



August 2021

DHS @ 20: Navigating a Changing Security Environment

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DHS @ 20: Navigating a Changing Security Environment

Introduction

The U.S. Department of Homeland Security (DHS) will enter its third decade of existence in November 2022, shortly after the upcoming midterm elections. As it does, DHS confronts a different set of challenges than those that dominated the threat landscape at the time of its creation, when its mission centered on the threat of foreign terrorist organizations striking U.S. soil. Since the department's founding, a confluence of technological (e.g., social media, drones, artificial intelligence), societal (e.g., political polarization, growth in domestic violent extremism), and ecological (e.g., climate change) factors have complicated DHS's mission and arguably made the department more relevant than ever. An observation from famed futurist Ray Kurzweil at the dawn of the twenty-first century can help us understand a major driving force behind the changes that DHS confronts:

The whole twentieth century was actually not one hundred years of progress at today's rate of progress. It was twenty years of progress at today's rate of progress. And we'll make another twenty years of progress at today's rate of progress, equivalent to the whole twentieth century, which was no slouch for change, in another fourteen years. And then we'll do it again in seven years. That pace will continue to accelerate, and because of the explosive nature of exponential growth, the twenty-first century will be equivalent to twenty thousand years of progress at today's rate of progress; about one thousand times greater than the twentieth century.¹

As Kurzweil articulates, the environment in which DHS operates is not only changing, but the pace of change has grown exponentially. This report is designed to aid in conceptualizing DHS's evolving mission as the department turns 20 and to help decision makers prioritize important structural reforms. This report's suggestions can help prepare DHS to confront security and related challenges that will continue to evolve at accelerating speeds and in increasingly interconnected ways. Key challenges that will demand the department's attention include:

• Communicating effectively in a digital environment. The digital information environment has amplified the importance of explaining oneself clearly and concisely. Today's media landscape, especially social

media, prioritizes speed and attention over nuance and accuracy. While this dynamic has advantages, it enables the spread of partial, misleading, or outright false information at unprecedented speed. Perceptions often crystallize based on faulty information. As a large bureaucratic organization, DHS frequently struggles to explain its actions in a way that meets the demands of this information environment. This dynamic has contributed to DHS becoming a political lightning rod and has sometimes impeded the department's ability to build the trust and partnerships it requires.

- Addressing an ever-shifting landscape of violent extremism. The United States confronts a landscape of violent extremism in which the greatest threats of violence now arguably emanate from within. DHS's October 2020 Homeland Threat Assessment concluded that domestic violent extremists present "the most persistent and lethal threat" to the homeland. Of this threat stream, white supremacist extremists have unambiguously carried out the greatest share of lethal attacks in recent years. The United States has also witnessed a general movement toward armed politics and violent activism, a trend punctuated by the notorious January 6 attack on the U.S. Capitol. Multiple factions and movements have eschewed traditional democratic processes, instead resorting to violence or the threat of violence.
- Reorienting toward great power competition. The U.S. national security apparatus has begun to reorient toward great power competition with nation-state adversaries like Russia and China. For DHS, this requires a repurposing, in part, of existing capabilities, along with the development of new capabilities.

The reforms we propose were developed against the backdrop of these challenges. To contextualize our knowledge of DHS, and in the interest of full disclosure, Valens Global (the firm with which the authors of this report are associated) has undertaken multiple projects for DHS, including being retained to help craft DHS's 2019 *Strategic Framework for Countering Terrorism and Targeted Violence*. We were afforded the opportunity to analyze the department's future in the course of our research work for DHS. This report, which we decided to publish because we believe that the department's challenges and evolving role are worthy topics of public discussion, is informed in part by aspects of DHS-funded research for which no confidentiality agreements apply.³ Our suggested reforms can be understood as a mix of targeted improvements and broader initiatives that will enable DHS to:

• Communicate in a manner commensurate with the current information environment:

- Better anticipate evolving challenges within a fast-changing landscape; and
- More effectively attract the talent it needs to execute its mission.

To inform our recommendations, we conducted open-source research and interviewed current and former officials. Interviewees included political appointees and career DHS employees with direct knowledge of the issues covered in this report.

This report is divided into six sections, the first of which is this introduction. The second section examines the current state of DHS's public affairs and provides actionable recommendations for improvement. The third section provides recommendations related to DHS's efforts to counter domestic terrorism. The fourth section addresses how DHS can adapt to a modern workforce. The fifth section examines how DHS can anticipate future disruptions and trends. The sixth and final section discusses overall conclusions regarding the challenges DHS faces and how it should adapt.

Public Affairs

In recent years, DHS has become a lightning rod for controversy in an increasingly polarized country. This section outlines recommended changes to DHS's public affairs apparatus and messaging. It is important that, consistent with its mission, DHS be perceived as a professional and nonpartisan department that strives to address pressing security challenges on behalf of all Americans (and, it goes without saying, to embody these principles in practice as well).

One important aspect of addressing how the department is perceived is reforming its public affairs apparatus. We recommend that DHS increase journalists' access to information about its operations; deepen cooperation between the Office of Legislative Affairs (OLA) and the Office of Public Affairs (OPA); enable components to frequently update the public, especially on contentious issues; and request additional resources for internal communications. As an overarching guide to the department's messaging, we recommend that the department adopt an apolitical, objective tone in its communications, and highlight its role in protecting the United States against the country's most pressing threats as a unifying theme of its work.

