



Commonwealth of Massachusetts
Office of the State Auditor
Suzanne M. Bump

Making government work better

Official Audit Report – Issued June 30, 2021

State 911 Department

For the period July 1, 2017 through June 30, 2019





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Mr. Frank Pozniak, Executive Director
State 911 Department
151 Campanelli Drive, Suite A
Middleborough, MA 02346

Dear Mr. Pozniak:

I am pleased to provide this performance audit of the State 911 Department. This report details the audit objectives, scope, methodology, findings, and recommendations for the audit period, July 1, 2017 through June 30, 2019. My audit staff discussed the contents of this report with management of the agency, whose comments are reflected in this report.

I would also like to express my appreciation to the State 911 Department for the cooperation and assistance provided to my staff during the audit.

Sincerely,

A handwritten signature in blue ink, appearing to read "SMB", written over a light blue horizontal line.

Suzanne M. Bump
Auditor of the Commonwealth

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EXECUTIVE SUMMARY

In accordance with Section 12 of Chapter 11 of the Massachusetts General Laws, the Office of the State Auditor has conducted a performance audit of the State 911 Department for the period July 1, 2017 through June 30, 2019. The State 911 Department is responsible for the coordination, administration, and implementation of enhanced 911 services¹ throughout the Commonwealth. It is also responsible for overseeing the statewide 911 emergency call system provided by municipalities and private companies through Public Safety Answering Points for emergency services and ensuring 911 access for people with disabilities.

In this performance audit, we examined whether the State 911 Department developed and successfully executed a plan to upgrade the statewide 911 emergency call system and equipment from analog to digital to be able to respond to all 911 emergency calls from cellphones, smartphones, and landlines. Further, we determined whether the department assisted municipalities with local education programs through the regular distribution of educational materials for the silent call feature of the statewide 911 emergency call system. Finally, we examined whether all active telecommunicators were trained on 911 text handling and silent call procedures and whether telecommunicators obtained the required introductory and annual training certifications.

Below is a summary of our finding and recommendations, with links to each page listed.

Finding 1 Page 8	The State 911 Department did not effectively assist municipalities with local public education programs for the statewide 911 emergency call system, including the silent call feature.
Recommendation Page 9	The State 911 Department should implement policies, procedures, and monitoring controls to ensure that it consistently helps municipalities properly educate the public about the statewide 911 emergency call system's silent call feature through the distribution of materials, including brochures, telephone stickers, and children's educational materials.

1. Section 5.03 of Title 560 of the Code of Massachusetts Regulations states, "Enhanced 911 Service means a service consisting of communication network, database and equipment features provided for subscribers or end users of communication services enabling such subscribers or end users to reach a PSAP by dialing the digits 911, or by other means approved by the department, that directs calls to appropriate PSAPs based on selective routing and provides the capability for automatic number identification and automatic location identification."

OVERVIEW OF AUDITED ENTITY

The State 911 Department is organized under Section 18B of Chapter 6A of the Massachusetts General Laws and operates under the direction and control of the Executive Office of Public Safety and Security (EOPSS). Section 18B also establishes within EOPSS a State 911 Commission to provide the department with additional guidance “in all matters regarding enhanced 911 service in the commonwealth,” including budgeting, contracting, and approval of grant guidelines. In addition, the statute provides for a policy advisory committee to help the department meet its responsibilities by advising the department and the commission on matters related to enhanced 911 service. During our audit period, the department was administrated by an executive director and had 49 staff members, including a deputy executive director.

The purposes of the State 911 Department are to coordinate the implementation and administration of enhanced 911 services throughout the Commonwealth and to develop and administer grant programs to assist the Public Safety Answering Point (PSAP) call centers in Massachusetts, which receive 911 calls. Since its inception, the State 911 Department has provided enhanced 911 service to all PSAPs for all 351 municipalities. There were a total of 232 PSAPs at the end of 2018. The statewide 911 emergency call system is available to anyone making a call in the Commonwealth. As of July 1, 2019, according to the United States Census Bureau, the Commonwealth’s population was 6,892,503.

