Preparedness Grants Effectiveness Case Study: Idaho

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FEMA

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I. Overview

In August 2020, the Federal Emergency Management Agency (FEMA) conducted a preparedness grants effectiveness virtual case study with the State of Idaho. The purpose of this case study was to understand the role of FEMA preparedness grants in Idaho's coronavirus (COVID-19) pandemic response. This case study relies on data gathered through two group interviews with emergency management professionals from the Idaho Office of Emergency Management (IOEM). This case study also draws from information Idaho provided through the Biannual Strategic Implementation Report (BSIR) and Threat and Hazard Identification and Risk Assessment (THIRA)/Stakeholder Preparedness Review (SPR).

FEMA examined how Idaho used preparedness grants to invest in capabilities that supported its COVID-19 pandemic response. In coordination with IOEM, FEMA focused on investments supporting geographic information systems (GIS) solutions and the state's Public Private Partnerships Program. FEMA then examined how these investments impacted Idaho's COVID-19 pandemic response efforts.

This case study found that Homeland Security Preparedness Grants (HSGP) and Emergency Management Performance Grant (EMPG) funds that supported investments in GIS and promoted the Public Private Partnerships Program played a significant role in Idaho's COVID-19 pandemic response. Case study participants emphasized that without preparedness grant funds, Idaho would have been unable to maintain situational awareness and collect timely data to inform its COVID-19 pandemic response strategy, establish strong relationships with private sector entities, and develop a strategy to address personal protective equipment (PPE) supply chain issues.

II. The COVID-19 Pandemic in Idaho

The Governor of Idaho and public health officials began preparations for the potential impact of the COVID-19 pandemic in January 2020, when the United States confirmed its first COVID-19 case.[1] In March 2020, the governor declared a public health emergency, issued a state-wide stay at home order,[2] and established the Coronavirus Working Group to increase coordination and communication efforts among public health agencies in the state.[3] Between March 13, 2020 and August 23, 2020, Idaho reported 29,853 cases of COVID-19 and 307 COVID-19-related deaths.[a]

III. Funding History

During fiscal years (FY) 2009–2018, Idaho invested a total of $340,482 in HSGP funds and $1,068,415 in EMPG funds in projects related to improving its GIS capabilities and building public-private sector partnerships. Specifically, the state has used HSGP funds to support five projects related to the establishment and enhancement of a public-private emergency preparedness program since FY 2014. These projects supported investments in planning, equipment, and training in the Logistics and Supply Chain Management and Public Health, Healthcare, and Emergency Medical Services core capabilities.[b]

In addition, the state has used HSGP and EMPG funding to support projects related to building and sustaining its GIS capabilities since FY 2009. These projects supported investments in planning,

[a] The number of confirmed COVID-19 cases and fatalities are counted through August 23, 2020, when the case study report was drafted.
[b] FEMA identified five core capabilities generally associated with pandemics: 1) Public Health, Healthcare, and Emergency Medical services; 2) Fatality Management Services; 3) Economic Recovery; 4) Health and Social Services; and 5) Logistics and Supply Chain Management.

organization, equipment, training, and exercises in the Community Resilience, Intelligence and Information Sharing, Operational Communications, Operational Coordination, Physical Protective Measures, Planning, and Public Information and Warning core capabilities.

Table 1 displays the federal preparedness grant funds that Idaho invested in FY 2009–2018. The award amounts reported for both the EMPG and the State Homeland Security Program (SHSP) only reflect funding related to projects cited in this report, which support GIS solutions and the Public and Private Partnerships Program and that helped in the COVID-19 pandemic response.

Table 1: Idaho Preparedness Grant Funds, FY 2009–FY 2018

Grant Program	Award Amount								
	FY09	FYs 10–12	FY13	FY14	FY15	FY16	FY17	FY18	Total
SHSP	$296,393	-	$18,510	$9,251	$2,601	-	$13,727	-	$340,482
EMPG	$99,398	$272,506	$105,473	$106,063	$105,993	$99,389	$114,916	$164,677	$1,068,415
Total	$395,791	$272,506	$123,983	$115,314	$108,594	$99,389	$128,643	$164,677	$1,408,897

IV. Investments and Capability Impacts

Public Private Partnerships Program [SHSP and EMPG]

Between FY 2014 and 2017, Idaho received $21,579 in SHSP funding to establish a public-private emergency preparedness program. With this funding, the IOEM developed the Public Private Partnerships Program to create relationships between private sector entities and state, county, and tribal emergency managers in Idaho. IOEM also used EMPG funding to support outreach projects related to this program.

