dimensions of professionalism, expertise, and eagerness to assist stakeholders on all stages of emergency management from hazard mitigation to disaster recovery as illustrated by the impressive weighted average values for the following statements:

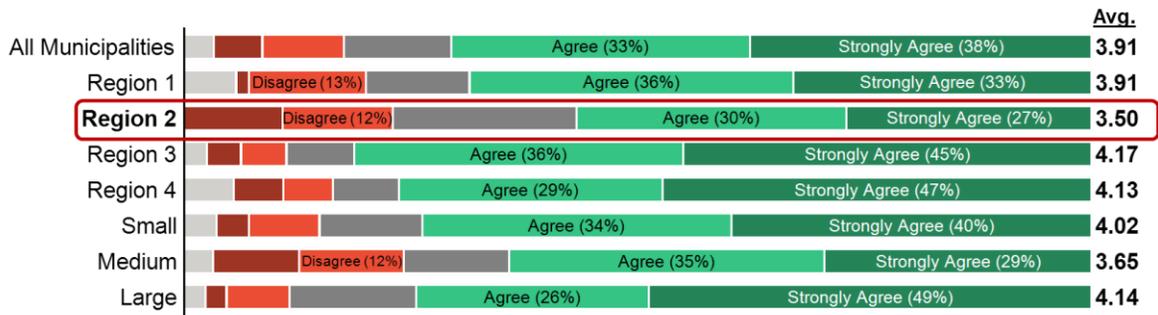


- These sentiments are further supported by verbatim comments provided by survey respondents:
  - *"MEMA is all we have."*
  - *"[MEMA] Staff and contract staff have been and continue to be exceptional."*
  - *"The experience I have had with every event that we have worked with MEMA has been outstanding and helpful for me to fulfill my mission."*

Furthermore, stakeholders throughout the Commonwealth observe that MEMA is critical to the Commonwealth's emergency management efforts and has been a key player in the state's pandemic response. Specifically:

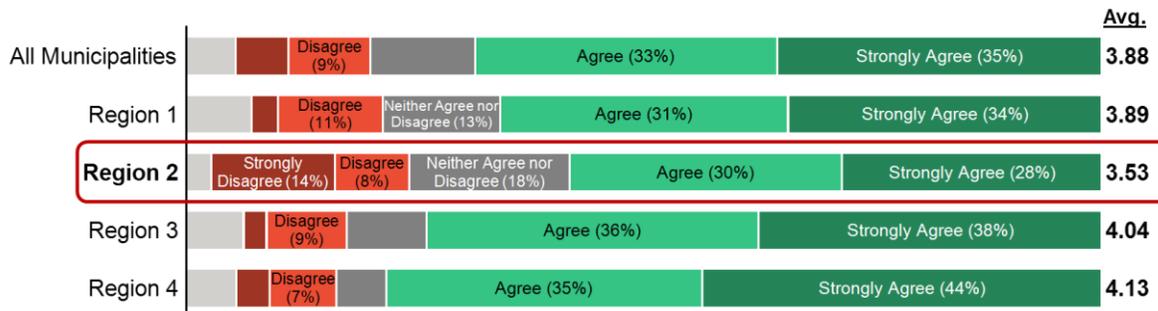
- 71% of respondents agreed or strongly agreed that MEMA has played a key leadership role in the Covid-19 pandemic, while respondents from Region 2 had a lower overall average score.

**MEMA has played a key leadership role in the Covid-19 pandemic.**



- More than 2/3 of respondents agreed or strongly agreed that MEMA has responded effectively to the Covid-19 pandemic.
- 68% of respondents agreed or strongly agreed that the pandemic has proven that existing MEMA operations, planning, and logistics processes are effective, while respondents from Region 2 had the lowest overall average score.

**The pandemic has proven that existing MEMA operations, planning, and logistics processes are effective.**



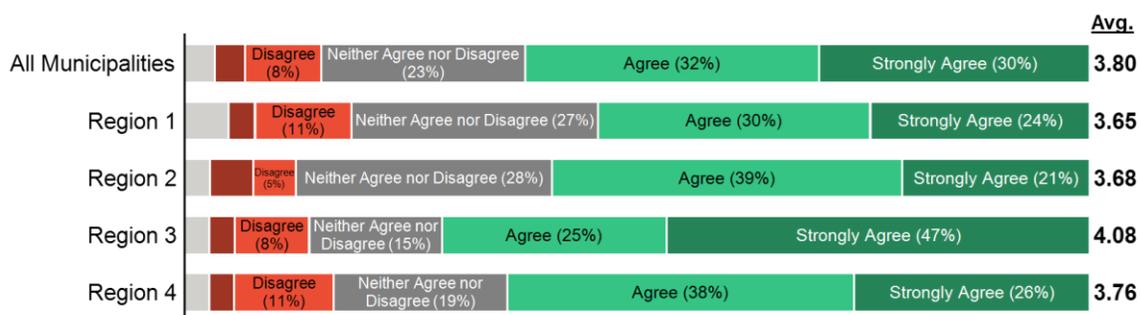
Some stakeholders voiced frustration that MEMA did not have full authority in the response to Covid-19 and that there was much confusion in the early days of the pandemic when it was unclear where responsibility lay for pandemic response.

- Below are several quotes indicating respondents' thoughts along these lines:
  - "I do not believe MEMA was allowed to play a more significant role in the pandemic, other than their ability to provide supplies/PPE."
  - "MEMA should have been the lead in all pandemic issues"
  - "MEMA should be the management agency for the management of the Emergency, not DPH"
  - "I think MEMA could have, and should have, been more involved in the vaccine rollout. They did a good job for PPE distribution but should also have been responsible for more and take the role away from DPH. DPH makes regulations they are not response oriented."
  - "MEMA should have been running the State's entire Covid-19 response from the start."

## Finding 2: Massachusetts local emergency management organizations vary in capabilities, and some are not fully equipped to fulfill their mission

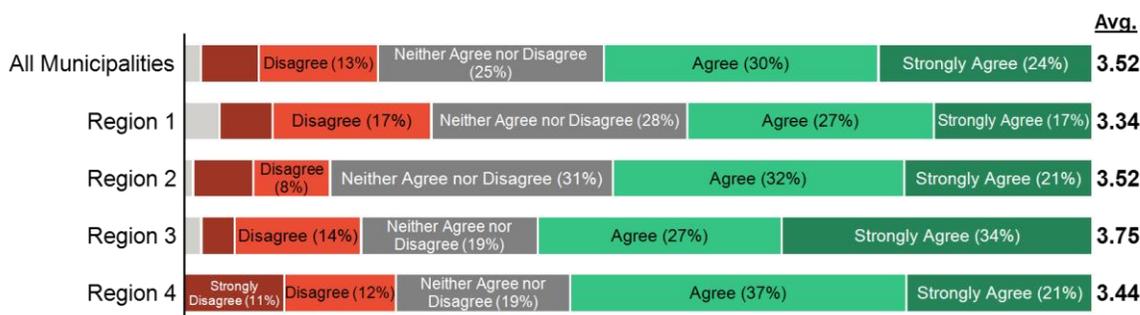
Survey respondents indicated that statewide emergency management is a top priority in Massachusetts for the local and state government, with an average of 3.80, with some slight variation from region to region:

### Statewide emergency management is a top priority in Massachusetts for the local and state government.



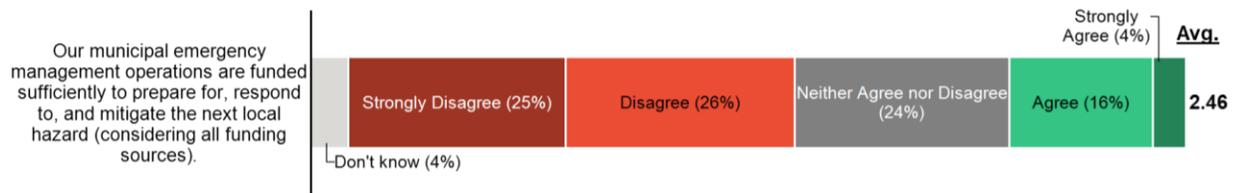
However, local emergency management as a top priority in Massachusetts received lower overall scores, with an average of 3.52, indicating general concern at the local level. The equivalent scores were lower still for non-municipal respondents, with an average score of 3.23. The reasons as to why this may be the case will be explored in the subsequent sections of the report.

### Local emergency management is a top priority in Massachusetts.



## FUNDING, STAFFING, AND ORGANIZATIONAL CAPACITY

Consistent with the relatively lower ranking of local emergency management as a priority, less than 20% of respondents indicated that their municipal emergency management operations are funded sufficiently to prepare for, respond to, and mitigate the next local hazard (considering all funding sources), confirming current funding levels are insufficient. This finding does not vary significantly across regions or population groupings.



To better quantify the magnitude of current funding, respondents were asked to specify their local annual total emergency management budget (including local matches). Notably, the median budget for small- and medium-sized cities and towns at \$3K-8K annually provides very limited financial flexibility, as illustrated by the summary table below.

The table also includes a standard deviation of the answers received. The standard deviation is a measure of the variation or dispersion of a set of values. A low standard deviation indicates that the values tend to be close to the mean of the set, while a high standard deviation indicates that the values are spread out over a wider range. Of note in this case is the large standard deviation figures relative to the respective averages calculated, pointing in the direction of large variability across municipalities.

	Overall	Small	Medium	Large
Minimum Budget	\$ -	\$ -	\$ -	\$ -
Maximum Budget	\$20,000,000	\$1,900,000	\$2,000,000	\$20,000,000
Standard Deviation	\$1,178,040	\$196,570	\$189,749	\$3,032,462
<b>Median Budget</b>	<b>\$5,000</b>	<b>\$3,500</b>	<b>\$7,932</b>	<b>\$23,500</b>
Std. Dev w/ max removed	\$254,648	\$120,128	\$19,906	\$474,889
Median Budget with max and zeros removed	\$8,100	\$5,000	\$9,350	\$31,000

**Table 1: Local Annual Emergency Management Budget (including local matches)**

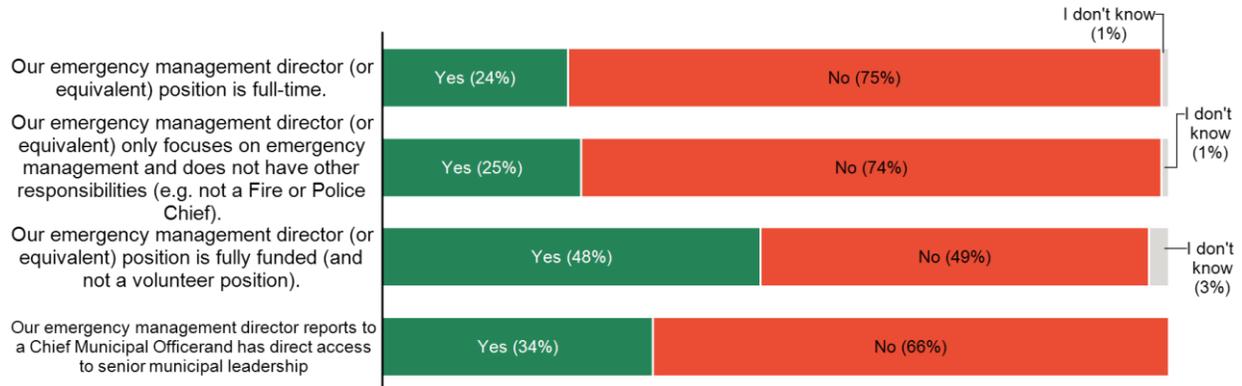
Similarly, the average number of fully dedicated (35 hours/week) emergency management FTEs, as reported by respondents is illustrated below, indicates very limited full-time staffing in municipal offices. In fact, the most common answer for all respondent segments is that they had no fully dedicated emergency management FTEs.

	Overall	Small	Medium	Large
Average FTEs	1.06	0.29	1.14	3.20
Minimum FTEs	0.00	0.00	0.00	0.00
Maximum FTEs	37.00	6.00	34.00	37.00
Standard Deviation	4.33	0.79	4.46	8.07
<b>Median FTEs</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Standard Deviation w/ max removed	3.83	0.64	3.26	6.49
Median FTEs with max and zeros removed	1.00	1.00	1.00	1.00

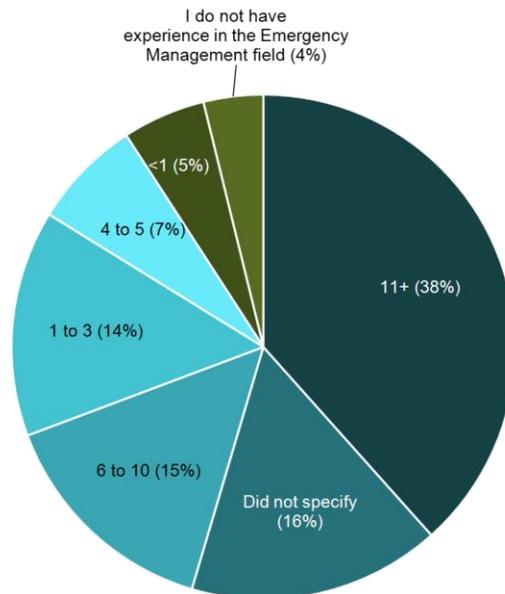
**Table 2: Fully Dedicated Emergency Management FTEs per Municipality (1FTE = min 35hr/week)**

Looking more closely at the organization of the local emergency management layer in Massachusetts:

- 52% of respondents indicate their jurisdiction had a well-established emergency management organization.
- 96% of respondents state their jurisdiction has an emergency management director or equivalent position. 98% indicate those positions are currently filled.
- However, 75% of emergency management directors are not full-time, 74% have other responsibilities, and almost 50% are not fully funded, indicating about half are volunteers.
- Only 34% of respondents state that their emergency management director report to a Chief Municipal Officer and have direct access to senior leadership in their jurisdiction.

