An Initial Evaluation of the Societal Experts Action Network (SEAN)

2020-2021

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Introduction

The COVID-19 pandemic has been the greatest public health crisis in more than a century. Beginning in the spring of 2020, government agencies at the national, state, and local levels were forced to quickly pivot and focus much of their attention, resources, and activities on controlling the pandemic and grappling with its impacts on the constituents and communities they serve as well as the programs and services they provide. The international health and accompanying economic crises necessitated rapid and substantial responses at all levels of government. The U.S. Congress and President expanded the social safety net, including providing cash payments to households and loans to businesses. Federal agencies funded and conducted research on the virus, vaccines, and treatments. State and local authorities confronted decisions on social distancing guidance, mask mandates, and the coordination of health care for their residents.

Because policymakers were confronting momentous decisions during an uncertain time, the National Academies of Science, Engineering, and Medicine (NASEM) established the Societal Experts Action Network (SEAN) to "...(connect) decision-makers grappling with difficult issues to the evidence, trends, and expert guidance that can help them lead their communities and speed their recovery." Since its inception in May of 2020, SEAN has been supported by NASEM staff and members, as well as academic and clinical researchers volunteering expertise on ad hoc committees and working on advisory reports and materials. The work of SEAN

has been supported by funding from the National Science Foundation (NSF) and the Alfred P. Sloan Foundation. In July 2020, NSF issued a grant to American University (AU) to conduct an evaluation of SEAN in its first year. The AU team reviewed the processes SEAN and NASEM employed for the purposes of achieving stated goals and conducted a limited evaluation of SEAN's outcomes. This report summarizes the findings of this review.

The evaluation team began its activities in July 2020, with the principal objective of conducting a process evaluation of SEAN during its first year of activity. A secondary objective has been to provide initial assessments of the utility of SEAN products to decision-makers and the public. The AU team began its process evaluation by reviewing founding documents and communications regarding the structure and activities of SEAN, in addition to attending meetings of the SEAN Advisory Group. The evaluation team then proceeded to meet with and interview NASEM staff members responsible for supporting SEAN. The objectives of those interviews included identifying internal NASEM processes supporting and governing SEAN activities.

The AU team then conducted interviews with five of the eight members of SEAN's Executive Committee, including the co-Chairs. The objectives of these interviews were to illuminate the processes through which SEAN: 1) built its network of agencies and decision-makers; 2) solicited, identified, and selected topics for SEAN consultations and advisories; and 3)

¹ SEAN overview documents. See Appendix A.

produced and communicated findings and reports to decision-makers.

Next, the evaluation team solicited names and contact information for representatives of national and regional agencies that engaged with the SEAN network to assist with and/or consume material produced and disseminated by SEAN. The team was able to interview seven representatives of agencies such as the National Governor's Association (NGA), National Association of County and City Health Officials (NACCHO), and National Council of State Legislators (NCSL). These interviews were conducted in February and March 2021. The objectives of these interviews were to understand the processes through which associations and decision-makers in the field engaged with and utilized the information and resources produced by SEAN. These interviews also provide some limited qualitative evidence of SEAN's effectiveness.

To conduct a more systematic initial assessment of the usefulness and reach of SEAN products, the evaluation team collected data from two additional sources. First, the team obtained data on the attendance at SEAN webinars and page views and downloads from NASEM. Second, the team developed a questionnaire to be distributed to participants in SEAN webinars.² The survey responses provide insight into how policymakers and their support staff who engaged with SEAN received and used the materials presented.

This report presents findings of these process and outcomes evaluations. We first discuss the objectives, inception, and structure of SEAN. We then describe the early activities of SEAN and its initial network building. The main body of the report will focus on processes, activities, and outcomes of SEAN during the period May 2020 through May 2021, when SEAN was producing and communicating advisements to decision-makers on a variety of topics. Finally, the report will offer brief lessons learned and recommendations. The evidence on which the narrative is drawn will be described within the report, including document review, individual and group interviews, and survey data collection and analysis.

Overview of the Societal Experts Action Network

The initial discussions that led to the development of SEAN began in the early months of 2020. NASEM's Standing Committee on Emerging Infectious Diseases and 21st Century Health Threats was fielding urgent queries from federal agencies and staff seeking guidance on how to address the growing crisis, in the form of Rapid Expert Consultations (RECs). The committee issued

its first REC on severe illness in young adults for COVID-19 on March 14, 2020 and would issue ten more by April 8, 2020 on topics as varied as social distancing, the effectiveness of fabric masks, care standards during crises, and surface stability of SARS-CoV-2 (NASEM, 2020a).

Recognizing that there existed no similar group devoted to integrating the best evidence from the

² The evaluation team chose this target population because it was the only large group of SEAN users with a complete sampling frame (i.e., the team had contact information for all webinar attendees).

social, behavioral, and economic sciences (SBE) to address the social and economic disruption wrought by COVID-19, NSF proposed to NASEM that they create a complementary entity, the Societal Experts Action Network. The purpose of the group would be to assist policymakers at all levels of government in addressing the complex questions raised by the pandemic by consulting, integrating, and communicating the best evidence from SBE fields. NSF and NASEM staff worked with new and existing members of the Standing Committee, along with the Chair, Harvey Fineberg, to initiate plans to develop SEAN, eventually establishing a network of leading SBE experts who would provide rapid expert consultation in response to urgent policy questions related to preventing, containing, and addressing COVID in the community.³

SEAN is comprised of an Executive Committee, co-Chaired by Drs. Robert Groves and Mary Bassett, both of whom are members of the Standing Committee on Emerging Infectious Diseases and 21st Century Health Threats, along with six other members, and an Advisory Group of approximately twenty members. Biographies of the Executive Committee and Advisory Group are included in Appendix B. The work of SEAN was supported initially by four NASEM staff members, as well as contractors to assist with editing and communication.⁴

PHASE 1: MAY - JULY 2020

The Executive Committee of SEAN was authorized to accept requests for guidance regarding COVID

from the Standing Committee on Emerging Infectious Diseases and 21st Century Health Threats or from other decisionmakers that were nonpartisan and required insight from social, behavioral, and/or economic research. The Executive Committee was also tasked with: inviting member organizations into the SEAN network; convening advisory groups to build and mobilize networks; and engaging in outreach to decision-makers to solicit requests. If they determined a particular topic of study was suitable and high priority, the Executive Committee requested approval for statements of task via an expedited NASEM governing board approval process. The Executive Committee then authorized a Task Leader to recruit suitable expert authors or other participants. We discuss this process in more detail in Section III.

In parallel with its advisement activities, SEAN implemented a repository of public opinion surveys on public perception and behaviors related to COVID risk and protections. The **SEAN COVID-19 Survey Archive**, headed by Advisory Group member Gary Langer, launched in April 2020 as an open-access resource to search, retrieve, and use data, reports, and questionnaires from surveys around the world. Opinion poll providers range from news organizations, such as ABC-Washington Post and Fox News, to research organizations like NORC and the Kaiser Family Foundation, to intergovernmental organizations, such as the World Health Organization.⁶ By summer of 2020, the Survey Archive served as a searchable access portal to 225 survey studies from 25 nations. Since its launch,

³ Interviews with members of the Standing Committee on Emerging Infectious Diseases and 21st Century Health Threats, and NASEM staff (08/05/2020; 12/17/2020;12/18/2020, and 01/21/2021).

⁴ The number of NASEM staff supporting SEAN had increased to 6 by summer 2021.

⁵ See Appendix C for NASEM document on Executive Committee authorities.

the archive has shared weekly summaries of studies in its repository via newsletters.

In the development of SEAN, the period from May through July 2020 was planned as a time of capacity building and network development. Based on interviews with SEAN co-chairs, three other members of the Executive Committee, and NASEM staff, it is clear that substantial network building and honing of internal processes occurred during this period. Although open to inquiries from all levels of government, SEAN decided early on to focus its efforts on state and local policymakers. This decision was likely due to the unusually heavy burden U.S. states and localities bore in grappling with the pandemic, states' and localities' relatively greater need for information relative to federal actors, and the practical fact that Executive Branch requests were being channeled through the Standing Committee on Emerging Infectious Diseases and 21st Century Health Threats. SEAN focused early network building on engaging national associations of decision-makers at state and local levels. This included outreach to membership organizations such as the National Governor's Association, the National Association of State Legislators, the National Association of Counties, the National League of Cities, and the National Association of County and City Health Officials, among others. These professional organizations represent thousands of policymakers across the country and, thus, could serve an important role in connecting SEAN to state and local policymakers.

