



Getting the Job Done
in Public Procurement
During COVID-19

A National Panel Study

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NIGP The Institute for
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NIGP Opening Statement

NIGP recognizes the outstanding state and local government procurement professionals who dedicated their time to reply to these surveys. Although their responses and lessons learned might not represent all of our members' experiences, their insights are useful as we address and prepare for the next crisis as well as adjust to the "new normal."

Executive Summary

One thing the COVID-19 pandemic taught us is that even with what we thought was good planning, we still experienced a number of limitations in government policies, processes, resources, and operational adaptability. Since early 2020 when governments declared national emergencies, public procurement organizational responses to the pandemic were notable in several ways that are documented in this Research Report. Not only did public procurement professionals need to procure the essential PPE necessary for front-line workers, they had to do this while dealing with the challenges associated with shifting to remote work. The purpose of this Research Report is to describe what was actually occurring in the public procurement trenches during COVID-19; identify some of the common challenges faced by procurement professionals; enumerate what was accomplished; and establish important lessons we learned about emergency management. The model used in this study looks at preparedness, response, and recovery, both in terms of addressing community and government needs, and specifying some lessons learned from procurement challenges posed by COVID-19.

The data used in this study were generated from a series of four (4) surveys that were administered to a group of public sector procurement professionals who volunteered to participate. The first survey was sent out in January 2021, and the final survey was administered in April 2021. As is common in panel surveys, there was a fluctuation in the number of respondents across surveys, but a total of 241 procurement professionals provided answers across the panel. Thus for each series of questions, total Ns will fluctuate based on the number of respondents to the particular question. In essence, this suggests that percentages are often the most useful way of comparing the distributions across question sets.

Findings

The challenges associated with COVID-19 emphasized the importance of utilizing known best practices, and some findings herein represent new strategies to effectively deal with such a far-reaching crisis. During the COVID-19 pandemic, public procurement professionals tried to procure essential goods and services to protect the community and keep government running, while functioning in a completely different operational environment. The new normal required adjusting to circumstances that included 1) social distancing where appropriate, work rotations, or forced remote workplaces; 2) challenges associated with spiking competition when procuring essential goods and supplies; 3) frustration that many items for which a solicitation had been issued had to be cancelled, or work-arounds had to be devised (such as creating new policies about virtual public bid openings or virtual negotiations, or even more mundane things like collecting the mail); and 4) adjusting to intermediated operations in a virtual environment, where team work often included working from home.

Lessons Learned

Some of the lessons learned from addressing many of the issues and problems associated with the COVID-19 pandemic are listed below. A more detailed explanation is provided in the “lessons learned” section of this study.

Public Procurement Operating Environment

- **Leadership and Supervision:** Procurement departments need to demonstrate strong leadership/supervision.
- **Resources:** There should be sufficient resources available to meet the needs of the procurement department to effectively address critical operational issues.
- **Professional Development:** To deal with critical issues, practitioners need continuous professional development to enhance their skills and abilities.

Preparedness

- **Emergency Policy:** All public sector organizations should have an emergency purchasing policy that considers global crises as well as localized adversity.
- **Procurement Operating Policy:** Individual procurement departments should have policies and procedures to address emergencies of all sorts and levels of severity.
- **Human Resources:** The importance of having trained personnel across the procurement function is mission critical.
- **Intergovernmental Relations:** Procurement needs to participate in local or regional cooperatives with a special focus on risk mitigation.

Response

- **Command Structure:** The Chief Procurement Officer should be a part of the Emergency Operations command structure.
- **Information Technology:** Procurement needs to maintain a viable technology infrastructure.
- **Supply-Chain:** Procurement should focus on best value/total cost of ownership (TCO) rather than unit costs.
- **Supply Base:** Procurement must diversify the critical supply base, and consider just-in-case contracting and contingencies that may be appropriate for responding to a range of risks.
- **Logistics:** Procurement must produce a logistics plan to accept deliveries and ship goods and services to end users, regardless of location.

Recovery

- **Organizational Learning:** Organizations that do not directly experience the original impact should learn from those that do.
- **Telework:** Procurement must establish policies that address teleworking.
- **Inventory Management:** Procurement should consider converting from just-in-time to just-in-case inventory management for critical supplies.

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Unlike in 2008/09, the [COVID-19] shock we are facing is universal: it is common both across countries and across all sections of society.

Christine Lagarde President, European Central Bank

Introduction

Media reports at the beginning of the SARS-CoV-2 pandemic (commonly called COVID-19) focused on stories of governments across the globe trying to obtain the essential personal protection equipment (PPE) and critical medical equipment for front-line workers. The supply-base of masks, gloves, ventilators, and disinfectants was quickly depleted. As a result, some government officials went to extreme measures to procure PPE. For example, Illinois Governor J.B. Pritzker chartered a plane and flew to China to retrieve millions of masks and gloves he procured. But Governor Pritzker kept the flight details a secret because he believed that those PPE would be diverted by the Trump administration. Other governors, mayors, and hospital administrators found themselves in a bidding war, where according to Governor Cuomo “I bought 17,000 ventilators – ordered 17,000 ventilators from China – but I think what’s happening is when somebody else outbids you, your order just is gone. I haven’t even received 1,000.”¹ For those governments fortunate enough to find PPE, many either paid a premium, purchased counterfeits, or experienced extraordinary delays in receiving those products.

The conditions described above, as well as many other problems associated with procuring the needed PPE and medical supplies, raise fundamental questions about governmental responses to the COVID-19 pandemic. According to Sen. Chris Murphy, “The medical supply system has turned into ‘Lord of the Flies,’ and the only way to fix this desperately broken system is aggressive federal action.”² Senator Murphy further stated at the time, “Every state, major city, and territory, and thousands of hospitals, are being forced into a bidding war, encouraging price gouging and hoarding.”

In addition to dealing with numerous public health problems resulting from COVID-19, governments were also dealing with how best to continue to do the crucially indispensable business of governance yet concurrently “shut down” nonessential operations. This required a host of adaptive strategies where departments such as procurement still needed to operate – and often at a higher functional level given the unfolding disaster. This required quick procedural and process changes as well as immediate operational flexibility.

The purpose of this Research Report is to describe what actually occurred in public procurement during COVID-19, identify some common procurement challenges and accomplishments, and establish important emergency management lessons.

¹ MSNBC, 4/02/2020

² <https://www.murphy.senate.gov/newsroom/in-the-news/no-national-response-one-senators-alarming-account-of-the-first-days>

Analytical Framework

The emergency/disaster management literature is replete with models to address potential threats to communities. The Federal Emergency Management Agency (FEMA, 2020) notes that most emergency managers use a four-phase model (mitigation, preparedness, response, and recovery), and the National Governors Association (1979) identifies the same phases of disaster management. Because of the similarities across all models, the framework used to analyze the impacts of COVID-19 on public procurements discussed in this Research Report is based on 1) planning (preparedness) for a potential emergency, 2) response to the actual emergency, 3) recovery from the impacts of the emergency, and 4) planning (mitigation) for future events based on what was learned.