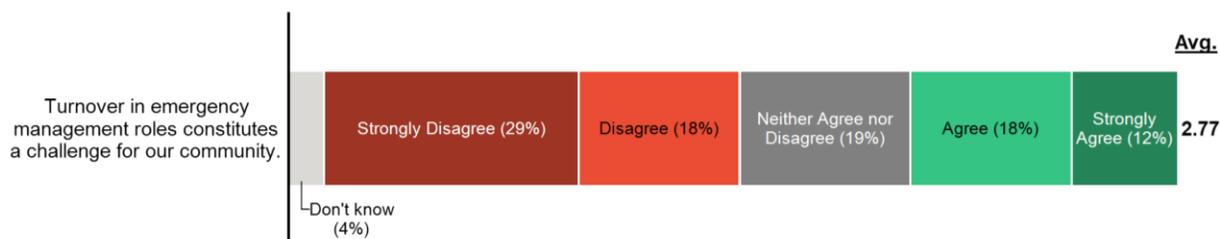


- Only 57% of respondents have an emergency management deputy director or an equivalent position.
- Tenure in position varies, with the graph below segmenting respondents by years of emergency management experience and indicating more than 25% of respondents have five or fewer years of experience in their position:

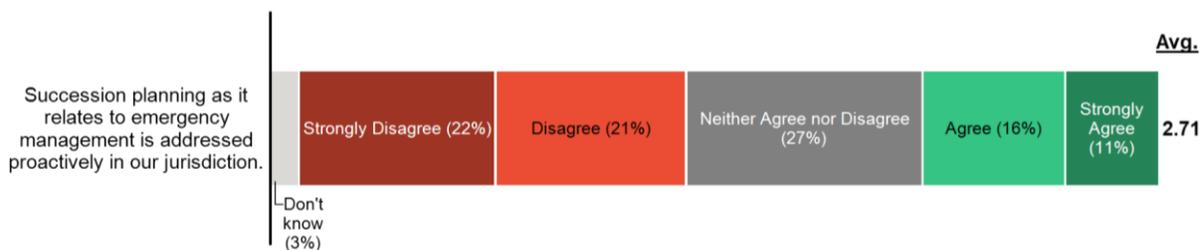


Most respondents agreed that their respective emergency management directors are qualified and knowledgeable about emergency management. Additionally, training appears to be necessary as 85% indicate MEMA and/or another training authority should offer training to local emergency management key positions to ensure the desired level of capability across the state.

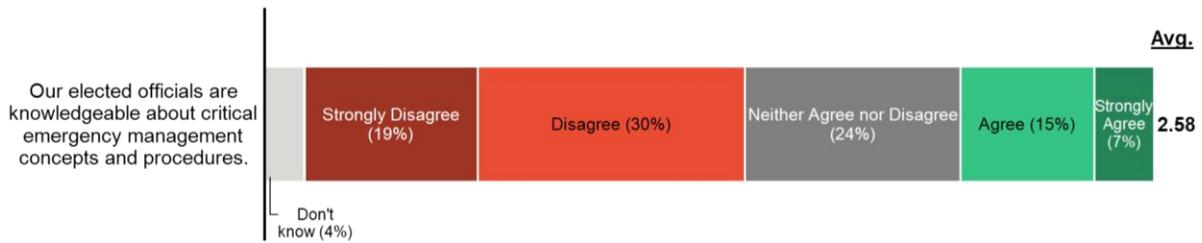
In terms of organizational stability and succession planning, interviewees and focus group participants identified turnover in emergency management functions as a challenge to their community. This finding was at least partially corroborated by survey respondents as 30% agreed or strongly agreed that turnover in emergency management roles constitutes a hurdle for their community.



Similarly, 43% of respondents disagree or strongly disagree that succession planning as it relates to emergency management is addressed proactively in their jurisdiction. Frequently during interviews, individuals highlighted the importance of experience as a key predictor of success for emergency management personnel. When emergency management veterans with a wealth of experience, strong relationships to other emergency management personnel across the state, and strong ties to the community vacate their position replacing them in a timely manner constitutes a burden for most municipalities. More proactive succession planning could prove an important step toward mediating these challenges effectively moving forward.



Respondents also identified a knowledge gap for their respective elected officials in the key concepts of emergency management. Almost half of respondents disagree or strongly disagree that their elected officials are knowledgeable about critical emergency management concepts and procedures, implying additional training for elected officials (such as ICS 402, ICS Overview for Executives/Senior Officials) would be helpful.

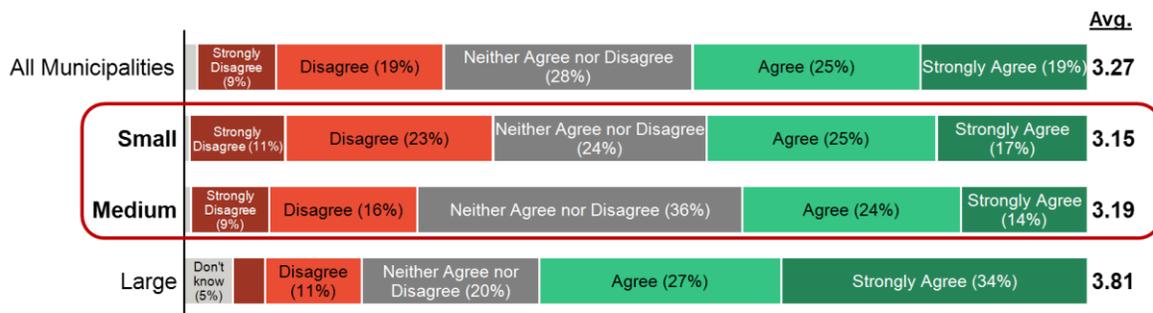


A comment to further emphasize this point follows:

- *“Local elected official and senior elected officials do not receive adequate education or preparation for large scale emergencies. The fact that we're over a year into this, with no clear continuity of government plan for local municipalities is mind-boggling.”*

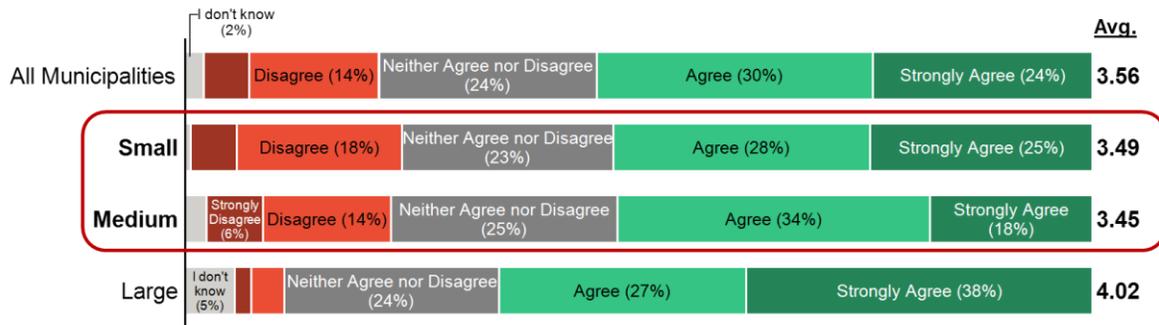
The limited budget and equally constrained staffing and organizational capabilities findings underline the importance of grant funding in statewide emergency management. Many municipalities are able to apply for and receive EOPSS/MEMA administered grants. 91% of municipal survey respondents have applied for at least one MEMA-administered grant in the last two years, 97% of whom applied for the Emergency Management Performance Grant Program (EMPG). Yet, for smaller communities, the grant process increases administrative burden, and population-driven grant allocation often results in negligible funding. When asked if their municipality has adequate administrative capacity to apply for emergency management grants, respondents from small- and medium-sized (<35,000 population) cities and towns tended to score lower on average:

**Our municipality has adequate administrative capacity to apply for emergency management grants.**



In turn, when asked if their municipality had adequate expertise to apply for emergency management grants, respondents from small- and medium-sized (<35,000) cities and towns tended to show weaker agreement, implying that there may be an opportunity to bolster the grant-related expertise available to small- and medium-sized cities and towns through training or a regional grants FTE:

**Our municipality has adequate expertise to apply for emergency management grants.**



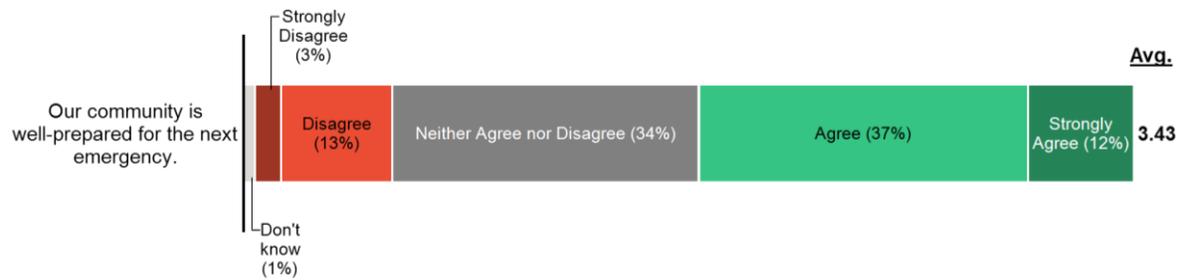
As an aside, when probed specifically, most respondents agreed that MEMA-administered emergency management grants are straight-forward to apply for, and MEMA’s methodology for allocating grant funding is generally effective.

On a tangential topic, when asked about disaster expense reimbursement, 74% of respondents indicated clearer guidelines on reimbursement would be helpful to their municipality, presenting an opportunity to lower the administrative burden on jurisdictions, especially in small to medium sized communities where administrative capacity is limited.

- Comments to this effect follow:
  - *“We could use more help in respect to grants. Our Agency specifically is an all-volunteer agency making grants an important tool but sometimes a bit more difficult to manage and navigate.”*
  - *“We need additional help in seeking grant funding and completing applications.”*

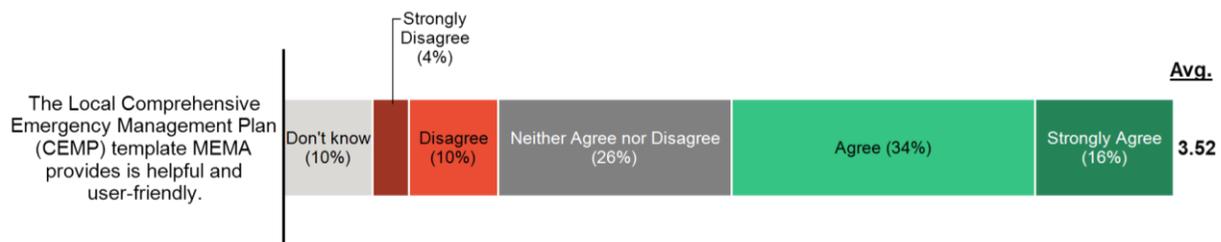
## EMERGENCY PLANNING

Only 49% of respondents agree or strongly agree that their community is well-prepared for the next emergency, with 16% disagreeing or disagreeing strongly. This finding does not vary greatly across regional or size segmentation.