Overview of the Challenge

DHS faces two major reputational challenges. First, perceptions of the department have become polarized. Though a recent Pew Research Center poll found that 71 percent of Americans view the department favorably, the survey

discerned a 26-point difference between Republicans' and Democrats' perception of the department.⁴ Second, the unpopularity of some DHS components can present challenges to the work of other components. Recent polls indicate that U.S. Immigration and Customs Enforcement (ICE) is the most unpopular agency in the federal government.⁵ ICE's reputation has harmed its ability to work within state and local communities, punctuated by the "Abolish ICE" movement that gained visibility starting in 2018. However, distrust of ICE has also, as a former political appointee told us, hindered the Federal Emergency Management Agency's (FEMA) ability to provide disaster relief to a community in need. In this instance, despite an impending hurricane, some Hispanic residents in affected areas rejected FEMA's offers of assistance out of fear that they would be vulnerable to immigration enforcement operations.

Current and former DHS officials whom we interviewed expressed a frank awareness of the reputational challenges the department faces. A former political appointee described the department's reputation as reaching a nadir in recent years. Another former official with public affairs experience indicated that many in the media have adopted increasingly negative views of the department. A currently serving official said that the department's reputation harms DHS's ability to forge private partnerships.

While many factors have contributed to DHS's reputational issues, the department's approach to public affairs—including its messaging and the current form and function of its public affairs bureaucracy—is part of the problem. In particular, interviewees expressed concern that the department's public affairs approach under the Trump administration created the perception that the department is a political tool rather than a professional organization addressing pressing security challenges. They also noted that the department's lack of transparency has fueled suspicions about its operations and contributed to misunderstandings about DHS's objectives and authorities. A final concern is that structural deficiencies in the department's public affairs apparatus have handicapped its ability to communicate effectively when crises occur.

There is reason to believe that DHS leadership under the Biden administration will not engage as heavily in partisan politics as was the case for some officials under the Trump administration. Assuming this optimism holds true, DHS should capitalize on its new leadership to implement a **public-affairs reset**. We recommend that the department take steps to alter both its public affairs bureaucracy and messaging to **facilitate being seen as credible across partisan lines, with a core message that can span various administrations**.

In the course of our research, we identified four key weaknesses that have hindered the department's efforts to communicate with stakeholders inside and outside the department. The remainder of this section describes those weaknesses and proposes remedies.

Journalists' Lack of Access to DHS Operations

Policymakers ask both the military and DHS to carry out controversial or unpopular tasks for the sake of national security, and both institutions have made serious mistakes. Yet the military has been one of the most popular institutions in the country, even along partisan lines, while DHS has been more controversial in recent years. Why? Though there is no single overarching cause, part of the answer may be found in both institutions' public affairs strategies. Interviewees who have had experience both at DHS and in the military indicated that the military has more effectively humanized its work, particularly through the use of journalist embeds.

DHS, in contrast, has provided journalists with little access to its operations. As a result, DHS has struggled to raise awareness about some of its work, including efforts that would enjoy widespread support, such as FEMA's COVID-19 relief efforts. Similarly, with more access to even the department's more controversial operations, journalists may be able to humanize the department's work and dispel harmful rumors.

We recommend that DHS:

- 1. Embed journalists with components such as the Coast Guard, FEMA, and the Cybersecurity and Infrastructure Security Agency (CISA). These embeds could highlight the work these entities undertake. These embed opportunities can help the department share the challenges it faces with the broader public, humanize its work, and highlight some of DHS's work that the media often overlooks.
- 2. In select situations, embed journalists in components which face greater criticism (e.g., ICE, CBP). Here, the risk of DHS employees making mistakes in front of journalists, or receiving unfair press coverage, will be higher. However, on the whole, the ability to humanize the department, explain the challenges it confronts, and provide transparency to the American public will outweigh the negatives.

Gaps Between the Department's Public Affairs (OPA) and Legislative Affairs (OLA)

Coordination between OPA and OLA remains limited and primarily informal. This lack of coordination is particularly problematic given that Members of Congress, in addition to controlling the department's budget, influence public perceptions of the department. While DHS will always face congressional scrutiny and criticism, interviewees acknowledged that insufficient coordination between OPA and OLA has contributed to DHS's poor reputation in some segments of Capitol Hill.

The department must consider how its messages will resonate in Congress. Greater cooperation between OPA and OLA is essential to this. For that reason, DHS should:

Deepen and formalize coordination between OPA and OLA. OPA
and OLA should coordinate their messages, strategies, and outreach.
Some steps that may enhance coordination include personnel exchanges,
periodic meetings, and joint working groups on specific topics like
domestic terrorism.

Communicating with the Public Following Controversies

When a controversy involving DHS arises, the department's public affairs apparatus is ill prepared to respond. According to a former senior OPA official, OPA's media team had only five staffers to respond to roughly 500 to 1,000 media inquiries per week during his tenure. Those staffers could only respond to a fraction of the inquiries they received, leading many journalists to conclude that DHS was ignoring their requests, with some concluding that there was no reason to reach out to the department in the first place. Beyond OPA, DHS components often lack the authority and staffing needed to provide the media and public with regular fact-based updates about their activities or actions. In addition to the media requests OPA receives, some components also receive hundreds of media inquiries per week and similarly struggle to respond.