There were 3,553,728 calls to 911 in the state in 2018, before the start of the Text to 911 option in the statewide 911 emergency call system. After that option was implemented in the beginning of January 2019, there were 3,475,240 calls to 911 in 2019; 6,055 of them, representing less than 1% of total annual contacts, were text contacts.

The State 911 Department’s annual budget is funded by the Enhanced 911 Fund, which was established in Massachusetts by Chapter 223 of the Acts of 2008. The Enhanced 911 Fund is supported by a surcharge assessed on subscribers to wireline and wireless services, including prepaid mobile phones and voice over Internet protocol phones.² Surcharge revenue is expended for department programs and administration, including but not limited to salaries, Enhanced 911 training programs, Enhanced 911 public education programs, and PSAP equipment and maintenance.

2. A voice over Internet protocol phone allows users to make calls using the Internet instead of a traditional telephone network.

Next Gen 911 Emergency Call System, Including Texting

In 2013, the State 911 Department began its campaign to provide an updated statewide 911 emergency call system, called Next Gen 911, for the entire Commonwealth. At that time, the system in place used analog services and was becoming obsolete, and other states were discontinuing analog systems. With guidance from the federal government, the State 911 Department commenced a project to convert the analog system to a digital system by surveying all state emergency call centers to prepare for the change of equipment and training professional 911 operators, who are called telecommunicators in Massachusetts. The analog system was used until the newly developed digital system went live in December 2017.

Next Gen 911 is a system that callers can use from cellphones, smartphones, and landlines. In December 2018, the State 911 Department successfully implemented the system's texting feature to allow the public to communicate with call centers using text if they did not want, or were unable, to relay their emergencies verbally. This feature allows people to use the statewide 911 emergency call system more easily than they could with a teletypewriter, which is a hardwired landline device.

Silent Call Feature

The silent call feature was originally established in 1998 to communicate with individuals who could not speak because they were deaf or hard of hearing or for other reasons (for example, because they were experiencing a medical emergency or it would be unsafe for them to speak). The telecommunicator asks the caller to press one for police assistance, two for fire assistance, or three for an ambulance. A telecommunicator can ask yes-or-no questions, and the caller can respond by pressing four for yes and five for no. Landline calls indicate addresses automatically; cellphones indicate the nearest cell tower. The telecommunicator asks callers questions that can direct emergency responders to their locations without saying words. The department is required to help municipalities maintain ongoing public education programs to inform the public about the statewide 911 emergency call system, including the silent call feature.

Education for Telecommunicators

The 911.gov website states,

911 professionals, also referred to as "dispatchers" or "call takers," are often the first trained point of contact in an emergency. They begin the important work of obtaining essential

information, remaining calm, calming others, and sending the appropriate responders to the right location. They may also provide instructions to the 911 caller, which in many cases is essential to stabilizing or saving a life.

Throughout Massachusetts, PSAPs are administered primarily by state and municipal police departments, fire departments, and private emergency medical service companies. The State 911 Department is charged with training and certifying telecommunicators as new hires by municipal and state agencies. Newly hired telecommunicators must complete two days of 911 equipment and basic telecommunicator training. They must also complete 40 hours of basic telecommunicator training provided by the State 911 Department or third-party training that the department has approved. Once training is completed, the person is considered a certified Enhanced 911 telecommunicator.

The department is also charged with providing annual training and recertification for existing telecommunicators. To retain their certification and continue working, telecommunicators must complete 16 hours of State 911 Department–approved continuing education annually.

AUDIT OBJECTIVES, SCOPE, AND METHODOLOGY

In accordance with Section 12 of Chapter 11 of the Massachusetts General Laws, the Office of the State Auditor has conducted a performance audit of certain activities of the State 911 Department for the period July 1, 2017 through June 30, 2019.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Below is a list of our audit objectives, indicating each question we intended our audit to answer; the conclusion we reached regarding each objective; and, if applicable, where each objective is discussed in the audit findings.