However, there is a notable distinction between the COVID-19 pandemic and previous disasters: the sheer scope of the impact. To be clear, most emergencies that have occurred over the last century have been relatively localized events. For example, the impacts of Hurricane Katrina were most intensely felt by people in New Orleans and the Gulf coast region; the tsunami that ravaged the Philippines was fairly localized; and even the immediate effects of the terrorist attacks on 9/11 were localized events. In contrast, COVID-19 prompted a global threat and response unrivaled since the 1918-1919 influenza pandemic. For instance, the number of estimated COVID-19 deaths in the United States alone is approaching that of those suffered during 1918-19 (see CDC, 2018, and Fisher, *et al.* 2021). Moreover, when comparing COVID-19 to the H1N1 virus of 2009, COVID-19 has been particularly worse. For example within the first year, COVID-19 has conservatively seen estimates of approximately 4 to 5 times the number of deaths over deaths from H1N1.³

Considering that millions of people lost jobs due to restrictive measures; numerous countries have endured mandatory lockdowns for extended periods of time; and global economic growth has suffered (for beginning discussions, see Fernandes 2020; Ozili and Thankom 2020), other disasters and emergencies occurring over the last century were often tackled in a different manner than that for COVID-19 based on the sheer disparities in scope and scale. During localized emergencies, assets and resources may be procured from surrounding communities, or even across the globe, to address the needs of those impacted. Not so for COVID-19.

Given these conditions, evaluation of the impacts of COVID-19 on public procurement will be two dimensional. The first dimension addresses the “what” part of public procurement. This examines the process of finding and obtaining goods and services under conditions of extreme scarcity. The second dimension looks specifically at how public procurement professionals did their jobs given that many entities were in various stages of lockdown.

³ As of July 15, 2021, the COVID-19 Dashboard at Johns Hopkins University registered 4,068,999 global deaths (see <https://coronavirus.jhu.edu/map.html>); also see Dawood, *et al.* 2012 for estimated H1N1 deaths in the first year).

Data and Methods

The data used to analyze preparedness, response, recovery, and mitigation of participating entities during the COVID-19 pandemic come from a series of surveys conducted by the National Institute of Governmental Procurement (The Institute).

To document how various public procurement departments responded to the COVID-19 pandemic, a non-probability sampling technique was used, whereby a panel of practitioners responded to four (4) different surveys over a 4-month period. The original call for participation went out to all NIGP members on October 14, 2020. In the call, potential participants were informed that the study would consist of a series of brief surveys over 4-months, and the surveys would address COVID-19 response, challenges, planning, short- and long-term impacts, and how practices may have changed. They were also informed that one of the expectations for participation was that they would commit to participate for the entire series of surveys, and that each web-based survey would take approximately 5-7 minutes to complete. The call stated that they had until October 30, 2020, to volunteer to participate. Consistent with survey practices a reminder was sent on October 22, 2020. Based on the call for participation, 241 practitioners contributed their views to this project.

The first survey asked participants some general demographic questions. The second survey identified critical supply chain vulnerabilities as well as determining how practitioners addressed or failed to address them, when attempting to procure essential PPE. The third survey captured the major issues many procurement departments encountered dealing with the COVID-19 pandemic, while the final survey examined the impacts of COVID-19 on procurement department leadership, empowerment, innovation, and contracting programs.

The panel study methodology was selected for this study based on two assumptions. First, the intent of this research was not to gauge how respondents changed over time relative to a given set of questions, such as those used in traditional market research, but to ensure that there were a consistent set of respondents to each of the surveys over time. If a cross-sectional survey design method was employed for each successive survey, capturing how a specific procurement department responded to each survey may not have been possible. Moreover, by using the panel study method, demographic data captured on the first survey would not have to be captured on each successive survey. The second reason for selecting this methodology was to increase the probability of a sufficient number of respondents for each survey.

Table 1 provides the demographic makeup of the respondents. Although the number of respondents is not exceedingly large, the diversity of the respondents captures a broad array of entities sufficient for this study.

Table 1: Demographic Composition of Respondents

	Frequency	Percent
Municipality/city/town/village	74	30.7
County/region	56	23.2
State	33	13.7
Higher education	18	7.5
School district	18	7.5
Special authority	10	4.1
Public utility	7	2.9
Transit authority	7	2.9
Airport authority	5	2.1
Federal	1	0.4
Other (please specify):	12	5.0
Total	241	100

Findings

Findings from the non-demographic substantive surveys are presented below. The first section identifies when the respondents actually had to address the COVID-19 pandemic. The next section highlights how the respondents felt their department was prepared for dealing with the pandemic followed by a discussion of some of the major issues associated with responding to the pandemic. Next, the experiences of procurement departments recovering from the pandemic are outlined. The final section considers some of the major lessons learned that may be used to potentially mitigate future emergencies.

As noted previously, procurement departments had to procure the needed PPE, medical equipment, and even mobile morgues.⁴ Providing the essential goods and services had to be accomplished at the same time that procurement departments were figuring out how to do so remotely because most governments “shut down.” Therefore, for each sub-section (preparedness, response, recovery, and mitigation), issues associated with addressing community needs and how the procurement department actually adapted to the shutdown are provided.

Timing the Impact of COVID-19 on Procurement Departments

Given the nature of the pandemic and how it spread across the U.S., it is important to capture when the respondents actually began dealing locally with COVID-19. For those governments like San Francisco, New York, Los Angeles, and Seattle who were experiencing the consequences of the pandemic in February and March 2020, few had an informed grasp of the potential severity of the outbreak, how best to mitigate those impacts, or how to even think about recovery. In contrast, those entities who experienced COVID-19 much later during the outbreak, such as in early fall 2020, had a better understanding of the outbreak, many of the supply-base issues were being handled better, and recovery tactics were maturing.

To capture when the respondents actually experienced COVID-19, the first question asked was “When did your procurement department first respond to the COVID-19 pandemic?” Table 2 shows that a majority (80%) of respondents selected March 2020 as the month they first started to respond to the COVID-19 pandemic. It is also interesting to note that around 12% of the respondents actually started to respond to the pandemic in January and February – long before national emergencies were declared.

Not shown in Table 2 was the fact that six respondents actually stated that their procurement department did not do anything special because of the COVID-19 pandemic, nor do they plan to do anything at the point in time of the survey.

⁴ The single respondent representing a private cooperative is included in subsequent discussions of findings without distinction.

Table 2: When did your procurement department first respond to the COVID-19 pandemic?

	Frequency	Percent	Valid Percent
January 2020	4	1.7	2.0
February 2020	20	8.3	9.8
March 2020	164	68.0	80.4
April 2020	14	5.8	6.9
September 2020	1	.4	.5
November 2020	1	.4	.5
Total	204	84.6	100.0
Missing	37	15.4	
Total	241	100.0	

Preparedness

Preparedness (What Procurement Does)

According to FEMA (2020), a disaster is defined as:

“an event that results in large numbers of deaths and injuries; causes extensive damage or destruction of facilities that provide and sustain human needs; produces an overwhelming demand on state and local response resources and mechanisms; causes a severe long-term effect on general economic activity; and severely affects state, local, and private sector capabilities to begin and sustain response activities.”

Moreover, FEMA (2020) defines preparedness as:

“a continuous cycle of planning, organizing, training, equipping, exercising, evaluating, and taking corrective action in an effort to ensure effective coordination during incident response.”

COVID-19 was a global disaster that required sufficient preparedness to mitigate the consequences of the outbreak. To determine how prepared governments were to address the pandemic, respondents were asked “Overall, how prepared was your procurement department to address the purchasing issues associated with the COVID-19 pandemic?” Table 3 shows that around 27% of the respondents stated that they were either not prepared or only slightly prepared to deal with the consequences of COVID-19. The largest response categories were somewhat prepared (39%) and mostly prepared (31%). Interesting, only 4% of the respondents noted they were fully prepared.

Table 3: Overall, how prepared was your procurement department to address the purchasing issues associated with the COVID-19 pandemic?