DHS's inability to promptly respond to inquiries, especially in the middle of a controversy, damages its reputation. For DHS components that receive substantial public scrutiny, some segments of the population will assume the worst about the components in the absence of information. Regular fact-based updates can allay some concerns and suspicions. For example, an interviewee indicated that when CBP provided frequent fact-based updates following use-of-force incidents at the southern border, this reduced controversy surrounding these incidents. To institutionalize this lesson, we recommend that DHS:

1. Allow components and field offices to provide regular fact-based updates to the media when a controversial event involving the component or field office occurs. Fact-based updates would provide additional relevant information to media outlets with an objective, apolitical tone. Controversial events include use-of-force incidents, allegations of abuse, deaths in DHS custody, and other events that generate scrutiny. When such events occur, OPA should provide communications guidelines for the public affairs teams at components and field offices and actively coordinate with them throughout the controversy.

2. Request additional resources for OPA's media team and the public affairs offices of DHS components that receive substantial public scrutiny. These components should dedicate these additional resources to fact-based crisis communications and fostering transparency and accountability, in image and in fact. The department should frame this request for additional resources as a way to increase transparency, facilitate congressional oversight, and better enable the American public to hold the department accountable for its actions.

Internal Communication between Senior Leaders and the Workforce

The department lacks the resources and staff necessary to communicate effectively. A former political appointee with DHS public affairs experience indicated that, historically, one to two OPA officials have handled internal communications. Though OPA's structure is fluid, these officials—a director of internal communications and an assistant—have simultaneously managed the DHS website, worked with components on their messaging, and played a key role in sending messages from the Secretary or DHS headquarters to the broader DHS workforce. This staffing level is insufficient to effectively coordinate messaging with DHS components and communicate with DHS's workforce of over 240,000 employees.

A former senior DHS official presciently assessed that a weak internal communications infrastructure increases the risk of "losing the workforce" should the Biden administration, or subsequent administrations, implement sweeping policy changes. Further, additional staffers for internal communications could help senior leaders more effectively communicate their priorities to components and field offices, and enable the DHS workforce to provide more feedback to department leadership. As a result, DHS should:

1. Request additional resources from Congress for OPA to manage the department's internal communications. These additional staffing resources will enable greater coordination within the department. They have the potential to inspire greater trust in departmental leadership from the workforce.

While changes to the DHS public affairs bureaucracy can help improve the department's reputation, bureaucratic reforms alone will fail to transform public perceptions of the department. DHS should capitalize on this opportunity for a public-affairs reset to address two major criticisms that have shaped the public's perception of the department in recent years. First, current and former DHS personnel—including career personnel and political appointees from both major parties—uniformly expressed concern to us that many Americans have come to view DHS as a partisan tool rather than a non-partisan agency trying to address key national security challenges. The aforementioned 26-point gap between

Democratic and Republican perceptions of DHS validates that concern. Second, we have identified a need to present a coherent narrative about DHS's many disparate components. As a relatively new department with a wide range of missions, DHS is vulnerable to criticism that it is too large and does too much. A former political appointee expressed concern to us that, if DHS does not proactively counter this narrative, calls to reallocate resources away from DHS and shrink the department may come to fruition.⁷

To address these criticisms and help inform the American people of DHS's important work, we recommend that the department convey the following core message in its public affairs content:

DHS is uniquely positioned to defend the United States against twenty-first century threats—those that have newly emerged or become more acute in this century—including terrorism, cyberattacks, state-sponsored disinformation, pandemics, and natural disasters. This mission necessitates a non-partisan, highly professional approach that integrates multiple capabilities.

To effectively convey this message about the department to the American people and media, we recommend that the department implement two measures:

- 1. Frame DHS's role in protecting the United States against key twenty-first century threats as a unifying theme of the department's work. The department is on the frontlines of responding to challenges that include terrorism, cyberattacks, state-sponsored disinformation, pandemics, and increasingly destructive natural disasters. Highlighting this work can tie together the disparate missions of the department and demonstrate its impact on the everyday security and well-being of the American people. To that end, we recommend that OPA:
 - Highlight the work of offices and components such as the Center for Prevention Programs and Partnerships (CP3), CISA, FEMA, and the Coast Guard in addressing these threats. For example, OPA should work to publicize FEMA's role in COVID-19 relief efforts.
 - **Create a consistent narrative** in its public statements, on social media, and in its media outreach that places the department at the center of the federal government's response to these pressing challenges. OPA may seek to develop department-wide slogans or hashtags to reinforce this narrative.

- Ensure that the public affairs offices of various DHS components develop implementation plans to integrate this narrative into their messaging.
- 2. Ensure that the department's tone is neutral, objective, non-partisan, and non-political. The department should ensure that its briefings, press releases, social media posts, and other public-facing activities reflect this tone. The department should look to military briefings and statements as a model. This tone, if institutionalized across the department, will help counteract the perception of the department as partisan and can help insulate it from striking an inappropriate tone in the future.