Objective	Conclusion
1. Did the State 911 Department develop and execute a plan to successfully implement Text to 911, as required by Chapter 223 of the Acts of 2008?	Yes
2. Did the department educate the public on the silent call feature of the statewide 911 emergency call system, as required by Appendix A of Section 2 of Title 560 of the Code of Massachusetts Regulations?	No; see Finding <u>1</u>
3. Have all telecommunicators been trained on Text to 911 and 911 silent call procedures so they can receive information and take appropriate action in a timely and accurate manner, as required by Section 18B of Chapter 6A of the General Laws?	Yes

To achieve our objectives, we gained an understanding of the State 911 Department's internal control environment related to our audit objectives by reviewing applicable agency policies and procedures, as well as conducting inquiries with department management. We evaluated the controls over the training of telecommunicators.

We performed the following procedures to obtain sufficient, appropriate audit evidence to address the audit objectives.

Deployment of Next Gen 911 with Texting

To determine whether the State 911 Department successfully executed a plan to convert the statewide 911 emergency call system from analog to digital, we reviewed relevant documentation that addressed key areas of system infrastructure, the project timeline and schedule, staff training, and public awareness regarding the new statewide 911 emergency call system enhancements and the Text to 911 feature. This included reviewing project contracts, meeting minutes, invoicing records, staff training records, marketing campaign materials and results, website posts, and social media posts. We reviewed the State 911 Commission meeting minutes and the Commission Standards Committee meeting minutes to determine whether the commission, which oversees the State 911 Department, was kept informed of the statewide 911 emergency call system upgrade progress and of approved benchmark timeline changes. We reviewed the minutes of all seven commission meetings and both subcommittee meetings held during the audit period. We assessed the outreach plan executed by the department to determine whether the department educated the public on the conversion of the statewide 911 emergency call system from analog to digital, which enabled telecommunicators to respond to emergency calls through texting. This outreach plan included 169 public appearances at schools, retirement homes, and senior living centers; monthly newsletters posted to the agency website (14 of the 24 newsletters posted during the audit period discussed the new statewide 911 emergency call system); 16 department Facebook posts; and 2,929 public service announcements on eight television stations statewide during the audit period, July 1, 2017 through June 30, 2019.

Public Education on Silent Call Features

To determine whether the State 911 Department assisted municipalities with public education programs, including helping provide information on the 911 silent call feature, we interviewed management and found that the department did not regularly provide educational materials to Public Safety Answering Points (PSAPs) or communities.

We reviewed the department's website posts, training manuals, monthly newsletters, and aids containing silent call procedures telecommunicators must follow when a caller needs help. We also reviewed materials presented at community organization and municipality events detailing the silent call feature.

Telecommunicator Education

We performed testing to determine whether active telecommunicators attended and received training according to the following requirements:

- New telecommunicators were required to complete 40 hours of department-approved basic telecommunicator training and two days of 911 equipment training.
- New telecommunicators were required to receive both silent call and Text to 911 training as part of their new hire training requirement.
- Active telecommunicators were required to obtain 16 hours of 911 training annually.
- Active telecommunicators who were employed before the audit period were required to receive Next Gen 911 training on the new system, including education on how to handle Text to 911 messages.

We selected a random, statistical sample of 60 telecommunicators from the population of 6,645 active telecommunicators, using a confidence level of 95% with a sampling error rate of 5.929%, and reviewed screenshots of active telecommunicator education records for courses administered and approved by the State 911 Department, as well as PSAP certification compliance records attesting to the fulfillment of telecommunicator training requirements. We found that all 60 of the selected active telecommunicators had received the required training without error.

Data Reliability

To gain an understanding of the PSAP Database Management System (PDMS) and controls, we interviewed information technology personnel responsible for oversight of the system. To determine the completeness and accuracy of the data, we reviewed various attributes in PDMS, including telecommunicators' names, training dates, numbers of hours, and descriptions of courses. To assess the reliability of the telecommunicator education data in PDMS, we traced our sample of source attendance records to PDMS attendance data. We determined that the telecommunicator education data from PDMS were sufficiently reliable for the purpose of this audit.

