







Executive Summary

The coronavirus pandemic created unprecedented challenges for the Department of Homeland Security (DHS) and industry. Human, technological, natural, and institutional factors, both domestic and international, all affected the Department's ability to effectively and efficiently pursue its core mission and operational goals. This report, published by the Washington Homeland Security Roundtable (WHSR), explores the nature of these challenges through industry, government, and academic lenses, beginning with the characteristics of the disease and then examining the environment that shaped the spread of and response to COVID-19.



Front Page: Photo from TSA.gov

Washington Homeland Security Roundtable

The WHSR is a 501(c)(6) non-profit group of corporate executives actively engaged in homeland security policies, practices, procedures, and procurements designed to protect the United States of America. To address the impacts of COVID-19 on DHS operations, the WHSR convened a COVID-19 Task Force, co-chaired by Martin Mackes and Scott Recinos. The Task Force includes a Strategic Overview Group consisting of industry executives and an Advisory Group made up of former DHS officials, academics, professionals, and corporate leaders.



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Approach

The first section of this report, **Introduction**, begins with an overview of COVID-19, discussing the history of coronaviruses and the specific, initial impacts of COVID-19. This section then examines the continuing spread, the impact of new vaccines, variant strains of concern, and economic and governmental impacts of the pandemic. These portions examine major effects of COVID-19 at specific points of 2020 and 2021 along with providing context of COVID-19 status at the time of publication.

In the second segment, **Task Force Findings**, the Task Force explains its approach to these issues and the changes in DHS operations. This report aims to document the current situation in real time for future reference and to supply a broad, industrywide view of the present working environment. Original data, both quantitative, in the form of a survey of DHS and industry leaders, as well as qualitative, from interviews with major officials, was used to complete this analysis.

Task Force Findings also discusses the results of the survey and interviews. The Task Force explains what was learned from these efforts, and it lays out the strategies that currently are and might be pursued to mitigate the impact of COVID-19 on DHS operations. The survey and interviews take a deep dive into the communication challenges created by operational modifications, as well as supply lines for necessary equipment.

In response to what was learned from these results, the Task Force provides some forward-looking analysis for DHS and its private industry partners. With the continued effect of COVID-19 through variant waves and federally guided hybrid working environments, the conclusions and best practices gleaned from surveys and interviews provide strong guidance for moving forward.

Last, this report provides an overview of major COVID-19 effects on both DHS and its industry partners, examples of DHS advisory infographics, and a final summary.





Audience

The WHSR Task Force aims this report at major officials with decision-making power in DHS and private industry leaders who support its mission and operations. While the report does not make specific, hard recommendations to DHS officials, it outlines potential strategies for responding to the current operating environment. Through an examination of that environment and the ways that DHS has responded to it so far, the report aims to generate ideas and options that officials might explore to increase operational efficiency and effectiveness in the face of new, ongoing challenges.

For industry leaders, this paper may point the way to new opportunities and growth potential. The specific changes required for DHS to maintain and improve operating standards will, as the report makes clear, require new forms of support from private industry, especially in the form of new supply lines for personal protective equipment (PPE). While DHS has not experienced shortfalls to date, an ongoing need exists for these goods, the vast bulk of which will have to be supplied by private industry partners.

Timeline

Since its initial formation, the Task Force has had to significantly alter its timeline. Initially, it was believed that the response to and recovery from COVID-19 would occur at a relatively accelerated pace. Initial expectations were that by summer 2020, circumstances would largely have reverted to their past state.

As COVID-19 continued to have significant impacts over an extended period of time, the Task Force has chosen to reformulate its timeline and alter its overall response. This included commissioning a survey that ran from July to September 2020 as well as the creation of this report. As the situation continues to develop, the Task Force remains flexible and adaptable in its response. The extended timeline afforded additional opportunities to interview DHS and industry leaders, thus broadening the feedback. Additionally, the task force gathered information on what response and recovery activities worked best. As the task force nears completion of the study and report, vaccines are widely available to citizens of all ages and most are able to go about their daily lives in a safer manner.

Publication Assistance

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Introduction

The Pandemic - What is COVID-19?

COVID-19 (coronavirus disease 2019) is a contagious disease caused by the SARS-CoV-2 virus that often causes respiratory symptoms. First articulated by the director-general of the World Health Organization (WHO) on February 11, 2020, COVID-19 was initially discovered in 2019 in Wuhan, China, with the first confirmed case in the U.S. on January 20, 2020 in Seattle, Washington. It is a result of the third novel (previously unidentified) strain of coronavirus to emerge in the 21st century, following those responsible for the severe acute respiratory syndrome (SARS) epidemic in 2002-2003 and the Middle East respiratory syndrome (MERS) outbreak on the Arabian Peninsula in 2012.

History of Coronaviruses

The term "coronavirus" was coined in the late 1960s, when electron microscopy revealed a common structural feature in different viruses observed in humans and animals: a crown, or corona, of protein spikes projecting from the viral particle. Research would show this newly identified category of viruses was responsible for a significant number of respiratory illnesses, with morbidity ranging from a mild cough to pneumonia and even respiratory failure. In serious cases, symptoms could include fever, headache, fatigue, and difficulty breathing. Human transmission occurs through inhalation of airborne particles in saliva droplets or hand contact with the eyes, nose, and mouth after touching an infected surface. Like with influenza and the common cold, proximity to an infected person is the leading cause of viral spread.

Animals, wild and domesticated, are carriers of most coronaviruses. When these strains mutate and become transmissible to humans, who lack innate immunity, they are potent and spread quickly. For comparison, the SARS outbreak, originating in Guangdong, China, infected nearly 8,100 people worldwide over nine months; 774 deaths were attributed to the disease. MERS, though heavily concentrated in Saudi Arabia with over 80% of the nearly 2,500 reported cases, reached 27 countries, according to the WHO. By the end of 2021, there have been 275 million cases and 5.36 million deaths due to COVID-19.

Rapid Domestic and International Spread

Roughly one thousand miles north of Guangdong, dozens of people associated with a seafood and poultry market in Wuhan, China, began experiencing pneumonia-like symptoms in December 2019. Chinese researchers confirmed a novel virus as the cause in early January; the first death, a 61-year-old local man who frequented the market, was reported on January 11, 2020. The WHO declared a global health emergency three weeks later, by which time nearly 10,000 cases were confirmed. The U.S. federal government announced its first travel restrictions the next day, limiting entry from China to U.S. citizens, permanent residents, and foreign nationals who were immediate family members of a citizen or resident.