Countering Domestic Terrorism

Countering domestic terrorism (DT)—especially the threat posed by racially or ethnically motivated violent extremism (RMVE)—is one of the Biden administration's top priorities. The storming of the Capitol on January 6, 2021 supercharged an already growing chorus of calls to confront the growing DT threat. DHS, along with the Federal Bureau of Investigation, will likely command the spotlight.

Despite its leading role in this space, the department has frequently been criticized for not doing enough to address DT. There are several reasons for these criticisms, and a thorough review of DHS's policies for countering DT with an eye toward potential improvement would be helpful. That being said, one important factor involves shortcomings in how DHS publicizes its work to combat DT. In line with the previous section's focus on DHS's public affairs efforts, this section explores how DHS can better publicize and communicate the work it is undertaking to counter the challenges posed by domestic terrorism.

Overview of the Challenge

DHS currently faces a problem with how it communicates on the issue of DT. Current and former officials identified poor public perceptions of the department's response to DT, particularly its response to white supremacist extremism. Based on our interviews and research, we concluded that **the department's work on DT issues has not been visible enough**. The public knows little about the department's work to counter DT, which in turn impacts public perceptions of the department. Additionally, the public lacks awareness of how the department views and prioritizes the threat. We now examine mechanisms the department can employ to remedy these issues.

Highlighting DHS's DT Work

Despite areas for improvement, the department has spoken publicly and specifically about the DT threat in the past. Even prior to the White House's new National Strategy for Countering Domestic Terrorism, DHS's Strategic Framework for Countering Terrorism and Targeted Violence, released in 2019, served as a model in this regard. It communicates clearly to the public how the department views various DT threats, particularly the white supremacist extremism threat, and hence received highly positive press attention. The October 2020 report, Homeland Threat Assessment, also speaks to the DT threat. Ultimately, though, this communication is not reaching key audiences, including local communities across the United States. To remedy this issue, we recommend that DHS:

- 1. **Pursue a number of public-facing measures centered on DT**, including writing press releases about DT-specific actions, allowing officials with responsibility for the DT mission to speak to journalists on background, or holding press conferences with the secretary about DHS's work to counter the DT threat. These efforts would offer the department opportunities to highlight its work on DT in a proactive and positive manner.
- 2. **Emphasize departmental efforts to prevent DT and targeted violence in schools**. Violence in schools is a pressing threat that draws universal condemnation irrespective of political affiliation. Messaging on DHS's work in this space, such as the trainings offered by U.S. Secret Service's National Threat Assessment Center, present an opportunity for the department to engage with communities on a non-controversial issue of importance to them.
- 3. Broaden engagement with academic partners on DT issues. While DHS partners with academia in many areas, there is room for the department to expand its engagement with academia in the DT sphere, particularly with respect to the white supremacist extremism threat. Myriad academic institutions—including those who have not previously engaged with DHS on DT and other security issues—are conducting novel research on this threat. Seeking out novel research partners may also expand the department's ability to conduct outreach in traditionally hard-to-reach communities.
- 4. Embed journalists with components and Targeted Violence and Terrorism Prevention grant recipients on the frontlines of the department's work to combat DT. As we already highlighted, embeds are a valuable way to provide a glimpse into the work that members of the department, and grant recipients, are doing to combat DT. By working with the media to profile different elements of the department's broad counter-DT efforts, the department can correct misconceptions that it is

not devoting attention to the DT threat. Given the sensitive nature of some of the department's work on DT, profile pieces may not always be the best way to publicize its efforts. But, where appropriate, profile pieces can showcase valuable work the department undertakes, or supports, to counter DT at the local level.

Adapting to a Modern Workforce

One of the primary challenges DHS faced in combating the COVID-19 pandemic was the need to sustain operations while implementing social distancing measures (e.g., teleworking). Despite some early struggles, DHS offices and components were largely successful in adapting to this new operating environment. Some of the successful flexible work arrangements introduced in response to the pandemic may provide the foundation for a new set of recruiting incentives that mitigate the downsides to certain DHS positions (e.g., strict schedules, inability to telework, relocation) and enable the department to better compete with other organizations for top talent. To help institutionalize the adaptations that are worth sustaining post-pandemic, we recommend that DHS consider investing in secure devices that can handle classified information in non-sensitive compartmented information facility (SCIF) settings.

Overview of the Challenge

The COVID-19 pandemic forced dramatic changes on the American workforce, primarily through the introduction of widespread telework. Millions of Americans who previously reported to an office were suddenly thrust into full-time telework. Though there have been challenges associated with this change, it appears that American workers have largely come to view teleworking as a boon. According to a Pew Research Center study, the majority of those who have transitioned to full-time telework because of the pandemic would prefer to continue teleworking even after the pandemic ends. ¹³ Additionally, many companies, including Facebook, Twitter, and Shopify, have stated that they will allow employees to telework indefinitely. ¹⁴

DHS introduced teleworking and other social distancing measures during the pandemic. While some aspects of DHS's work (e.g., the need to access classified information) made the transition to teleworking more difficult than it may have been in other organizations, its efforts were ultimately largely successful. This success raises the possibility for DHS to offer flexible work accommodations to its workforce on a more permanent basis. While the department will likely never be able to match certain benefits offered by private organizations (e.g., salary), it has the opportunity to at least offer potential hires the opportunity to work in conditions that are becoming standard across many industries.