	Frequency	Percent	Valid Percent
Not prepared	22	9.1	10.5
Slightly prepared	34	14.1	16.2
Somewhat prepared	81	33.6	38.6
Mostly prepared	65	27.0	31.0
Totally prepared	8	3.3	3.8
Total	210	87.1	100.0
Missing	31	12.9	
Total	241	100.0	

One of the main drivers of successful emergency preparedness, specifically for procurement, is to have explicit policies to deal with emergency purchases (Hurst, Sharpe, and Yeager 2017). Therefore, respondents were asked “How adequate were your emergency purchasing policies with regards to handling purchasing problems associated with the COVID-19 pandemic?” As Table 4 shows, most entities felt that their emergency purchasing policies were completely adequate (47%). More importantly, only 16% stated that their emergency purchasing policies were either somewhat or completely inadequate. What was surprising to some extent was the fact that 32% of the respondents stated that their emergency purchasing policies were neither inadequate nor adequate to address the problems associated with the COVID-19 outbreak.

Table 4: How adequate were your emergency purchasing policies with regards to handling purchasing problems associated with the COVID-19 pandemic?

	Frequency	Percent	Valid Percent
We did not have an emergency purchasing policy	10	4.1	4.8
Completely inadequate	7	2.9	3.3
Somewhat inadequate	27	11.2	12.9
Neither inadequate nor adequate	68	28.2	32.4
Completely adequate	98	40.7	46.7
Total	210	87.1	100.0
Missing	31	12.9	
Total	241	100.0	

For those respondents who selected “Completely inadequate” or “Somewhat inadequate,” they were asked to highlight some of the major issues associated with their emergency purchasing policy. Here are some selected responses and comments that exemplify some of the inadequacies and purchasing problems uncovered during COVID-19:

- Emergency provisions within our policy were vague.
- We had no policy, we followed the State’s directive since we are audited by them.
- It was a free-for-all - no department coordination or mechanism for such to identify needs.
- An emergency was officially declared, but there was no method/someone with responsibility to procure general entity items (Procurement Department and Finance Department do have their own experts & resources).
- No one was really given authority to make decisions and then implement a strategy.
- It was crazy. We also have no idea how to procure via FEMA guidelines.
- It was not clearly understood or updated.
- Lack of flexibility, dependence on other departments to plan for a disaster when they had not.
- [Our organization] did not have a clear single chain of command so keeping control of the procurement process was significantly challenging. In addition, the sweeping emergency executive orders allowed lots of procurement freedom but also lots of challenges. We did not have adequate controls on how many hours the teams work or adequate controls for purchasing from overseas.
- Our emergency policy covered everything except putting solicitations on hold for consideration on how to conduct public pre-bid/pre-proposal meetings and public bid openings.
- Our emergency protocols required additional considerations for materials in short supply.
- Compliance with the policy became prohibitive so we had to enact new protocols and maximize the federal grace.

- Professional buyers and end users were not familiar with the policy or the resources.
- The emergency policy worked for us; however, given that we needed to work with federal funding, we had to develop a way to record our expenditures in real time.
- The emergency purchasing policy was/is in draft form and not approved by the Board of County Commissioners.
- The lack of a well-defined purchasing policy/plan was needed. As a result, a detailed plan is being developed in collaboration with other agencies.
- Understanding emergency procurement rules and how to apply them to the Pandemic.
- Making sure our emergency rules were consistent with state and federal rules.
- Updated our emergency purchase order procedure to include electronic approval processes.
- We did not have an emergency policy when we started. We do now.
- We have an emergency purchasing policy, but we decided to implement one just for COVID-19 purchases exempting purchasers from competition.
- We increased the limits for COVID related emergency spending and authorized our City Manager to be able to accept and approve grant funding related to COVID.

Preparedness (How Procurement Does It)⁵

As procurement organizations tried to figure out ways to implement their respective emergency purchasing policies, there were a number of identified policy issues that evolved over the pandemic. Fortunately, respondents were willing to share some of their specific concerns with the respondent's emergency purchasing policies, and here are some of the most poignant takeaways from their experiences during the pandemic:

- Have an Emergency Purchasing Policy.
- Tracking emergency contracts, purchase orders and expenses.
- How best to assist local small municipalities, non-profit agencies to secure PPE.
- Switch from in-person to virtual world.
- Following State protocol on Sunshine Meetings.
- Employee usage of personal equipment to work remotely.
- Thoroughly review all contracts' cancellation clauses before signing. Make sure "pandemic" is listed under "force majeure."
- Add pandemics to the agency's business continuity plan (it contains flood, earthquakes, terrorism, nuclear plant meltdown, etc.).
- Adding clauses to IFBs that pertain to emergencies.
- Always be flexible and over communicate to staff.
- An emergency procurement plan needs to be in place. Stockpiles of emergency equipment needs to be maintained at all times.
- As soon as the declaration was enacted, a meeting of all department heads and staff with purchasing authority must be given information on the proper protocols for purchases when seeking federal assistance.
- Being prepared with "Go Packs" of important materials to work with. Getting laptops assigned so all could telecommute successfully.
- Changes to Code or Policy.
- More diverse Emergency Definition.
- Adapting to receiving bids electronically.
- Consider an alternative plan/supplier in case business goes wrong with the current supplier.
- Monitoring our current suppliers' financial stability to know how strong they are to survive through the crisis.
- Finding out if they have a contingency plan as well.

⁵ The "How Procurement Does It" identifier refers to the way in which procurement departments addressed internal issues associated with their response to the pandemic.

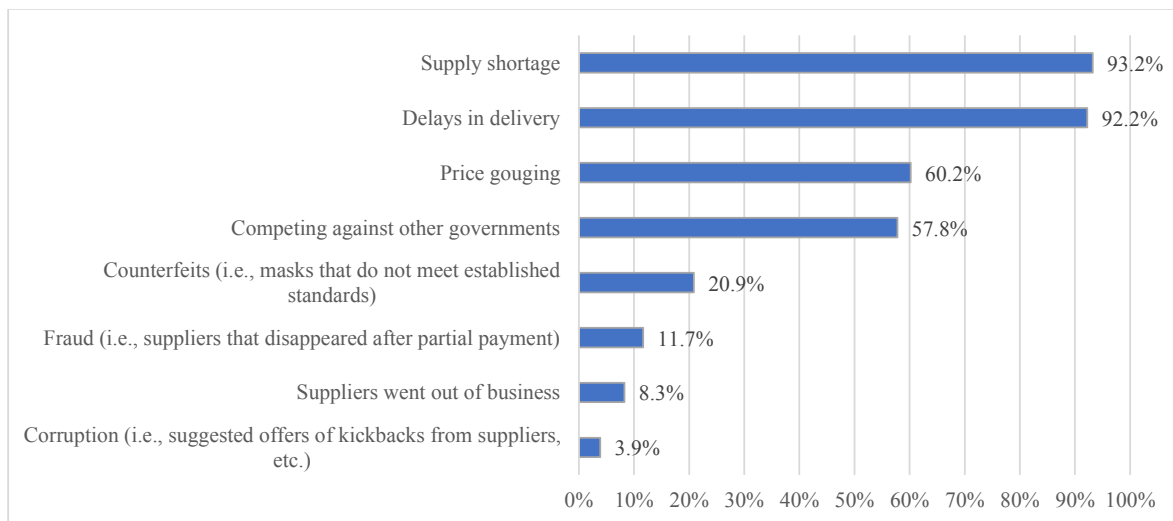
- Designate a primary point-of-contact. Develop a process for responding to the large volume of contractors wanting to do business. Develop a process for creating a viable list of suppliers. Have a process in place instructing other departments on how to handle requests to meet their needs.
- Divide and conquer. Dividing up the individual purchases into teams who could focus on just one type of PPE purchase would have been helpful. We did have a somewhat organized database to plug in quotes, delivery times, etc., so everyone could see what others were doing.
- Due to the overload of potential PPE suppliers and time required to vet each supplier, we developed a Critical Medical Supplies portal that streamlined the process for vetting suppliers who could provide PPE. Also, communication is key. We found that good communication and collaboration between Procurement and critical agencies/sections i.e., Dept. of Health, PEMA, QA, Office of the Budget, DCED helped us to overcome any barriers.
- Emergency Agencies should have established procurement practices and trained personnel on how to respond to emergencies.