Fueled by international travel, COVID-19's spread accelerated in February 2020, appearing in Europe, the Middle East, and Latin America for the first time, with particularly severe outbreaks in Italy and Iran. This prompted closure of public spaces, businesses, universities, and social activities in those countries. Despite the first COVID-19-related death in the U.S. on February 29—a Seattle, Washington, man who had recently returned from China—few Americans appreciated the precariousness of the situation. (Two deaths that occurred weeks earlier in Santa Clara, California, would later be attributed to COVID-19.) The WHO would declare COVID-19 a pandemic a few days later.

On March 11, 2020, professional basketball player Rudy Gobert of the Utah Jazz tested positive for COVID-19, leading the National Basketball Association (NBA) to announce it would suspend its season until public safety could be ensured; other professional and collegiate sports associations followed suit, as did theaters and entertainment venues nationwide. These developments, coupled with growing COVID-19 hotspots in the Pacific Northwest and New York metropolitan area, spurred stronger public health warnings and interventions, like social distancing. On March 15, the Centers for Disease Control and Prevention (CDC) discouraged gatherings of more than 50 people for eight weeks, followed on April 3 by the first guidance to wear face coverings in public. By month's end, airlines would mandate mask-wearing on flights. School districts across the country, including its largest, the New York City public school system, told students to stay home. By the end of March, the United States had the most confirmed cases in the world, exceeding 81,000, and a death toll over 1,000; over a year later (May 2021) U.S. cases exceeded 33.2 million and a death toll over 590,000. Uneven application of public health measures across states would diminish their effectiveness in slowing the spread. By Memorial Day, 100,000 deaths in the U.S. were attributed to COVID-19—the most of any nation—just as infection rates were rapidly climbing in southern states. By February 2021, one year to the week of the first reported COVID-19 death in the U.S., the American death toll would surpass 500,000.

Economic Impact

Government stay-at-home orders to stem the virus shuttered not only public spaces but most commercial activity, prompting an unprecedented economic freefall. Tourism and other service-based industries were decimated, while many offices and technology-enabled workplaces shifted to remote operations. Ten million Americans employed in March were out of work by April. The real U.S. gross domestic product (GDP) plummeted by \$2.15 trillion—more than one-third—in the second quarter of 2020; the downturn would be worse than the 2008-2009 financial crisis. By May, other major global economies, including Germany and Japan, had also entered recessions.

It was at this time, the spring of 2020, that the WHSR initiated an effort to capture the scope of COVID-19's impact on the homeland security and law enforcement communities, which had to continue to execute their missions under extraordinary circumstances. Some challenges, like maintaining the safety of the frontline workforce, were understood but the duration unknown. Not knowing how soon vaccines would be developed and available, WHSR members began soliciting input from homeland security leaders about how their organizations were adapting and what administrative, security, and operational concerns they anticipated to arise as the pandemic unfolded.

mRNA Technology and Vaccines

mRNA, or messenger ribonucleic acid, is made through copying a portion of the DNA in a cell and uses that code to make proteins. The utilization of mRNA for research and medical purposes has occurred for decades, according to the CDC. Currently, several types of vaccines are used for various diseases, both viruses and bacteria, including those that contain dead forms of a germ, live but weakened forms, pieces of a germ, or the toxins produced by a germ. mRNA vaccines, however, simply contain the mRNA coding, along with chemicals to allow these into a cell easier, that teaches cells to make the spike protein found on COVID-19. The spike protein is located on the outside of the virus and is what enables the virus to enter a cell. Using this protein allows your cells to experience the spike proteins as if they had experienced the full virus while allowing the cells to break down the used mRNA along with all used mRNA in cells. The applications of mRNA as vaccines have been studied for possible ways to address previous diseases including influenza, zika, rabies, and cytomegalovirus.

The greatest strength of mRNA vaccines is the rapidity with which they can be created. mRNA



technology enabled vaccines to be developed from hours to a couple of days by the two leading companies following the publishing of the COVID-19 genetic information. This efficiency coupled with the ability to parse out the genetic coding for the spike protein, and the development of a lipid casing for the vaccine to enter the cells, enabled the vaccines to be fully developed, tested, and accepted within a year.

COVID-19 Variants

Because of the simplicity of viruses, they are more apt to undergo quick mutations that lead to variations of the virus, known as variants, which may have different levels of effectiveness and danger. Virus variants are classified by the CDC as Variants Being Monitored, Variants of Concern, Variants of Interest, and Variants of High Consequence. These classifications are based on multiple factors including their comparative ability to spread and their severity. At the time of this report, the B.1.617.2 strain of COVID-19, known as Delta, and the B.1.1.529 strain, known as Omicron, are classified as variants of concern. This classification is due to the variants' greater ability and speed of spreading, their ability to create more severe cases, and the lowered effectiveness of some monoclonal antibody treatments (the most successful treatment found so far).

Breakthrough Infections vs. Unvaccinated

Although the approved COVID-19 vaccines have high efficacy rates (70%-95%), a concern being monitored closely is the instance of breakthrough infections. While these breakthroughs do occur and those infected can still spread the virus, the likelihood of severe symptoms, hospitalization, and death is much lower than those of the unvaccinated. The CDC reports that studies are showing those vaccinated are 8 times less likely to be infected and 25 times less likely to require hospitalization or die from COVID-19. Another concern regarding breakthroughs is more contagious variants. Although the Delta and Omicron variants are much more contagious than the original strain, vaccines still show a high efficacy rate in prevention of infection and severe symptoms and those experiencing breakthrough infections seem to be contagious for less time. The variants' effect on unvaccinated individuals, however, is causing higher infection rates and may be causing more severe symptoms. At this point most COVID-19 hospitalizations are made up of unvaccinated individuals.

Vaccine Boosters

A large factor in the prolonged battle with COVID-19 is the loss of vaccine efficacy over time. Studies have shown a decrease in vaccine effectiveness over time and a loss of protection against the Delta variant. The vaccinated still display less likelihood of severe symptoms, but the lower protection against infection, especially for the elderly, immunocompromised, and those continually exposed (such as healthcare workers), is a major concern for containing the virus. Currently, boosters are recommended for all adults for all three vaccination brands — 6 months after receiving the second dose in the two-dose series for Pfizer-BioNTech and Moderna and 2 months after receiving the single-dose Johnson & Johnson's Janssen vaccine.

Executive Order

To combat the spread of COVID-19, President Joe Biden issued two executive orders pertaining to vaccinations. The first executive order issued by Biden (Executive Order on Requiring Coronavirus Disease 2019 Vaccination for Federal Employees) required all federal government employees to be vaccinated by November 22, 2021. The second executive order (Executive Order on Ensuring Adequate COVID Safety Protocols for Federal Contractors) required all employees of federal contractors who are paid through a federal contract to be vaccinated. All employees of a federal contractor were required to be vaccinated as of December 8. Shortly after these executive orders were announced, several states sued to stop them from going into place. The Eastern District of Kentucky issued a preliminary injunction halting the federal government's enforcement of the executive orders mandating vaccines in Kentucky, Ohio, and Tennessee. The Southern District of Georgia then issued a nationwide preliminary injunction to the executive orders. As a result, the enforcement deadlines have been suspended. DHS is currently not enforcing contractor vaccination clauses that have been put into contracts. Only if the injunctions are lifted will the clauses be enforced.