Provide Classified Systems for Remote- or Home-Use

While it is critical for sensitive information to be protected and handled properly, so too is it critical for DHS to be able to offer its workforce a level of flexibility that competes with that offered to employees in other organizations. To that end, **DHS should consider investing in secure devices that can handle classified information in non-SCIF settings**, similar to the secure devices provided to some members of the U.S. Department of Defense.¹⁵

Remote- or home-use classified systems would enable DHS to recruit a more agile, resilient, and diverse workforce. These systems can also enable DHS's workforce to increase its engagement in—and better reflect—the communities it seeks to serve. Specific benefits to providing classified systems for remote- or home-use include:

- 1. Providing remote- or home-use classified systems would enable DHS to enhance its recruitment incentives by offering more flexible work schedules and locations. Like other U.S. government departments, DHS seeks to enhance its ability to recruit a talented, diverse workforce. While there are numerous benefits to federal employment, some downsides include strict schedules, the need to relocate, and the inability to telework if handling classified information. As the American workforce is transitioning to more long-term telework and flexible work schedules, DHS may face a recruiting imperative to offer these benefits.
- 2. As DHS seeks to expand its footprint in communities throughout the United States, providing secure systems for remote- or homeuse would provide its personnel with the flexibility to conduct their work in the communities they serve. Some in the department who already work in communities throughout the country have voiced that they would appreciate the ability to access classified information from their mobile devices. Ensuring that DHS personnel can engage with local communities without sacrificing access to important information will assist the department in carrying out its mission and maximizing its impact.

At the same time, there are important downsides to consider with respect to providing remote- or home-use classified systems:

1. Expanding access to classified information in any form comes with counterintelligence and security concerns. Even if the systems themselves are impenetrable, there remains the possibility for inadvertent unauthorized disclosures to friends, family members, and others who may be in close proximity to the remote- or home-use systems. These systems may also be stored improperly, and there is higher potential for them to fall into the wrong hands. Insider threats may likewise exploit these

systems to leak information to adversaries or the media. The security concerns associated with remote- or home-use systems would need to be carefully considered.

2. Acquiring and distributing remote- or home-use systems would be costly and may take a long time. Though there would likely be long-term benefits to acquiring these systems, the immediate impact may be limited and the overall costs may be high.

Forecasting and Anticipatory Analysis Recommendations

The COVID-19 pandemic caught DHS—and the rest of the world—by surprise. This surprise highlighted the need for DHS to improve its forecasting and anticipatory analysis practices, both to better prepare for black swan events, and to more accurately predict trends in its core mission areas. ¹⁶ We recommend four initiatives that DHS should pursue to remedy these shortcomings: creative thinking exercises; a futurist cell; a forecast tracking system; and integrating artificial intelligence and machine learning into its forecasts.

Overview of the Challenge

The pandemic, which few inside and outside of government foresaw, has led to a reckoning in the private and public sectors about forecasting. While some, such as Bill Gates, presciently warned that a "highly infectious virus" posed "the greatest risk of global catastrophe" as far back as 2015, public and private sector preparedness efforts primarily focused on other contingencies (e.g., natural disasters, terrorist attacks, and cyber disruptions). DHS had developed a pandemic modeling capability in 2005 but discontinued the effort in 2017, reportedly after some at the department questioned its value. ¹⁷ While Gates's prediction would not traditionally be described as actionable intelligence (it did not provide the time and place at which the next pandemic would occur), it was still valuable. Gates explained the need for policymakers to prepare for a pandemic, such that when the next one struck, we would be prepared.

As the United States' foremost disaster preparedness entity, it is critical for DHS to develop capabilities to respond to disasters of all types. Because the development of different response capabilities is subject to resource constraints and other limitations, DHS must refine its forecasting and anticipatory analysis practices. And beyond disaster preparedness, the DHS Intelligence Enterprise seeks to provide operators and policymakers with a decision advantage in confronting threats. Analysts must forecast and anticipate events that will inform departmental decisions at the tactical, operational, and strategic levels. Accurately forecasting trends is more important than ever. We believe the department should pursue these four initiatives to improve its forecasting and anticipatory analysis practices: creative thinking exercises, a futurist cell, a

forecast tracking system, and investment in artificial intelligence and machine learning.

Creative Thinking Exercises

Organizations ranging from the U.S. military to private companies regularly conduct creative thinking exercises to gauge their readiness, game out alternative futures, and identify areas for growth or improvement. For DHS, creative thinking exercises offer the same benefits while also potentially increasing efficiencies in DHS's development of preparedness and response capabilities. This is because creative thinking exercises can be used to highlight and compare the potential consequences of myriad scenarios. By comparing consequences from one exercise to another, **DHS can build** preparedness and response capabilities that can be utilized to manage a **broad set of consequences**. For example, a war game that challenges participants to respond to a major cyberattack might reveal that a lack of internet access severely hinders DHS's ability to coordinate its response and communicate with the public. Meanwhile, a tabletop exercise where local participants are asked how they would respond to an earthquake might reveal that damage to internet infrastructure in the affected area hinders rescue efforts. Though a cyberattack and earthquake are very different, the use of creative thinking exercises to determine common consequences can help guide the department's development of flexible response capabilities that can be used to respond to a wide array of disasters (e.g., Wi-Fi-enabled balloons that can be deployed to areas that have lost internet connectivity).