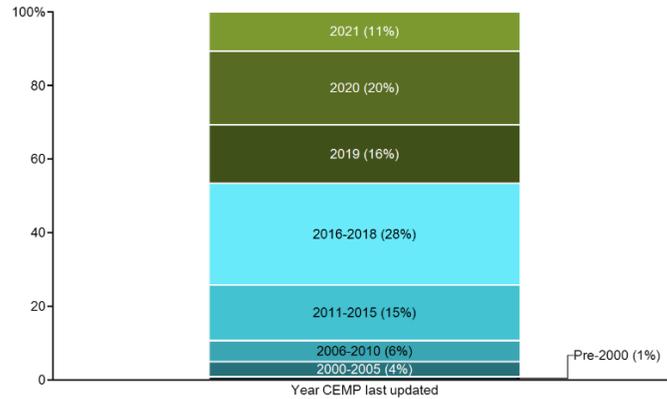


Community-based planning typically starts with a written planning document. In our interviews and focus groups, we found that all communities contacted had either a Comprehensive Emergency Management (CEMP) or Continuity of Government (COG)/Continuity of Operations Plan (COOP). However, for many municipal offices, interviews and focus group participants implied that these plans are not updated regularly. In terms of our quantitative findings in this regard:

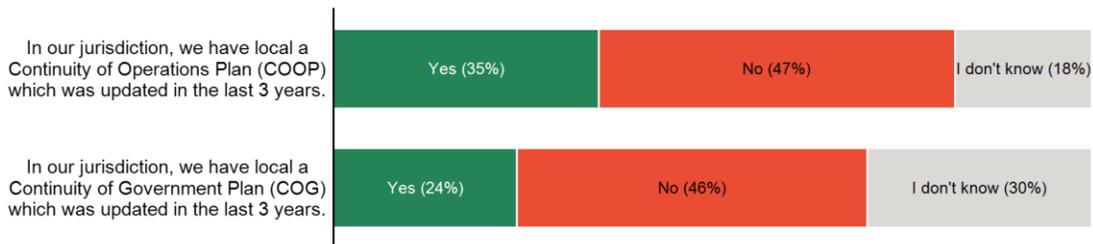
- Half of municipal survey respondents indicate that the Local Comprehensive Emergency Management Plan (CEMP) template MEMA provides is helpful and user-friendly.



- 86% of municipal respondents indicated their organizations have a local Comprehensive Emergency Management Plan (CEMP), but less than 40% regularly maintain and update it. Of the 224 respondents to this question, less than 50% updated it in the past 3 years, some going back to 1998:

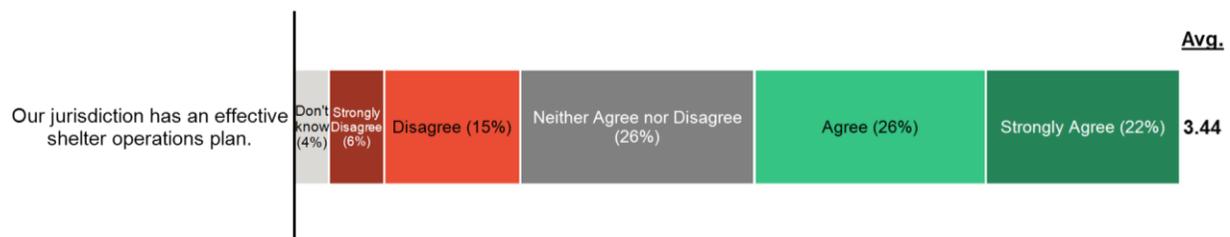


- 35% of respondents have a Continuity of Operations Plan (COOP) which was updated in the last 3 years and only 24% have a Continuity of Government Plan (COG) which was updated in the last 3 years.



- 57% of municipal respondents have conducted a threat and hazard vulnerability analysis in the past 5 years and 62% have updated their Critical Facilities and Infrastructure Summary in the past 5 years, both critical components of emergency management plans.

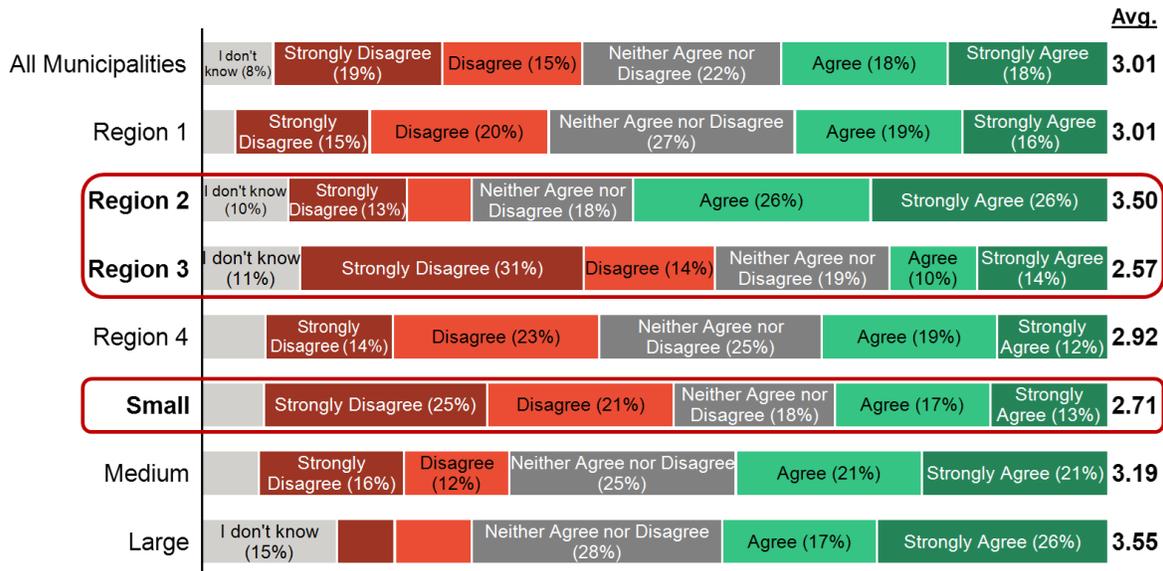
As can be inferred from the findings above, local respondents indicated a clear need for enhanced processes around statewide planning documents to facilitate planning. As an instance along the Planning dimension, particular focus was placed in the survey on shelter operations, given that severe weather events are common across the Commonwealth. Less than half of respondents indicated their jurisdiction has an effective shelter operations plan. Currently, the state’s shelter plan is not yet operational either and there is no staffing provider, which inherently hinders shelter operations plans.



Respondents from Region 2 and large cities and town had the highest overall average scores on this topic, while respondents from Region 3 scored the lowest, on average, indicating relatively high regional

variance. Additionally, smaller municipalities have less confidence in their shelter operations plan’s ability to accommodate service animals and pets than larger cities and towns, on average.

**Our shelter operations are adequately equipped to accommodate service animals and pets.**



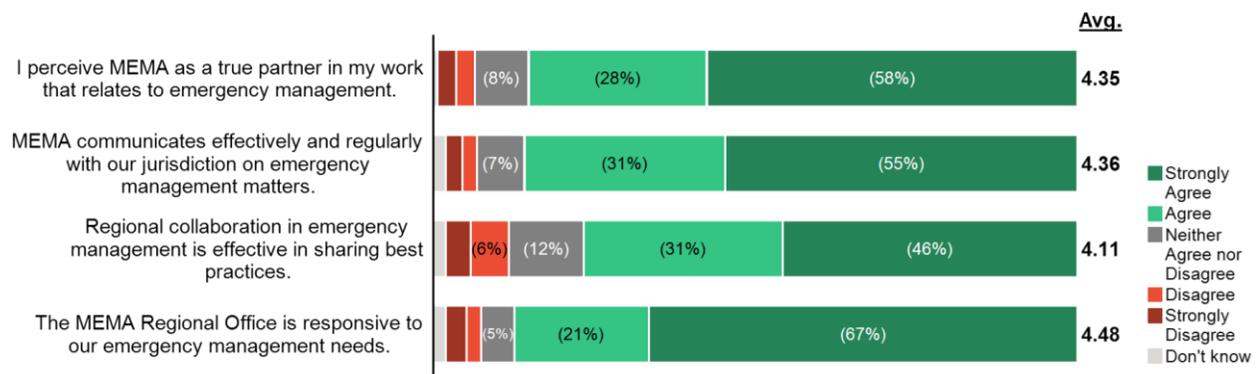
In summary, respondents felt strongly about the importance of planning but indicate frustration with the revision process as emphasized by the verbatim survey comments below:

- *“Plans have to be reviewed and updated as changes occur. Exercising plans should be required.”*
- *“There should be more regional planning to prepare everyone”*
- *“Little planning goes on at levels above EMDs”*
- *“My town’s CEMP is so out of date, and it seems impossible to find the time with my budget to efficiently keep this up! Another with Hazmat plans and other disaster plans! We need more full time help!”*

### Finding 3: The regional emergency management organizations require more robust support and more effective coordination

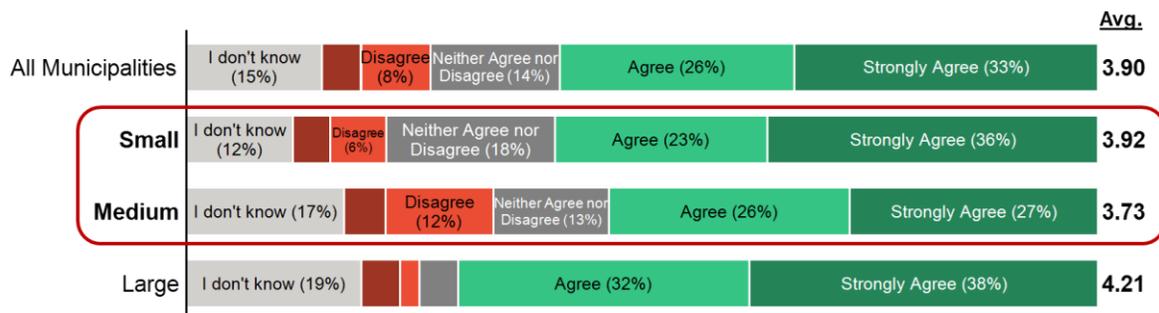
Effective communication and collaboration among stakeholders are critical to all phases of emergency management. In interviews, stakeholders across the state consistently praised MEMA for the consistency of communications in all stages of an emergency.

Almost 90% of respondents perceive MEMA as a true partner in their work that relates to emergency management. Additionally, respondents broadly find MEMA communications to be effective and regular, with regard to emergency management matters. Respondents indicate a high degree of confidence in the notion that regional collaboration is effective and that MEMA regional offices are consistently responsive to their municipality’s emergency management needs.



- That said, stakeholders identified certain regional opportunities for refinement. Namely, survey results indicate that there is a need to enhance staffing of MEMA regional offices to facilitate the agency’s support role. While MEMA proves to be a consistent partner, only 59% agree or strongly agree that their respective MEMA Regional Office is staffed adequately to support them, implying understaffing in MEMA Regional offices especially for small- and medium-sized cities and towns.

#### Our MEMA Regional Office is staffed adequately to support our needs.

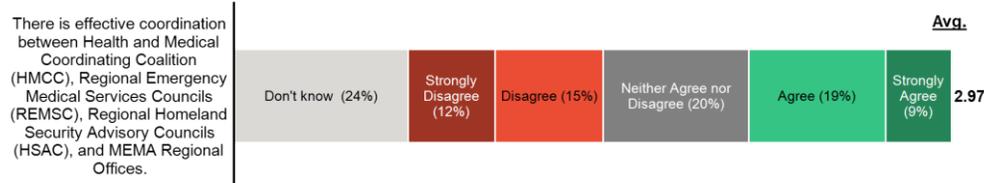


Verbatim comments to this effect are captured below:

- *“MEMA Region 2 office staff are excellent -- good responsive partners. But I think the staffing is a little thin, there aren't a whole lot of people to help shoulder a TON of work.”*
- *“Would like to see additional staffing at Regional Offices”*

Beyond MEMA, in terms of regional collaboration, many respondents indicated an opportunity for more effective coordination between Health and Medical Coordinating Coalition (HMCC), Regional Emergency Medical Services Councils (REMSC), Regional Homeland Security Advisory Councils (HSAC), and MEMA Regional Offices. Specifically,

- 27% of respondents disagree or strongly disagree that there is effective coordination between Health and Medical Coordinating Coalition (HMCC), Regional Emergency Medical Services Councils (REMSC), Regional Homeland Security Advisory Councils (HSAC), and MEMA Regional Offices, indicating an improvement opportunity for more streamlined collaboration amongst regional emergency management and supporting organizations.

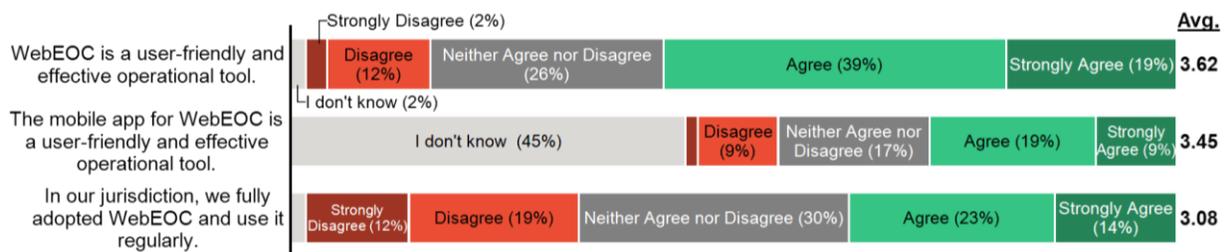


Effective regional emergency management is critical to both local and statewide preparedness and response. Given the absence of a formal county government structure in the Commonwealth, it becomes even more important for regional organizations, councils, state executive offices, and agencies to facilitate collaboration and bridge the gap highlighted by survey respondents. A potential catalyst for this shift could be institutions of higher education, as suggested consistently across multiple regional stakeholders we interviewed. By facilitating discussions, planning, training, tabletop exercises, and other events, institutions of higher education could serve as a locus for enhanced regional collaboration and coordination, likely in a cost-effective manner.