Response

Response (What Procurement Does)⁶

When national emergencies were declared, many entities were already experiencing the impacts of COVID-19. There was no federal strategy to obtain and disseminate the needed PPE and the like (see McCue, Boykin, and Prier, Forthcoming; also see Atkinson, *et al.* 2020); as a result, governments were forced to procure them. Figure 1 highlights what procurement departments experienced while attempting to procure the needed supplies and equipment. Even though most entities had emergency purchasing policies that allowed them to purchase pandemic related goods and services quickly, since so many entities and their respective procurement organizations attempted to purchase these items around the same time, competition increased dramatically. In turn, almost all practitioners experienced supply shortages, delays in delivery, and many could not find alternative suppliers, either domestically or internationally. Moreover, a number of procurement departments witnessed price gouging, fraud, and a number of counterfeits on the market.

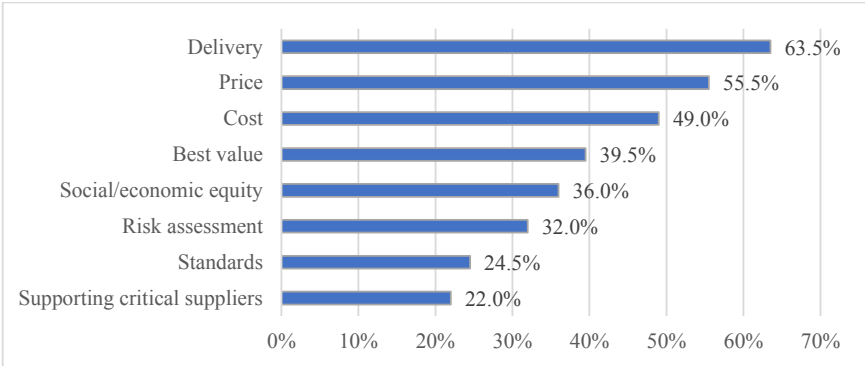
Figure 1. Did your procurement department experience any of the following while attempting to procure the needed supplies and equipment?



⁶ The “What Procurement Does” identifier refers to the actual job of procurement during the pandemic - obtaining the needed services and supplies.

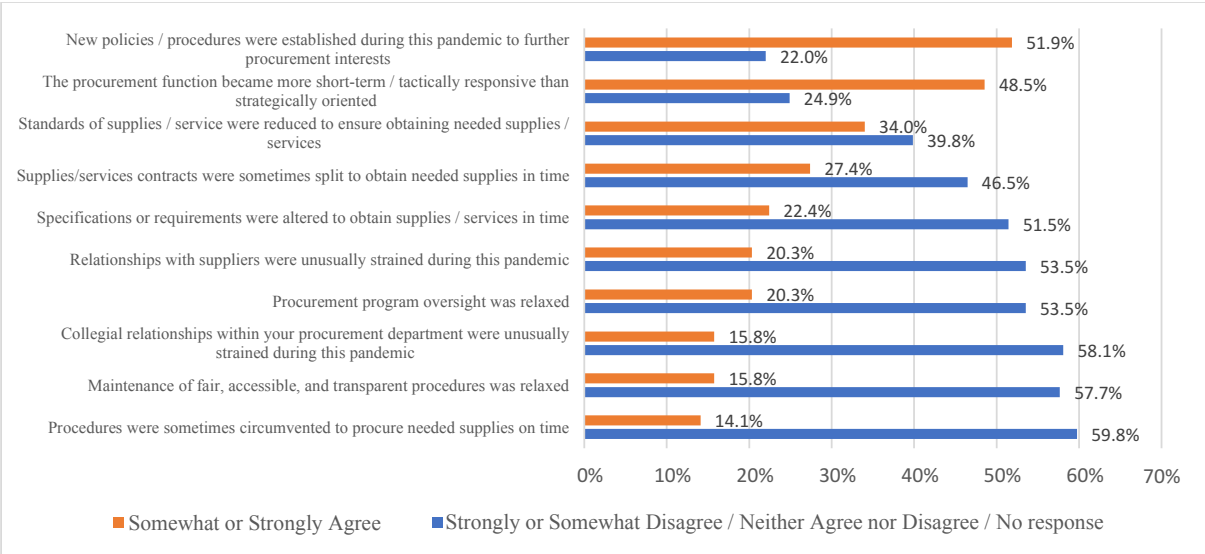
In response to the challenges of trying to get the needed goods and services identified in Figure 1, Figure 2 shows that many procurement departments witnessed changes in how they typically conducted business. For example, Figure 2 suggests that a majority of respondents experienced changes in the importance placed on delivery and price as a result of COVID-19, followed by pursuing best value and social/economic equity. Fewer procurement departments changed the importance of risk assessment, purchasing standards, and supporting suppliers.

Figure 2. The importance of the following was changed as a result of COVID



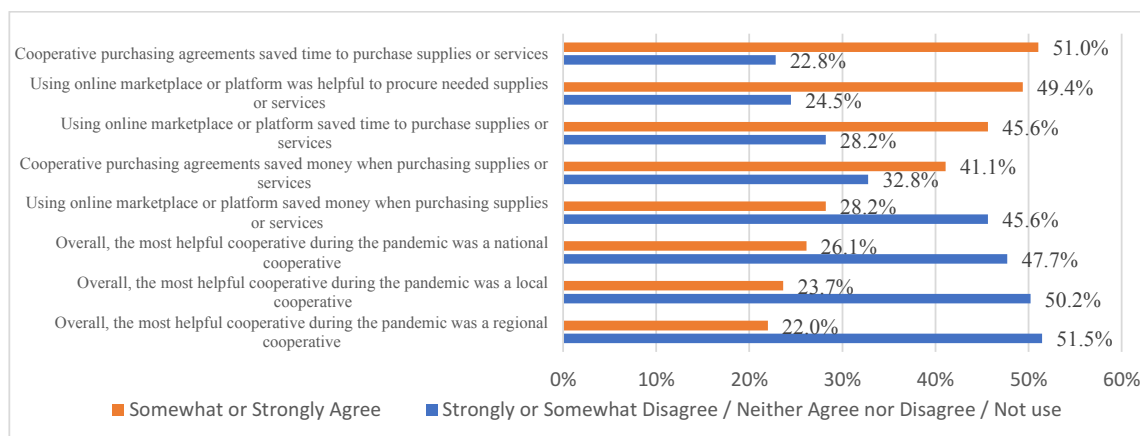
Examination of general operational issues reveals that procurement departments reprioritized a number of their typical purchasing standards. Respondents were asked to rate each of several traditional purchasing concerns based on the extent to which they disagree or agree with the impact on COVID-19 related procurements. As Figure 3 shows, many of the typical focal areas of procurement were affected while others were not. For example, a majority of the respondents noted that new policies and procedures were established during this pandemic to further procurement interests, while only one in five thought procurement oversight was relaxed.

Figure 3. Impact of COVID-19 on Procurement’s COVID-related Processes.