Creative thinking exercises also help improve forecasting by **forcing participants to think through the second- and third-order effects of different scenarios.** During the COVID-19 pandemic, for example, healthcare systems were so focused on building capacity for patients with the virus that those with other medical issues struggled to get care. According to a study in *JCO Global Oncology*, 314 out of 356 healthcare facilities surveyed, spread across six continents, reported difficulties in providing cancer care for patients due to the pandemic. In hindsight, such disruption was foreseeable, yet it appears that the overwhelming majority of healthcare facilities failed to account for it. Had these healthcare facilities engaged in creative thinking exercises that clarified the costs associated with certain emergency measures, they likely could have accounted for these costs and mitigated disruption to non-COVID patients. More generally, as DHS develops plans to confront future challenges, engaging in creative thinking exercises will increase the likelihood that these plans comprehensively account for the second- and third-order effects of crises.

To leverage the power of creative thinking exercises, we recommend that DHS:

1. Routinely engage both internal and external stakeholders in creative thinking exercises. Creative thinking exercises include war

games, tabletop exercises, fiction and short story contests, and other mechanisms that encourage participants to consider scenarios that diverge from the status quo. By conducting these exercises frequently and with a diverse array of stakeholders, the department can game out a variety of scenarios that inform future preparedness and response planning, as well as acquisition and allocation of resources.

A Futurist Cell

We further recommend that DHS:

1. **Develop a futurist cell**. The analysts we interviewed noted that they forecast future trends, but their focus is typically limited to one account, and their production is most often in response to immediate requests. These limitations emphasized the need for an entity dedicated to overthe-horizon thinking. A futurist cell would be mandated to look beyond a specific topic or timeframe and develop holistic, long-term contingencies. The cell should serve two primary functions. First, individuals in the cell should use insights derived from creative thinking exercises, in tandem with their own expertise, to develop an array of future scenarios. Second, after developing possible scenarios, individuals in the cell would develop observable indicators that can be used to determine if a scenario has become more likely. These indicators would be shared throughout the department, such that analysts in different components can identify when certain scenarios are becoming relevant.

In tandem with creative thinking exercises, a futurist cell would enable DHS to not only improve its preparation for future disruptions but also elongate the span of warning leading up to the disruption. This would in turn allow the department to more proactively confront crises and mitigate harm.

Forecast Tracking System

Engaging in creative thinking exercises and establishing a futurist cell would be meaningful steps in improving DHS's forecasting, but it is critical for the department to institutionalize and continually improve its forecasting methodologies. While some individuals are innately better at forecasting than others, forecasting is a learnable skill. According to the Good Judgement Project, an award-winning forecasting project led by scholars at the University of Pennsylvania, people can learn to be better forecasters over time through "deliberate practice, sustained effort, and constant monitoring of current affairs."

To improve the accuracy and utility of DHS's forecasts, the department should:

1. **Create a forecast tracking system.** The proposed tracking system should both memorialize forecasts when they are made and the analysis used to inform them. With these two elements, the tracking system will enable forecasters to counteract implicit biases and reduce hindsight bias when evaluating past forecasts. By creating a record of forecasts, analysts can review their forecasts and identify common errors or misjudgments over time. The tracking system would highlight oversights and faulty assumptions and help prevent them from being repeated, while also capturing forecasts and analyses that were accurate, allowing for successes to be more easily replicated.

Artificial Intelligence and Machine Learning

DHS is among the organizations that have sought to apply artificial intelligence (AI) and machine learning (ML) to their operations. Components (*e.g.*, Science & Technology, CBP) are already leveraging these technologies in several capacities, including resource allocation decisions, data visualization, and in some instances, forecasting. While AI/ML has powerful applications for forecasting, it is not a panacea: Analysts and policymakers must understand its strengths and limitations in order to leverage AI/ML effectively.

One of AI/ML's biggest strengths is its ability to rapidly analyze large datasets. Not only can AI/ML software quickly identify patterns in historical data, but it can also uncover relationships between seemingly unrelated factors. This can be accomplished by comparing multiple sources of data within one program. For example, an AI/ML program could analyze economic, cultural, environmental, and other types of data, in concert with past migration data, to predict future migration flows. While human analysts can reasonably discern that certain economic, security, or political conditions may impact migration flows and forecast accordingly, the AI/ML program may reveal that other, less obvious factors impact migration flows. Analysts can subsequently monitor for these factors and improve future forecasts.

At the same time, AI/ML is only as good as the data it receives. According to a senior official in CBP's Office of Intelligence, one of the most significant challenges that CBP's Enterprise Analytics Division faces in using AI/ML to project trends is obtaining reliable data. The official recounted that it is difficult to vet the data that is submitted, and there is often incomplete data due to inconsistencies in what data is being reported and how it is reported. These issues can lead the AI/ML to return faulty projections.