During this period, SEAN was also producing its first advisory, *Evaluating Data Types: A Guide*

for Decision-makers using Data to Understand the Extent and Spread of COVID-19 (NASEM, 2020b), released in June of 2020. At that moment, there was substantial uncertainty about how to interpret and act on the various metrics of pandemic severity. Policymakers across the country were faced with calls to action while having to make sense of changes in rates of test-positivity, hospitalization, and mortality. The evaluation team's interviews suggested that this first REC served as an indication to broader communities that SEAN could serve as a beacon to decision-makers in need of guidance. During the latter period of Phase 1, the SEAN network developed steadily, and the queue of queries and consultations grew quickly.

PHASE 2: JULY 2020 - MAY 2021

In mid-summer of 2020, SEAN provided its second consultation on how agencies and others could encourage the adoption of protective behaviors among the public. Over the next 9 months, SEAN released a series of consultations on topics that aligned tightly with the issues at the forefront of public concern about the pandemic and its impacts. In Table 1, we list the topics addressed by SEAN, along with the month and year of first material or event made public. The first consultations— Evaluating Data Types, and Encouraging Protective Behaviors and Contact Tracing—focused on understanding and preventing the spread of COVID-19 in the community. As it became clear that the pandemic would not abate in the autumn of 2020, the SEAN advisements focused on adaptations for major institutions, focusing on corrections and higher education. More recently, SEAN has focused

⁶ A list of organizations contributing surveys/data to the archive can be found at https://www.langerresearch.com/wp-content/uploads/SEAN-Survey-Archive-contributors.pdf

on sharing evidence regarding vaccine efficacy and confidence. SEAN has also focused efforts on unexpected or urgent crises that intersect with the COVID pandemic. In February 2021, SEAN released materials on how to safely evacuate residents of areas affected by natural disasters during the pandemic (NASEM 2021a). This followed in the wake of a series of events requiring evacuations or sheltering, including hurricanes, floods, and exceptional cold.

SEAN advisements on these topics were shared with the public through either webinars or published reports, and often both. Publications were released as informal documents or Rapid Expert Consultations from the National Academies Press and were freely available on the NASEM website. Most were released in concert with a webinar on the topic. Some were standalone documents or bridged multiple webinars. In Table 2, we present data on the timing and topics of SEAN publications.

For all advisories, summary materials were also provided and maintained on SEAN's website. These summary materials included news releases related to all webinars and reports released by SEAN.⁷ Webinars were hosted and publicized by NASEM as well as the networks developed by SEAN. Participants either registered for synchronous participation in webinars at the scheduled time or viewed recordings of webinar presentations asynchronously on the SEAN website. In Table 3, we list the topics and dates of SEAN webinars.

TABLE 1: SEAN Expert Consultation Topics: June 2020 – April 2021					
SEAN Expert Consultation Topic Area	First Product				
Evaluating Data Types	June 2020				
Encouraging Adoption of Protective Behaviors	July 2020				
Health Care/Financing for COVID-19 in Correctional Facilities	August 2020				
Preventing the Spread of COVID-19 in Correctional Facilities	August 2020				
Encouraging Participation and Cooperation in Contact Tracing	August 2020				
COVID-19 on College Campuses	October 2020				
Strategies for Building COVID-19 Vaccine Confidence	February 2021				
Emergency Evacuation and Sheltering During the COVID-19 Pandemic	February 2021				
Understanding and Communicating Vaccine Efficacy	April 2021				

 $^{^{7} \}underline{\text{https://www.nationalacademies.org/our-work/societal-experts-action-network\#sl-three-columns-a8915120-401b-41ce-bf86-} \\ \underline{707ef6e30c92}$

TABLE 2: SEAN/NASEM Publications, June 2020 – April 2021					
Topic	Date of Publication				
Evaluating Data Types: A Guide for Decision Makers Using Data to Understand the Extent and Spread of COVID-19	June 2020				
Encouraging Adoption of Protective Behaviors to Mitigate the Spread of COVID-19	July 2020				
Encouraging Participation and Cooperation in Contact Tracing	August 2020				
Decarcerating Correctional Facilities During COVID-19 Consensus Report	October 2020				
COVID-19 Testing Strategies for Colleges and Universities	December 2020				
Encouraging Protective COVID-19 Behaviors Among College Students	December 2020				
Strategies for Building Confidence in the COVID-19 Vaccines	February 2021				
Emergency Evacuation and Sheltering During the COVID-19 Pandemic	February 2021				
Understanding and Communicating About COVID-19 Vaccine Efficacy, Effectiveness, and Equity	April 2021				

TABLE 3: SEAN Webinars: August 2020 – May 2021					
Topic Area	Date				
Understanding COVID-19 Data - What Decision Makers Need to Know	August 6, 2020				
Preventing the Spread of COVID-19 in Correctional Facilities	August 20, 2020				
Health Care/Financing for COVID-19 in Correctional Facilities	August 26, 2020				
Promising Strategies for Encouraging the Adoption of COVID-19 Protective Behaviors	September 8, 2020				
College COVID-19 Testing Strategies:					
Webinar 1: Current Testing Strategies	October 28, 2020				
Webinar 2: Leadership in Testing Strategy Decisions	October 28, 2020				
Webinar 3: Available Tests and Protocols	October 29, 2020				
Webinar 4: Considerations for Monitoring, Measures and Data Use	October 29, 2020				
COVID-19 Vaccine Confidence	December 18, 2021				
Adoption and Implementation of Campus COVID-19 Testing	February 22, 2021				
COVID-19 Vaccines: Building Confidence and Explaining Efficacy	May 4, 2021				

Processes and Implementation of SEAN

OVERVIEW OF SEAN PROCESSES

SEAN was established with a clear, succinct objective: To "quickly provide actionable responses to urgent policy questions,"

"SEAN will provide the needed expertise by connecting decision-makers grappling with difficult issues to the evidence, trends, and expert guidance that can help them lead their communities and speed their recovery."

Drawing on interviews with NASEM staff, the Executive Committee, and representatives of organizations in SEAN's network, this section seeks to better understand and evaluate how SEAN strove to meet this goal in real time.

In a national emergency, policymakers' need for information can be fluid and urgent. Interviews with the co-Chairs and NASEM staff clarified that SEAN had latitude to utilize a variety of means to convey information and evidence to decision-makers. This included informal discussion between SEAN and decision-makers, Rapid Expert Consultations (REC) for short-term responses, and NASEM letter reports or consensus studies for longer term analyses. In practice, SEAN made use of this full range.

As a matter of process, topics for advisories for SEAN followed the procedures that are standardized for all evidence-based materials and publications under the NASEM umbrella, but in an expedited form. At its outset, SEAN was provided a set of statements of task from the Community Engagement and Population Health Work Group

of the Standing Committee on Emerging Infectious Diseases and 21st Century Health. The first topic on this list was entitled. "Data needs for decision making," which would give rise to SEAN's first advisory and products (see Tables 1 and 2). Later, as anticipated, topics emerged from SEAN itself in consultation with policymaker networks. All topics and products to be undertaken by SEAN were reviewed and approved with guidance from NASEM's Governing Board. Criteria for approving a request included that it must be non-partisan, and that the social, behavioral, and economic sciences could provide fundamental insight for the response.

Once a request had been approved, SEAN was charged with identifying a Task Leader. The Task Leader, supported by NASEM staff, would: (1) reach out to SEAN members, including the Advisory Group, and their professional networks to identify experts who could provide insight or contribute, and (2) receive materials, draft advisories, and work with specialist consultants to develop products that were clear and concise for a policy-focused audience. Note that, initially, SEAN imagined greater involvement of the Advisory Group in identifying topics, Task Leaders, and experts. In practice, most of this work was carried out by NASEM staff and the Executive Committee, especially the co-Chairs.⁸

All products were reviewed and authorized by NASEM leadership. The Governing Board approved SEAN statements of task, and a report review committee found expert reviewers, monitored the review process, and signed off on the final

⁸ One possible reason for the relatively limited use of the Advisory Group was SEAN's need to move very quickly, which is easier with a small, core group.

publication. Reviewers were typically asked to review within 48 hours, a much shorter timeframe than typical NASEM review periods. SEAN interviewees felt as though the reviews were high quality and noted that products usually underwent substantial revision as a result. Once products were finalized, SEAN was responsible for conveying a finished product to any internal or external requestor and policymakers more broadly, as well as engaging the policy-interested public. To do so, SEAN relied primarily on its website, existing NASEM publicity channels, and its partner organizations (discussed in the next section).

The process described above is embedded in the structure of NASEM for producing consensus study reports. Interviews with members of the Executive Committee indicated that this process was successfully expedited—SEAN frequently completed products within a few weeks9—in service of responding to urgent societal needs brought about by the pandemic. Despite the shortened timeline, interviewees—including organizations using SEAN products—felt that NASEM's standards for providing high-quality evidence were upheld. SEAN's ability to deliver a high-quality product quickly appeared to depend on several factors. First, from a practical perspective, written products were much shorter than NASEM consensus reports and relied on fewer authors. Second, interviews with Executive Committee members and NASEM staff made clear that those most heavily involved with SEAN often worked unusually long hours to meet their responsibilities. Third, several interviewees noted that the stature of NASEM helped SEAN easily recruit experts to consult or

provide insight on topics related to advisories. These included members of the National Academies not participating in SEAN, as well as experts outside the Academies. Fourth, various members of the Executive Committee also offered substantial and repeated praise for the NASEM staff. In addition to maintaining day-to-day operations of SEAN, staff contributed substantively to SEAN products by participating in decision-making regarding topics of study and helping write reports.