Given social distancing requirements, closed offices, and difficulty with deliveries, public procurement professionals looked for alternative ways to procure the needed services and supplies. As Figure 4 shows, significant proportions of procurement professionals turned to cooperative agreements and online platforms to procure essential services and supplies. Moreover, a significant percentage noted that cooperative purchasing not only saved time, but it also saved money.

Figure 4. On-Line Platform Usage



Response (How Procurement Does it)

As a number of public procurement professionals were searching for suppliers from which to procure the essential goods and services, to address the immediate needs of the community, but also operating in a new environment that was quickly morphing during the onset of the pandemic, numerous issues were identified. Looking specifically at the evolving work environment of many public procurement departments, respondents were asked to respond to a series of statements looking specifically at the COVID-19 work environment. Table 5 shows that as a result of moving to remote working, a surprising number of procurement professionals stated that there were no major challenges with conducting business, both within the entity or with suppliers.

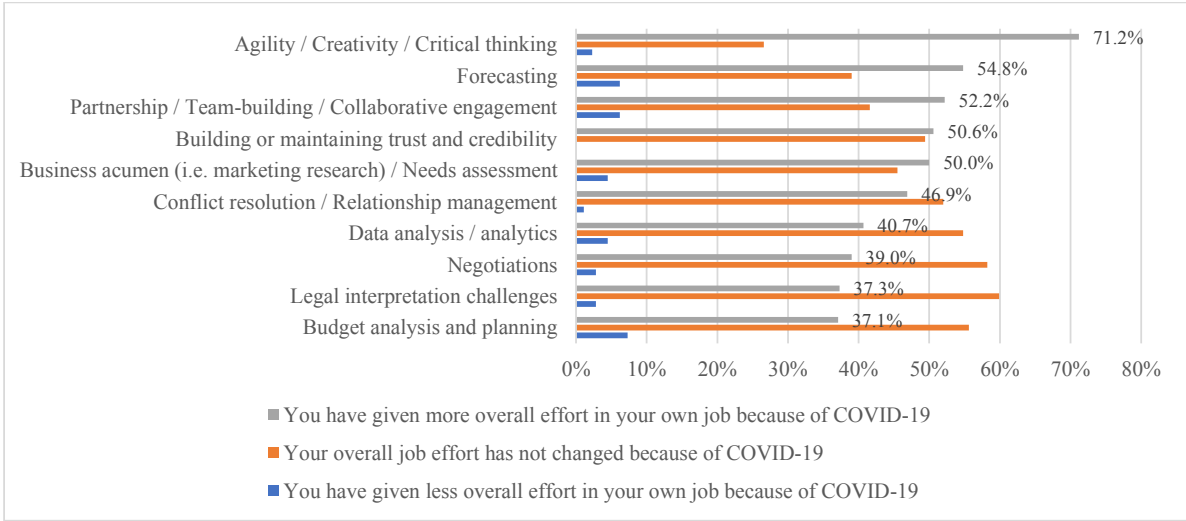
Table 5. Remote Work Challenges

If remote work occurred...	SD	D	NAD	A	SA	Total
It was challenging to conduct normal procurement operations with others in the entity	44% (59)	26.1% (35)	10.4% (14)	13.4% (18)	6% (8)	100% (134)
It was challenging to conduct normal procurement operations with others outside the entity (e.g., suppliers)	41.8% (56)	23.9% (32)	12.7% (17)	17.2% (23)	4.5% (6)	100% (134)

SD=Strongly Disagree; D=Disagree; NAD=Neither Agree nor Disagree; A=Agree; and SA=Strongly Agree

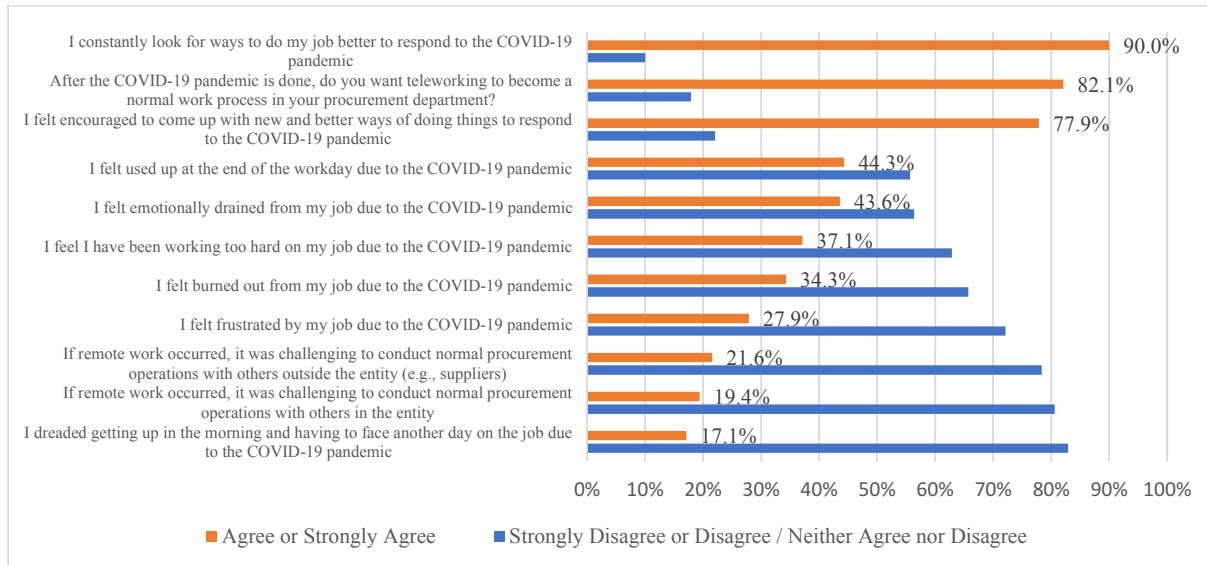
Realizing that they had to quickly shift to remote work, procurement professionals were forced to find alternative ways to procure the needed essential goods and supplies. This required a different way of thinking about how to procure those items, and therefore procurement professionals had to adapt because of COVID-19. Numerous skill areas required greater effort as a result of the pandemic. For instance, nearly three in four respondents substantiated that their overall efforts increased in the areas of agility, creativity, and critical thinking. Another interesting finding is that approximately 60% of the respondents noted that their overall job effort relative to legal interpretations challenges did not change.

Figure 5. Please rate each of the following particulars in terms of your own effort because of COVID-19.



The results underscore the importance of creativity in responding to crises, and the importance of planning, including collaboration and team-building, that can reduce pre-event vulnerabilities and improve the chances for a resilient response. The results also show that even with the changed environment of COVID-19, basic expectations, like data analysis, budget analysis and planning, and responding to legal questions, remained core expectations. Further examining the impact of COVID-19 on the respondent’s work environment, a number of interesting findings emerged. Figure 6 shows that over 78% of the respondents noted that they were encouraged to come up with new and better ways of doing things to respond to the COVID-19 pandemic, and 90% stated that they constantly looked for ways to do their job better in response to the COVID-19 pandemic. As expected, these increased efforts and adaptation took its toll because unfortunately, 43% stated that they felt emotionally drained from their job, and 44% noted that they felt “used up” at the end of the workday as the result of the COVID-19 pandemic.

Figure 6. Ability to respond and to be innovative in your response to the COVID-19 pandemic.