AI/ML also requires a critical mass of data to create reliable projections. AI/ML would therefore deliver the most accurate forecasts for topics on which DHS has ample data, such as migration flows, drug enforcement, and visa applications. AI/ML would be less accurate, however, with respect to events for which there

are few analogs (e.g., the COVID-19 pandemic). Bearing these strengths and limitations in mind, we recommend that DHS:

- 1. Continue partnering with the tech sector to improve AI/ML forecasting. Technology companies will continue to be at the cutting edge in developing AI/ML capabilities. The department has recognized this, building infrastructure (e.g., S&T's Data Analytics Technology Center) that enables it to partner with the tech sector and identify new ways to apply AI/ML technologies to forecasting. This existing infrastructure, as well as new vehicles for partnerships that emerge in the coming years, will be critical for refining DHS's use of AI/ML to enhance its forecasting.
- 2. Standardize data reporting requirements and procedures for all field personnel. At present, field personnel are among the department's primary collectors of information. However, the data they report is often inconsistent or incomplete. Because reliable data is critical for using AI/ ML to produce accurate forecasts, it is important that DHS standardize data reporting requirements and procedures across the department. While individual components may have their own data reporting protocols, department-wide protocols would be preferable. This would expand the data pool, thus enhancing the accuracy of predictions.

Conclusion

This report's recommendations are designed to prepare DHS for a future in which existing issues will evolve, and new ones will emerge, more rapidly than in years past. This accelerated pace of change will challenge the department, but also amplify its importance in protecting the United States.

It is thus important that DHS equip itself to proactively confront, rather than react to, the changing security environment. Instead of expending public affairs resources to repair its image in the wake of a controversy, the department must leap ahead of faulty narratives and establish a reputation that, at a minimum, leads stakeholders to seek more context before reaching conclusions. Instead of increasing its recruiting incentives to merely match those of other organizations, the department must lead the way in offering benefits that entice America's next generation of leaders to join its ranks. And instead of scrambling to respond to new threats, the department must vigilantly scan the horizon and provide both itself and its stakeholders with the span of warning required to mitigate future harm.

In adopting this forward-leaning posture, DHS will be prepared to confront the challenge that Ray Kurzweil introduces: not only is the amount of change greater, but the pace of change itself is quickening.²¹ A department that is nimble,

proactive, and armed with greater foresight will be one that is best able to "safeguard the American people, our homeland, and our values" as the twenty-first century marches on.²²

Notes

- 1 Ray Kurzweil, quoted in Edward Cornish, *Futuring: The Exploration of the Future* Kindle ed. (Bethesda, Md.: World Future Society, 2004), locs. 362-67.
- 2 U.S. Department of Homeland Security, *Homeland Threat Assessment* (October 2020), p. 17, https://www.dhs.gov/sites/default/files/publications/2020_10_06_homeland-threat-assessment.pdf.
- 3 Our conclusions in no way represent the views of the department.
- 4 Pew Research Center, "Public Holds Broadly Favorable Views of Many Federal Agencies, Including CDC and HHS," April 9, 2020, https://www.pewresearch.org/politics/2020/04/09/public-holds-broadly-favorable-views-of-many-federal-agencies-including-cdc-and-hhs/.
- 5 See ibid. (noting that "ICE is the only agency for which about equal shares express an unfavorable (45%) as favorable (46%) view"); Pew Research Center, "Public Expresses Favorable Views of a Number of Federal Agencies," October 1, 2019, https://www.pewresearch.org/politics/2019/10/01/public-expresses-favorable-views-of-a-number-of-federal-agencies/; Lydia Saad, "Postal Service Still Americans' Favorite Federal Agency," Gallup, May 13, 2019, https://news.gallup.com/poll/257510/postal-service-americans-favorite-federal-agency.aspx.
- 6 Lee Rainie et al., "Trust and Distrust in America," Pew Research Center, July 22, 2019, https://www.pewresearch.org/politics/2019/07/22/trust-and-distrust-in-america/#fn-20070758-2 (noting that 83% of Americans say they have at least a fair amount of confidence that the military will act in the best interests of the public). There are signs, however, that confidence in the military may be slipping among members of the public. See Daniel Flatley & Roxana Tiron, "Support Our Troops' No Longer Automatic as Trust in Military Falls," Bloombe rg Businessweek, April 15, 2021, https://www.bloomberg.com/news/articles/2021-04-15/