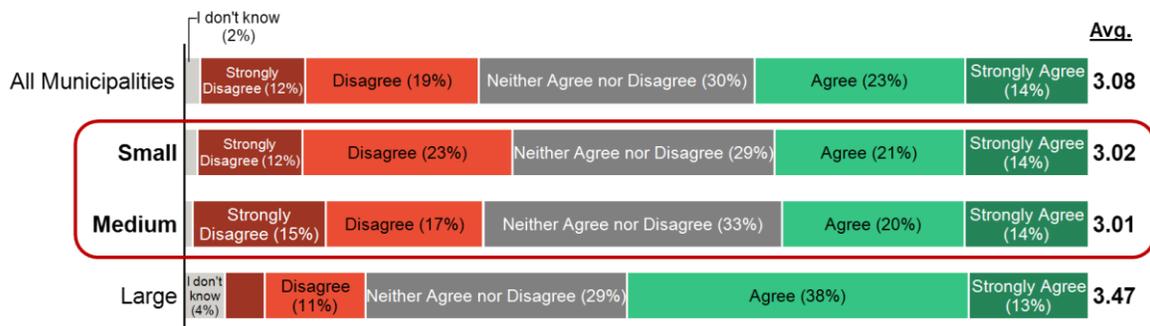
#### Finding 4: More reliable connectivity across the Commonwealth presents an opportunity area

As the emergency management scope in the Commonwealth expands over time, the technological needs of stakeholders grow as well. In interviews and focus groups, participants noted inconsistent use and adoption of various technology solutions. Different regions and different municipalities expressed unique challenges. However, common themes also emerge in the survey responses: increased interoperability in communications, increased connectedness (through broadband and Land Mobile Radio (LMR) technology), and better adoption of WebEOC through training and exercises will likely be critical first steps in the process of improving the connectivity capabilities statewide. Key survey findings regarding connectivity and technology are captured below:

- 88% of respondents indicate that they identified and allocated space for an Emergency Operation Center, and 63% of respondents indicated the same for a secondary (backup) Emergency Operation Center.
- 94% of respondents are familiar with WebEOC.
- 58% of respondents state WebEOC is a user-friendly and effective operational tool while 30% neither agree nor disagree that they fully adopted WebEOC and use it regularly, pointing in the direction of an adoption opportunity which is more pronounced in small- and medium-sized cities and towns. Respondents from large cities and towns indicate a greater adoption and use of WebEOC. Adoption of WebEOC is similarly captured as a major gap for non-municipal respondents.
- More than 40% of respondents may be unfamiliar with the mobile app of WebEOC.

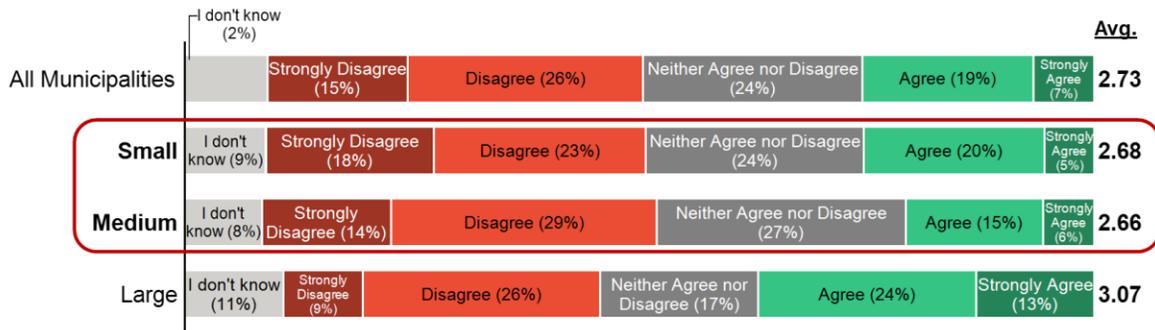


**In our jurisdiction, we fully adopted WebEOC and use it regularly.**



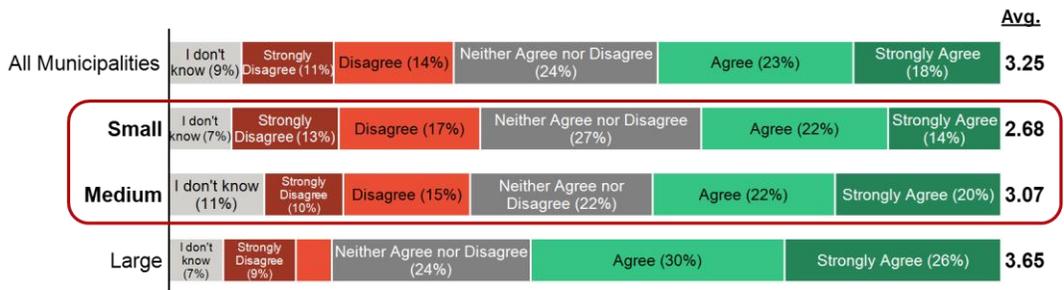
- 41% of respondents disagree or strongly disagree that they have access to effective asset and resource tracking technology. On average, respondents from small and medium cities and towns indicate less access. In interviews and focus groups, participants noted that they often have their own unique system for tracking resources, but many showed a desire to have better resource tracking capabilities.

**We have access to effective asset and resource tracking technology.**



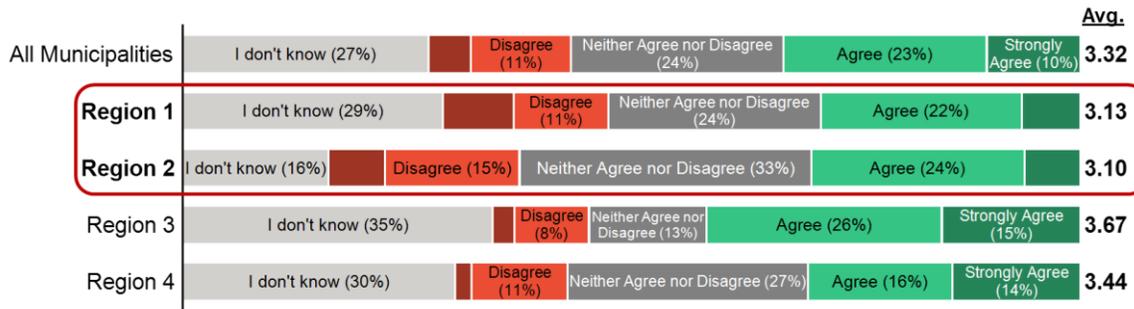
- Almost 70% of respondents agree or strongly agree that a statewide standardized approach to asset management is critical for effective emergency management, further highlighting the need for standardized asset management.
- 25% of respondents disagree or strongly disagree that they have access to software tools their emergency management work requires (e.g. MS Office, CAMEO tier 2 report, etc.). Respondents from smaller cities and towns indicate a greater need.

**We have access to software tools our Emergency Management work requires (e.g. MS Office, CAMEO tier 2 report etc.).**



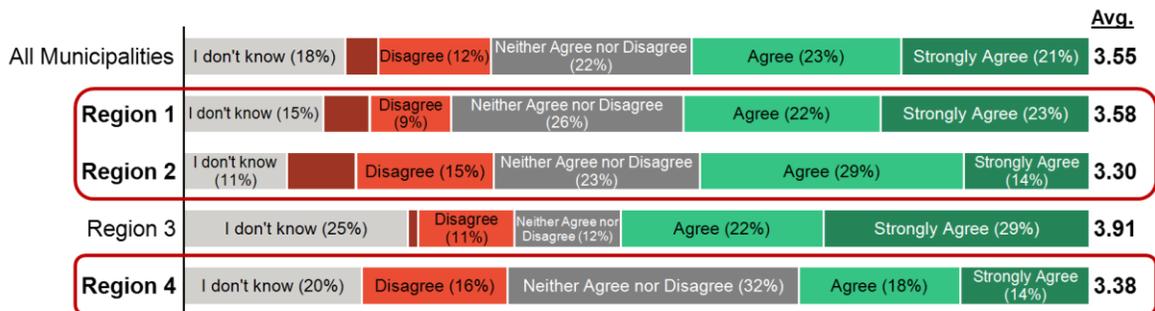
- 33% agree or strongly agree that Massachusetts utilizes GIS technology effectively in all stages of emergency management. Respondents from Regions 1 and 2 indicate the least utilization on average.

**Massachusetts utilizes GIS technology effectively in all stages of Emergency Management.**

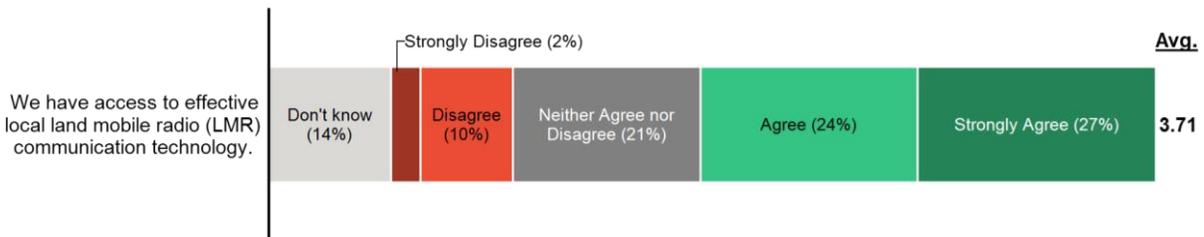


- 44% of respondents agree or strongly agree that Massachusetts utilizes reverse notification technology effectively in all stages of emergency management. Respondents from Regions 1, 2, and 4 indicate less utilization on average.

**Massachusetts utilizes reverse notification technology effectively in all stages of Emergency Management.**

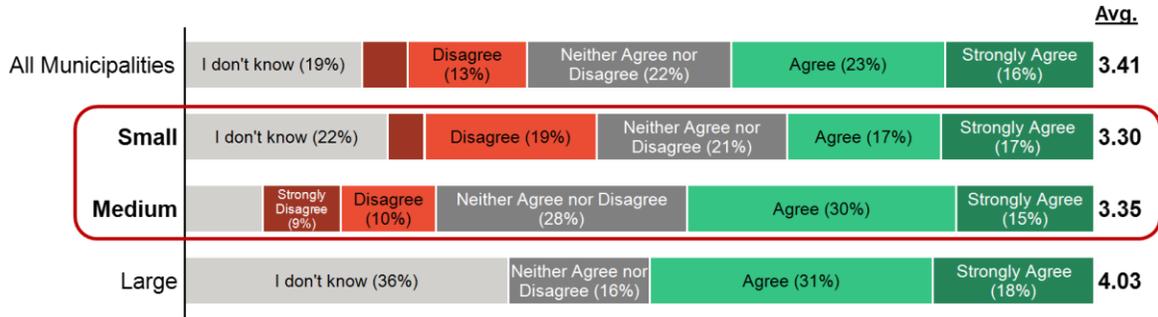


- Notably, only half of respondents agree or strongly agree that they have access to effective local land mobile radio (LMR) communication technology. Non-municipal respondents also indicated that access to Communication (LMR) equipment/systems is a large emergency management technology gap.



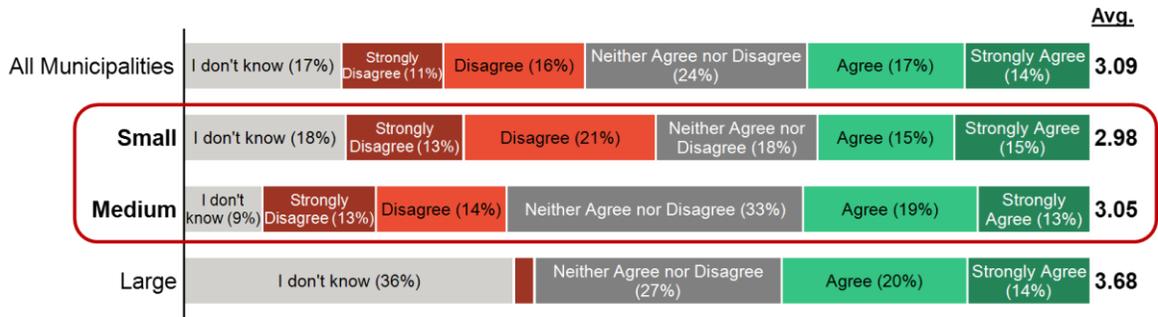
- 39% of respondents agree or strongly agree that they have access to effective back-up/redundant local LMR communication capabilities. Respondents from small and medium cities and towns indicate more limited access.