The interviews with co-Chairs and Executive Committee members also revealed another key function played by NASEM staff in the early stages of SEAN. At the outset, the original thought was to interact directly with policymakers and their staff to dialog and solicit requests for advisories. This plan was quickly recognized as suboptimal because (1) requests were slow to emerge from the field organically, (2) as a new entity, SEAN did not have existing networks on which to rely, and (3) the sheer number of relevant policymakers made such a process inefficient. Consequently, with the support of NASEM and staff, the Executive Committee cultivated relationships with professional organizations representing policymakers. NASEM staff played vital roles in engaging with representatives of professional associations representing state governors and legislators, county leaders, city mayors, and state and local public health officials.

The initial discussions between NASEM staff and representatives from these professional associations transformed into frequent dialog, meetings, and consultation requests. Because this outreach seemed critical to SEAN's success, the research team

⁹ Whereas NASEM consensus reports normally take 18-24 months to complete.

TABLE 4: Stakeholder Interviews

Metropolitan Area Planning Council (Boston)

National Association of City and County Health Officials

National Council of State Legislators

National Governors Association

National League of Cities

conducted multiple interviews to better understand this process and learn the professional associations' perceptions of SEAN. SEAN's objectives were to engage with policymakers in various settings and levels across the nation and provide clear and evidence-based guidance for addressing the problems they confronted because of the pandemic. These groups represented SEAN's stakeholders. The AU team interviewed seven representatives of five regional or national associations that had engaged with SEAN, listed in Table 4.10 (The team's interviews with NASEM staff were also used to better understand this aspect of SEAN's activity.) In the interviews with stakeholder groups, the research team asked the representatives about COVID-related topics that were pressing for their membership during 2020, initial communications and engagements with SEAN, and the utility and timeliness of SEAN consultations and recommendations.11

STAKEHOLDER GROUPS

Topics of Importance to Stakeholder Groups

The issues that were front and center for the stakeholder groups as their memberships confronted the pandemic were numerous and varied. Nonetheless, three themes emerged from the interviews:

First, policymakers were struggling to *identify and interpret reliable data* and metrics of pandemic spread and severity. One interviewee reported the urgent need to help members filter and identify what sources of data and measures were most reliable and important for understanding the spread of COVID. Another participant—who had learned about SEAN via a Google search on interpreting COVID data—recounted that policymakers were struggling with decision-making early on. In particular, organization members were in need of guidance on "decision

¹⁰ The International City/County Management Association and the National Association of Counties were also invited to participate but did not respond to the evaluation team's invitation.

¹¹ Late in the evaluation period, we asked the same set of questions to representatives of the Federation of Associations in Behavioral and Brain Sciences and received responses similar to those reported below.

thresholds" that could trigger policy changes in real time. These included questions on when to implement mask mandates, restrictions on public or private gatherings, and capacity restrictions at retail businesses and restaurants.

Second, early in the pandemic, a foremost concern for leaders at the city, county, and state levels was *forecasting social and economic consequences* for their constituencies. These concerns included understanding how the pandemic would affect businesses and industries, especially in terms of revenue and employment. Cities and counties were concerned about the impact of a pandemic-induced recession on demands for local social services. Representatives from state-level stakeholder groups shared these concerns, but also highlighted uncertainty about fiscal implications of decreased economic activity.¹²

A third group of concerns for stakeholder groups centered around *how to maintain or modify operations of government agencies and facilities*. These included questions about whether local or state government agencies could maintain in-person office or service functions. They also faced uncertainty about how to safely provide K-12 education during the 2020-21 school year.

Engagement of Stakeholders with SEAN

Representatives from four of the five stakeholder groups reported that NASEM staff had suggested SEAN as a resource for addressing pressing issues for their respective memberships. The representative from the other group reported directly reaching out to SEAN via contacts identified on SEAN's website.

That respondent reported quickly being connected with NASEM staff.

The organizations, with one exception, praised SEAN's availability and receptiveness to their suggestions. Several noted regular contact and dialogue with SEAN staff. Two organizational representatives also noted appreciatively that SEAN Executive Committee and other members volunteered their time to participate in events they organized. One interviewee especially lauded the co-Chairs of SEAN, who participated in a meeting of the organization's membership to help policymakers confronting difficult questions in the summer of 2020. The one organization less pleased than others with SEAN perceived that a key request they had made of SEAN went unfulfilled and noted that NASEM staff had not followed-up with them after an initial meeting.

Utility of SEAN Presentations and Materials

All respondents shared appreciation for SEAN and reported that information and materials provided by SEAN were of substantial value. This included numerous examples of praise for a wide variety of SEAN's engagement with the policymaking community, from informal consultations between members of the Executive Committee and stakeholders to webinars and summary materials or reports shared by SEAN. The most common assessment shared by stakeholders was that SEAN materials provided a useful tool for addressing questions confronting members. Interviewees offered several reasons for their assessments. The

¹² Although no interviewees explicitly raised this as a criticism, it may be worth reflecting on the fact that no formal SEAN products were devoted to economic problems associated with the pandemic.

most frequent descriptors of SEAN products were "authoritative" and "timely." Respondents universally remarked on the qualifications and stature of SEAN speakers and authors and the quality of the webinars and reports. Timeliness of SEAN's advisements was frequently mentioned. The evaluation team attributed the frequent use of this descriptor to the correspondence between the topics addressed by SEAN and the problems confronting stakeholders during the pandemic. Interviewees also described SEAN products as relatively easy to understand. Two organizational representatives also noted that it was important to them and their members that SEAN and NASEM were perceived as nonpartisan. One minor criticism raised by two interviewees is that SEAN's written materials and webinars would benefit from including fewer, less redundant, and more action-oriented "take-aways."

All stakeholder groups reported sharing some aspect of materials obtained from SEAN consultations within their organizations. These included sharing SEAN materials via ad hoc messages, standard communication as part of regular updates or newsletters, and sharing within organizational meetings or conferences. The transmission of materials to broader groups through stakeholder networks has the obvious advantage of relaying products and amplifying SEAN's reach. Interviewees also pointed out that this enabled stakeholder groups to refine and target information to suit the needs and tastes of the organizations they represented and their membership. Several of the representatives reported that SEAN reports and—especially webinars were too detailed or academic for many

members of their organizations. Interviewees noted that elected politicians and many political staffers would not have the time and, in some cases, capacity to engage with the full range of SEAN materials.¹³ In short, SEAN webinars and reports were perceived as valuable and appropriate resources for policy advisors and membership groups; however, most policymakers and political advisors would require or benefit from distillation of SEAN materials.

CONCLUSION

In its effort to "quickly provide actionable responses to urgent policy questions," SEAN established a unique process. Its process of identifying topics on which to provide guidance was especially novel. In a departure from NASEM's practice of fielding requests from federal policymakers in Congress and the Executive Branch, SEAN focused its efforts on state and local policymakers and engaged professional associations that represented them. The substantial nature of the dialogue between SEAN staff and policymakers and their representatives appears to go far beyond the norm at NASEM. In creating products, SEAN relied on NASEM procedures but expedited them. Finally, SEAN staff and the Executive Committee worked to create products that could be easily absorbed and, thus, used by the lay public.

¹³ Some of the organizational representatives indicated that they, too, were "time poor." With this in mind, they appreciated receiving emails from SEAN with new materials and other updates, as opposed to being expected to routinely monitor SEAN's website.

TABLE 5: Utilization of SEAN Internet Resources	
Topic Area	Web Resource Views
Evaluating Data Types	4,468
Encouraging Adoption of Protective Behaviors	6,662
Encouraging Participation and Cooperation in Contact Tracing	162
COVID-19 on College Campuses	1,787
Strategies for Building COVID-19 Vaccine Confidence	4,672
Emergency Evacuation and Sheltering During the COVID-19 Pandemic	2,804
Understanding and Communicating Vaccine Efficacy	2,965

Reach of SEAN and Assessments of Its Products

The Societal Experts Action Network's primary goal was to provide information to policymakers across the nation that they would find useful in grappling with the pandemic. Such information must necessarily be widely disseminated, easily understood by nonexperts, and timely. Preliminary evidence from interviews with SEAN's organizational partners suggested that they achieved these goals. This said, a more systematic data collection and analysis effort is needed to understand SEAN's reach and its utility to the policymaking community.

