

# **2021 SSEER CENSUS**

The results of the 2021 Social Science Extreme Events Research (SSEER) Census are based on the responses gathered from social scientists who completed the **SSEER membership survey** between its release date on July 8, 2018 and December 31, 2021.

#### AS OF DECEMBER 31, 2021, 1,396 RESEARCHERS HAD JOINED THE SSEER NETWORK.

In many instances, we compare the results of the 2021 Census to what we published in **previous annual reports**. Specifically, where possible and as relevant, we separate data by year for 2018, 2019, 2020, and 2021 to provide greater context regarding the continued growth and evolution of the network.

## HOW MANY SOCIAL SCIENTISTS HAVE JOINED THE SSEER NETWORK?

As of December 31, 2021, 1,396 researchers had joined the SSEER network. This represents a 13.50% increase in membership from December 31, 2020. The largest proportion of members joined in 2018 (N = 648; 46.42%), which was the year that SSEER was launched. In 2019, 302 (21.63%) new SSEER members joined the network, while slightly more signed up in 2020 (N = 322; 23.07%). Fewer members joined in 2021 (N = 124; 8.88%) (see **Figure 1**).\*

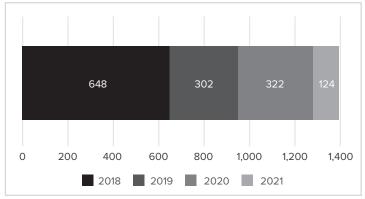


Figure 1. SSEER Membership by Year, 2018-21.

\*Readers of previously published SSEER Census reports may notice small differences in numbers stated throughout this report when compared with earlier versions. These discrepancies are largely related to members updating their data and to our own data cleaning activities. To account for these slight changes across years, we use what demographers refer to as the vintaging method. This allows each year's data independence from previous years, similar to the strategy employed by the United States annual population estimates. In this 2021 SSEER Census, we use the most up-to-date data. Interested readers can find the **annual and updated SSEER data published on DesignSafe**. Also, please see the "SSEER Data and Instrument Publications" section at the end of this document.

## WHERE ARE SSEER RESEARCHERS LOCATED?

The online **SSEER map** is organized by United Nations (UN) regions and subregions. Users can search for researchers by name, location, disciplinary foci, methodological expertise, or the types of hazards or disasters they study (see **Figure 2**).



Figure 2. SSEER Interactive Web Map.

An SSEER member's expanded profile, indicating title, institution, and areas of expertise.

**Figure 3** shows the region of residence of SSEER members who joined the network by December 31, 2021. Most

Santina Contrens Assistant Professor Department of Urban Planning and Spatial Analysis, Price School of Public Policy University of Southern California Areas of Expertise Community Engagement Non-Governmental Organizations Environmental Justice International Development Zem 19

SSEER members reside in the Americas (N = 1,117; 80.01%). Additional members are located in Europe (N = 114; 8.17%), Asia (N = 92; 6.59%), or Oceania (N = 44; 3.15%). Just over 2% of members reside in Africa (N = 29; 2.08%).

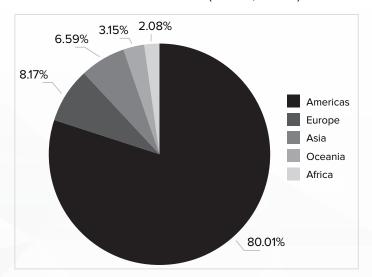


Figure 3. SSEER Researchers by UN Region.

**Table 1** provides a more detailed snapshot of SSEER members by region, subregion, and country. As shown in the table, most SSEER members work in the United States (N = 1,012; 72.49%). SSEER members from Canada (N = 59; 4.23%) are the next most populous, followed by those from the United Kingdom (N = 40; 2.87%) and New Zealand (N=24; 1.72%). SSEER members from India (N = 23; 1.65%) round out the five countries with the most SSEER members.