**We have access to effective back-up/redundant local LMR communication capabilities.**



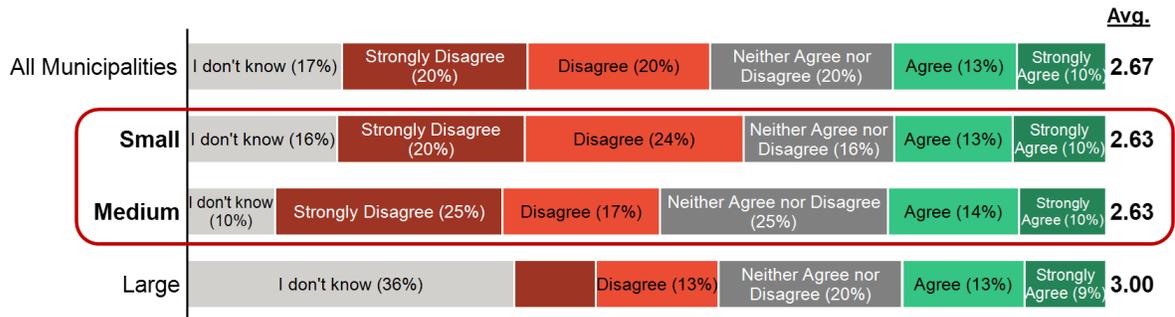
- 31% of respondents agree or strongly agree that they have effective plans in place to maintain and replace their local LMR communications technology as needed. Respondents from small and medium cities and towns indicate the least confidence in such plans.

**We have effective plans in place to maintain and replace our local LMR communications technology as needed.**



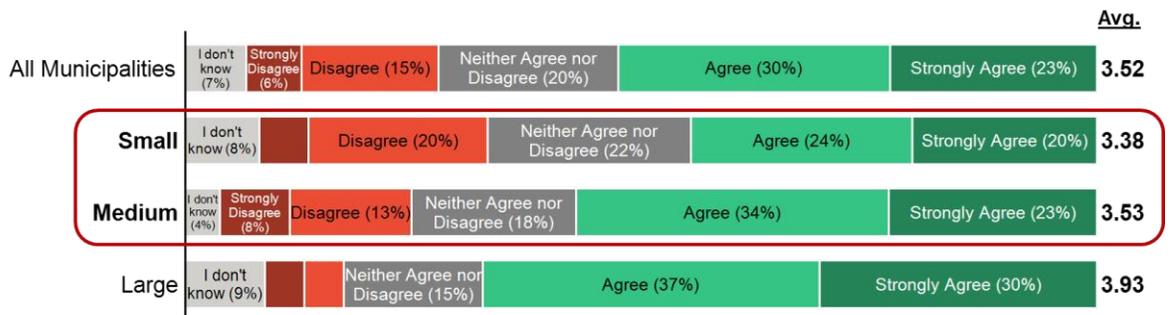
- Only 23% of respondents agree or strongly agree that they have effective funding mechanisms in place to maintain and replace their local LMR communications technology. Respondents from small and medium cities and towns indicate the greatest challenge in securing the necessary funding.

**We have effective funding mechanisms in place to maintain and replace our local LMR communications technology.**



- As to interoperability, only half of respondents agree or strongly agree that they have access to effective interoperable communication technology, with small and medium cities and towns indicating significantly less access than large municipalities. Throughout the interviews and focus groups, interoperable communications was identified as a common gap, limiting the efficiency of many local emergency management efforts, particularly for smaller communities.

**We have access to effective interoperable communication technology.**



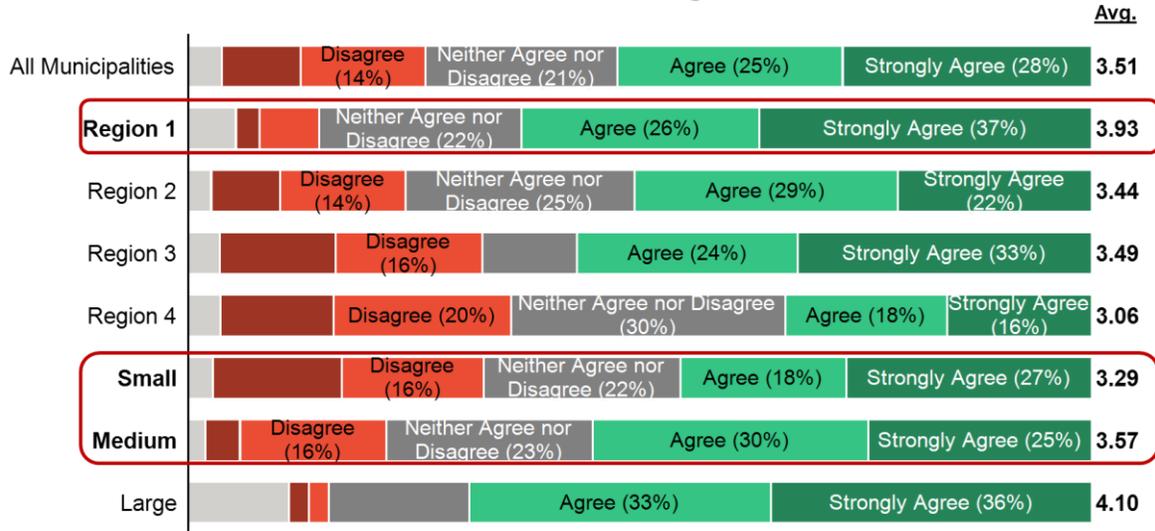
- 79% of respondents agree or strongly agree that a statewide standardized approach to interoperable communications technology is critical for effective deployment and management, indicating a strong desire to have this gap addressed.



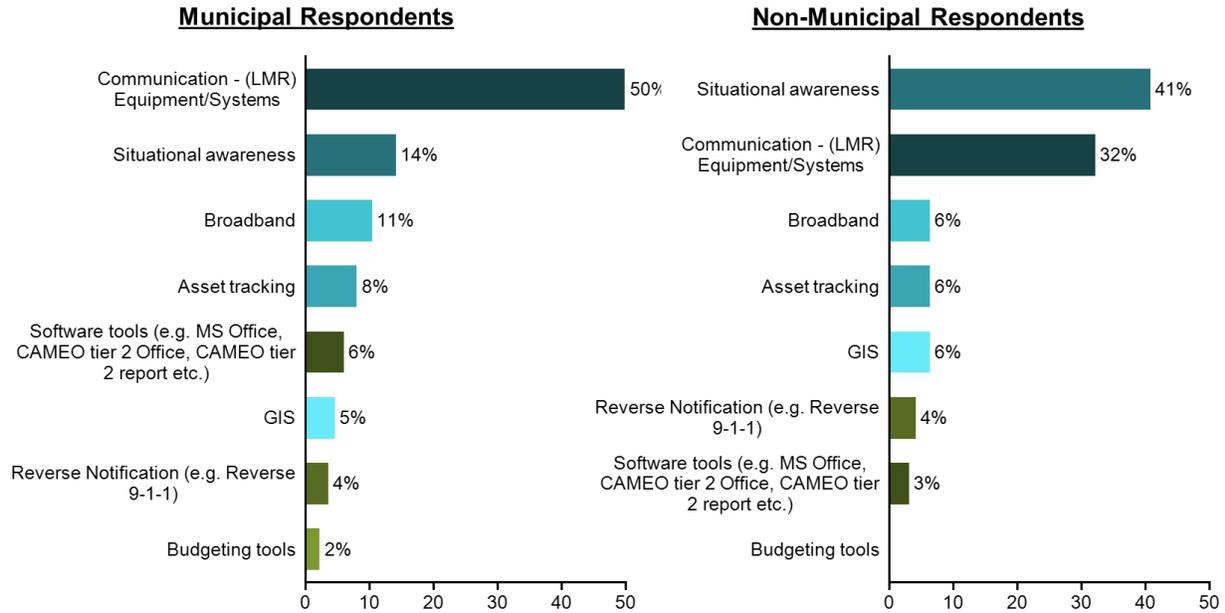
- Most importantly under the connectivity umbrella, only 53% of respondents agree or strongly agree that they have reliable broadband/wireless access coverage. Respondents from Region 1 generally indicate greater access, while other regions indicate comparatively limited access, as do smaller cities and towns. Many interviewees highlighted the lack of broadband access as a significant barrier to supporting the connectivity needed to properly operate in emergency

management functions, particularly for smaller communities. MEMA survey respondents similarly identified broadband/wireless access coverage as a major gap.

**We have reliable broadband/wireless access coverage.**



Finally, when asked to rank the top three emergency management technology needs in their communities, both municipal and non-municipal respondents identify communication (LMR) equipment and systems, broadband connectivity, and situational awareness technology followed by asset tracking, GIS, and other software solutions.



- Comments to further emphasize technology needs are captured below:

- *“Communications equipment that works is critical statewide. We need more multi-band portable radios. First NET really needs to step up their game.”*
- *“In 2012 when Hurricane Sandy threatened our area, we activated the EOC. On the second day of activation, the local cell tower failed. We found out later that its backup generator did not have enough fuel to keep running through the whole period of power failure. I was told the state has no regulatory power over cell phone tower managers. This is a significant weakness.”*
- *“We recently updated our LMR systems. Grant funding would help to complete work. There is equipment (like towable large generators) that would significantly improve our EM capabilities.”*

Finding 5: At-risk populations ranging from the elderly to individuals with disabilities are not currently accounted for consistently in emergency management planning

The Commonwealth is home to a sizeable group of at-risk populations as shown below:

At-Risk Populations	Number of individuals
Over 65 population	1,171,726
Individuals with disabilities	803,977
Individuals with vision disabilities	125,477
Deaf/Hard of Hearing individuals	228,804
Residents in nursing homes/assisted living facilities	53,000
Low English proficiency individuals	598,399
Individuals without a home	18,471

Sources: Census data, Mass.gov Disability Facts and statistics, Center for Health Information Analysis (CHIA), Mass ALA, Migration Policy Institute data, U.S. Interagency Council on Homelessness data

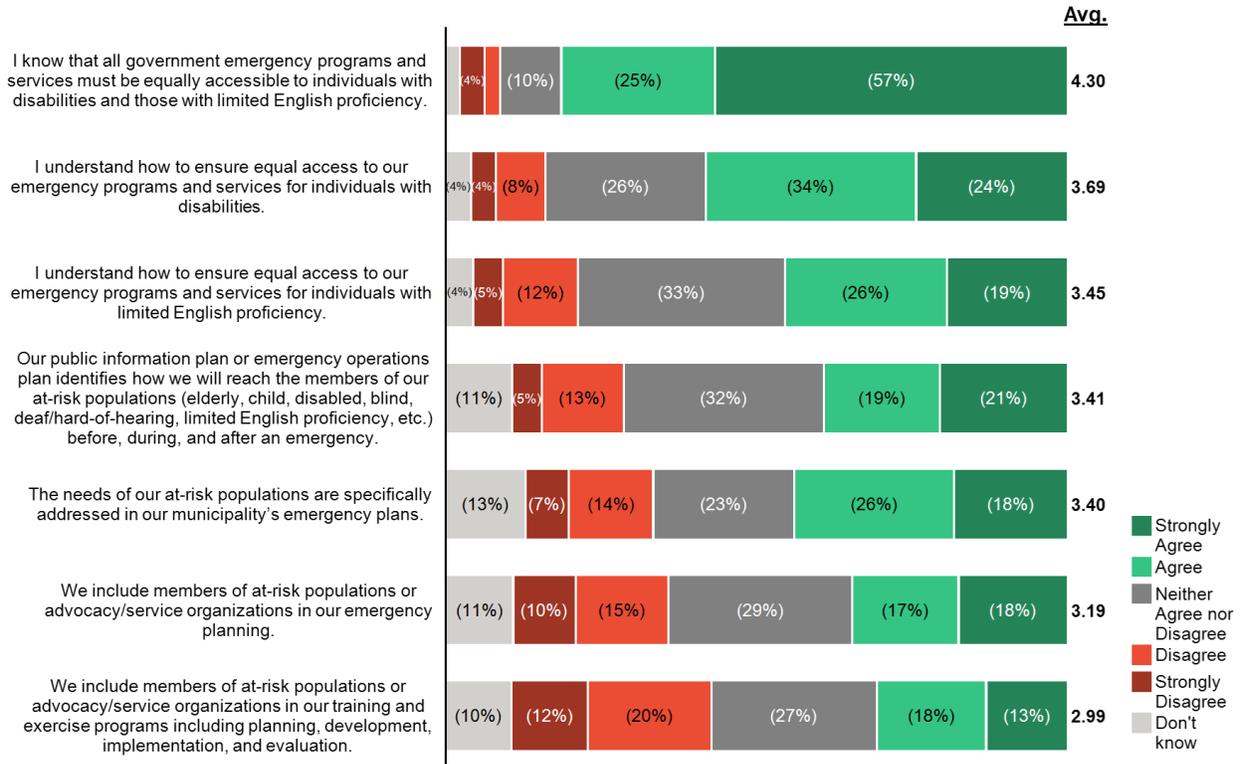
Despite the significant at-risk population, access appears to be a major gap in Massachusetts. Most municipalities do not have an American Disabilities Act (ADA) coordinator in general, let alone within emergency management. Furthermore, based on our interviews and focus groups, collaboration among organizations such as Massachusetts Commission for the Deaf and Hard of Hearing (MCDHH), Massachusetts Commission for the Blind (MCB), and emergency management directors currently appears to be limited, and future partnerships could assist in addressing the accessibility concerns regarding these communities. Ultimately, improved visibility into and enhanced communication with at-risk populations, and collaboration with advocacy groups will be a critical step toward improved accessibility.