Beginning in early 2021, the evaluation team began collecting data on the reach of SEAN and use of its products. This included collecting data on web resource use, dissemination of materials from the SEAN COVID-19 Survey Archive, and webinar attendance. It also included conducting a survey

assessing SEAN users' evaluations of webinars and written materials.

REACH OF SEAN

Table 5 includes data on the number of unique views of SEAN materials on the SEAN web portal, hosted by NASEM. Within each topic, resource views could include clicks on past webinars, publications, or summary materials including press releases. These data are reported as of May 2021. As is clear in Table 5, the largest number of web views was for materials related to Encouraging Adoption of Protective Behaviors. Materials on vaccine confidence and efficacy have also received a large number of views, despite having been posted for a relatively short time. With the assumption that most of these visitors occupy a role relevant to grappling with the pandemic (e.g., a government staffer or a

policy researcher), these numbers appear impressive, ¹⁴ although they are admittedly difficult to judge without further information about users' identities.

The data in Table 6 relate exclusively to material collected and disseminated by the SEAN

COVID-19 Survey Archive, which provides an easy-to-use searchable portal for identifying public opinion surveys pertaining to COVID-19. The archive began in summer of 2020. As indicated in Table 6, by November of that year, the archive hosted 689 surveys from approximately 100 organizations globally. This grew to 1,048 surveys from 153 organizations by May of 2021. One of the Executive Committee interviewees highlighted the utility of the archive staff's weekly summaries, which included snapshots of Americans' evolving COVID-19 relevant attitudes and behaviors. By May 2021, over 2,000 people were receiving these updates.

Table 7 provides data on synchronous and asynchronous webinar participation as of spring 2021. Synchronous participation was much more common for nearly all topics and ranged from a low of 88 for one of the four webinars on COVID testing on college campuses to 1,171 for the webinar on building vaccine confidence. The Evaluating Data Types consultation was released as a webinar on June 10, 2020, with synchronous attendance of 618 and 144 asynchronous engagements. The materials and guidance were published as a report (NASEM 2020c) and maintained as a web resource that has received 4,468 page views (Table 5). By far, the

most attended webinar was that discussing vaccine confidence—with 1,171 attending synchronously.

SURVEY OF SEAN WEBINAR PARTICIPANTS

To better understand the value of SEAN's main products, the evaluation team surveyed webinar participants, an identifiable group of SEAN users easily reached via email. With the assistance of NASEM/SEAN staff, the AU team sent an invitation from the NASEM domain to participate in a brief web-based survey to just under 4,000 email addresses of participants.¹⁵ The survey was brief (less than 5 minutes to complete) and asked respondents to rate the clarity, utility, and timeliness of materials presented in webinars or in SEAN publications. The survey instruments and landing page are provided in Appendix E. After two followup emails, we received responses from approximately 200 webinar participants, for an overall response rate of 5 percent. 16 Survey respondents were more likely to have attended a webinar synchronously than the full population of webinar attendees, 17 suggesting the sample may have been somewhat biased toward people relatively more engaged with NASEM.

As reported in Table 8, survey respondents reported that the material shared in SEAN webinars was clear and easy to interpret. 97 percent of respondents agreed or strongly agreed with the statement that webinar presentations were clear. 91 percent agreed or strongly agreed that the tables, figures,

¹⁴ The one exception is contact tracing. SEAN may want to consider investigating whether this topic was not of interest to decision-makers, was not publicized well, or perhaps was of great utility to a small number of specialists.

¹⁵ Text of the invitation is provided in Appendix D.

¹⁶ This response rate is typical for random-sample surveys without substantial incentives.

¹⁷ 93 percent of respondents reported attending at least one synchronous webinar.

TABLE 6: SEAN COVID-19 Survey Archive, Fall 2020 through Spring 2021					
		Nov. 2020	May 2021		
Materials Maintained in Archive					
Number of Surveys		689	1,048		
Number of Survey Questions		8,292	14,288		
Number of Survey Datasets		210	277		
Number of Survey Contributors		~100	153		
Communications/Dissemination					
Weekly Summaries Distributed		31	61		
Recipients on Email List		1,671	2,046		
Email Sign-ups Since Launch		810	1,185		

and slides presented in SEAN webinars were easy to interpret. Only 19 percent reported that the webinar (or webinars) they attended were "too technical." These responses are somewhat different from the perceptions shared in the stakeholder interviews, where concern over the academic nature of the webinars was voiced. This may indicate that stakeholders overestimated concerns that members of their organizations would have difficulty engaging with webinar materials. Alternatively, these differences may be driven by an especially interested sample responding to the web-based survey.

As is also clear in Table 8, survey respondents overwhelmingly reported that the information provided in SEAN webinar presentations was timely and useful. 91 percent of respondents agreed or strongly agreed with the statement that information presented in SEAN webinars was useful, and 95 percent similarly agreed on its timeliness. These are

unusually high levels of positive response to survey items. Table 9 reports survey results on perceptions of SEAN reports, press releases, and web resources. Among the survey respondents, 44 percent reported reading a published report, 28 percent read a press release, and 15 percent viewed material on the SEAN website. Similar to the nearly universal positive assessment of webinars, 93 percent of respondents reported (agree and strongly agree) that the SEAN materials they accessed were clear. 89 percent agreed or strongly agreed with the statement that tables and figures in SEAN materials were easy to interpret, and only 18 percent agreed that published material was too technical. Again echoing assessments of the webinars, 94 percent of respondents agreed or strongly agreed that the published material from SEAN was timely, and 89 percent reported it useful.

Perhaps the most telling survey responses about the value of SEAN webinars and materials pertain to whether and how respondents acted on the information provided. 76 percent of respondents reported sharing materials/lessons from webinars with colleagues. 43 percent answered "yes" to the question: "Have you or your organization changed behavior, policy or practice based on information you learned from the webinar(s) or from SEAN materials?"

In sum, the survey responses make clear that webinar participants gained much from engagement with SEAN. Survey respondents were overwhelmingly positive in assessing the value and timeliness of webinars and materials. Amplifying the reach and impact of SEAN, most respondents shared the information they obtained from SEAN with others, and nearly half reported changing practice or policy

TABLE 7: SEAN Webinar Attendance					
Topic Area	Webinar Attendance				
	Synchronous	Asynchronous			
Understanding COVID-19 Data - What Decision Makers Need to Know	618	144			
Preventing the Spread of COVID-19 in Correctional Facilities	482	258			
Health Care/Financing for COVID-19 in Correctional Facilities	279	83			
Promising Strategies for Encouraging the Adoption of COVID-19 Protective Behaviors	282	210			
College COVID-19 Testing Strategies	498	70			
COVID-19 Vaccine Confidence	1,171	160			

subsequent to what they learned. These directly relate to the objectives of SEAN.

One remaining question is whether this impact was on policymakers—including elected officials and their staff—who are central to SEAN's mission. In Table 10, respondents' occupations are reported. Of those who provided their occupation, only 3 percent identified as public officials, although another 17 percent reported working as staff members in government agencies. Along with 4 percent of

respondents working in professional associations, these three groups most directly represent policymaker clients. The most common occupation reported among respondents was researcher (28 percent); educators were also common at 17 percent. Even assuming a modest amount of sample bias toward researchers and educators, this user pool is likely not populated by as many policymakers as SEAN initially had hoped.

CONCLUSIONS

This limited outcome assessment sought to understand the reach of SEAN as well as whether SEAN provided understandable, useful, and timely information. Data on unique page views on the SEAN website, receipt of weekly survey updates, and webinar attendance suggest SEAN was able to establish a broad reach within a few months of its launch. Note also that these data do not include partner organizations' independent dissemination

of SEAN's guidance. Survey results indicate that SEAN users were very pleased with the content provided in written reports and ancillary materials as well as in webinars and, importantly, shared and used the information provided. The one exception to an otherwise uniformly positive assessment is that SEAN's webinar audiences likely did not include as many policymakers as initially hoped.

TABLE 8: Survey Respondent	ts' Assessm	ents of We	ebinar Qu	ality	
	Percent of Respondents who:				
	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
Presentations					
Presentations were clear	1	0	2	39	59
Tables, figures, & slides were easy to interpret	1	1	7	45	46
Webinar was too technical	26	39	17	10	9
Information was useful	1	2	6	46	45
Information was timely	2	1	2	34	61
N=198					

TABLE 9: Survey Respondents' Assessments of Report Quality					
	Percent of Respondents who:				
	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
Products					
Material presented was clear	1	1	6	43	50
Tables & figures were easy to interpret	1	1	10	41	48
Material was too technical	26	36	21	11	7
Information was useful	1	1	9	45	44
Information was timely	1	1	5	39	55
N=198	•				•

Lessons Learned and Recommendations

Since its conception in the spring of 2020, SEAN has accomplished a remarkable amount. In this report, we have documented the quantity, breadth, and reach of its advisements. We have also described how NASEM and SEAN's processes enabled this substantial effort and impact. Here, we distill and highlight some of the narratives that developed during the document review, interviews, and data collection and analysis during the evaluation of SEAN's initial year.