UN Region	# of SSEER Members in the Region	UN Subregion	# of SSEER Members in the Subregion	Country	# of SSEER Members in the Country			
				Ethiopia	2			
				Kenya	4			
		Frater Africa	12	Madagascar	1			
		Eastern Africa	13	South Sudan	1			
Africa	29			Uganda	2			
				Zambia	3			
		Southern Africa	6	Botswana	2 3 1 5 10 2 1 1 1 5 59 1,012 8 1 12 9 2 1 3 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1			
		Southern Alfico	0	South Africa	in the Country 2 4 4 1 1 1 2 3 1 5 10 2 1 1 5 10 2 1 1 5 5 5 5 9 1,012 8 1 1 1 2 9 2 1 1 3 3 1 1 1 3 1 1 1 1 1 1 1 1 1 1 1			
		Western Africa	10	Nigeria	10			
		Caribbean	3	The Bahamas	2			
		Cumbeun	5	Jamaica	1			
		Central America	C	Guatemala	1			
			6	Mexico	5			
		Northern America	1,071	Canada	59			
			1,071	United States	1,012			
Americas	1,117			Argentina	in the Country           2           4           1           1           2           3           1           2           3           1           2           3           1           5           10           2           11           5           10           2           11           5           10           2           11           5           1,012           8           1,012           8           1,012           8           1,012           8           1,012           9           2           1           3           1           1           1           1           1           1           1           1           1           1           1           1           1			
Americas	1,117			Bolivia	1			
				Brazil	12			
		South America	37	Chile	in the Country         2         4         1         2         3         1         2         3         1         2         3         1         5         10         2         1         5         59         1,012         8         1         12         9         2         1         12         9         2         1         12         9         2         1         3         1         1         1         3         1         3         1         3         1         3         1         3         1         3         1         3         1         3         1         3         1 </td			
		South America	57	Colombia	2			
				Ecuador				
				Peru	3			
				Venezuela	1			
				Hong Kong	1			
				Japan	10         2         1         1         5         59         1,012         8         1         12         9         2         1         12         9         2         1         3         1         7         1         7         1         3         1         3         1         3         1         3         1         3         1         3         1         3         1         3         1         3         1         3         1         1         1         1         1         1         1         1         1         1         1         1         1         23			
		Eastern Asia	21	Republic of China	7			
				Republic of Korea	2 3 1 5 10 2 1 1 1 5 5 5 9 1,012 8 1 1 2 9 2 1 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1			
				South Korea	1			
				Indonesia	3			
				Malaysia	1         2         3         1         5         10         2         1         5         59         1,012         8         1         12         9         2         1         12         9         2         1         12         9         2         1         12         9         2         1         3         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         2         1         1         1			
				Philippines	4			
		South-Eastern Asia	14	Singapore	in the Country         2         4         1         2         3         1         2         3         1         5         10         2         1         5         10         2         1         5         59         1,012         8         1         12         9         2         1         12         9         2         1         12         9         2         1         1         1         1         1         1         3         1         3         1         3         1         1         1         1         1         1         1         1         1         2         1     <			
				Thailand	in the Country         2         4         1         2         3         1         2         3         1         5         10         2         1         5         59         1,012         8         1         12         9         2         1         12         9         2         1         12         9         2         1         12         9         2         1         1         1         1         1         1         3         1         3         1         1         1         1         1         1         1         1         1         1         1         2         8     <			
				Union Republic of Myanmar	1			
Asia	92			Vietnam				
hord				Afghanistan	5         10         2         1         1         5         59         1,012         8         1         12         9         2         1         12         9         2         1         3         1         1         7         1         3         1         3         1         3         1         3         1         3         1         3         1         3         1         3         1         3         1         3         1         3         1         3         1         1         2         1         1         2         1         1         2         1			
				Bangladesh				
				Bhutan				
		Southern Asia	49	India				
				Iran				
				Nepal	2 3 1 5 10 2 1 1 1 5 5 5 9 1,012 8 1 1 2 9 2 1 1 2 9 2 1 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1			
				Pakistan	5         59         1,012         8         1         12         9         2         1         3         1         1         3         1         3         1         3         1         3         1         3         1         3         1         3         1         3         1         3         1         3         1         3         1         3         1         3         1         3         1         3         1         3         1         2         1         1         2         1         1         1         1         1         1         1         1			
				Sri Lanka	1         2         3         1         5         10         2         1         5         59         1,012         8         1         12         9         2         1         12         9         2         1         12         9         2         1         12         1         12         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         2         1         1         1 <tr< td=""></tr<>			
				Israel				
		Western Asia 8		Kingdom of Saudi Arabia				
				Turkey				
				United Arab Emirates	2			

Table 1. SSEER Researchers by UN Region, Subregion, and Country (continued on page 4).