In addition to those executive orders, President Biden instructed the Occupational Safety and Health Administration (OSHA) to create an Emergency Temporary Standard mandating all employers in the United States with more than 100 employees to require their employees to be vaccinated or be subject to weekly negative COVID tests before entering the workplace.

The only exemptions for these mandates are medical or religious reasons. This Emergency Temporary Standard was immediately halted when the United States Court of Appeals for the Fifth Circuit issued a temporary stay. As of December 17 the temporary stay was dissolved by the Sixth Circuit. Barring action by the US Supreme Court, the Emergency Temporary Order from OSHA was planned to go into effect on January 10th.

Should these policies go into effect they will have massive implications on the American workforce. The Emergency Temporary Standard alone could impact over 80 million workers in the United States. These measures affect all workers regardless of whether they work from home or in the office. Violations of the OSHA policy would result in a fine up to \$13,653 per violation. OSHA withdrew the policies as an enforceable emergency temporary standard, but is still considering instituting them as a rule for the future.v

Current State

Entering the pandemic's second year, vaccine development and production turned a corner just as variants of the virus began to emerge. By the end of January 2021, pharmaceutical companies AstraZeneca, Johnson & Johnson, Moderna, Noravax, and Pfizer were producing vaccines that had proven effective, to varying degrees, in preventing or lessening the severity of COVID-19 infections; development of versions suited to counteracting variants is ongoing. The global vaccination effort would become the most complex logistics operation in history. The efficacy of vaccine rollout has been uneven across and within countries, raising concerns about equitable access to socioeconomically disadvantaged communities. By late December 2021, the U.S. had administered 497 million doses, with an average of 1.42 million doses daily, according to Bloomberg data.



Massachusetts' largest COVID-19 vaccination site, Hynes Convention Center, Boston, MA, USA.

Though the first vaccines were not available until December 2020, the U.S. presidential election proceeded as planned on Wednesday, November 3, 2020. Many states encouraged early in-person voting or absentee voting to discourage election-day crowds that might spread the virus at polling sites. Over 100 million votes were cast prior to election day, more than double the number in 2016. The counting of an unprecedented number of mailed ballots delayed the announcement of results in several closely contested states, including Georgia and Pennsylvania, until the weekend, when former Vice President Joe Biden emerged as president-elect.

Nearly 277 million people worldwide have been infected with COVID-19 as of December 2021, according to the Johns Hopkins University COVID-19 dashboard. More than 800,000 of the 5.4 million fatalities as of December 2021 attributed to the disease have occurred in the U.S.



A temporary art exhibit on the National Mall in Washington, D.C. of more than 600,000 white flags, each one symbolizing a life lost to COVID-19 in the United States.

Task Force Findings

Summary of DHS COEs Survey and Key Findings

The DHS Centers of Excellence (COEs), a grant-funded consortium of competitively selected lead universities established by the Homeland Security Act of 2002, conduct novel research to support and address emerging homeland security challenges. This network, under sponsorship of the Science & Technology Directorate, Office of University Programs, currently engages several hundred leading institutions of higher learning across the global spectrum. Centers work in conjunction with DHS stakeholders, industry, and national laboratories to develop customer-driven, cutting-edge knowledge and technology products driven by real-world mission needs.

With the onset of COVID-19 in March 2020, the affiliated universities across all 11 active centers and 6 centers' emeritus were forced into creating unique new models that dictated immediate conversion to virtual learning environments, adaptive remote research methodologies, and online education platforms. All faculty and staff were migrated to remote telework. In spite of situational demands, it remained imperative that research activities continued as scheduled to satisfy all defined project milestones and deliverables. As with industry, private sector, and government, the DHS COEs faced significant business, operational, and human factors sustainability challenges in managing novel environments to maintain steady-state activities and workforce balance while delivering on strategic objectives.

Surveys were conducted to gain their perspective, response, and innovative application to the challenges of operating in the COVID-19 environment. We received responses from 8 out of 11 DHS Centers of Excellence in the U.S. Of those surveyed, 50% said their portfolio had expanded due to the COVID-19 Pandemic. Five Centers said new areas of research had emerged, and 37.5% were working directly on COVID-related funded research projects. All the Centers agreed they had the technical capabilities and digital security to reliably work remotely and that telework was an ongoing option. When asked if telework impacted the level of collaboration within their Center, 50% said yes. Most employees are content to continue working from home. Over 88% of respondents said their employees rarely or never ask to return to the workplace.

Summary of Interviews and Key Findings



During the COVID-19 pandemic, businesses and government agencies have shown tremendous resilience and adaptability to change. While for many, immediate responses were initially chaotic, with the passage of time we saw companies working together to address PPE supply chain gaps, employers flex their work from home programs to allow for new ways of working, adoption of new technologies with surprising speed, and an alignment between the public and private sectors on how best to navigate through the pandemic.

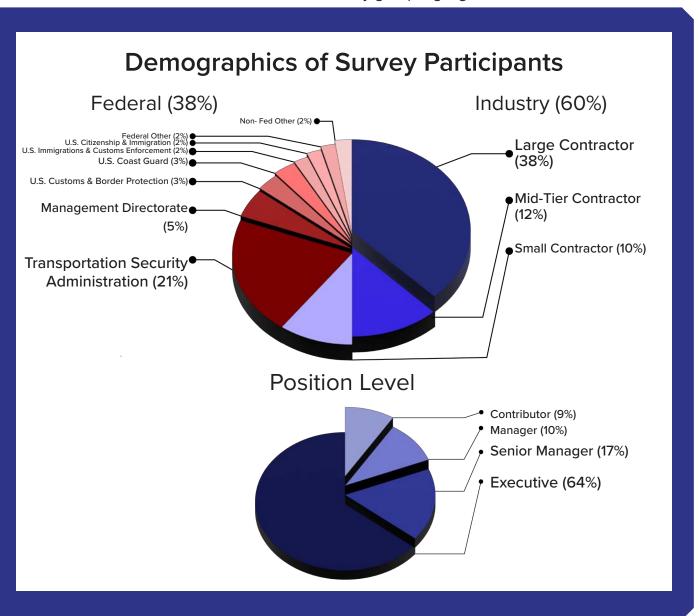
During the months of July to September 2020, the WHSR conducted an online survey across DHS agencies and its private sector members to understand how they had been affected, lessons learned from the crisis, and what they saw as preparedness actions for the future. Among the survey respondents, 40% were federal agency representatives and 60% were from private sector government contractors and suppliers.