STRUCTURE AND PROCESSES

Lesson 1: SEAN began with a clearly articulated structure and process. As it proceeded, it created complex routines to carry out its work and adapted in response to new information, in some instances

creating unanticipated routines, such as a heavy reliance on professional organizations to engage the policymaking community and on its Executive Committee to complete tasks. The combination of structure and adaptation served SEAN well.

Recommendation 1: SEAN would benefit from formalizing its revised structure and processes and considering ways to better utilize its Advisory Group.

TIME HORIZON FOR TASK COMPLETION

Lesson 2: SEAN was able to deliver high-quality products in a short time window by aggressively speeding up typical NASEM processes. This allowed them to deliver products to policymakers in urgent

need of guidance on rapidly evolving questions.

Recommendation 2: The fast pace was both in response to, and made possible by, the pandemic. SEAN staff and members as well as outside experts dedicated unusual amounts of time and energy to the effort in part because of a commitment to public service amid a national emergency. Realistically, to deliver products on similarly short timelines in the future, SEAN may need to increase its staffing and volunteer resources and/or reduce the number of activities in which it is simultaneously engaged at any one point in time.

ENGAGEMENT WITH POLICYMAKERS

Lesson 3: SEAN recognized that dialogue is crucially important in identifying the needs of policymakers. Tapping into established networks and organizations ensured that SEAN had dialogue partners and was efficient. These partners were also valuable because they disseminated SEAN's

guidance directly to policymakers.

Recommendation 3: SEAN connected successfully with high-profile organizations representing key policymakers across the country. SEAN might consider expanding the set of organizations with whom they dialogue with an eye toward ensuring a diversity of voices and interacting with groups who may represent underserved communities. SEAN might also consider ways to increase outreach to policymakers at the federal level.

USABILITY

Lesson 4: Policymakers and their staffs engage with evidence differently than policy researchers. SEAN did an admiral job of providing much easily understood guidance for the policymaking community; however, some users suggested that even more could be done to improve the usability of SEAN materials and webinars.

TABLE 10: Survey Respondents by Occupation	on
Occupation	% of Respondents
Educator	16.6
Researcher	28.3
Public Official	3.2
Employee/Owner, Private Company	9.6
Staff Member, Govt. Agency	16.6
Staff Member, Prof. Assoc.	4.3
Other	21.4
N=187	

Recommendation 4: Continued attention to how different constituencies seek and consume information is vital. SEAN might consider further efforts to distill its recommendations/guidance, such as providing rank ordered lists of no more than three or four actionable recommendations. SEAN would also benefit from enhancing the accessibility of recommendations and summary briefings on its webpage; each topic addressed by SEAN should have a landing page with easy-to-access summaries of findings and recommendations.

Recommendation 5: To further grow its audience, SEAN would benefit from enlarging its set of policymaker organization partners and otherwise thinking about creative ways of expanding beyond the academic community. SEAN staff might also consider ways to improve the "discoverability" of SEAN materials on the internet.

AUDIENCE AND REACH

Lesson 5: SEAN rapidly built a significant audience by relying on NASEM resources as well as on its organizational partners. This said, webinar audiences likely did not include as many policymakers as SEAN hoped.

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Appendix A: SEAN Overview Document from NASEM

SOCIETAL EXPERTS ACTION NETWORK (SEAN)

Facilitating Rapid, Actionable Responses to Social, Behavioral, and Economic Sciences-Related

COVID-19 Questions

In response to the COVID-19 pandemic, decisionmakers at all levels of government have critical questions that can be addressed using evidence provided by the social, behavioral, and economic sciences (SBE). To connect SBE research with federal, state, and local decision-makers, the National Academies of Sciences, Engineering, and Medicine (NASEM), in collaboration with the National Science Foundation (NSF), is establishing the Societal Experts Action Network (SEAN). SEAN will quickly provide actionable responses to urgent policy questions. SEAN is unique in its focus on rapid, readable, and research-based insights on issues such as the reopening of businesses and economic growth, the education of children, the mental health and resilience of our communities, and many more.

SEAN will provide the needed expertise by connecting decision-makers grappling with difficult issues to the evidence, trends, and expert guidance that can help them lead their communities and speed their recovery.

SEAN Leadership

SEAN is overseen by the SEAN Executive Committee, co-chaired by Robert Groves and Mary T. Bassett. Both are members of the NASEM Standing Committee on Emerging Infectious Diseases and 21st Century Health Threats. Dr. Groves is executive vice president and provost at Georgetown University, and Dr. Bassett is director of the François-Xavier Bagnoud Center for Health and Human Rights at Harvard University. Dr. Marcia McNutt, president of NASEM, will appoint other prominent SBE scientists to the SEAN Executive Committee to serve with Drs. Groves and Bassett.

Under the SEAN Executive Committee, the SEAN Advisory Group will include prominent leaders from academia, professional organizations, and former policymakers. In coordination with the SEAN Executive Committee, the Advisory Group solicits questions from decision-makers and assists in developing responses, including the identification of relevant expert institutions. SEAN ensures that the most urgent questions receive attention and the most reliable and useful insights are provided to decision-makers and the public.

How SEAN Works

Prominent SBE institutions will quickly assemble a team of in-house experts to gather and synthesize the evidence pertinent to specific questions. SEAN translators, managed by the Federation of American Scientists, will make the concerns of decision-makers understandable to researchers and vice-versa, ensuring that SEAN responses are actionable and relevant to policy decisions. SEAN will also have access to survey data resources, enabling rapid access to appropriate data, as well as the facilitation of new data gathering in response to specific questions. Finally, SEAN communications will disseminate products produced through the network to a wider audience.

SEAN Products

SEAN products will be released by NASEM to the public and offered in a manner that best addresses

the needs of state, local and national decision-makers. Responses to decision-maker queries will include concise written documents, such as Rapid Expert Consultations (RECS), and other products including briefings and longer, more detailed reports. All products created by SEAN will focus on the urgent needs of decision-makers and will provide

the best information, based on rigorous science, in the most efficient, cost-effective, and timely ways possible.

For more information, visit https://www.nationalacademies.org/our-work/societal-experts-action-network

Appendix B: Societal Experts Action Network (SEAN) Advisory Group

Timothy Blute is director for the Center for Best Practices at the National Governor's Association, where he leads a team of policy experts who identify, research and disseminate best practices in state public policy. Previously, he served as program director for the Center for Best Practices' Homeland Security & Public Safety Division. Blute focused on cybersecurity, public safety communications and information sharing. Prior to joining NGA, Blute served as intelligence analyst in the Counterterrorism Division of the Federal Bureau of Investigation, detailee to the Office of the General Counsel at the National Security Law Branch and intern for the U.S. Department of the Treasury. Blute holds a J.D. from the American University Washington College of Law.

Mollyann Brodie is executive vice president and chief operating officer at the Henry J. Kaiser Family Foundation and executive director of KFF's Public Opinion and Survey Research Program. As COO, she oversees KFF's budgeting, human resources, facilities management, and the executive operations of the President's Office and Board of Trustees. As ED of public opinion and survey research, she

oversees KFF's polling work including the monthly health tracking poll and ongoing survey partnerships with news media organizations. A distinguished public opinion scholar, her research efforts focus on understanding the U.S. public's views and knowledge on health care policy issues, and the role of opinion in health policy debates. Her research has been published in the Journal of the American Medical Association; New England Journal of Medicine; Journal of Health Politics, Policy, and Law; and Health Affairs. She is co-editor of the book American *Public Opinion and Health Care.* She is a past president of the American Association for Public Opinion Research (AAPOR) and the 2018 recipient of the Roper Center's Warren J. Mitofsky Award for Excellence in Public Opinion Research. She received a M.S. in health policy and management and a Ph.D. in health policy from Harvard University.

Ron Carlee is assistant professor at Old Dominion University, where he teaches graduate courses in public administration in the Strome College of Business, School of Public Service. His teaching and research are informed by his previous professional work as the City Manager of Charlotte, North

Carolina, County Manager of Arlington, Virginia, Director of Health and Human Services in Arlington, Virginia, and Chief Operating Officer of the International City/County Management Associations (ICMA). Courses taught include managing local government, public budgeting and finance, human resources, ethics, policy, and administrative theory. He previously taught similar courses as an adjunct in the George Washington University Trachtenberg School of Public Administration and Public Policy for 19 years. Carlee's focus is on translating theory to practice, especially among local governments in partnership with non-profits, businesses, and direct public engagement. He conducts research and workshops on social equity, agile process improvement, and crisis management. Recent collaborations have included Toyo University, ICMA, Ohio City/ County Management Association, Colorado City/ County Management Association, and the Virginia Municipal League. Carlee is a Fellow in the National Academy of Public Administration. His holds a B.A. from the University of Montevallo, an M.A. in Urban Studies from the University of Alabama-Birmingham, and a D.P.A. from George Mason University.

