



New York State Office of the State Comptroller
Thomas P. DiNapoli

Division of State Government Accountability

Continuity of Operations Planning

Division of Homeland Security and Emergency Services



Executive Summary

Purpose

To determine the adequacy of State agencies' continuity of operations planning for major unexpected events. Our audit scope included the period January 1, 2017 through August 23, 2017.

Background

The Division of Homeland Security and Emergency Services (Division) is responsible for coordinating emergency management planning efforts in New York State. The Division encourages and supports State agency efforts to develop agency-specific Continuity of Operations Plans (COOP), which each State agency is required to have in place for each of its facilities, and has developed a series of guidance documents intended to aid agency planning teams when they prepare COOPs. A COOP can help government agencies ensure the stability of essential functions through a wide range of emergencies and disasters. Effective COOPs include plans and procedures that delineate essential functions, specify lines of succession and the emergency delegation of authority, provide for the safekeeping of vital records and databases, identify alternate operating facilities, provide for interoperable communications, and validate capability through tests, training, and exercises.

Key Findings

During our testing of a sample of 11 State agencies, we found that they had incorporated certain essential features of the COOP best practices endorsed by the Division. However, we identified some opportunities for improvements to COOP practices that would enable the agencies to handle emergency or disaster situations more effectively.

Key Recommendations

- Incorporate the results of our audit into upcoming COOP training to State agencies.
- Provide technical assistance to State agencies in developing a COOP risk assessment, business impact analysis, and business process analysis.

Other Related Audit/Report of Interest

[Office of Information Technology Services: Disaster Recovery Planning \(2016-S-97\)](#)

State of New York
Office of the State Comptroller

Division of State Government Accountability

March 21, 2018

Mr. Roger L. Parrino, Sr.
Commissioner
Division of Homeland Security and Emergency Services
1220 Washington Avenue
State Office Campus Building 7A
Albany, NY 12226

Dear Mr. Parrino:

The Office of the State Comptroller is committed to helping State agencies, public authorities, and local government agencies manage government resources efficiently and effectively. By doing so, it provides accountability for tax dollars spent to support government operations. The Comptroller oversees the fiscal affairs of State agencies, public authorities, and local government agencies, as well as their compliance with relevant statutes and their observance of good business practices. This fiscal oversight is accomplished, in part, through our audits, which identify opportunities for improving operations. Audits can also identify strategies for reducing costs and strengthening controls that are intended to safeguard assets.

Following is a report of our multi-agency audit entitled *Continuity of Operations Planning*. The audit was performed pursuant to the State Comptroller's authority as set forth in Article V, Section 1 of the State Constitution and Article II, Section 8 of the State Finance Law.

This audit's results and recommendations are resources for you to use in effectively managing your operations and in meeting the expectations of taxpayers. If you have any questions about this report, please feel free to contact us.

Respectfully submitted,

Office of the State Comptroller
Division of State Government Accountability

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This report is also available on our website at: www.osc.state.ny.us

Background

New York State's nearly 20 million citizens rely on the State's agencies and authorities to provide services that are integral to their daily lives. In today's escalating threat environment – whether of cyberattack or other man-made or natural emergency – we are routinely reminded how readily disasters and emergencies can disrupt State government operations and challenge agencies' ability to preserve and perform essential functions. Since March 2010, Federal Emergency Management Agency (FEMA) has declared 12 weather-related disasters in New York State, and has provided both the State and localities with federal disaster assistance to repair millions of dollars in damages.

States that meet certain disaster planning requirements are eligible for Hazard Mitigation Assistance through various FEMA grant programs. New York has met these requirements through its Mitigation Plan (Plan), created by the State Disaster Preparedness Commission.¹ Among the provisions included in New York State's FEMA-approved Plan, each agency must have a Continuity of Operations Plan (COOP) in place for each of its facilities.

COOPs can help government agencies ensure the stability of essential functions through a wide range of emergencies and disasters. Effective COOPs include plans and procedures that delineate essential functions, specify lines of succession and the emergency delegation of authority, provide for the safekeeping of vital records and databases, identify alternate operating facilities, provide for interoperable communications, and validate capability through tests, training, and exercises.

The Division of Homeland Security and Emergency Services (Division) is responsible for coordinating emergency management planning efforts in New York State. The Division encourages and supports State agency efforts to develop agency-specific COOPs. Toward this end, the Division has developed a series of guidance documents (Guidance) intended to aid agency planning teams when they prepare COOPs. The Guidance incorporates a blend of best practices based on generally accepted continuity methodologies from both the public and private sectors (e.g., U.S. Department of Homeland Security, FEMA, and National Fire Protection Association). Further, the Division has supported agencies' COOP efforts through workshops, presentations, and hands-on technical planning assistance.