> *"You hear folks say all the time, 'Let's not exchange business cards at the disaster scene.' Well, I think we were able to avoid a lot of that because of the Public Private Partnerships Program."*
>
> *–Jon Hanian, Public Private Partnerships Program Manager, IOEM*

The Public Private Partnerships Program has played an instrumental role in Idaho's response to disasters, including the COVID-19 pandemic. The Public Private Partnerships Program resulted in increased collaboration between the public and private sector during the state's pandemic response, increased continuity among businesses, and a whole-community foundation for the Idaho private sector to use in developing solutions related to the state's PPE supply chain. Case study participants reported that the relationships developed through the program significantly improved IOEM's ability to address supply chain issues stemming from the COVID-19 pandemic, particularly those related to the acquisition of PPE.

In the fall of 2018, IOEM began developing the "Plan to Stay in Business," which is Idaho's business continuity all-hazards planning guide.[4] By the spring of 2019, IOEM prepared a rough draft of the guide, which also included a pilot outreach program to test out some of the guide's concepts within the business community. The pilot training sessions occurred in Island Park, Idaho in May 2019 and IOEM released the guide in the summer of 2019. Case study participants reported that these outreach and training efforts increased participating businesses' understanding of how to prepare their businesses for incidents like the COVID-19 pandemic. For example, IOEM worked with Idaho hospitality and realtor associations to develop contingencies for housing medical staff and residents infected with or exposed to COVID-19. These relationships also helped Idaho secure warehousing space for food banks to address food security issues.

At the beginning of the COVID-19 pandemic, IOEM recognized that local sourcing held an advantage over imported merchandise in terms of cost effectiveness, quality control, and the responsiveness of customer service. IOEM engaged the private sector regarding Personal Protective Equipment (PPE) in the spring of 2020, as COVID-19 began to spread and coordinated with private companies who produced or modified their manufacturing procedures to produce PPE.

Through the Public Private Partnerships Program, Idaho created a task force to develop face shields that included businesses equipped with 3D printers. To meet demand for face shields from first responders and health districts in Idaho, this task force conducted outreach to public libraries, colleges and universities, and private businesses to identify which of them could offer the use of their 3D printing infrastructure. This outreach expanded and culminated in the establishment of the Idaho PPE exchange by the private sector, which sought out local and regional manufacturers of PPE and connected them with local buyers.

The Idaho PPE exchange engaged many Idaho businesses that had retooled their assembly and production lines to meet the growing demand for PPE. For example, local tent makers retooled some of their manufacturing to make surgical gowns and masks. In addition, building material companies had large amounts of synthetic materials used in construction that could also be used in sterile environment applications. Recreation gear manufacturers who had expertise in stitching and embroidery used that ability to tailor PPE gowns and a wide variety of PPE for first responders. Local distilleries also offered new varieties of hand sanitizer to meet growing demand. IOEM also worked through the Idaho Department of Administration, which typically handled state purchasing, and a private entrepreneur who ran the Idaho PPE exchange and directly reached out to the companies who were retooling their product lines to meet growing demand.

The Idaho PPE exchange benefited emergency responders by providing entities that did not meet the federal or state assistance criteria with another avenue to meet their PPE needs. The PPE exchange also encouraged the use of locally and regionally manufactured products, which helped to mitigate issues related to limited PPE supply. According to one case study participant, limited PPE supply was one of the biggest capability gaps facing Idaho. Case study participants indicated that without the program, businesses and citizens in Idaho would have experienced significant delays in essential pandemic-related resources. Case study participants also indicated that capability estimates reported in the 2019 THIRA helped to inform the COVID-19 pandemic response efforts. For example, emergency management personnel in Idaho examined their THIRA to identify potential shortfalls and pre-position resources to address these shortfalls.

This PPE exchange was not funded with state or FEMA preparedness grant dollars and was not directly developed by the state. Rather, the PPE exchange emerged as a product of the environment and relationships that the Public Private Partnerships Program helped establish. While the State of Idaho is aware of the Idaho PPE exchange, the State has no active role and is not liable for any activity of the Idaho PPE exchange.

GIS Solutions and Software [SHSP and EMPG]

Before the onset of the COVID-19 pandemic, Idaho invested FEMA preparedness grant funds to support its GIS Program. These investments enabled the IOEM GIS Program to create customized applications and dashboards that collected, managed, geographically tracked, displayed, and communicated critical information, which has provided a significant value-add during the ongoing COVID-19 pandemic response. In FY 2009, Idaho received $296,393 in SHSP funds to develop a customized GIS application to standardize the collection, storage, exchange, and visualization of data. Idaho also received $18,510 in SHSP funds to purchase GIS software in FY

> *"The investments in GIS really changed the way we do business within the state EOC environment, especially as it relates to data collection to inform resource allocation."*
>
> *–Ben Roeber, Preparedness and Protection Branch Chief, IOEM*

2013. In FY 2017, Idaho received $4,000 in SHSP funds to work with GIS and Information Technology (IT) staff to implement a web-based survey application that enables a user to collect, aggregate, and input data into a GIS dashboard. The state also used EMPG funds to improve its GIS capabilities, including supporting planning and situational awareness efforts, the continuation of a GIS software license, and the use of GIS for data collection and management.