Prudence L. Carter is the E.H. and Mary E. Pardee professor and dean of the Graduate School of Education at Berkeley. Her research focuses on factors that both shape and reduce economic, social and cultural inequalities among social groups in schools and society. A sociologist, she examines academic and mobility differences influenced by the dynamics of race, ethnicity, poverty, class, and gender in U.S. and global society. Before being appointed dean at Berkeley, she was the Jacks Family professor of education and professor of sociology (by courtesy) at Stanford University. She was also

the faculty director of John W. Gardner Center for Youth and Their Communities, and the director of the Research Institute for Comparative Studies in Race and Ethnicity. Prior to joining the Stanford faculty in 2007, she was associate professor of sociology at Harvard University. She is an elected a member of the National Academy of Education; the Sociological Research Association; and a fellow of the American Educational Research Association (AERA). She also serves on the board of trustees and chairs the Program Committee of the William T. Grant Foundation and is a board member of SOAR (Support, Opportunities, and Rapport) for Youth. She earned a M.A. in sociology and education from Teachers College, Columbia University, and a Master of Philosophy and Ph.D. in sociology from Columbia University.

Michael Dimock is president of Pew Research Center, a nonpartisan fact tank that informs the public about the issues, attitudes and trends shaping America and the world. A political scientist by education and training, Dimock was tapped to join the Center in 2000 by its founding director, the late Andrew Kohut. Dimock became associate director for research in 2004 and director of the Center's political polling unit in 2012. An expert on American political opinion, he co-authored several of the Center's landmark research reports, including studies of long-term trends in American political and social values and reports on views of the candidates, campaigns and key issues during several presidential election cycles. Dimock advanced to the key leadership role of vice president in 2014, overseeing the execution and analysis of the largest U.S. political survey that the Center has ever conducted. The survey provided an in-depth, groundbreaking examination of the nature and scope of political polarization within the American public. Dimock

was named president later that year and has since been instrumental in guiding the Center's research and development efforts to strengthen the practice of survey research and test new methods in data collection and analysis. Dimock received his Ph.D. in political science.

Susan Fuhrman is past-president of Teachers College, Columbia University, founding director of the Consortium for Policy Research in Education (CPRE), and past-president of the National Academy of Education. Her work focuses on enhancing the quality of education research, accountability in education, intergovernmental relationships, and standards-based reform, and she has written widely on education policy and finance. Dr. Fuhrman's substantial leadership track record includes her term as dean of the University of Pennsylvania's Graduate School of Education from 1995-2006, where she was also the school's George and Diane Weiss professor of education. Dr. Fuhrman serves on the board of directors of the Hawn Foundation and the Advisory Board of Camino Education and is a member of the board of governors of the Pardee RAND Graduate School and the American College of Greece. She is a former vice president of the American Educational Research Association as well as a former trustee board member of the Carnegie Foundation for the Advancement of Teaching. She served as a nonexecutive director of Pearson PLC, the international education and publishing company from 2004-2013. Dr. Fuhrman received a Ph.D. in political science and education from Teachers College and Columbia University.

Dan Gaylin is president and chief executive officer of NORC at the University of Chicago. Gaylin, who brings 30 years of experience spanning government, private consulting, and not-for-profit research organizations, joined NORC in 2000.

He is a nationally recognized expert in program evaluation, with a particular focus on health policy. Prior to joining NORC, Gaylin served as senior advisor for research and planning at the U.S. Department of Health and Human Services (HHS) Office of Health Policy, in which he managed a portfolio of research projects designed to inform secretarial-level policy initiatives. In addition, he was co-chair of the Prescription Drug Task Force that developed detailed information on prescription drug utilization, costs, and access in a special report to the White House. Gaylin has published widely in leading peer-reviewed journals, including the New England Journal of Medicine, JAMA, and Health Affairs. Guided by a deep passion for the effective dissemination of research, Gaylin cofounded The AP-NORC Center for Public Affairs Research at NORC, an innovative partnership between NORC and The Associated Press (AP), one of the world's largest media organizations. He holds an MPA in health policy and quantitative analysis from the Woodrow Wilson School of Public and International Affairs at Princeton University, with an undergraduate degree in biological basis of behavior from the University of Pennsylvania.

David Goldston is director of the Massachusetts
Institute of Technology Washington Office. The
Washington Office is MIT's "embassy," providing
policymakers with information and positions from
MIT, and keeping the campus abreast of relevant
developments in the nation's capital. Prior to coming
to MIT, he was director of government affairs at
the Natural Resources Defense Council, a leading
environmental group, where he helped shape
NRDC's federal political strategy, policies, and
communications. Before his time at the NRDC,
he served as chief of staff of the House Committee
on Science. After retiring from government

service, he was a visiting lecturer at Princeton University's Woodrow Wilson School of Public and International Affairs, and at Harvard University Center for the Environment. He is currently an adjunct professor at Georgetown University. From 2007 through November 2009, he wrote a monthly column for Nature on science policy titled, "Party of One." He is a member of the advisory committee for the National Academies' Climate Communications Initiative. He holds a B.A. from Cornell University and completed the course work for a Ph.D. in American history at the University of Pennsylvania.

Myron P. Gutmann is professor and director of the Institute of Behavioral Science at the University of Colorado, Boulder. He teaches courses about the social history of the United States as well as about demographic history from a global perspective. His publications include two books about early modern Europe, War and Rural Life in the Early Modern Low Countries (Princeton University Press, 1980), and Toward the Modern Economy: Early Industry in Europe, 1500-1800 (Knopf, 1988). In addition, Gutmann has contributed to edited volumes about historical populations, early modern Europe, and the confidentiality of spatial data, and written more than ninety articles and chapters. Gutmann is well known for his long-running project on the relationship between population, agriculture, and the environment on the U.S. Great Plains, and for his work on the methodology of historical demography and the protection of respondent confidentiality in social science surveys. His current research projects are about migration in the United States during the Dust Bowl and the Great Depression, and a study of very small towns in the United States from the 1930s to the Present. He is an elected fellow of the American Association for the Advancement of Science and in 2007 was named a digital

preservation pioneer by the U.S. Library of Congress. He received his Ph.D. from Princeton University.

Anna Harvey is President of the Social Science Research Council; Professor of Politics, Affiliated Professor of Data Science and Law, and Director of the Public Safety Lab at New York University; and Co-Director of the Criminal Justice Expert Panel, a survey panel of university-based researchers with expertise in criminal justice. The Public Safety Lab works with teams of social scientists and data scientists to support more effective and more equitable criminal justice practices. The Lab's work is supported by Arnold Ventures, the Chan Zuckerberg Initiative, the Pew Charitable Trusts, the William T. Grant Foundation, the Robert Wood Johnson Foundation, the Proteus Fund, the Global Institute of Advanced Study, the Moore-Sloan Data Science Environment at New York University, and private donors. The Lab's projects include the Jail Data Initiative, a large-scale effort to collect daily individual-level jail records in over 1,000 county jails in the United States, and the Prosecutorial Reform Initiative, a collaborative effort with district attorney's offices to develop more effective prosecutorial policies. Professor Harvey is the author of two scholarly books and a co-authored casebook, in addition to numerous peer-reviewed articles. She is a member of the Board of Trustees of Ohio University.

E. Wayne Holden is RTI International's fourth president and chief executive officer. He joined RTI as executive vice president of social and statistical sciences in 2005, overseeing the organization's largest unit. Prior to joining RTI, he served as vice president, senior vice president, and ultimately president of the research company ORC Macro. Before joining ORC Macro, he had a successful career in academia serving more than 10 years in a

variety of roles in the Department of Pediatrics at the University of Maryland's School of Medicine. Dr. Holden holds appointments as an adjunct professor in the Department of Psychiatry and Behavioral Sciences at Duke University School of Medicine and as an adjunct professor in the Department of Health Policy and Management at the University of North Carolina at Chapel Hill Gillings School of Global Public Health. Dr. Holden is a fellow of the American Psychological Association and has authored more than 130 articles, books, and book chapters on various topics in clinical child/ pediatric psychology and health services research. He currently serves on the board of directors for the Research Triangle Foundation and the Emily Krzyzewski Center. He is also on the board of advisors for the Frank Hawkins Kenan Institute of Private Enterprise and is a member of the Children's Mental Health Network Advisory Council. He earned his Ph.D. in clinical/community psychology from the University of South Carolina.