When a disruption occurs, a COOP puts into action predetermined steps to restore processes and technology needed to support operations. Based upon the Guidance, a COOP should:

- Identify, assess, and prioritize both agency vulnerabilities to emergencies or disasters and the resources available to prevent or mitigate, respond to, and recover from them.
- Identify, assess, and prioritize the agency's mission-essential functions (MEFs).
- Ensure that systems or processes are in place to support the continuous delivery or minimal interruptions of the MEFs.
- Outline short-, medium-, and long-range measures to improve the agency's capability to

¹ The Commission comprises commissioners, directors, and chairpersons of 29 agencies and the Red Cross, and is chaired by the Commissioner of the Division of Homeland Security and Emergency Services.

respond to and recover from an emergency.

- Provide for the efficient utilization of all available resources during an emergency.
- Ensure the continuity of operations of the agency in times of emergency or disaster situations.

Audit Findings and Recommendations

The Plan represents the State's systematic approach to mitigate the adverse impacts of natural disasters, and the extent of vulnerability within its borders, as well as the risks associated with natural hazards. Recent events, such as severe winter storms and flooding, have demonstrated that State and other government agencies can respond to these types of events in a coordinated, systematic manner.

However, equally important is continuity of operations planning in the event of a disaster capable of shutting down systems and otherwise halting critical public services. Should an event happen that results in the disruption of government operations, the State would need to ensure essential services remain intact, such as public safety, utilities, and distributions from assistance programs. Having up-to-date, documented, and tested COOPs in place increases the likelihood that State agencies can recover from disruption and continue to provide their mission-critical services. During our testing of a sample of 11 State agencies, we found that they had incorporated certain essential features of the COOP best practices endorsed by the Division. However, we identified some opportunities for improvements to COOP practices that would enable the agencies to handle emergency or disaster situations more effectively.

Continuity of Operations Plan

According to the Division's Guidance, a COOP should include preparedness efforts that focus on identifying risks, mission-critical agency business processes and systems, potential continuity problems affecting the agency, and steps taken to prevent or mitigate those problems. To accomplish this, the Guidance emphasizes several critical COOP components, including:

- Identifying the MEFs that are required to be performed or recovered during a disruption of service (e.g., functions that support the capability to maintain statutory obligations, support a disaster response, maintain standing in the government marketplace);
- Completing a risk assessment to identify and rank potential hazards;
- Completing a business impact analysis to determine the reasonable recovery time and allowable data loss for each MEF; and
- Completing a business process analysis to assist with outlining the steps necessary to complete a MEF from start to finish.

Also, the Guidance indicates that agency COOPs should contain an outline of the methods for and frequency of testing. Further, the COOP should be reviewed and updated as necessary, but at least once a year; updates should be based upon experiences and lessons learned from testing exercises and real-world events, and should include any administrative changes.

According to an April 2017 Division report, State agencies have been actively involved in developing COOPs, with many using the Division's COOP methodology or a similar template via a contractor in their continuity planning endeavors. Additionally, the report indicates many State agencies have completed their COOP efforts, while others are at varying points of the planning process.

During our audit, we visited 11 State agencies to review their COOP documentation and continuity procedures, including specific COOP elements and applications critical to meeting agencies' MEFs. All but one of the 11 agencies had prepared a COOP. Our conclusions about agencies' COOP efforts were consistent with the Division's April 2017 report, and are summarized in the following table. We shared our findings with each agency separately; due to its sensitive nature, this detailed information is not included in this report.

Task	Summary of Testing Results for 11 Agencies
Identifying MEFs	Except for one agency, the agencies we visited had identified their MEFs.
Conducting COOP Risk Assessments	There was no evidence that two of the 11 agencies visited had done a COOP risk assessment.
Completing a Business Impact Analysis	Five of the 11 agencies had not completed a business impact analysis.
Completing a Business Process Analysis	Five of the 11 agencies had not completed a business process analysis.
Identifying and Assessing Communications	All but one agency had identified and assessed all communications that would be used in a continuity environment, including use of information technology, cellular or handheld communications, and contact lists for staff.
Defining clear roles and responsibilities	Nine agencies had designated the mission-essential staff, who have clear responsibilities related to recovering critical business functions while operating in a COOP environment.
Defining Lines of Succession	All but one agency had identified lines of succession for each critical staff position.
Identifying Resource Requirements	All but one agency had identified the resources needed to effectively enter and maintain a continuity environment.
Identifying an Alternate Facility	Two agencies had not identified an alternate facility to operate from in the event that the primary facility is damaged or destroyed.
Testing, Training, and Exercise	Only one agency did not have methods for periodic COOP testing and COOP training programs.