The online survey was followed by a series of in-depth interviews with participants, to gain a deeper understanding of organizationspecific issues. In the sections that follow, we discuss the key insights from this research.



Key Findings

COVID-19 revolutionized how we communicate. We all experienced the impact COVID-19 had on how we communicate. Not only did it change our daily routines and ways of working, but also how federal agencies and private firms communicated changes to their employees, communicated with each other, and even how the government communicated with the public. Communication was by far the most talked about topic by all interviewees. Increased, effective and varied communication became critical to manage the pandemic across all departments. Many agencies chose to hyper-communicate, be more transparent with employees, and make access to senior leaders easier. In fact, leadership's provision of regular communications, transparency and support for employees were the top three best practices in identification and documentation that the survey group highlighted.



For example, the Transportation Security Administration (TSA) implemented daily calls with its delivery partners to coordinate COVID-19 response efforts and weekly town halls with the entire TSA workforce to update everyone on pandemic numbers, policy changes and highlight success stories and employee achievements. U.S. Customs and Border Protection is using frequent video conferencing to enable leadership to reach out to all staff members as they work remotely. They are sharing best practices with field workers on a daily basis.

DHS implemented a one-stop communications hub to connect all parties in two-way

communications in real time.

Angela Bailey, DHS's Chief
Human Capital Officer, said,
"We had a 'wormhole' that
allowed everyone to be
engaged and connected
at all times...having all intel
funneling into one place
allowed us to not have to set
up meetings, taskers. It was
chaotic, but incredibly helpful.
Everyone was clued in all the
time on what we needed to
do."

The United States Coast Guard created a coronavirus coordination team in-house to communicate effectively across the geographically



dispersed organization. Commandant **Admiral Karl Schultz** said, "Communication has been a keen focus throughout the pandemic." He and others talk of the importance of all staff members "hearing the battle rhythm" from the senior leadership.



The United States Border Patrol placed heavy emphasis on outreach and connecting with their workforce. Raul Ortiz, Deputy Chief of the Border Patrol in 2021, said, "One of the things we did was have town halls with the field. We completed all 27 sectors and the academy. This is an opportunitvy for everyone to ask questions, share, and look at what needs to be focused on. We talk about some changes we're trying to incorporate."

Rodney Scott, Chief of the Border Patrol in 2021, agreed and added, "Some best practices, as Chief

and Deputy we've always gone out to sectors and done musters to meet agents. The most you'll usually get is 100 at a time and most of the time you get 30-40. We accidentally discovered you get more engagement through these town halls. We're having 130-140 people on these things. Even when COVID is gone we'll keep doing Webexes. Before COVID, 100 participants would be huge. Now we're doing whole sectors or multiple sectors at a time. We're having 130-



140 lines... sometimes 400-500 people on Webexes. We're getting a ton of good feedback that they appreciate and like these calls. We get a lot of people who aren't even on duty to participate."

On the private sector side, companies increased the flow of information to employees and clients. COVID-19 broke some barriers, moving communication with clients from formal to less formal, focusing on solutions, with everybody working toward one goal. As **Kelly Ferrell**, Senior Vice President of General Dynamics Information Technology's

Intelligence & Homeland Security Division, said, "Our leadership team in turn put emphasis on communication (podcasts, videos, emails, COVID webpage)... We recognized that the key is to stay engaged both with employees and clients."

Matt Vaughan, President, Contract Research, Battelle, explained that they benefited from communication channels being flat and agnostic to hierarchy. He said, "Several innovations took place... because employees wrote directly to senior most executives about their ideas." He added that "because we had a flat structure with only five layers of management, every single person in Battelle knew where to be on March 11 when we went to teleworking."

Regarding changes on how we communicate with clients, **Heather Reilly**, who leads Deloitte's Defense, Security & Justice sector, said, "The silver lining has been less formality with clients and more real conversations. No fancy conference rooms or uniforms/suits, just humans."

However, government's communication with the public was at times chaotic. One senior DHS official emphasized how confusing the information was for the public. He said, "Media and government did a poor job on the news, especially on a regional level." He emphasized that misinformation is dangerous and harmful, and for the future there needs to be more agreement on how agencies communicate with the public.

Return to work will never be the same. Every interviewee discussed the major impact on the labor force. Not only on their work location, but on supporting employees at personal levels, keeping

up morale, facilitating work from home schemes, and addressing mental health concerns and fatigue.

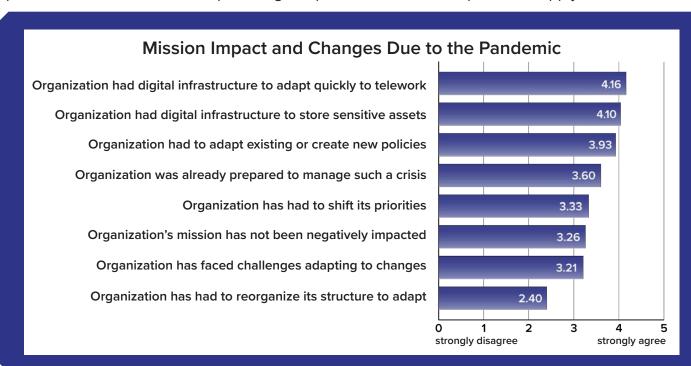


The U.S. Coast Guard revisited shift patterns and rotations to try to protect the older, more vulnerable staff members and to take account of childcare needs, particularly when both parents were Coast Guard staff, as their own childcare facilities had to close or run at reduced capacity.

Kelly Ferrell said that General Dynamics immediately introduced an indefinite work from home policy, as almost every organization did. This brought with it concerns about new ways of working, how to keep work-life balance, what leadership should expect from employees, how to be flexible and understanding, and listening to employees' needs. She said her company "takes care of employee mental well-being. It instituted quaran-team sections with space for people to share how they're doing."

Soraya Correa, Chief Procurement Officer of DHS, believes the pandemic led to stronger communication within her office. She explained, "What I think has changed is how we collaborate and how much more we do. There's a consciousness of saying 'I can't wait until I get to the office to see Angie or Joe', and now I have to intentionally pick up the phone to call people directly. That's helped. It's made us have to reach out and help each other a lot. We have to intentionally work together. There are no bad ideas in an emergency. Prioritize your needs and what we need to accomplish. The most important thing is to communicate. Really listen to what the ideas are."