- trust-in-u-s-military-is-falling-among-democrats-and-republicans.
- 7 In some cases, individuals have called for DHS to be fully dissolved. In July 2019, for example, Rep. Alexandria Ocasio-Cortez signaled her desire to dismantle DHS. In August 2020, the American Civil Liberties Union (ACLU) posted a series of tweets calling for DHS to be dismantled. In the thread, ACLU argued that "Dismantling DHS, breaking it apart into various federal agencies, and shrinking its federal budget will allow for more effective oversight, accountability, and public transparency." See Faris Bseiso, "Ocasio-Cortez Suggests Eliminating Department of Homeland Security," CNN, July 11, 2019, https://www.cnn.com/2019/07/11/politics/ alexandria-ocasio-cortez-department-of-homelandsecurity/index.html; American Civil Liberties Union, August 10, 2020, 11:20 a.m. tweet, https:// twitter.com/aclu/status/1292843239557537792? lang=en.
- 8 Multiple data points support this conclusion, including the recently published *National Strategy for Countering Domestic Terrorism* (Washington, D.C.: White House/National Security Council, June 2021).
- 9 See Alex Kingsbury, "Rethinking Counterterrorism," *The New York Times*, September 23, 2019, https://www.nytimes.com/2019/09/23/opinion/dhs-domestic-terrorism.html; Christopher P. Costa & Joshua A. Geltzer, "DHS's New Counterterrorism Strategy Reflects Professionalism, Not Politics," *Defense One*, September 20, 2019, https://www.defenseone.com/ideas/2019/09/dhs-new-counterterrorism-strategy-reflects-professionalism-not-politics/160030/. As noted in the introduction, Valens Global was retained to help craft the 2019 *Strategic Framework*, and some of the authors of this report played a role in that project.
- 10 U.S. Department of Homeland Security, *Homelan d Threat Assessment* (October 2020), https://www.dhs.gov/sites/default/files/publications/2020_10_06_homeland-threat-assessment.pdf.

- 11 DHS Secretary Alejandro Mayorkas has already begun taking some actions in this regard. For example, on May 11, 2021, Secretary Mayorkas announced that DHS's Office of Intelligence & Analysis is standing up a branch focused specifically on domestic terrorism. U.S. Department of Homeland Security, press release, "DHS Creates New Center for Prevention Programs and Partnerships and Additional Efforts to Comprehensively Combat Domestic Violent Extremism," May 11, 2021, https://www.dhs.gov/news/2021/05/11/dhs-creates-new-center-prevention-programs-and-partnerships-and-additional-efforts.
- 12 Despite the reorganization of DHS's prevention efforts, the grant program is still called the Targeted Violence and Terrorism Prevention Grant Program for FY 2021. See https://www.dhs.gov/tvtpgrants.
- 13 Kim Parker, Juliana Menasce Horowitz, & Rachel Minkin, "How the Coronavirus Outbreak Has and Hasn't Changed the Way Americans Work," Pew Research Center, December 9, 2020, https://www.pewresearch.org/social-trends/2020/12/09/how-the-coronavirus-outbreak-has-and-hasnt-changed-the-way-americans-work/.
- 14 Rob McLean, "These Companies Plan to Make Working from Home the New Normal. As in Forever," CNN, June 25, 2020, https://www.cnn.com/ 2020/05/22/tech/work-from-home-companies/ index.html. For more on the permanence of these shifts to remote work, see Alex Kantrowitz, "Twitter Will Allow Employees to Work at Home Forever," Buz zfeed, May 12, 2020, https:// www.buzzfeednews.com/article/alexkantrowitz/ twitter-will-allow-employees-to-work-at-homeforever; Nina Nanji, "Facebook: Our Staff Can Carry on Working from Home After COVID," BBC, April 19, 2021, https://www.bbc.com/news/ business-56759151; "Canada's Shopify CEO Says Era of 'Office Centricity is Over; Most Staff to Permanently Work From Home," Reuters, May 21, 2020, https://www.reuters.com/article/us-healthcoronavirus-shopify/canadas-shopify-ceo-says-era-

- of-office-centricity-is-over-most-staff-to-permanently-work-from-home-idUSKBN22X21M.
- 15 Peter Suciu, "Air Force Makes Classified Information Accessible for Teleworkers," *ClearanceJobs*, May 19, 2020, https://news.clearancejobs.com/2020/05/19/air-force-makes-classified-information-accessible-for-teleworkers/.
- 16 For discussion of Black Swan Events, see Nassim Nicholas Taleb, *The Black Swan: The Impact of the Highly Improbable* (New York: Random House, 2007).
- 17 Daniel Lippman, "DHS Wound Down Pandemic Models Before Coronavirus Struck," *Politico*, March 24, 2020, https://www.politico.com/news/2020/03/24/dhs-pandemic-coronavirus-146884.
- 18 Abdul Rahman Jazieh et al., "Impact of the COVID-19 Pandemic on Cancer Care: A Global Collaborative Study," *JCO Global Oncology* 6 (2020), https://ascopubs.org/doi/full/10.1200/GO.20.00351.
- 19 Barbara Mellers & Michael C. Horowitz, "Does Anyone Make Accurate Geopolitical Predictions?," *Washington Post*, January 29, 2015, https://www.washingtonpost.com/news/monkey-cage/wp/2015/01/29/does-anyone-make-accurategeopolitical-predictions/.
- 20 U.S. Department of Homeland Security, Science & Technology Directorate, "Data Analytics Technology Center," n.d., https://www.dhs.gov/science-and-technology/DA-TC; U.S. Department of Homeland Security, Privacy Impact Assessment, "CBP Enterprise Analytics," May 6, 2020, https://www.dhs.gov/sites/default/files/publications/privacy-pia-cbp063-ea-september2020.pdf.
- 21 Ray Kurzweil, quoted in Edward Cornish, *Futuring*: *The Exploration of the Future* Kindle ed. (Bethesda, Md.: World Future Society, 2004), locs. 362-67.
- 22 U.S. Department of Homeland Security, "Mission," https://www.dhs.gov/mission.







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