We found that the ten agencies that had prepared a COOP generally addressed certain essential best practices related to COOP development and maintenance, and five of them had adequately incorporated all of the preparedness best practices recommended by the Division into their COOPs.

Regarding the one agency that had not prepared a COOP, the officials there had assumed a sister agency was including their MEFs in its COOP. However, upon following up with the sister agency in response to our audit, the officials learned that their agency's MEFs were not incorporated

into the sister agency's COOP as anticipated. As a result, they indicated they will give priority to developing an agency-specific COOP for all MEFs.

Furthermore, as the above table indicates, five of the sampled agencies had not prepared either a COOP business impact analysis or a business process analysis. As emphasized in the Guidance, these tasks serve to strengthen an agency's resilience during an emergency or disaster and provide greater assurance that MEFs will not be disrupted. We also found one agency with weak controls over the assignment of its COOP roles. The agency assigns COOP disaster duties by employee and not by title, as the Guidance suggests. As such, if an employee with an assigned role leaves the agency, there is a risk that the associated duties will go unfulfilled if the role is not reassigned in the COOP. Together, we and agency officials identified several instances where former employees continue to be assigned roles in the COOP, including one who left in 2011. If the agency had assigned COOP duties by title instead, responsibility for these duties would have automatically, and seamlessly, transitioned to the current employee in that title. In another case, an agency did not identify an alternate site to be used in the event of a disaster, as suggested by the Guidance. Agency management officials indicated they were working with the Office of General Services to identify an alternate site. We note, however, that this situation has existed since October 2015, and the agency still has no alternate site arrangements. Generally, officials at each of these agencies pointed to limited resources and other priorities as key factors behind the issues we identified.

In response to our preliminary findings, Division officials stated that, while the tasks we listed are important COOP components, they are not rigid, and agencies have the flexibility to modify them, as warranted, to meet their specific business needs. We appreciate the need for agencies to have sufficient latitude to customize their COOPs; however, in each one of the scenarios we identified, agencies' implementation of these components, or lack thereof, places them at a significant disadvantage should a disaster arise, potentially causing disruption of essential services, delays in the resumption of normal operations, increasing the cost of the emergency response, and impairing their ability to serve their customers effectively. It is imperative that agencies' COOPs are sufficiently comprehensive to avoid such potential consequences.

Officials also indicated that they intend on giving more focused training and technical assistance to agencies covering COOP risk assessments, business process analyses, and business impact analyses in the coming months. Their COOP training program would be updated upon completion of this audit so as to incorporate audit results.

Recommendations

1. Incorporate the results of this audit into upcoming COOP training to State agencies, reminding agencies to:
 - Develop, and keep current, their agency-specific COOPs; and
 - Examine their COOPs to ensure they contain the essential elements recommended by the Division.

2. Provide technical assistance to State agencies in developing a COOP risk assessment, business impact analysis, and business process analysis.

Audit Scope, Objective, and Methodology

Our audit intended to determine the adequacy of State agencies' continuity of operations planning for major unexpected events. Our audit scope included the period January 1, 2017 through August 23, 2017. We became familiar with, and assessed the adequacy of, the Division's internal controls as they related to its performance and our audit objective. We surveyed the continuity planning efforts at 45 State agencies and public authorities. The purpose of our survey was to determine whether they had developed a COOP. Based upon the responses to our survey and other factors, such as whether the agency maintains its own data center, we visited 11 of the agencies to review their COOP documentation and continuity procedures. During our site visits, we focused on specific COOP elements critical to meeting agencies' mission-essential functions. We deemed these necessary planning elements for effectively dealing with potential interruptions of operations – and for the timely resumption of critical services – based on the Guidance and generally accepted continuity best practices.

As is our practice, we requested a representation letter from management at all 11 agencies at which we conducted site visits during the audit, in addition to the Division. The representation letter is intended to confirm oral representations made to the auditors and to reduce the likelihood of misunderstandings. In this letter, agency officials assert that, to the best of their knowledge, all relevant financial and programmatic records and related data have been provided to the auditors. Agency officials further affirm that either the agency has complied with all laws, rules, and regulations applicable to its operations that would have a significant effect on the operating practices being audited, or that any exceptions have been disclosed to the auditors. Eleven of the 12 agencies provided representation letters as requested; however, the Office of Children and Family Services (OCFS) officials did not provide a representation letter despite our multiple requests. As a result, we lack assurance from OCFS officials that all relevant information was provided to us during the audit.