On the same point, **Heather Reilly** from Deloitte talked about immediate measures the company took to help the work from home program, including financial support for remote work. Other companies took similar measures, providing a stipend for COVID-19 expenses to apply toward



office supplies, gym memberships, childcare, etc. The same was the case for **Kevin Virostek**, Greater Washington Managing Partner for EY, who said, "The firm is working on developing offices of the future, assuming on average 28% of time spent in the office, 72% at the client, on the road, or working from home. EY is focusing on the development of long-term careers on a more hybrid model."

"The future of work is now." Heather Reilly



Vicki Schmanske, Executive Vice
President of Operations at Leidos, found opportunities within the upheaval brought on by the pandemic. She commented that "COVID has accelerated a lot of things we've known for a long time we've needed to get to. COVID forced us to do some things nobody was comfortable with and it worked, and now that it worked, why can't we sustain moving forward?"

Looking into the future, **Herb Wolfe**, Deputy Assistant Secretary, Deputy Senior Medical Advisor, DHS, said that he wants people to retain the ability to work from home. He said, "I'm thinking 15%-

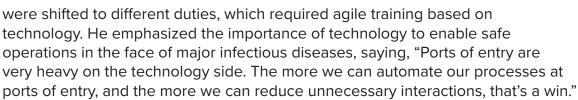
25% of people will never come back to the

office... Private sector and government need to realize a good employee in the office will still be a good employee from home." In fact, a recent survey by the National Association for Business Economics, published in January 2021, found that just 11% of survey respondents expect all staff members at their companies to return to pre-pandemic working arrangements eventually.

Technology became the differentiator in the COVID-19 response. Many agencies and companies were already in the process of implementing technological changes, but COVID pushed them to another level—not only regarding obvious technology improvements like optimizing the virtual environment but also how processes are managed, how information is protected, how administrative processes can operate quicker, and developing mobile technology and apps.

The survey showed that the majority of respondents agreed that their organization had the necessary digital infrastructure to cope with the challenges brought by the pandemic, but that policies and priorities needed to be adjusted to adapt. Yet several interviewees reported needing to purchase more virtual private network (VPN) connections, increase network bandwidth and start using video-conferencing and virtual collaboration tools for the first time.

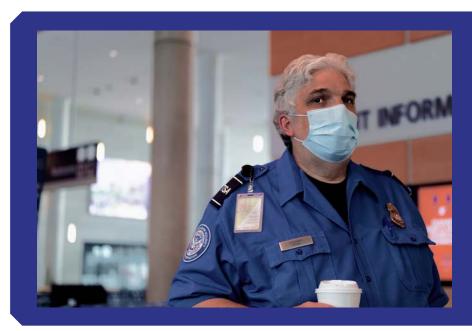
Mark Morgan, Acting U.S. Customs and Border Protection Commissioner, explained that during the pandemic, the agency had to rely on technology they had not used before. This required them to learn quickly and implement changes effectively. Because of the crisis, many agents





These thoughts were echoed by U.S. Customs and Immigration Enforcement (ICE) Homeland

Security Investigations (HSI) Special Agent in Charge Raymond Villanueva, who said that in the Washington field office, the number of laptop users increased from 2,000 to 13,000. Technology enabled agents to access criminal histories and other data remotely, and due to faster availability of data, they were able to speed up the work.



Tex Alles, DHS

Deputy Under Secretary for Management, said they scaled up IT systems to enable people to work remotely. He said, "We have ramped up from 20,000 VPN connections to 120,000 and the department bought 10GB connections for data centers."

Kelly Ferrell talked about how General Dynamics already had strong infrastructure, tools and capabilities to collaborate, with IT savvy employees, which facilitated their transition to remote work. She said their expertise in technical solutions enabled them to quickly support their clients. "GDIT rapidly enrolled 80,000 volunteers for the New York Department of Health and provided call center support to Veteran Affairs, where we migrated their workforce to home while also scaling up their workload."

Agile hiring and onboarding. The pandemic required many agencies and companies to make quick hires and have the new labor force in place and ready within days. Some quickly developed speedy onboarding processes while others broadened the search for candidates beyond traditional cities and tapped into new resource pools.

Given its vastly expanded role in response to the pandemic, **Peter Gaynor**, who was the Federal Emergency Management Agency (FEMA) Administrator since January 2020 and later became the Acting Secretary of Homeland Security, told us that FEMA has hired more employees than

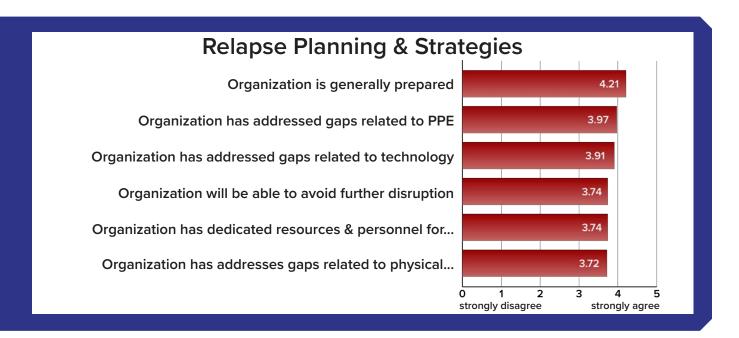
ever during the pandemic. The majority of hiring and onboarding has been achieved via telework. **Ray Villaneuva** asserted that despite the pandemic and new restrictions on in-person working, ICE is still hiring, sending new agents to the Academy, and testing and promoting agents.

"Mission first, people always." Vicki Schmanske

The U.S. Coast Guard had to rethink its recruitment and training practices to keep hiring at the required levels and continue to improve diversity in the workforce. **Admiral Schultz**, USCG Commandant, explained, "Training at Cape May is an 8-week experience and we cannot afford to shut it down. USCG... had to develop a safe model working with the local community." This included a re-scoped program, with shortened classes and additional safety procedures, limiting outside interaction in the community and using safer methods of transporting recruits to the facility.

Heather Reilly of Deloitte said that the new hybrid model of working allows the company to look for candidates to support their federal government business everywhere, not just in the DC market. She said Deloitte is using centers in places like Arizona where labor is cheaper, and they can work later because they're on West Coast time. She said, "Recruiting and hiring will be conducted from bigger pools. 90% of our federal team currently lives in the DC area, and long term probably 50% will live somewhere else." She said that these new hiring models allow for greater diversity, equity, and inclusion.

Lou Von Thaer, President and CEO of Battelle, said that the company managed to avoid furloughs and layoffs by moving some roles as the nature of required work changed. He said, "The CEO changed the structure of the company just before the pandemic" and this caused them to accelerate their hiring and training processes. "The company increased net utilization and hired over 1,000 people during the pandemic," indicated **Matt Vaughan**, President, Contract Research, Battelle.