Responses to key accessibility-related survey questions are summarized below:

- Less than 50% of respondents agreed or strongly agreed that ensuring the accessibility of their emergency management plans, programs, and operations is a priority in their municipality.

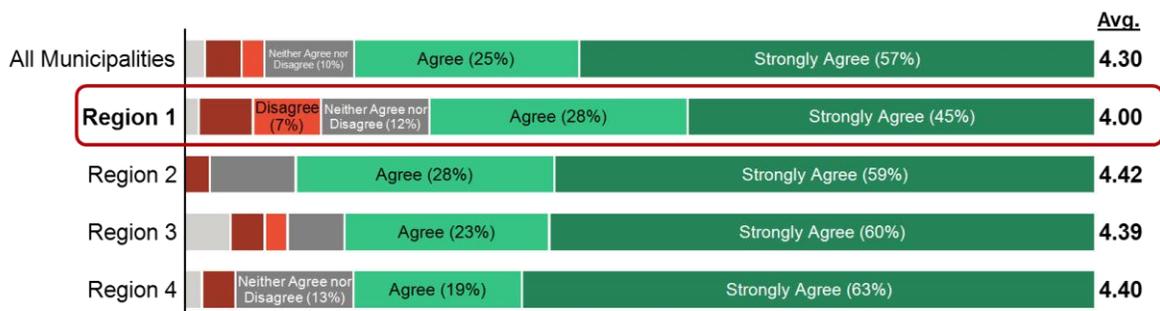


- Only 45% of respondents have an ADA coordinator (or equivalent) for their municipality and only 31% of these respondents stated their ADA Coordinator or equivalent is actively involved in their emergency management program.
- Respondents indicate agreement or strong agreement at the following levels regarding:



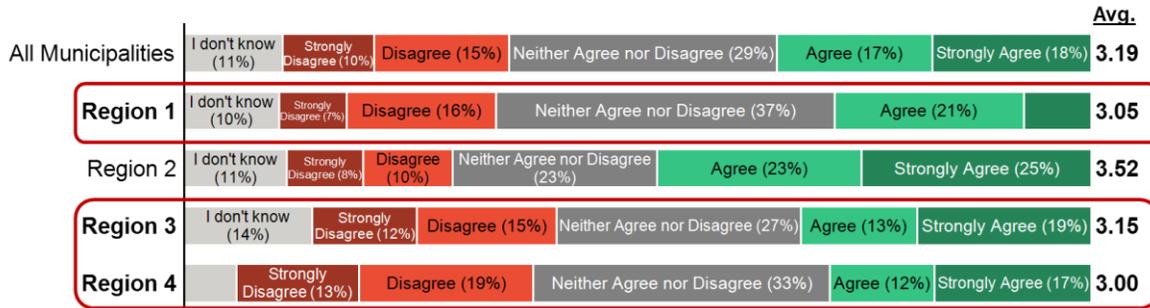
- Not surprisingly, 82% of respondents agreed or strongly agreed that they know that all government emergency programs and services must be equally accessible to individuals with disabilities and those with limited English proficiency.

**I know that all government emergency programs and services must be equally accessible to individuals with disabilities and those with limited English proficiency.**



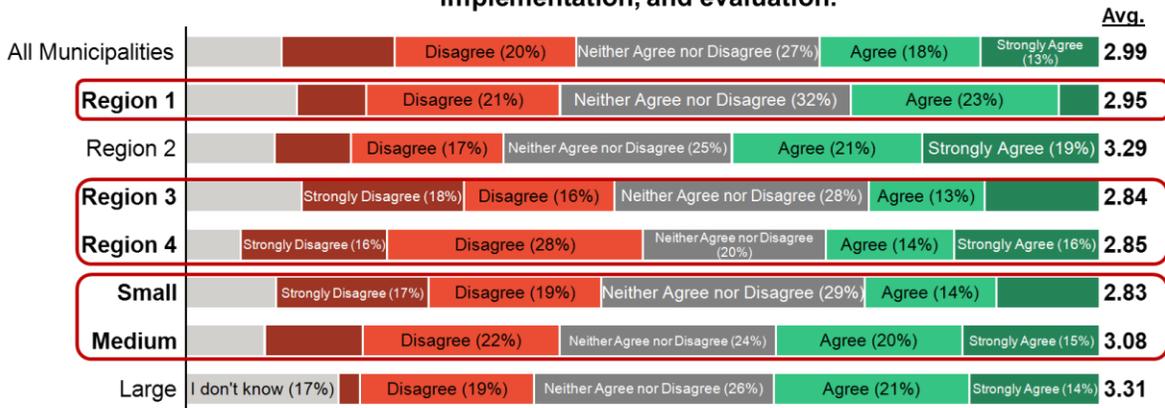
- Respondents from Regions 1, 3, and 4 indicated that they include members of at-risk populations or advocacy/service organizations in their emergency planning possibly less consistently, while only 35% agree or strongly agree overall. This point was similarly emphasized by the MEMA survey respondents as a significant gap.

**We include members of at-risk populations or advocacy/service organizations in our emergency planning.**



- Respondents from Region 2 and from large cities and towns generally indicated most strongly that they include members of at-risk populations or advocacy/service organizations in their training and exercise programs including planning, development, implementation, and evaluation, while only 31% agree or strongly agree overall. These discrepancies indicate a larger gap for small- and medium-sized cities and towns, as well Regions 1, 3, and 4.

**We include members of at-risk populations or advocacy/service organizations in our training and exercise programs including planning, development, implementation, and evaluation.**



In general, the key gaps around accessibility in Massachusetts emergency management pertain to visibility of and communication with these populations, before, during, and after emergencies. Both aspects are of critical importance to improve emergency management efforts.

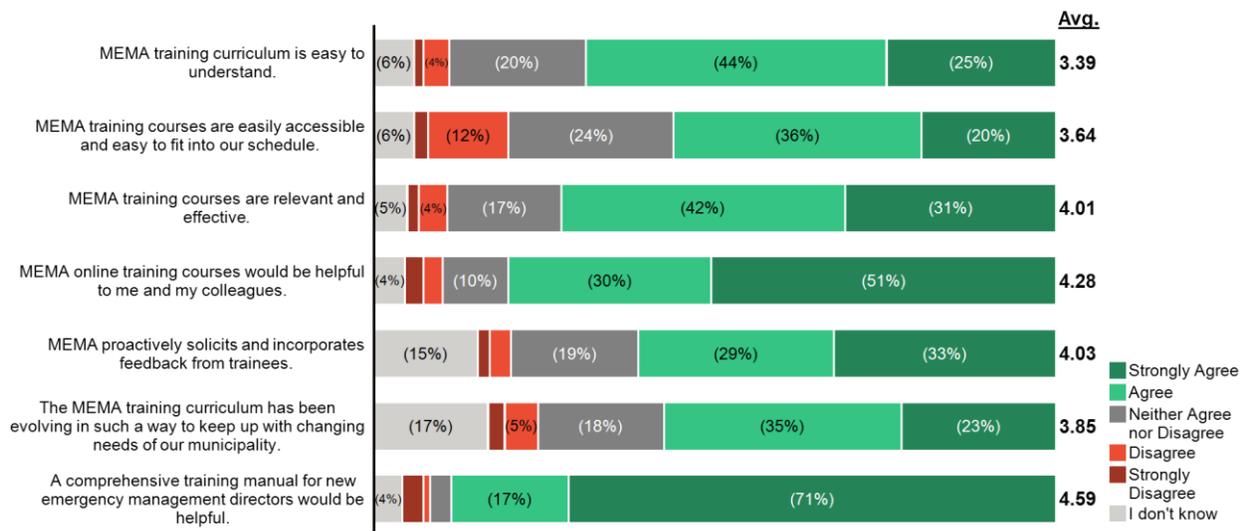
- Illustrative verbatim comments on accessibility are captured below:
  - “Much more needs to be done to effectively engage at-risk and vulnerable populations in planning and developing community resilience. For example, I would like to conduct a comprehensive needs assessment survey on our population but outside of our committee there is little understanding about how important such a survey is for planning.”
  - “We want to include at risk or non-English speaking population, but it is difficult to determine who or where they are. We coordinate with the Council on Aging to help identify.”

## Finding 6: Regionally- and locally-focused training and more frequent exercises would contribute to more robust emergency management planning and response

MEMA, as the primary provider of emergency management training to all emergency management stakeholders, received consistent praise in our interviews, focus groups, and surveys:

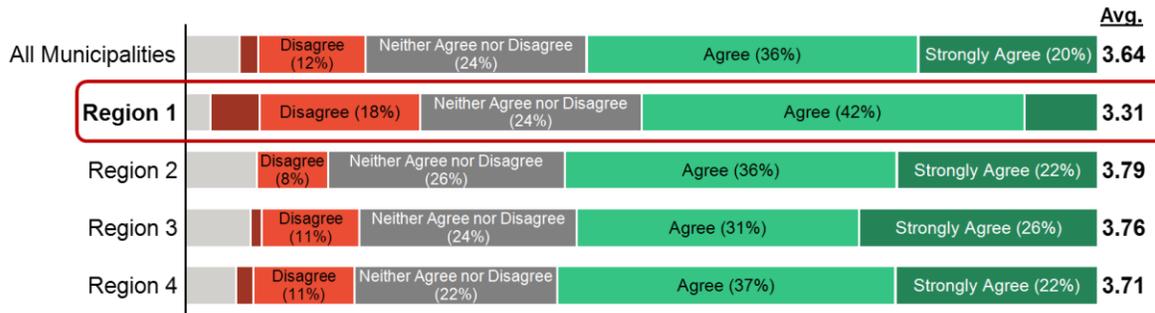
- 81% of respondents attended a MEMA training class (in-person or online) in the past 2 years and 90% of these respondents indicated the MEMA training classes they attended were informative and educational.
- 40% of respondents attended a MEMA or regional emergency management tabletop exercise in the past 2 years and more than 80% of these respondents indicated they found these exercises informative and educational.
- Respondents also commented on training indicating agreement or strong agreement as follows:

Responses to training survey questions are summarized below:



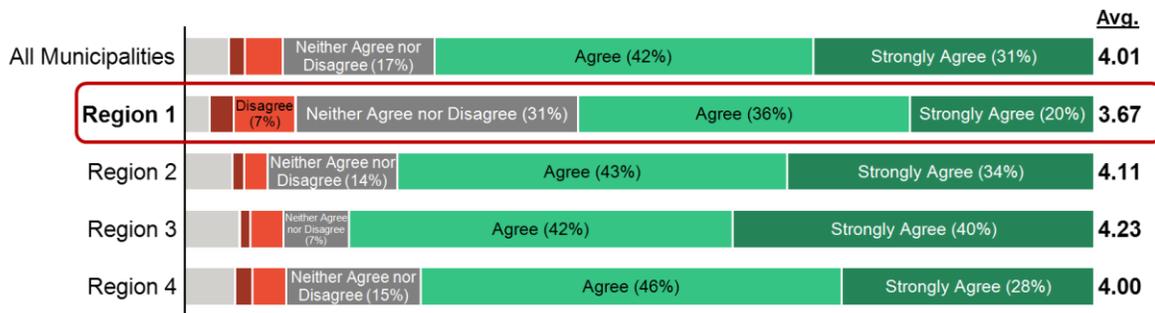
- 56% of all respondents agreed or strongly agreed that MEMA training courses are easily accessible and easy to fit into their schedule, and Region 1 had the lowest average score.