We conducted our 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 objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

In addition to being the State Auditor, the Comptroller performs certain other constitutionally and statutorily mandated duties as the chief fiscal officer of New York State. These include operating the State's accounting system; preparing the State's financial statements; and approving State contracts, refunds, and other payments. In addition, the Comptroller appoints members to certain boards, commissions, and public authorities, some of whom have minority voting rights. These duties may be considered management functions for purposes of evaluating threats to organizational independence under generally accepted government auditing standards. In our

opinion, these functions do not affect our ability to conduct independent audits of program performance.

Authority

The audit was performed pursuant to the State Comptroller's authority as set forth in Article V, Section 1 of the State Constitution and Article II, Section 8 of the State Finance Law.

Reporting Requirements

A draft copy of this report was provided to Division officials for their review and formal comment. We considered their comments in preparing this final report and have attached them in their entirety to it. Division officials considered the report to be positive and generally concur with its recommendations.

Within 90 days after final release of this report, as required by Section 170 of the Executive Law, the Commissioner of the Division of Homeland Security and Emergency Services shall report to the Governor, the State Comptroller, and the leaders of the Legislature and fiscal committees, advising what steps were taken to implement the recommendations contained herein, and where recommendations were not implemented, the reasons why.

Contributors to This Report

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Vision

A team of accountability experts respected for providing information that decision makers value.

Mission

To improve government operations by conducting independent audits, reviews, and evaluations of New York State and New York City taxpayer-financed programs.

Agency Comments



ANDREW M. CUOMO
Governor

ROGER L. PARRINO, SR.
Commissioner

March 1, 2018

Mr. Brian Reilly, Audit Director
Office of the State Comptroller
Division of State Government Accountability
110 State Street – 11th Floor
Albany, New York 12236

Dear Mr. Reilly:

The New York State Division of Homeland Security and Emergency Services (DHSES) has reviewed the Office of the State Comptroller's (OSC's) draft audit report regarding the review and evaluation of Continuity of Operations Planning (COOP) on a statewide basis. The draft audit report is positive and we generally concur with the report's recommendations.

DHSES seeks to continuously improve its program administration and welcomes the opportunity to review and respond to OSC's recommendations listed in this audit report. Specifically, OSC's first recommendation is to incorporate the results of this review in future COOP training to state agencies. Where feasible, DHSES will include relevant results of this review in future trainings.

OSC's other recommendation seeks to have DHSES provide technical assistance to state agencies in developing COOP Risk Assessments, Business Impact Analysis, and Business Process Analysis. DHSES has provided this technical assistance in the past and will continue to provide this assistance when appropriate.

The draft audit report provided to DHSES included a table entitled "Summary of Site-Visit Results". This table identifies perceived deficiencies in certain agencies' COOP efforts. It is important to note that DHSES was not involved in OSC's review and evaluation of other agency COOPs and was not provided information beyond this summary table. Therefore, DHSES can neither validate nor dispute OSC's findings, and the absence of DHSES' comments on OSC's findings should not be viewed as an endorsement.

It is important to note that the tasks listed within that summary table should not be viewed as a static checklist, as these components are not mutually exclusive and can be streamlined where appropriate. Rather, an agency's COOP efforts should be reviewed in its totality, and an instance where all components are not separately identified by an agency does not necessarily represent a missing component or invalidate a COOP. To view COOP guidance as an unalterable checklist would ignore other important factors, including agency size and complexity as well as the scope of the agency's mission. Therefore, a more qualitative review of each of these categories listed in this summary table is needed to determine whether fundamental concerns were addressed in various aspects of the agencies' efforts.

**Homeland Security
and Emergency Services**

ANDREW M. CUOMO
Governor

ROGER L. PARRINO, SR.
Commissioner

Thank you for the opportunity to respond to the report and we thank the OSC team for their professionalism and efforts in conducting this review. If you have any questions regarding the Agency's response, please contact Brian D. Jackson of DHSES' Office of Internal Audit at (518) 457-5120.

Sincerely,

A handwritten signature in black ink, appearing to read "T. J. O'Leary".

Terence J. O'Leary
Executive Deputy Commissioner

cc: Commissioner Parrino
Elisha Tomko
Anne Bink
Kevin Wisely
John Layton
Dave DeMatteo
Brian Jackson