Investments in GIS changed the way Idaho conducted business within the state's Emergency Operations Center (EOC) environment. This impact became evident during the COVID-19 pandemic response in two ways that included: (1) the dissemination of a common operational picture, and (2) using the GIS platform for the collection of data that informed resource allocation.

IOEM has invested in GIS for several years, and participants reported it has been instrumental in training and exercising for and responding to incidents like fires and floods. Using commercially available platforms, the GIS team at IOEM built a portal, or dashboard, to graphically display situational information from a wide variety of sources. As COVID-19 continued to spread, IOEM's GIS Program quickly pivoted to the pandemic and health environment to create a dashboard that displays information on medical equipment, including hospital bed counts; PPE requirements and distribution; the status of school district closures and the type of instruction (i.e. face-to-face, online, or hybrid); and mask ordinances. Linking this data helped decision-makers maintain situational awareness across Idaho.

The second area in which IOEM's GIS investments supported the state's COVID-19 pandemic response is through data collection. Less than two years ago, Idaho used technical assistance from the Department of Homeland Security (DHS) Science and Technology Directorate to investigate commercial GIS platforms that can facilitate surveys for information, allow collection of critical data in the field, and manage that data on a statewide level to inform decisions. The state relied on these systems for conducting critical infrastructure and key resource assessments and damage assessments after a disaster.

As the impacts from the COVID-19 pandemic became apparent to IOEM, the distribution of PPE became a critical state EOC function and Idaho needed to provide support to many entities within all 44 counties and five Tribal Nations. Idaho needed accurate and current data for two primary reasons: (1) Idaho received more requests than it could meet and needed a way to determine how critical a request was, and (2) when Idaho requested federal support, those requests required justification, such as daily burn rates of the various items of PPE.

To support data collection and management for this dashboard, IOEM used Survey123, which served as a mechanism for collecting, aggregating, and inputting data into the customized GIS application. Specifically, IOEM quickly created a survey interface that allowed entities throughout the state to request PPE, including hospitals, long-term care facilities, and emergency services. IOEM asked entities to use the survey daily to report inventory, PPE used, and some basic demographic data. With this data, IOEM was able to calculate burn rates and how long current inventories would last.

Without this survey, IOEM would not have received input from entities that did not have access to WebEOC, which is a crisis management software that facilitates the exchange of real-time, situational information with local, state, and federal partners. Information collected in this survey and displayed in dashboards provided Idaho's EOC with the real-time status of current inventory and projected dates of critical need. Idaho used this information to adjudicate PPE requests from jurisdictions and validate resource requests for federal assistance. Staff in Idaho's EOC also used information from this dashboard to populate reports, including in WebEOC.

Improvements in data collection and visualization also resulted in wider impacts across the state's response to the COVID-19 pandemic. Specifically, IOEM worked with stakeholders to create customized dashboards and the ability to instantly access and communicate real-time data displayed in the dashboards helped emergency management professionals and elected officials make informed, data-driven decisions. Some of these dashboards relayed sensitive information between state agencies and the governor of

Idaho, while others were public-facing and communicated information directly to the citizens of Idaho. The dashboard that the IOEM GIS Program created for the Idaho State Department of Education, for example, displays school district and charter school status and is linked to the front page of the Idaho State Department of Education website.[5]

V. Conclusion

FEMA preparedness grants that supported investments in GIS solutions and Idaho's Public Private Partnerships Program played a significant role in the state's COVID-19 pandemic response efforts. These investments enhanced the state's ability to maintain situational awareness and collect timely data to develop and inform its COVID-19 pandemic response strategy. Without FEMA preparedness grants, Idaho would have been unable to develop and maintain these essential capabilities, which may have resulted in disorganized private sector engagement, decreased situational awareness, and a less effective response. In addition to the two specific programs noted in this report, Idaho reported that training, exercises, logistical distribution capabilities, and emergency operation capabilities supported by grant funds have been instrumental in the COVID-19 pandemic response.

In terms of next steps, case study participants indicated that they plan to conduct an after-action review (AAR) to inform decisions about future preparedness grants investments. In addition, participants also stated that the response to the COVID-19 pandemic may impact Idaho's FEMA preparedness grant allocation strategy. Specifically, participants discussed using capability gaps identified in the state's COVID-19 pandemic response as a factor in the prioritization and allocation of FEMA preparedness grant funding in future years. These capability gaps included maintaining adequate staffing in Idaho's EOC and supporting planning, training, and exercising for the long-term recovery plan.

Appendix A: References

[1] https://coronavirus.idaho.gov/governors-working-group/
[2] https://coronavirus.idaho.gov/governors-actions/
[3] https://coronavirus.idaho.gov/governors-working-group/
[4] https://ioem.idaho.gov/wp-content/uploads/sites/57/2020/10/IOEM_Plan-to-Stay-in-Business-booklet-V4.pdf
[5] https://ioem.maps.arcgis.com/apps/opsdashboard/index.html#/379299e56f234fa89cff3c8c6acf3ac8