David Lam is professor of economics, director of the Institute for Social Research, and research professor in the Population Studies Center. He has served as president of the Population Association of America and currently serves on the Council of the International Union for the Scientific Study of Population. He has been a member of the Committee on Population of the National Academy of Sciences, and has served as an advisor or consultant to the World Bank, the U.S. National Institutes of Health, the United Nations Population Division, and the South Africa Office of the Presidency. His research focuses on the interaction of economics and demography in developing countries, including analysis of the economics of population growth, fertility, marriage, and aging. He has worked extensively in Brazil and South Africa, where his

research analyzes links between education, labor markets, and income inequality. He is an honorary professor of economics at the University of Cape Town. He earned his Ph.D. in economics from the University of California, Berkeley.

Gary Langer is an internationally recognized public opinion researcher with expertise in analysis of political, policy, economic and social attitudes, questionnaire design and survey methodology and management. With more than 30 years in the field, Langer, a longtime director of polling at ABC News, has overseen and analyzed many hundreds of surveys on a broad range of topics. Langer has won two Emmy awards and received 10 Emmy nominations the first and only to cite public opinion polls—and was honored with the 2010 Policy Impact Award of the American Association for Public Opinion Research for a series of surveys in Afghanistan and Iraq. He's a two-time winner of the University of Iowa-Gallup Award for Excellent Journalism Using Polls, produced a pair of ABC News polls recognized by the Excellence in Media Coverage of Polls Award from the National Council on Public Polls and shared a DuPont-Columbia Award for ABC's 9/11 coverage. Langer and his colleagues shared a 2015 David R. Ogilvy Award for Excellence in Advertising Research with ESPN and its partner research firms for their work on fan interest in the College Football Playoffs. He's authored or co-authored nearly 30 scholarly papers or book chapters and given scores of invited presentations on the meaning and measurement of public attitudes. Langer is vice chair of the board of directors of the Roper Center for Public Opinion Research, a trustee of the National Council on Public Polls and past president of the New York chapter of the American Association for Public Opinion Research. He is a graduate of the University of New Hampshire.

Linda Langston is president of Langston Strategies Group. Previously, she was director of strategic relations for the National Association of Counties (NACo) and a member of the Linn County (Iowa) Board of Supervisors. In that role she served as NACo's 2013-2014 president and led NACo's efforts on Capitol Hill to protect the tax- exempt status of municipal bonds and other legislative and federal priorities. Her presidential initiative was Resilient Counties, which focused on building communities' capacity to be ready, resilient, agile and adaptive in the face of natural, manmade and economic disasters. She currently serves as the cochair of the Resilient America Roundtable for the National Academy of Sciences and is on the National Advisory Council for FEMA. Prior to her public service, she was the executive director of the History Center in Cedar Rapids, Iowa and the executive director of the Linn Mar School Foundation. She received a B.A. from Knox College.

Margaret Levi is the Sara Miller McCune director of the Center for Advanced Study in the Behavioral Sciences (CASBS) at Stanford University, professor of political science, and senior fellow at the Woods Institute for the Environment, Stanford University. She is also Jere L. Bacharach professor emerita of international studies in the Department of Political Science at the University of Washington. She is the winner of the 2019 Johan Skytte Prize. She became a fellow of the American Academy of Arts and Sciences in 2001, a John Simon Guggenheim Fellow in 2002, a member of the National Academy of Sciences in 2015, the Robert Dahl fellow of the American Academy of Political and Social Science in 2017, and a member of the American Philosophical Society in 2018. She served as president of the American Political Science Association from 2004 to 2005. In 2014 she received the William H. Riker

Prize in political science, in 2017 gave the Elinor Ostrom memorial lecture, and in 2018 received an honorary doctorate from Universidad Carlos III de Madrid. She earned her PhD from Harvard University.

Alondra Nelson is president of the Social Science Research Council and the Harold F. Linder Professor of Social Science at the Institute for Advanced Study, an independent research center in Princeton, New Jersey. She was previously professor of sociology at Columbia University, where she served as the inaugural Dean of Social Science. Nelson began her academic career on the faculty of Yale University and there was recognized with the Poorvu Prize for interdisciplinary teaching excellence. An award-winning author, Nelson has published widely-acclaimed books and articles exploring science, technology, medicine, and social inequality. Nelson is author of *The Social Life of DNA: Race*, Reparations, and Reconciliation after the Genome. Her books include *Body and Soul: The Black Panther* Party and the Fight against Medical Discrimination, as well as Genetics and the Unsettled Past: The Collision of DNA, Race, and History (with Keith Wailoo and Catherine Lee) and Technicolor: Race, Technology, and Everyday Life (with Thuy Linh Tu). She is a member of American Philosophical Society and the American Academy of Arts and Sciences. Also elected to the American Academy of Political and Social Science and the Sociological Research Association, Nelson has contributed to national policy discussions on inequality and the social implications of new technologies, including artificial intelligence, big data, and human geneediting. Nelson is a member of the advisory board of the Obama Presidency Oral History Project and is co-chair of the National Academy of Medicine Committee on Emerging Science, Technology and

Innovation. She serves on the boards of the Andrew W. Mellon Foundation, the American Association for the Advancement of Science, Data & Society, and The Teagle Foundation. Nelson is also a director of the Brotherhood/Sister Sol, a Harlem-based youth development organization. She earned her PhD from New York University.

Annise Parker is president and CEO of the Victory Fund and Victory Institute. She served six years as mayor of Houston and, prior to that, as a city council member and city controller. She currently serves on the Policy and Global Affairs Committee of the National Academy of Sciences, Engineering and Medicine and the boards of Houston Botanic Garden, Houston BARC Foundation, Patient Care Intervention Council, and the Climate Disclosure Project (CDP). Prior to joining Victory Fund and Victory Institute, she was senior vice-president and chief strategy officer of BakerRipley, a community development non-profit. She was also a fellow at the Doerr Institute for New Leaders and Professor in the Practice at Rice University. In 2010, Time magazine named Mayor Parker one of the 100 most influential people in the world. She has received numerous awards during her career, including Scenic Houston's Scenic Visionary Award, Guardian of the Human Spirit Award from Holocaust Museum Houston, Guardian of the Bay Award from Galveston Bay Foundation, Rice University Distinguished Alumna for 2011, and Local Arts Leadership honoree by Americans For the Arts. In addition to her duties as mayor, Mayor Parker was a member of President Obama's Task Force on Climate Preparedness and Resilience, chaired the U.S. Conference of Mayors Criminal and Social Justice Committee, was a steering committee member of the C40 Cities Climate Leadership Group, and served on the boards of the Texas Environmental Research Consortium

and Houston Galveston Area Council. She is a past fellow of the Institute of Politics at the Harvard Kennedy School of Government.

James Poterba is the Mitsui professor of economics at the Massachusetts Institute of Technology and the president of the National Bureau of Economic Research. He has served as president of the Eastern Economic Association and the National Tax Association, as vice president of the American Economic Association, and as a director of the American Finance Association. He is a member of the National Academy of Sciences, and a fellow of the American Academy of Arts and Sciences and of the Econometric Society. Dr. Poterba's research focuses on how taxation affects the economic decisions of households and firms, particularly those involving saving and portfolio behavior. His recent research has analyzed the determinants of retirement saving, the draw-down of assets after households reach retirement, and the role of tax-deferred retirement saving programs such as 401(k) plans in contributing to retirement security. Dr. Poterba is a trustee of the College Retirement Equity Fund (CREF), the TIAA-CREF mutual funds, and of the Alfred P. Sloan Foundation. He is a former editor of the Journal of Public Economics, a co-author of The Role of Annuity Markets in Financing Retirement (2001), and an editor or coeditor of *Global Warming:* Economic Policy Responses (1991), International Comparisons of Household Saving (1994), Empirical Foundations of Household Taxation (1996), Fiscal Institutions and Fiscal Performance (1999), and Fiscal Reform in Colombia (2005). Dr. Poterba served as a member of the President's Advisory Panel on Federal Tax Reform in 2005. In 2014, he received the Daniel M. Holland Medal from the National Tax Association for the study and practice of public finance. Dr. Poterba holds a D. Phil. in economics

from Oxford University.

Jennifer Rubin is the executive chair of the Economic and Social Research Council and champion for equality, diversity and inclusion at UK Research and Innovation (UKRI). She is also professor of public policy at King's College London and was appointed to the Independent Industrial Strategy Council in November 2018. She was previously director of the Policy Institute at King's College and has spent nearly 30 years building and leading research programs and institutes inside and outside academia to address a range of societal challenges spanning justice and home affairs, crosscutting public health and new funding models for public services. In this capacity she has led research and been an advisor on several reviews focusing on measurement and improving outcomes including on serious and organized crime for the Prime Minister's Strategy Unit, and on the costs of antimicrobial resistance for the O'Neill Review. She was on the executive team of the not-for-profit policy research institution RAND's European offices, most recently as executive vice president. She was a postdoctoral visiting scholar at Harvard University following a Ph.D. at the University of Cambridge in social and political sciences.