DETAILED AUDIT FINDINGS WITH AUDITEE'S RESPONSE

1. The State 911 Department did not effectively assist municipalities with local public education programs for the statewide 911 emergency call system, including the silent call feature.

During the audit period, the State 911 Department did not effectively assist municipalities with education programs on the statewide 911 emergency call system (including the silent call feature). Specifically, the department did not consistently work with Public Safety Answering Points (PSAPs) to ensure that an adequate educational campaign was routinely maintained and that municipalities consistently received educational materials to properly educate the public on the silent call feature. For example, of the 24 newsletters posted to the department's website during our audit period, 3 had information that described the procedures telecommunicators should follow in answering calls that require providing silent call instructions to the caller. However, none of the 24 newsletters was directed to the general public. The department describes the silent call feature on its website, which is available to the public, and 22 municipalities and community organizations do the same, but we could not determine when this information was posted, and there were no analytics on how many times the pages had been viewed to determine the effectiveness of this public awareness activity. As a result, callers who cannot safely communicate, or who have disabilities that prevent them from speaking, might not be aware of the silent call feature.

Authoritative Guidance

Appendix A of Section 2 of Title 560 of the Code of Massachusetts Regulations, which establishes department standards for Enhanced 911, states,

The [State 911 Department] and the telephone company shall assist municipalities with the 9-1-1 public education program through the distribution of materials in the form of brochures, telephone stickers and children's educational materials. 9-1-1 PSAPs shall be responsible for working with [the department] and the telephone company to ensure that an adequate educational campaign is maintained on a routine basis.

Reason for Issue

The State 911 Department had not implemented policies, procedures, and monitoring controls that required it to consistently help municipalities properly educate the public about the statewide 911 emergency call system's silent call feature through the distribution of materials.

Recommendation

The State 911 Department should implement policies, procedures, and monitoring controls to ensure that it consistently helps municipalities properly educate the public about the statewide 911 emergency call system's silent call feature through the distribution of materials, including brochures, telephone stickers, and children's educational materials.

Auditee's Response

The State 911 Department is proud of our public safety initiatives that have saved many lives and improved outcomes for those needing 911. Like any program, it is possible to improve and enhance the communication of all programs to raise awareness. This, we feel, is what we have been doing for quite some time to inform the public about the silent call procedure. We have already diligently initiated further communications to better inform the public of the highly successful silent call procedure available to them if they should need it when dialing 911 in Massachusetts.

Further, it is important for the public to know that every 911 telecommunicator in Massachusetts is thoroughly trained regarding the silent call procedure. It is a standardized policy for all telecommunicators to initiate a silent call procedure if they do not receive a verbal acknowledgment from a 911 caller. A person calling 911 does not need to ask for this to occur; a 911 telecommunicator will initiate this procedure. Other states have used our training materials for 911 telecommunicators and our processes have been a model and closely mimicked in areas outside of Massachusetts.

In closing, while we do not agree fully with the recommendation since we have policies and procedures already in place, the State 911 Department will enhance its communication effort and expand our outreach of the silent call feature consistent with the recommendation.

Auditor's Reply

We do not dispute the fact that the State 911 Department provides training to every telecommunicator on how to handle different types of emergency calls and on the silent call feature, and we commend it for doing so. As noted above, our concern is that during our audit period, the department did not effectively help municipalities with education programs on the statewide 911 emergency call system, including the silent call feature. Although the department responds to some municipalities' requests for educational materials, it does not have a comprehensive plan to ensure that all communities inform the public about the system, including the silent call feature. Further, the department does not collect data or perform any analysis to assess the effectiveness of the public education campaign.

We acknowledge that the State 911 Department did have policies and procedures regarding telecommunicators' use of the silent call feature. However, as stated in the report, the department had not implemented policies, procedures, and monitoring controls that required it to consistently help municipalities properly educate the public about the silent call feature through the distribution of materials.

Based on its response, the State 911 Department will be taking measures to address this problem. We urge the department to fully implement all our recommendations on this issue.