**MEMA training courses are easily accessible and easy to fit into our schedule.**



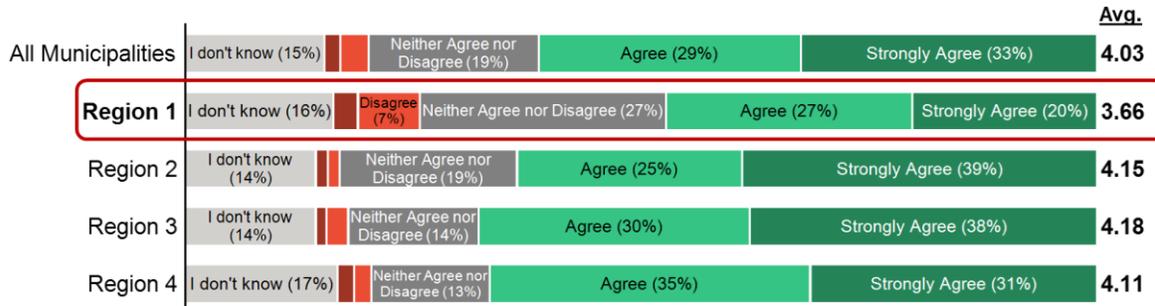
- 73% of all respondents agreed or strongly agreed that MEMA training courses are relevant and effective, while respondents from Region 1 scored relatively low, while maintaining general agreement.

**MEMA training courses are relevant and effective.**



- 62% of all respondents agreed or strongly agreed that MEMA proactively solicits and incorporates feedback from trainees, and respondents from Region 1 had the lowest average score.

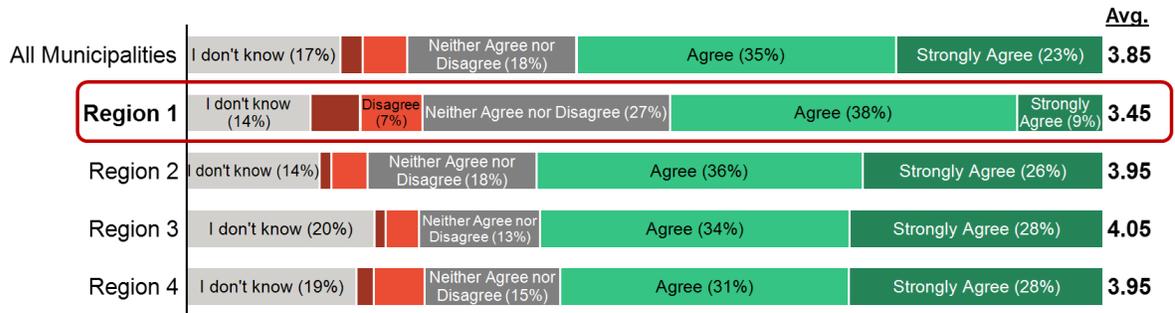
**MEMA proactively solicits and incorporates feedback from trainees.**



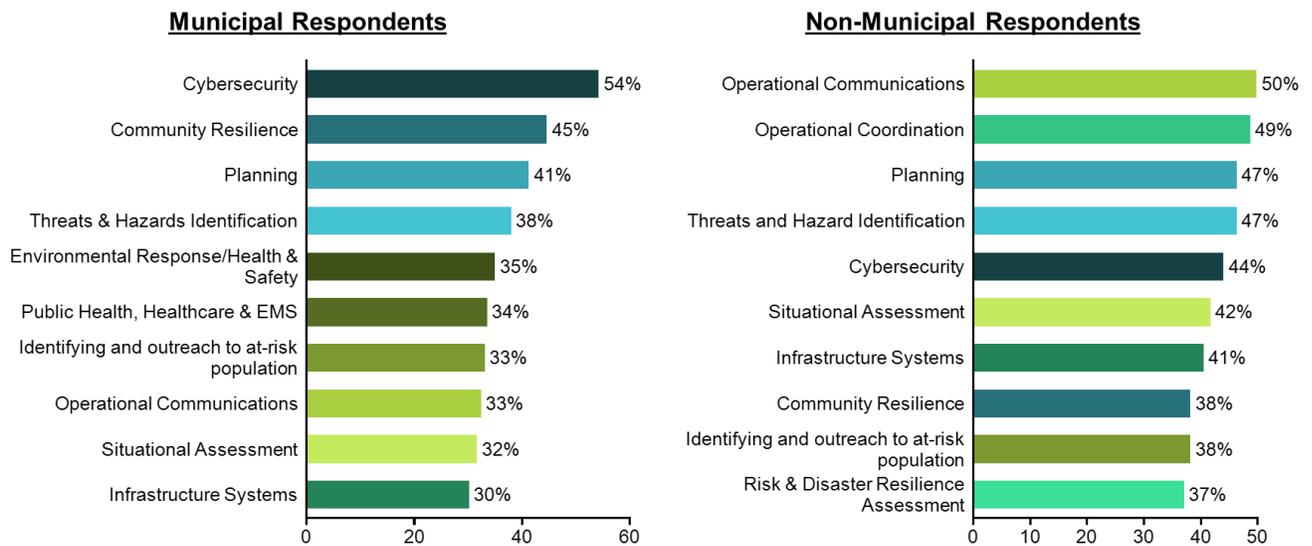
- Only 58% of all respondents agreed or strongly agreed that the MEMA training curriculum has been evolving in such a way to keep up with changing needs of their municipality, and

respondents from Region 1 had the lowest average score. This overall score, as well as the regional discrepancies indicate varying regional needs with respect to training.

**The MEMA training curriculum has been evolving in such a way to keep up with changing needs of our municipality.**



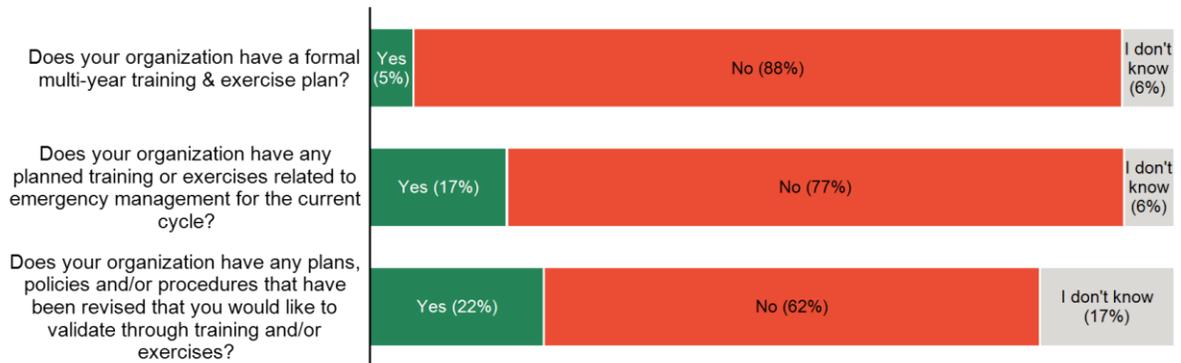
- Specifically, cybersecurity, planning, and community resilience were captured as the top municipality-level training need by respondents. The charts below capture the top 10 core training needs for Municipal and Non-Municipal respondents.



- Of note, while municipal respondents indicated that the most relevant threats for municipal respondents included severe weather, public health emergencies, and coastal flooding, the direst concern was raised about cybersecurity threats, for which many municipal respondents feel generally underprepared. 35% of respondents disagree or strongly disagree that their community is prepared for potential cybersecurity breaches. Small- and medium-sized cities and towns showed the lowest scores on average, when segmented by community size, implying relatively limited capacity for non-large municipalities. As reliance on technology and interconnectedness increases, this gap may prove more and more consequential.

Furthermore, respondents highlighted their additional training-related constraints as follows:

- 88% of respondents agreed or strongly agreed that an emergency management director handbook to facilitate onboarding would be helpful.
- 88% of municipal respondents did not have a formal multi-year training or exercise plan, 77% did not have any planned training or exercises related to emergency management for the current cycle. Only 22% had plans, policies or procedures that had been revised that they would like to validate through training and/or exercises.



- Further comments on the subject of training are captured below:
  - *“We are eager to start some cross-departmental training & exercising once the Covid state of emergency ends”*
  - *“Our small town does not really have the capacity to conduct much training. However, we work closely with the Franklin County REPC to design and participate in regional training exercises”*
  - *“Training is hard to fit in for volunteers. Exercises are very rare even after training is completed”*
  - *“Training is great but small towns cannot afford to have the trainings done. Most people who work are either volunteer or part-time and are unable to attend trainings”*

As echoed by the verbatim comments above, many interviewees and focus group participants on this study expressed a desire for training and exercises that should be more accessible regionally and locally. Similarly, from a training content perspective, focus group participants indicated interest in regionally- and locally-focused training curricula.

## Recommendations for Consideration

In line with our key findings above, we offer the following recommendations for consideration:

**1. Provide more robust emergency management support to municipalities.**

- a) Advocate for the standardization of emergency management capabilities across all 351 municipalities, starting with small- and medium-sized jurisdictions. The Commonwealth should encourage and support the recruitment, retention, and training of local EMDs as prescribed in Chapter 639 of the Acts of 1950.
- b) Offer more frequent and more customized opportunities for training and cross-pollination for emergency management directors. Build upon current quarterly online or in-person emergency management director conferences to support more effective information exchange, catalyze the dissemination of best emergency management practices, and strengthen working relationships among emergency management stakeholders.
- c) Offer specialized emergency management training for newly elected officials, such as ICS 402, ICS Overview for Executives and Senior Officials.
- d) Offer tools to enhance public awareness about emergency management at the local level with a primary emphasis on more regular use of social media platforms by both MEMA and local jurisdiction-based emergency management stakeholders.

**2. Encourage more effective regional collaboration.**

- a) Offer more frequent opportunities for convening the leaders of all regional emergency management organizations captured in this report to encourage best-practice sharing and collective strategy formulation.
- b) Consider leveraging higher education-affiliated emergency management organizations as catalysts to enable regional collaboration, as indicated by input from interviews and focus groups. Higher education institutions could assist MEMA by organizing opportunities for cross-pollination and facilitating a broader regional dialogue in their respective geographies.

**3. Close existing connectivity gaps and enable more consistent use of emergency management technology.**

- a) Advocate, in collaboration with EOPSS, EOTSS, and the Massachusetts Broadband Institute, for the acceleration of the efforts to bridge broadband connectivity gaps across the Commonwealth, particularly in Western Massachusetts.

- b) Encourage wider WebEOC adoption and utilization by all local emergency management stakeholders. Promote onboarding and refresher training opportunities more widely to accelerate WebEOC adoption.
- c) Advocate for the closure of the other key technology gaps identified through this initiative, including LMR technology, GIS technology, and asset tracking solutions, particularly at the local level.

**4. Enhance visibility into and communication with members of at-risk populations.**

- a) Through the MEMA Access and Functional Needs Committee and in collaboration with EOHHS, spearhead a statewide at-risk population emergency management initiative, and solicit representation from all relevant agencies and advocacy groups supporting at-risk populations.
- b) Form closer partnerships and establish a more formal communication routine with state agencies whose missions serve at-risk populations.
- c) Consider collaborating closely with EOTSS and MassGIS and leverage GIS solutions to develop more granular visibility into at-risk populations.
- d) In tandem, develop dedicated communication strategies to serve the needs of at-risk populations statewide before, during, and after an incident.
- e) Place particular emphasis on improving shelter operations to meet the needs of at-risk populations during an emergency.
- f) Promote more effective training to state, regional, and local emergency management stakeholders regarding at-risk populations.

**5. Enhance the training capabilities of MEMA Regional offices.**

- a) Enhance regional office training capabilities to provide locally customized in-person and online courses. Consider conducting a study to determine the additional training staffing needs by region.
- b) Enhance the online exercise methodology utilizing various methods of delivery, such as the approach recently implemented by Department of Fire Services and the Fire Mobilization Committee and offer regional online exercises in higher frequency, based on the particular needs of different regions. Given the infrequent but high-impact nature of emergencies, initial and refresher training to state, regional, and local emergency management stakeholders is of utmost importance.

## Appendix

### Survey Questionnaire

Attached as pdf.