David Wessel is a senior fellow in economic studies at the Brookings Institute and director of the Hutchins Center on Fiscal and Monetary Policy, the mission of which is to improve the quality of fiscal and monetary policies and public understanding of them. He joined Brookings in December 2013 after 30 years on the staff of The Wall Street Journal where, most recently, he was economics editor and wrote the weekly Capital column. David is the author of In Fed We Trust: Ben Bernanke's War on the Great Panic (2009) and Red Ink: Inside the High Stakes Politics of the Federal Budget (2012). He

has shared two Pulitzer Prizes, one in 1984 for a Boston Globe series on the persistence of racism in Boston and the other in 2003 for *Wall Street Journal* stories on corporate scandals. David has served as a member of the Bureau of Labor Statistics' data users advisory committee. He also has taught in the Dartmouth Tuck School of Business Global 2030 executive education program and in the journalism program at Princeton University. He is a graduate of Haverford College and was a Knight-Bagehot fellow in business and economics journalism at Columbia University.

Bruce Western is the Bryce professor of sociology and social justice and co-director of the Justice Lab at Columbia University. His research has examined the causes, scope, and consequences of the historic growth in U.S. prison populations. Current projects include a randomized experiment assessing the effects of criminal justice fines and fees on misdemeanor defendants in Oklahoma City, and a field study of solitary confinement in Pennsylvania state prisons. Western is also the principal investigator of the Square One Project that aims reimagine the public policy response to violence under conditions of poverty and racial inequality. He was the vice chair of the National Academy of Sciences panel on the causes and consequences of high incarceration rates in the United States. He is the author of Homeward: Life in the Year After Prison (Russell Sage Foundation, 2018), and Punishment and Inequality in America (Russell Sage Foundation, 2006). He is a member of the National Academy of Sciences and the American Academy of Arts and Sciences. He has been a Guggenheim fellow, a Russell Sage Foundation visiting scholar, and a fellow of the Radcliffe Institute of Advanced Study. Western received his Ph.D. in sociology from the University of California, Los Angeles.

David Yokum is the director of The Policy Lab at Brown University, which applies public policy research with state and local governments across the United States, including a special focus on Rhode Island. He was the founding director of The Lab @ DC in the D.C. Mayor's Office and, before that, the White House's social and behavioral sciences

team. David earned aJ.D. and Ph.D. in psychology with a focus on cognition and neural systems from the University of Arizona, and a master's degree in bioethics and medical humanities from the University of South Florida.

Appendix C: SEAN Executive Committee Authorities

- Determine whether to accept a request for recommendations/guidance from the Standing Committee or another source (for example—has to be non-partisan, SBE has to be able to contribute to the response, etc.)
- Invite SEAN member organizations into the network
- Convene Advisory Group members to mobilize networks in service to the Standing Committee
- Direct outreach by Advisory Group members to decision-makers to solicit requests
- Develop protocols for responding to requestors when requests aren't accepted
- Consult Advisory Group and identify Task Leader for each request and appropriate product
- Authorize Task Leader (working with NASEM staff) to reach out to SEAN member organizations

- through Advisory Group and to other experts as necessary; receive the materials they draft; task specialist consultants with drafting a policyfriendly product
- Oversee specialist translators supported through Federation of American Scientists
- Review draft product and authorize submission to RRC for NASEM review
- Review revised products and sign off (one EC member could be attached to each product and would sign off on behalf of the EC)
- Approve all products submitted under SEAN
- Transmit product from NASEM/SEAN to requestor (or Standing Committee when they have requested)

(Authorities provided by NASEM, August 2020)

Appendix D: Text of Web-Based Survey Invitation Letter

Dear Friend of the National Academies of Sciences, Engineering, and Medicine,

The National Science Foundation is conducting an evaluation of the Societal Experts Action

Network (SEAN), coordinated by NASEM. Over the past year, SEAN has produced and hosted webinars to provide information to decision-makers, public health officials, researchers, and the public on important topics related to the COVID-19 pandemic. To date, thousands of people have participated in a SEAN webinar, or viewed the presentation and discussion asynchronously.

We are contacting you as a participant/observer of a recent SEAN webinar to ask you about your experiences. This brief survey should take no longer than 5 minutes. Should you have any questions about this survey, you may contact Dr. Dave Marcotte (marcotte@american.edu) or Dr. Liz Suhay (suhay@american.edu).

Thank you. Please click here to begin.

Appendix E: Instrument and View of Webinar Attendee Survey

INSTRUMENT/TEXT

The National Science Foundation is conducting an evaluation of the Societal Experts Action Network (SEAN), coordinated by the National Academies of Sciences, Engineering, and Medicine.

Over the past year, SEAN has produced and hosted webinars to provide information to decision-makers, public health officials, researchers, and the public on important topics related to the COVID-19 pandemic. To date, thousands of people have

participated in a SEAN webinar, or viewed the presentation and discussion asynchronously.

We are contacting you as a participant/observer of a recent SEAN webinar to ask you about your experiences. This brief survey should take no longer than 5 minutes. Should you have any questions about this survey, you may contact Dr. Dave Marcotte (marcotte@american.edu) or Dr. Liz Suhay (suhay@american.edu).

Thank you.

- Which SEAN webinar(s) did you attend/view?
 [Check all that apply]
 - a. Understanding COVID-19 Data
 - b. Promising Strategies for Encouraging the Adoption of COVID-19 Protective Behaviors
 - c. COVID-19 Vaccine Confidence
 - d. Preventing the Spread of COVID-19 in Correctional Facilities
 - e. Health Care and Health Care Financing for COVID-19 in Correctional Facilities
 - f. Adoption and Implementation of Campus COVID-19 Testing Strategies
 - g. College COVID-19 Testing Strategies:Landscape of Current Testing Strategies
 - h. College COVID-19 Testing Strategies: Leadership Considerations in Testing Strategies
 - i. College COVID-19 Testing Strategies: Available Tests and Protocols
 - j. College COVID-19 Testing Strategies: Consideration for Monitoring, Measures and Data Use
 - k. Don't know, or not applicable

- 2. Thinking about the webinar(s) you checked above, was your attendance:
 - a. Synchronous/live?
 - b. Asynchronous/recorded?
 - c. Both
- 3. How did you first learn about the SEAN webinar(s)?
 - a. Google/internet search
 - b. I regularly attend National Academies events
 - c. SEAN email/listserv
 - d. I saw it described on the NASEM web page
 - e. A colleague/friend told me about it.
 - f. Other [option to fill in]

4. We'd like to know about your perception of the webinar(s) you observed. Please indicate whether you agree or disagree with the following statements.

	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
Overall the presentations by expert panelists were clear.					
Tables, figures, and slides were easy to interpret.					
The webinar(s) was/were too technical.					
The information provided was useful to me and/or my organization.					
The information provided was timely.					

5. Did you share any information you learned in the webinar(s) you attended with colleagues or others? (Yes/No)

In addition to the webinar(s), SEAN shared information and guidance as reports, press releases and interactive web overviews.

- 6. Have you viewed a:
 - a. SEAN report or rapid expert consultation? (Yes/No)
 - b. Press release? (Yes/No)
 - c. Interactive overview? (Yes/No)

If yes, what products have you viewed? [Check all that apply]

- a. Evaluating Data Types: A Guide for Decisionmakers using Data to Understand the Extent and Spread of COVID-19
- b. Encouraging Adoption of Protective Behaviors to Mitigate the Spread of COVID-19: Strategies for Behavior Change
- c. Encouraging Participation and Cooperation in Contact Tracing: Lessons from Survey Research

- d. Decarcerating Correctional Facilities during COVID-19: Advancing Health, Equity, and Safety
- e. COVID-19 Testing Strategies for Colleges and Universities
- f. Encouraging Protective COVID-19 Behaviors among College Students
- g. Strategies for Building Confidence in the COVID-19 Vaccines
- h. Emergency Evacuation and Sheltering During the COVID-19 Pandemic
- i. Don't know, or not applicable

- 7. Have you or your organization changed behavior, policy or practice based on information you learned from the webinar(s) or information obtained from SEAN materials? (Yes/No)
- 8. We'd like to know about your perception of the SEAN product(s) you viewed. Please indicate whether you agree or disagree with the following statements.

	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
Overall the material presented was clear.					
Tables and figures were easy to interpret.					
The material was too technical.					
The information provided was useful to me and/or my organization.					
The information provided was timely.					

- 9. Finally, which best describes your professional position:
 - a. Policy analyst/advisor
 - b. Public official
 - c. Staff member in a professional association (other than NASEM)
 - d. NASEM staff member
 - e. Researcher in an academic/non-profit setting
 - f. Employee/owner of a private company
 - g. Educator
 - h. Other

Thank you for your time.