Who is in charge? While many agencies and companies had contingency plans in place, and some were ready for critical events, initially there was little clarity about who was in charge from the government side. Due to the medical nature of the pandemic, the role fell to the Department of Health and Human Services, but they were not set up for emergency response, as was the case with FEMA. FEMA was prepared to manage national and local emergencies, but not those of a medical nature, and this created confusion early on.

Peter Gaynor of FEMA said, "Nobody was built for this, but you rise to the occasion. We've realized someone has to be in charge of big things when it comes to another pandemic, national emergency, failure of power grid, whatever. Who manages that? There needs to be an agency. I believe it's FEMA." He emphasized the importance of taking advantage of this situation and "redesign the government so we're ready."

In other agencies, decision-making structures and processes were altered dramatically to allow organizations to be more responsive and nimble. **Admiral Schultz**, U.S. Coast Guard, stressed the importance of "Decisional Agility"—the recognition that not all decisions will be right, but they must be made at the speed of need, and of not being wedded to bad decisions. They also devolved more decision-making authority to regional and local commanders, who better understood local conditions and workforce needs and could make faster and better decisions.

In the private sector, **Kelly Ferrell** at GDIT explained how they initially stood up a cross-functional and whole-of-company "tiger team," which held daily stand-ups. This was to ensure that every part of the organization understood what was happening and that the needs of all people in different parts of the organization were taken care of.

Supply chain disruptions and solutions. A common thread among the interviewees was the impact COVID-19 had on supply chains. Topics included disruptions

to the supply of critical components, moving manufacturing onshore, developing air bridges to speed up the provision of PPE, and stockpiling. Most survey respondents agreed that their organization is now generally prepared, having addressed immediate gaps in PPE and technology. Yet, more



future planning may be required, with gaps in physical infrastructure and staff preparedness seen to be among the key issues.

Peter Gaynor of FEMA said that an immediate impact was felt around PPE. FEMA has normally had an abundance of resources for disasters like hurricanes but had a shortage for the kind of supplies a COVID-19 response required. "People wanted 1 million N95 masks, but I didn't have them. We had to eventually tell them prove to us with data that you can stand behind that you really need it. That was a shock to a lot of people." He told us that people assumed the federal government had stockpiles of everything, and to a point they do, but they were not prepared for a global pandemic. He explained, "We make much more PPE in the U.S. now than we did in March. We built an air bridge and flew almost 250 flights from China to the U.S. trying to find PPE for the U.S."

Jim Cannon, President & CEO of FLIR Systems during the pandemic talked about the toll that COVID-19 chaos had on his company. He said that during the first couple of months they had daily fire drills to source components that were necessary to have a product. "We could make all the guts of a thermal imaging camera but couldn't find aluminum-magnesium housing to put it in, since all those sources were shut down." The lack of components forced many companies to invest heavily to keep their supply chains open. Cannon said, "We had to pay extraordinary amounts of money for things like premium freight to manage not just global restrictions but state by state, too. We had to absorb all of those costs."

Another impact on companies was the fact that there was little visibility into how much inventory was truly needed. At FLIR, for example, they worked with the federal government to ramp up their fever-screening tools, but in the end, the government needed a lot less than they had forecasted, leaving the company with a huge surplus of inventory and a financial hit.

A positive outcome of the pandemic was that many companies worked together to help each other to address supply chain issues. For example, when FLIR couldn't make thermal cameras because of supply chain issues, General Motors partnered with them and solved their supply chain needs. "They took zero dollars," said Cannon, "because they thought it was the right thing to do for America. They had guys making car parts stop so they could make camera parts. We gave them designs for camera housings and in days they supplied us with products. We paid them for it, but GM did all of that without asking for a dime or any recognition."

Regarding supply chain issues, **Peter Gaynor** said, "We're not out of the woods with COVID. There's a lot of things we don't make in America." He made the point that the government needs to redefine what is considered a national asset to ensure we have enough supply when we need it. He indicated that "we've learned a lot about supply chain and how interconnected it all is. N95 masks are a good example. If that's an item critical to the security of the nation, then we need to invest in making them just like cruise missiles. There are probably 100 other items like that that we take for granted. We have to invest in all of that. We can't have short-term memory on that and just invest for a few years."

We must learn from the best is Gaynor's message. "There are some excellent examples of effective managing of supply chains. Nobody manages a supply chain better than the Department of Defense." The DoD manages their supply chains using a logistics software called Supply Chain Control Tower, which tracks and controls even the tiniest part or component of defense equipment. Gaynor said, "An admiral took that and stripped out some stuff and stood it up for PPE and gave it to us on a handshake for this pandemic. We used that for N95 masks."

Free Response Categories and Themes

Effective Strategies

- 1. Communication
- Teleworking and Technology Support
- 3. COVID-19 Protocol
- 4. Concern for Employee Safety
- 5. Flexibility
- 6. Supportive Programs and Policies

Concerns with Re-Entering the Workplace

- Physical Workplace Infrastructure
- 2. Safety Guidelines
- 3. Employee Well-Being
- 4. Managing Anxiety
- 5. Employee Resistance
- 6. Child Support

Areas for Improvement

- 1. Safety Concerns
 Returning to Workplace
- 2. Long-Term Planning and Readiness
- 3. Teleworking Guidance
- 4. Client Support
- 5. IT Infrastructure
- 6. Employee Support and Services
- 7. Lessons Learned Documentation

Concerns with Pandemic Resurgence

- 1. Collaboration
- 2. Employee Well-Being
- 3. Risk Assessment
- 4. Broader Impacts
- 5. Accomplishing Mission
- 6. Long-Term Planning
- 7. IT Infrastructure

Lessons Learned

- 1. Value and Effectiveness of Teleworking
- 2. Crisis Preparation
- 3. Communication
- 4. IT Infrastructure
- Adaptability and Flexibility

Concerns with Digital Security

- 1. No Concerns/Effective Existing IT Infrastructure
- 2. Troubleshooting IT Problems
- 3. Continuous Evaluation

Another lesson learned regarding supply chains is understanding where the private sector has an advantage and letting them do what they do best. For example, regarding the management of warehouses that hold the stockpiles, Gaynor said, "One of the things we're trying to do is not own any of the warehouses. Let a private contractor with warehouses manage it. Pay a contractor to do vendor management. Use that stockpile to move it out the door and keep it fresh. The federal government is not that good at this stuff. There's a role for government and a role for business. We need to work in concert. We shouldn't try to take over things we have no business doing."