Recovery

Recovery (What Procurement Does)

Paralleling the significant changes in the way procurement professionals worked during the pandemic, it is notable that the purchases themselves also meaningfully changed in response to COVID-19. Figure 7 shows that a majority of procurement departments were purchasing things they customarily don't procure, or if they typically procured those items, the quantity of items needed to be changed. For example, roughly two-thirds of the respondents noted that they had difficulty purchasing medical equipment, medical supplies, and cleaning supplies. Just as interesting is the fact that most procurement professionals responding to this survey did not procure COVID-19 tests kits and detection devices, or pharmaceutical supplies. In contrast, Figure 8 shows that for most traditional services like janitorial, computer, or support and logistical services, relatively few encountered problems obtaining these types of services when they needed them. As expected, almost 90% of the respondents stated that they did not procure travel services.

Figure 7. Whether or not your procurement department normally procures these things, did your procurement department attempt to procure any of the following supplies and equipment during the COVID pandemic?

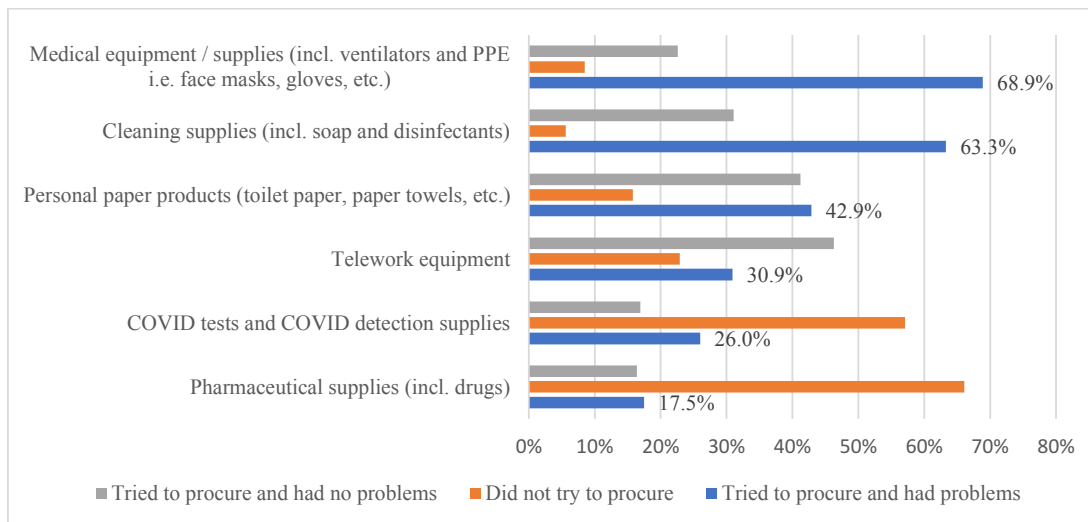
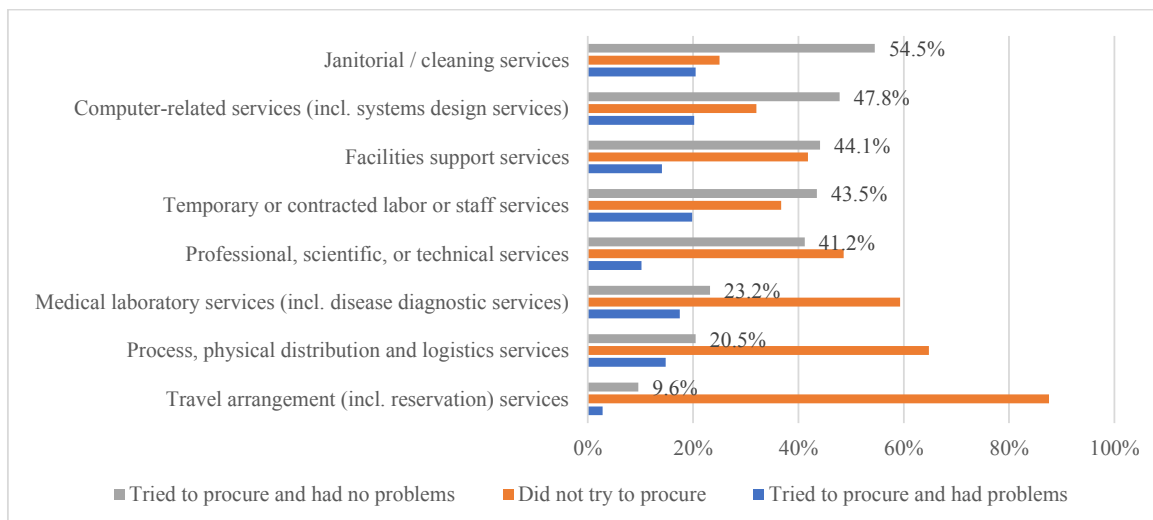


Figure 8. Whether or not your procurement department normally procures these things, did your procurement department attempt to procure any of the following services during the COVID pandemic?

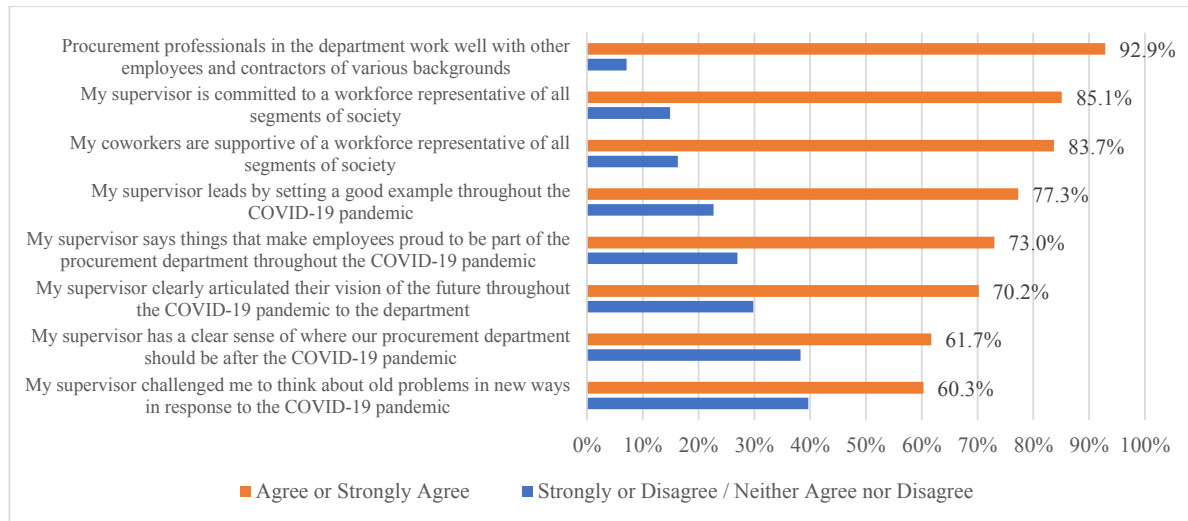


Recovery (How Procurement Does it)

To examine several dimensions related to these realities, respondents were asked to address their supervisor/employee relationship during the pandemic, and specifically the level of support they felt. Figure 9 shows that a large majority of respondents felt that they worked in a mutually supportive environment from both coworkers and management. For example, vast majorities felt their supervisor led by example; understood the challenges associated with the changed environment; supported staff; and maintained a vision of procurement during the pandemic as well as one moving forward after recovery. Positive leadership factors had a helpful impact on employees’ feelings of capacity to adapt to changed circumstances, and