### Glossary of Acronyms

ADA: American Disabilities Act  
ANF: Executive Office for Administration & Finance  
CCP: Citizen Corps Program  
CEMP: Comprehensive Emergency Management Plan  
COG: Continuity of Government  
COOP: Continuity of Operations Plan  
DPH: Department of Public Health  
EM: Emergency Management  
EMD: Emergency Management Director  
EMPG: Emergency Management Performance Grant Program  
EMS: Emergency Medical Services  
EOEEA: Executive Office of Elder Affairs  
EOHHS: Executive Office of Health and Human Services  
EOPSS: Executive Office of Public Safety and Security  
ESF: Emergency Support Functions  
FTE: Full-Time Equivalent  
HMCC: Health and Medical Coordinating Coalition  
HMEP: Hazardous Materials Emergency Preparedness Grant Program  
HMGP: Hazard Mitigation Grant Program  
HSAC: Homeland Security Advisory Councils  
LMR: Land Mobile Radio  
MCD: Massachusetts Commission for the Blind  
MCDHH: Massachusetts Commission for the Deaf and Hard of Hearing  
MEMA: Massachusetts Emergency Management Agency  
REMSC: Regional Emergency Medical Services Council

## Sources of Information

### **Interviews with Subject Matter Experts:**

- Adam Schaffer, Deputy Associate Director, Division of Housing and Stabilization (DHCD)
- Alvina Brevard, Acting Associate Director, Division of Housing and Stabilization (DHCD)
- Andrew Bagdonas, Manager, MEMA Communications and Information Technology
- Ben McNeil, Senior Manager, Boston Emergency Management
- Bob Hassett, Director, Springfield Fire & Emergency Services, Office of Emergency Preparedness
- Bonnie Roy, MEMA Director Regions 3 and 4
- Brian Chase, ACIO, Community Living Agencies, Executive Office of Health and Human Services
- Brian Ritzinger, Department of Public Utilities, Lead Engineer in Electric Power Division
- Carla Kath, Director of Communications, Massachusetts Commission for the Blind
- Chris Besse, MEMA Public Information Officer
- Colonel Mark Kalin, Director of Military Support, MA National Guard
- Commissioner Karen Charles Peterson, Department of Telecommunications
- Dave Basler, Recovery and Emergency Management Agency Specialist, American Red Cross
- David Bryant, MEMA Training and Exercise Unit Manager
- Dave Celino, Chief Forest Fire Warden, Department of Conservation and Recreation)
- David Mahr, MEMA Chief Administrative Officer
- Dennis Fitzpatrick, Emergency Preparedness and Response Coordinator, Department of Conservation and Recreation
- Dr. Sabrina Selk, Director of Office of Health Equity (OHE)
- Evan George, Emergency Preparedness Coordinator, Massachusetts Office on Disability
- George Heake, MA VOAD Co-Chair, Team Rubicon
- Gordon Calkins, Federal Grants, and Individual Shelter Systems Manager
- James Mannion, MEMA Regional Manager, Regions 1 and 2
- Jane Sokol Shulman, Agency Safety Office and Procurement and Contracting Manager, Massachusetts Commission for the Deaf and Hard of Hearing
- Jeanne Benincasa-Thorpe, Undersecretary of Homeland Security
- Jeff Dougan, Assistant Director for Community Services at the Massachusetts Office on Disability
- Jeffrey Dill, Director of Property Operations, Division of Capital Asset Management and Maintenance
- Jeffrey Putnam, Supervisor of State Building Instructors, Office of Public Safety, and Inspections
- John Hamel, Owner of J&S Transport Company
- John Merto, Chief Information Security Officer, Executive Office of Technology Services and Security
- John O'Malley, Retired Chief of Staff, Department of Corrections
- Jonathan O'Dell, Assistive Technology Manager/ Training Specialist, Massachusetts Commission for the Deaf and Hard of Hearing
- Joseph Tiernan, Deputy Director, Competition Division, Dept. of Telecommunications & Cable
- Joyce Clemence, Office Director of Southbridge, Department of Transitional Assistance
- Katie Murphy, Senior Manager, Business Continuity, C&S Wholesale Grocers
- Kerin Milesky, Director of Office of Preparedness and Emergency Management

- Kevin Tucker, Captain, Bureau of Ranger Services, Department of Conservation and Recreation
- Kevin Weeks, Executive Director, The Trucking Association of Massachusetts (TAM)
- Lindsay DeRoche, Director, Competitive Division, Department of Telecommunications
- Lorri Gifford, MEMA Emergency Management Grants Unit Supervisor
- Lt. Col. Donald Hamilton, Logistics Management Officer, MA National Guard
- Lt. Col. Thomas Grady, Asst. Dept Superintendent of Berkshire County, Emergency Management Director
- Lynne Shaw, Peterson Emergency Management Director
- Matt Termini, Director of Security, Division of Capital Asset Management and Maintenance
- Major Scott Range, Major of the Commonwealth Fusion Center
- Mark Foster, Beverly Director of Emergency Management
- Maria DeBeradinis, Regional Director (Central), Department of Transitional Assistance
- Mary Mahon McCauley: Executive Director, Massachusetts Office on Disability
- Mary Sheehan, Chief Operating Officer, Department of Transitional Assistance
- Meg Robertson, Director Orientation & Mobility Department, Massachusetts Commission for the Blind
- Mike Capone, Director of Operations, Department of Transitional Assistance
- Mike Nelson, Director of Ranger Services, Department of Conservation and Recreation
- Neil MacGaffey, Director, MassGIS
- Nick Child, Chief Emergency Planning & Preparedness Officer, MassDEP
- Pat Ghannam, Director of Internal Controls, Department of Transitional Assistance
- Patrick DePalo, Assistant Deputy Commissioner of Field Services, Department of Corrections
- Patricia Ford, Commissioner for Programming and Policy, Massachusetts Commission for the Deaf and Hard of Hearing
- Paul Holloway, Department of Energy Resources
- Peter Grace, GIS Analyst, MassGIS
- Rebecca Haney, Costal Geologist, Office of Coastal Zone Management
- Rob Leshin, Director of Office for Food and Nutrition Programs, Department of Elementary and Secondary Education
- Sam Harvey, Mass Care, FEMA
- Sandra Pellicane, Regional Director (South), Department of Transitional Assistance
- Sara Zalieckas, MEMA All Hazards Planning Unit Supervisor
- Sarah Eig, Senior Manager, Boston Emergency Management
- Sehin Mekuria, Deputy Commissioner for Admin. & Finance Massachusetts Commission for the Deaf and Hard of Hearing
- Seth Bouvier, Director of Cyber Security
- Shandra Gardiner, CFO and Internal Controls Officer, Massachusetts Commission for the Blind
- Shannon Walajtys, Director for Disaster Response and Risk Reduction, International Fund for Animal Welfare
- Shumeane Benford, Chief, Boston Emergency Management
- Thad Leugemors, MEMA: Assistant Director for Mitigation and Recovery
- Tim Morin, MassDOT Deputy Director of Emergency Management
- Tim Nelson, Amherst Fire Chief and Emergency Management Director

## Focus Group Attendees

- Ali Novak, Central Massachusetts RPC
- Bernard Forgea, Cummington
- Blake T. Haskell, JD Hunter Inc.
- Bob Hazelwood, EMD, Boxford
- Bryan Johannes, Fire Chief, Hudson
- Chet Nicora, EMD, Agawam
- Chief David Frizzell
- Chief Joseph Bennett, Police Chief, Hopkinton
- Chris Montiverdi, EMD, Holden
- Dave DeMings, EMD, Sturbridge
- David O. Mendelsohn, EMD, Worthington
- David Querze, EMD, Pepperell
- Dennis Condon, Fire Chief, Needham
- Dennis Nazzaro, EMD, Huntington
- Ed McCormick, EMD, Egremont
- Edward Nolan, Norfolk
- Geof Deering, Fire Chief, Orleans FD
- Geoff Bartlett, EMD, Bentley Univ.
- George Stephan, EMD, Ashfield
- James Hicks, Police Chief, Natick
- Jeffrey A. Trask, Holyoke
- John Dearborn, Fire Chief, Longmeadow
- John Kondratowicz, EMD, Chatham
- John Sullivan, Fire Chief, Brookline
- John Tommaney, Director of Emergency Management, Boston College
- Kim Strohm, Assistant EMD, Falmouth
- Larry Holmberg, EMD, Chesterfield and Goshen
- Mark W. DiFronzo, Fire Chief, Upton
- Matthew Hart, EMD, Amherst
- Michael Cassidy, Fire Chief, Holliston
- Michael Lethin, EM Administrator, Needham
- Michael Perkins, Chief of Police, Cummington
- Nick Child, Chief Emergency Planning & Preparedness Officer, Grafton
- P. Kenneth Clark, Fire Chief, Berlin
- Patricia Natoli, Administrative Assistant, Harvard
- Paul J. Morrissette, Fire Chief/EMD, East Longmeadow
- Peter Burke, Fire Chief, Hyannis
- Peter Peloquin, Associate Planner, Central Massachusetts RPC
- Ray Cord, Deputy Director, Norton
- Rick Sicard, Fire Chief, Harvard
- Robert J. Hassett, Director, Springfield
- Robert P. Parsons, Fire Chief, Spencer
- Scott L. Flebotte, Emergency Management, Ludlow
- Sean J. Paine, Sergeant, Sturbridge

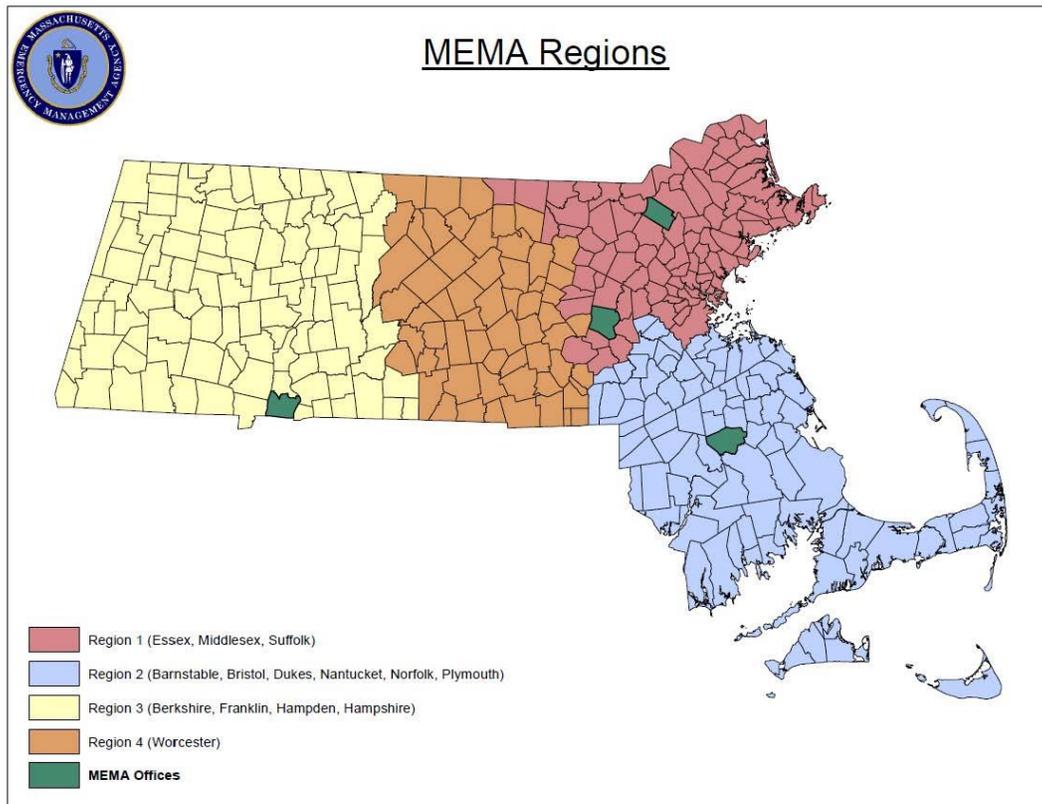
- Sergeant Ed Burman, Admin. Seargent, Ashland
- Stephen Slaman, Fire Chief, Hopkinton
- Steve Morash, Boston University
- Thomas Sammons, Chief, Pittsfield
- Timothy E. Choate, Assistant Fire Chief, Sudbury
- Tracy Rogers, Emergency Preparedness Program Manager, Franklin Regional Council of Governments
- Trish Settles, Deputy Director, Central Massachusetts RPC
- William M. Flaherty, Fire Chief, West Springfield

**Municipalities and Higher Education Institutions Represented in Focus Groups:**

- Agawam
- Amherst
- Ashfield
- Ashland
- Berlin
- Beverly
- Boston
- Boxford
- Brookline
- Chatham
- Chesterfield and Goshen
- Cummington
- East Longmeadow
- Egremont
- Falmouth
- Foxborough
- Grafton
- Harvard
- Holden
- Holliston
- Holyoke
- Hopkinton
- Hudson
- Huntington
- Hyannis
- Longmeadow
- Ludlow
- Natick
- Needham
- Norton
- Orleans
- Pepperell
- Peterson
- Pittsfield

- Spencer
- Springfield
- Sturbridge
- Sudbury
- Upton
- West Springfield
- Worthington
- Bentley University
- Boston College
- Boston University
- Framingham State University
- Massachusetts Institute of Technology
- Tufts University

MEMA Regional Map (4-region structure)



## Emergency Support Functions

- ESF-1 Transportation
- ESF-2 Communications
- ESF-3 Public Works and Engineering
- ESF-4 Fire Fighting
- ESF-5 Business and Industry
- ESF-6 Mass Care, Emergency Housing, and Human Services
- ESF-7 Volunteers and Donations
- ESF-8 Public Health and Medical Services
- ESF-9 Search and Rescue
- ESF-10 Hazardous Materials and Environmental Protection
- ESF-11 Agriculture, Animals, and Natural Resources
- ESF-12 Energy
- ESF-13 Public Safety and Security
- ESF-14 Recovery
- ESF-15 Public Information and External Affairs
- ESF-16 Military Support
- ESF-17 Cybersecurity