Return to Work

As we moved further into the pandemic in 2021, we began to see changes implemented in the government and contracting workforce. While most have continued working remotely, frontline workers have remained on the job, often at great risk to themselves and their families. Throughout 2021, both large firms and DHS targeted a Return to Work (RTW) timeline that focused on June 2021 and began sliding to the right. The Delta variant surfaced in the U.S. and was responsible for more than 99% of COVID cases, twice as contagious as previous variants and with an overwhelming increase in hospitalizations. September 2021 became the true target for RTW.

Nearing fall and the September RTW focus, COVID-19 began to look different once again. Many firms reopened in September 2021 for vaccinated employees with requirements of daily health declarations for those unvaccinated. Offices began to open up for those who needed or wanted to come in, creating a robust hybrid model with intentional convening and collaboration occurring, as reported by **Kevin Virostek**, Managing Partner at EY. As government clients begin to return to their offices, firms continue to monitor their contract place of performance requirements and collaborate with government leadership to meet corporate expectations.

DHS remains flexible on where work is done for contractors. For DHS Office of the Chief Procurement Officer staff, they continued to work effectively in their own very flexible work environment and still met or exceeded all goals and metrics. DHS agencies and components continue to work with DHS Headquarters, Office of Management and Budget and the Safer Federal Workforce Task Force and no date has been set for re-entry into the workplace on a broad scale. According to **Paul Courtney**, DHS Chief Procurement Officer, RTW for DHS will likely be more about reimagining work schedules and remote work while balancing that with providing opportunities for in-person collaboration. The goals are to better meet the needs of DHS employees and customers, find new and creative ways to bridge gaps, train and develop the workforce, and leverage technology to their best advantage. While communication will remain a constant, how we communicate and collaborate will continue to evolve.

Multiple government contracting firms reported an increase of on-site work in the fall while most continued to elect to work from home the majority of the time. National recruiters report that remote work has become a current requirement from applicants, especially among the millennial generation, although the expectation is to return to in-person work when it is deemed safe.

With the first cases of the Omicron variant reported in the U.S. in December of 2021, we saw an even more highly transmissible, while milder, strain of COVID-19. This halted much of the RTW, which was occurring as the caseload by the end of 2021 far surpassed any previous records for new daily cases. Once again, RTW was pushed to the right. **Kevin Virostek** said EY's offices are open and seeing little traffic. Other firms confirmed similar circumstances. They expect numbers to increase and return to pre-holiday levels by early 2022 as the surge hopefully pulls back.

Bill Weinberg, Assistant Administrator with TSA, shared that TSA had begun RTW planning when the Delta variant hit. When it faded, they reinvigorated the re-entry plan only to have Omicron pop up. They are to provide their re-entry plan to DHS by mid-February 2022, but the implementation date is pending based on case numbers declining. TSA will give Headquarters and Administrative staff employees



numbers declining. TSA will give Headquarters and Administrative staff employees 45 days of notice prior to effective re-entry date and will still allow telework and flexibility for those who can work that way. Since the vast majority of the TSA workforce are Transportation Security Officers who cannot telework, COVID cases among the frontline have impacted and continue to impact passenger screening, especially at larger airports in metropolitan areas. Ongoing review of thousands of vaccine exemption requests also affects their workforce availability.

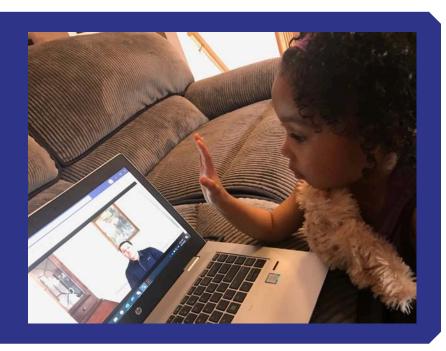
Admiral Karl Schultz, USCG Commandant, shared the following regarding the USCG Workforce and expressed sentiments that are universal at this point in the pandemic. "Our Coast Guard workforce has been tremendously agile, innovative, and resilient throughout the COVID-19 pandemic. 'Leading through leaders' across our geographically disaggregated organization, Coast Guardsmen sustained frontline operations both here in the Homeland and across the global maritime commons. Lessons derived from operating in this complex environment will serve to shape future workplace planning."

Conclusion

In conclusion, the open and candid responses of the interviewees have given us a window into the impact of this pandemic at the most intimate levels of organizational operations across DHS agencies and their partners. From disruptions in supply chains to gaps in technology, companies and government agencies faced it all. The outcome of this pandemic, the true impact, is still to be defined. Without a doubt, the loss of human life and impact on the worldwide economy will leave a lasting mark on the world.

We have also seen incredible resilience, collaboration, and innovation in response to this crisis. Companies working together, government agencies doing their best to address the flood of human concern, and at the core people working to help people. With light at the end of the tunnel brought by new vaccines, we must now document and learn from these lessons to ensure that governments and businesses alike are prepared for new challenges the future might bring.

Ever, the daughter of an HSI Special Agent, and her favorite bunny rabbit are being sworn in as HSI Special Agents by the HSI Deputy SAC, Washington Field Office during virtual Take Your Child to Work Day.