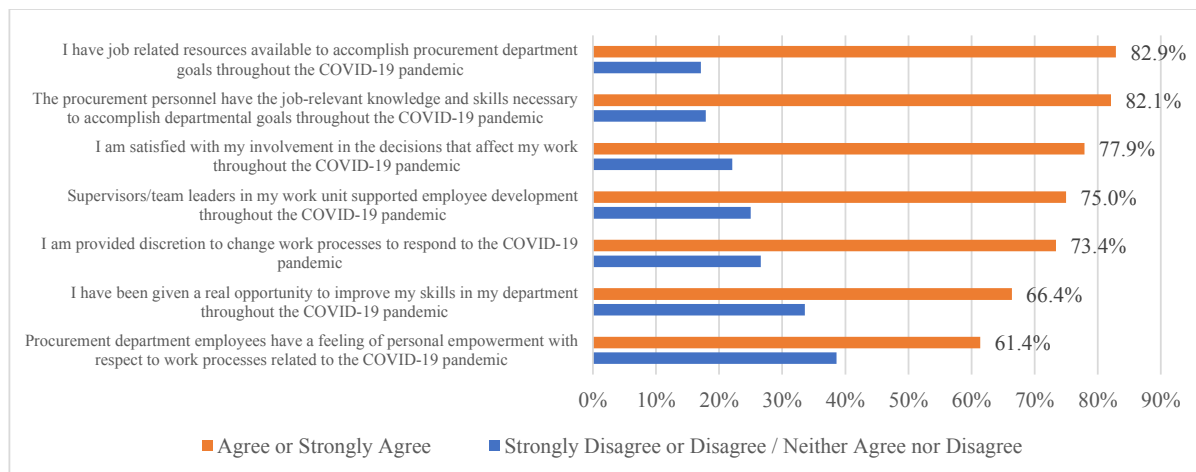
this likely carried into other aspects of engaging in the work and carrying out the mission of the procurement department. Most respondents noted aspects of leadership behavior that formed a solid foundation for success absent a crisis, including inclusive approaches to employees and contractors, clear articulation of vision and expectations, and leading by example. These findings suggest the importance of professionalism in procurement supervision as essential to positive outcomes, not only for the procurement departments, but also for the entities represented.

Figure 9. Experience with the departmental leadership and coworkers throughout the COVID-19 pandemic. Please respond to the statements that follow.



Moreover, respondents were asked about how much discretion, opportunity, and empowerment they felt during the pandemic. Consistent with the findings about supervision/leadership and coworker relations, a significant percentage of respondents noted that they felt empowered to make decisions, they had the resources necessary to accomplish their tasks, and they were satisfied with their involvement with decisions relative to their COVID-19 procurement production.

Figure 10. Discretion, opportunity, and empowerment.



One relevant policy issue stands out in regard to moving forward after the pandemic. Table 8 shows that almost 82% of the respondents want teleworking to become a normal work process adopted by their procurement department. This makes sense because much organizational learning and capacity building occurred to support a functional telework environment, and with the potential of future emergencies, knowing how to transition to a telework environment and make good use of attendant work habits and technology platforms may serve as a useful contingency beyond the pandemic experience.

Table 6. After the COVID-19 pandemic is done, do you want teleworking to become a normal work process in your procurement department?

	Frequency	Percent	Valid Percent
Strongly Disagree	7	2.9	5.0
Disagree	8	3.3	5.7
Neither Agree nor Disagree	10	4.1	7.1
Agree	38	15.8	27.1
Strongly Agree	77	32.0	55.0
Total	140	58.1	100.0
Missing	101	41.9	
Total	241	100.0	

Over the last decade, public procurement became much more efficient by adopting lean inventory management strategies, just-in-time delivery, and inventory minimization. However, as a result of COVID-19, a number of respondents noted in the open-ended questions that they are seriously thinking about building an inventory of essential goods and supplies. For example, one respondent noted “We need to reassess our position on maintaining an inventory of critical life-saving products. We may no longer be able to say, ‘we were unprepared for such an event.’ The time is now to prepare.” Just-in-case or contingency contracting has been increasingly seen as a way of responding to the potential for crisis, even if the type and extent of the crisis to be faced is unknown. Certain needs have less to do with a specific type of crisis event, and more to do with continued functioning of government.

Having alternative approaches available for gaining access to products and services is important, especially when the usual supply sources are no longer available. This may mean looking outside of a region for suppliers in the event of regional disruption, or, in the case of larger events, having suppliers in more than one country, even if that means redundancy. There can be great concern about waste in planning for resilience, but the potential for having no access to essential products and services, or facing outrageous pricing in a competitive market under duress, is equally daunting and ultimately unacceptable. The COVID-19 response frequently outstripped available budgets, making the contingency of a ‘rainy day’ fund an especially relevant topic of discussion for future crisis planning.

Lessons Learned

To recount the situation procurement faced since the beginning of the COVID-19 pandemic, not only were these practitioners trying to procure the essential goods and services to protect the community and keep government running, they also had to do this in a completely different operating environment. The new normal consisted of adjusting to circumstances that included 1) social distancing where appropriate, work rotations, or forced remote workplaces; 2) challenges associated with spiking competition when procuring essential goods and supplies; 3) frustration that solicitations issued for many items had to be cancelled, or work-arounds had to be devised (such as creating new policies about virtual public bid openings or virtual negotiations, or even more mundane things like collecting the mail); and 4) adjusting to intermediated operations in a virtual environment, where team work was essential that included for many, adjusting to working from home.

Public Procurement Operating Environment

Leadership and Supervision

Procurement departments need to demonstrate strong leadership/supervision, which encourages “thinking outside the box,” empowers individuals and teams to do their job without unnecessary process constraints, and involves staff in the decision-making process. This improves the potential for increased adaptive capacity and problem-solving amid ambiguity and uncertainty.

Resources

There should be sufficient resources available to meet the needs of the entity to effectively address critical operational issues, including quickly adjusting budget priorities to meet the critical needs of the community and government operations.

Professional Development

To adapt to dealing with critical issues, practitioners need continuous professional development to enhance their skills and abilities. While additional research is needed to better understand what definitive professional development is desirable, specific comments revealed that procurement buyers and end users were not always adequately familiar with the emergency policies (when they existed); lacked clear lines of communication on responsibilities; or were not satisfactorily aware of available resources. This is perhaps understandable given the nature and size of the needed response, because many governments and organizations had to access grant funding related to COVID-19 and came to rely on federal funding, which often required becoming conversant with FEMA guidelines, thresholds, and procedures – some of which appeared to be unfamiliar to several procurement practitioners. In summary, findings suggest that several practitioners need to better understand emergency procurement rules and how to apply them in similar circumstances, especially given their clients’ “lack of preparation” exhibited during the pandemic.

Preparedness

Emergency Policy

All public sector organizations should have an emergency purchasing policy. At minimum, findings herein suggest that an emergency purchasing policy should include

1. Entity-wide coordination for procuring needed goods and services;
2. Mechanisms for placing current solicitations on hold for consideration;
3. Allowance of pre-bid/pre-proposal meetings and public bid openings remotely;
4. Consistency with state and federal rules and regulations;
5. Provision of electronic approval processes;
6. Authorizing the CPO to accept and approve grant funding.

Procurement Operating Policy

Individual procurement departments should have policies and procedures to address emergencies of various levels of severity and extent. These policies and procedures should

1. Define compliance issues associated with FEMA regulations and grant funding;
2. Establish processes for telework, including employee usage of personal equipment to work remotely, and access to the Internet, including hot spots if necessary;
3. Add the term “pandemic” under “force majeure” terms and conditions;
4. Develop multiple supply chains for critical goods and services;
5. Designate a primary point-of-contact for all emergency procurement related issues different from general procurement issues;
6. Develop a process for responding to the large volume of contractors wanting to do business;
7. Develop a process for creating an electronic list of critical and potential backup suppliers;
8. Establish a process instructing other departments on how to handle emergency purchases;
9. Ensure that the supplier database is current and accurate;
10. Develop and maintain access to supplier marketplace platforms and cooperative agreements;
11. Develop a Critical Medical Supplies portal with state and federal health officials that streamlines the process for vetting suppliers who could provide PPE; and
12. Establish a complete communication plan with critical agencies, such as the local Department of Health, FEMA, the agency budget office, and local emergency agencies.
13. Develop, maintain, and use a continuity of operations plan (COOP), updated to include lessons learned from this COVID-19 response and other events. Review the plan regularly and ensure that staff are aware of it when a crisis occurs.

Human Resources

The importance of having trained personnel across the procurement function is critical to

1. Continuously train both procurement and other government entity staff on how to respond to emergencies. Personal experiences shared from survey respondents indicated that a lack of policies meant that they had to devise ways of addressing challenges experienced. While not optimal, this behavior is actually helpful and should be encouraged, particularly when an organization faces uncertainty. Training can encourage creativity and problem-solving skills, shown to be beneficial in responses to the COVID- 19 pandemic.

Intergovernmental Relations

Procurement needs to consider expanding vertical and horizontal coordination across governments. Policy and procedural issues should consider

1. Developing a coordination body with federal (and state) officials for the next global disaster;
2. Developing and participation in local cooperatives with a special focus on risk mitigation.

Response

Command Structure

The Chief Procurement Officer should be a part of the Emergency Operations command structure.

Information Technology

Procurement needs to maintain a viable technology infrastructure. This would include not only access to equipment necessary to perform procurement work, but also attention to infrastructure issues, such as robust access to the Internet, particularly when employees are working from home.

Supply-Chain

Procurement should focus on best-value/total cost of ownership (TCO) to account for all facets of doing business with a specific supplier, not just unit costs.

Procurement must diversify its critical supply base. Having all your “eggs in one basket” (e.g., expecting to procure products readily from China, or relying on a sole-source) reveals tremendous supply-chain vulnerabilities when there is a problem. The supply chain itself has shown that even with the best-laid plans, there is great potential for procedural confusion and operational disruption, which can often only be addressed through agile problem-solving and creativity in devising alternative means and sources where necessary.

To address potential supply-chain challenges, procurement should create a logistics plan to accept deliveries and ship goods and services to end users, regardless of the location of the goods and services; the end users; or the procurement practitioner (who may be working remotely).

Organizational Learning

Organizations that do not experience the original impact should learn from those that did. This requires sharing of practices to address the situation.

Recovery

Telework

Procurement must establish policies that address teleworking as a potentially valuable response for continuity of operations in the event of future emergencies.

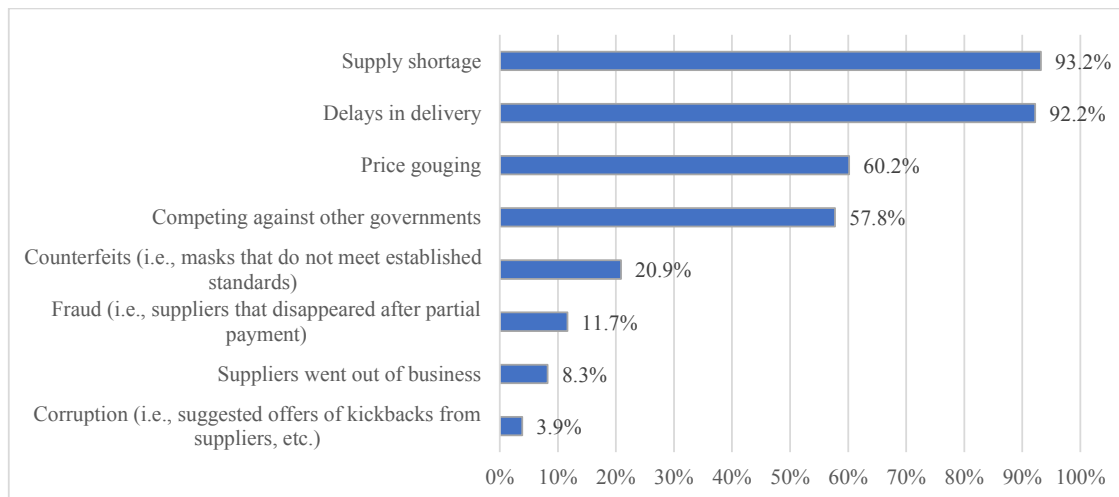
Inventory Management

Procurement should consider converting from just-in-time to just-in-case inventory management for critical supplies, as noted previously. While crises may vary, needs for continuity of operations may be similar across events. For those, just-in-case inventory approaches make sense, as do collaborations with other entities on regional, state, and national bases.

Conclusion

The impact of COVID-19 on the public sector procurement profession was extremely complex and multifaceted. First, to protect their front-line workers and the general community, procurement professionals had to procure the needed PPE, medical equipment, disinfectants, and even mobile morgues, while confronting supply shortages, questionable suppliers, and dramatically increasing costs. Second, since early 2020 many procurement departments were forced to go “remote.” This created a host of issues that had to be dealt with quickly. Third, since many procurement professionals were not directly involved in the emergency planning, a number of policies were created that often exposed a mismatch between what could actually happen and what actually occurred. Fourth, most public procurement professionals were bombarded with suppliers willing and able to sell them PPE. Yet, as can be seen in Figure 11, many of these suppliers were unable to deliver what was ordered while 21% experienced receiving counterfeit products that did not meet established standards and 12% experienced outright fraud. Even for those suppliers that actually could deliver, such as a local distillery producing hand sanitizer and all-purpose disinfectants, there were issues because they were not a “traditional” supplier of these goods. Therefore, many governments were unable to procure those goods. Fifth and finally, procurement professionals, like any other person, were facing ripple effects from an unfolding global disaster such as issues associated with home-schooling children, working remotely, and the impact of panic buying among the general public, including trying to buy toilet paper.

Figure 11. Procurement department experiences when attempting to procure needed supplies and equipment



To effectively address many problems associated with COVID-19, procurement professionals were required to adjust in the face of a lack of extensive advanced planning, global risk calculation capabilities, and adequate systems to assess potential hazards and threats in advance. What was witnessed during the pandemic were many procurement departments and their professionals who demonstrated strong leadership/supervision that encouraged “thinking outside the box,” empowered individuals and teams to do their jobs without unnecessary process constraints, and involved staff in the decision-making process. Moreover, a successful procurement response strategy facing a complex environment from COVID-19 requires coordination and creativity across many stakeholders, particularly federal and state agencies, which was often lacking. As a result, the immediate onslaught of COVID-19 found many procurement departments were inadequately prepared to respond early in the way many would have likely preferred. However, most adjusted to radically changing circumstances in ways that revealed what are likely to become substantive best practices in similar scenarios. Of course, addressing the issues uncovered in this Research Report will help support an early and more effective response to similar circumstances in the future, but more research is needed to follow up on what was learned both during the response and recovery, and to see how procurement organizations adapt to potential changes in the workplace environment.

While procurement professionals were eventually able to procure the needed PPE, supply chain disruptions based on just-in-time practices proved a very weak link and should be addressed in future emergency planning. Moreover, entity “shut downs” really did not apply to many in the procurement field who had to work remotely, and future entity and procurement organizational strategies should address this fact.

In summary, it took a lot of hard work and produced a lot of stress for many people and organizations, but in most cases, either through researching alternative suppliers, working with local and regional cooperatives, or simply finding creative ways, dedicated procurement professionals did what they needed to do to get the job done in public procurement during COVID-19. The authors of this Research Report salute their commitment to public service.

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