By The Numbers

The First Two Years of COVID-19

29.1
MILLION
TOTAL CASES IN 2020

529,000 DEATHS IN 2020

58.5
MILLION
TOTAL CASES IN 2020

832,000 DEATHS IN 2020

9.6
MILLION
JOBS LOST BY APRIL 2021

69%

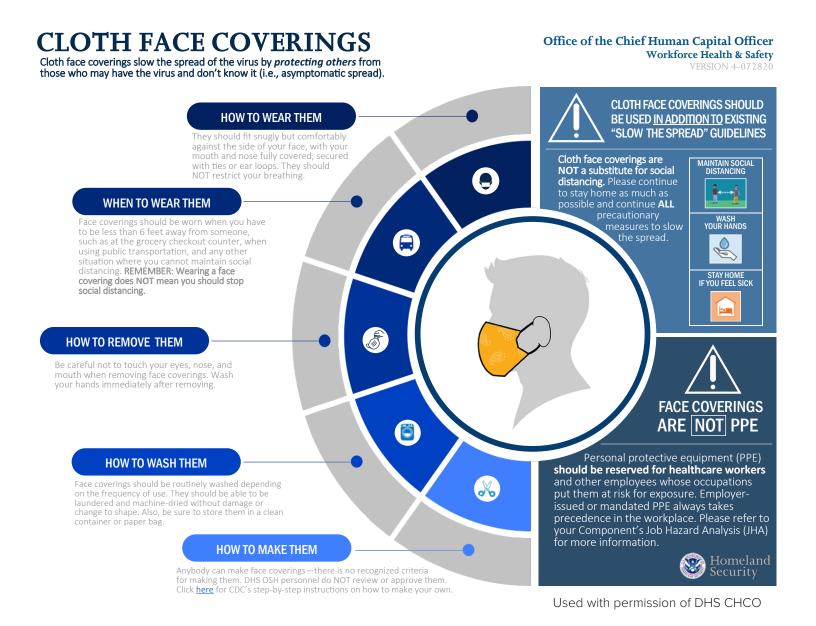
OF PEOPLE WORKING REMOTE IN MID 2020

59%

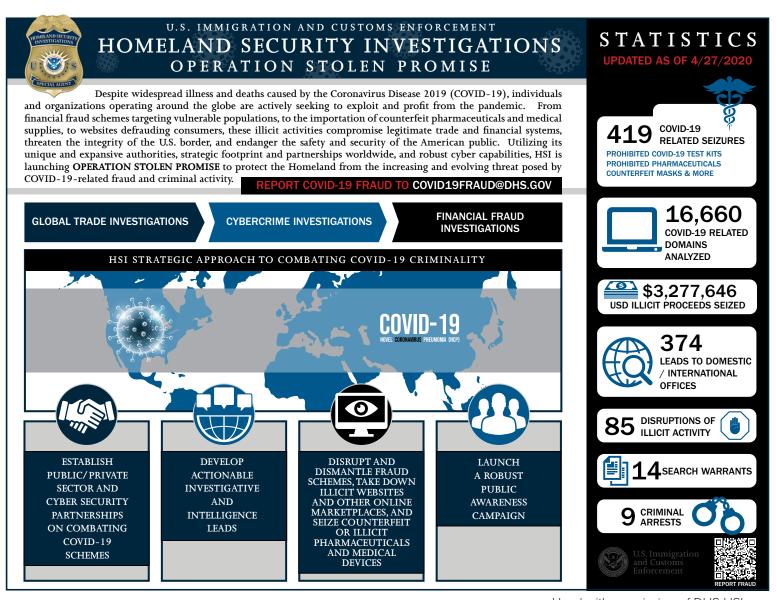
OF FEDERAL EMPLOYEES
WORKING REMOTE
BETWEEN MARCH 2020
AND APRIL 2021

DHS Advisory Infographics

Face Coverings Policy



HSI Operation Stolen Promise



Used with permission of DHS HSI

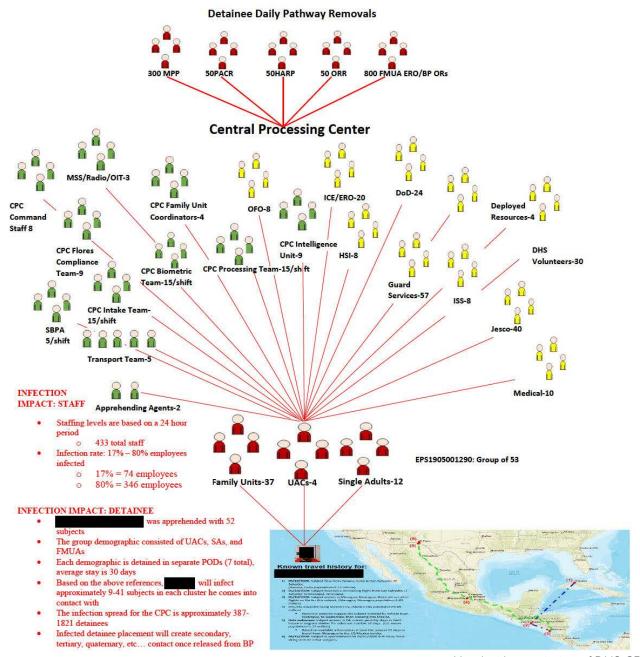
CBP Contact Tracing Model



CPC Contact Tracing Model



Reproduction Number (Ro) -The formal definition of a disease's R0 is the number of cases, on average, an infected person will cause during their infectious period. A number of groups have estimated R0 for this new coronavirus. The Imperial College group has estimated R0 to be somewhere between 1.5 and 3.5. https://labblog.uofinhealth.org/rounds/how-scientists-quantify-intensity-of-an-outbreak-like-covid-19 Confined Spaces Modeling — Using research from cruise ship data, the basic reproduction rate was four times higher on-board compared to the R0 in the epicenter in Wuhan where R0 was estimated to have a mean of 3.7. In a cruise ship, the R0 was 14.8 initially and then declined to a stable 1.78 after the quarantine and removal interventions were initiated. https://academic.oup.com/jtm/advance-article/doi/10.1093/jtm/taaa030/5766334.



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Summary

This pandemic is the first of its kind for our country in our lifetime. It has brought with it a constantly changing landscape and countless unforeseen circumstances. Despite it all, the work and dedication to the mission has continued on for DHS and industry. Both have overcome challenges by working together. A constant focus we saw again and again was the value of communication and taking care of the people.

Although many of the changes brought by COVID-19 have been negative, the interviews and surveys we conducted showed that there have also been many positive changes to the way we work. Remote work has been proven to not only be feasible, but to be even more productive than traditional in-person work in many instances. Organizations have placed higher priority on their employees' mental health and well-being. Leadership has engaged and communicated with their employees like never before.

While this situation continues to evolve and we face new developments such as the highly contagious Omicron variant, we think it's critical to publish this document. We will post updates to this document as things change. We continue to have tremendous confidence in DHS and industry working together.

"Nobody was built for this, but you rise to the occasion." FEMA Administrator Peter Gaynor

Photo from TSA.gov

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The Washington Homeland Security Roundtable

The Washington Homeland Security Roundtable is a 501(c)(6) non-profit group of firms actively engaged in homeland security policies, practices, procedures, and procurements as a user or supplier of homeland security equipment or services designed to protect the U.S. homeland.

Our programming is centered on the idea of hosting true dialogue and collaboration on homeland security challenges between industry and government. Our events are smaller and focused, giving members a real chance to get to know the senior leaders we are hosting. We hold regular events with senior leadership throughout DHS to give members knowledge of the high-level strategic direction of the agency, and long-term programs with executives and mission staff, so members understand how the Agency mission is operationalized, and firms can contribute.

Our meetings generally feature a senior-level DHS official who will give a brief overview, fairly informal in nature - and then moderate questions with members. We have designed the Roundtable to be an open dialogue between Roundtable members and public officials who impact, influence, and set policy and procedures affecting the U.S. Department of Homeland Security and other federal, state and local organizations that are engaged in homeland security efforts.

We strive for a setting that fosters open conversations between WHSR members and the DHS representative to establish how industry can better serve the needs of DHS, and to serve as advocates for the Department and for the missions of the Department.





COVID-19 Current State Analysis 2020-2021

Washington Homeland Security Roundtable

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WHSR COVID-19 CURRENT STATE ANALYSIS