UN Region	# of SSEER Members in the Region	UN Subregion	# of SSEER Members in the Subregion	Country	# of SSEER Members in the Country		
		Eastern Europe	1	Romania	1		
				Denmark	3		
				Finland	3         4         1         2         1         5         40         2         6         12         4         5         10		
				Iceland	1		
		Northern Europe	56	Norway	2		
				Scotland	in the Country		
				Sweden	in the Country		
	114			United Kingdom	40		
Europe				Greece	2		
		Couthorn Furono	24	Italy	6		
		Southern Europe	24	Portugal			
				Spain	4		
				Austria	5		
				France	in the Country		
		Western Europe	33	Germany	10		
				The Netherlands	7		
				Switzerland	1		
		Australia and New	43	Australia	19		
Oceania	44	Zealand	43	New Zealand	24		
		Melanesia	1	Solomon Islands	1		
				Total	1,396		

Table 1. SSEER Researchers by UN Region, Subregion, and Country (continued from page 3).

SSEER continues to gain members from new countries each year. SSEER members from 45 countries joined in 2018, the year the network was formed. Members from nine additional countries joined in 2019, while members from 11 additional countries joined in 2020. The SSEER network gained new members from two additional countries in 2021, for a total of 67 different countries to date (see **Figure 4**).

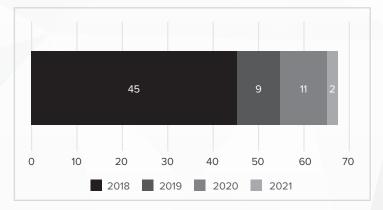


Figure 4: SSEER Member Countries Added per Year, 2018-21.



## WHAT IS THE DISCIPLINARY BACKGROUND AND EXPERTISE OF SSEER RESEARCHERS?

As noted in our prior annual reports, there is no single, universal <u>definition for which disciplines are included</u> <u>in the social sciences</u>. There are, however, a number of distinct disciplines that focus on individuals, groups, institutions, and/or society that are often included under the broad umbrella of the social sciences.

The SSEER membership survey asks researchers to identify their primary discipline—or set of disciplines for those with multidisciplinary training—as shown in **Figure 5**. The figure does not sum to the number of SSEER members (N = 1,396) because researchers could, and often did, select more than one discipline.

Of the 20 disciplines offered on the SSEER survey, most members identified with Disaster Science (N = 453; 32.45%). The second most popular discipline is Sociology (N = 310; 22.21%), followed closely by the disciplines of Decision-Making and Risk Analysis and Geography, selected by 305 (21.85%) and 303 (21.70%) members, respectively. Public Administration/ Emergency Management (N = 295; 21.13%) completes the list of top five disciplines. Fewer than one-fifth of SSEER members selected each of the remaining disciplines, as shown in **Figure 5**.

# WHAT ARE THE EDUCATIONAL AND PROFESSIONAL BACKGROUNDS OF SSEER RESEARCHERS?

The SSEER membership survey prompts researchers to share information about their highest level of education completed (see **Figure 6**). Most SSEER researchers hold a doctoral degree (N = 842; 60.32%). The second most common degree held by researchers is a master's degree (N = 374; 26.79%). Fewer members held a bachelor's degree (N = 89; 6.38%) or an associate's degree (N = 14; 1.15%) as their highest degree attained. Educational attainment data are missing for just over 5% of SSEER members (5.37%).

#### MORE THAN 60% OF SSEER MEMBERS HAVE A DOCTORAL DEGREE.

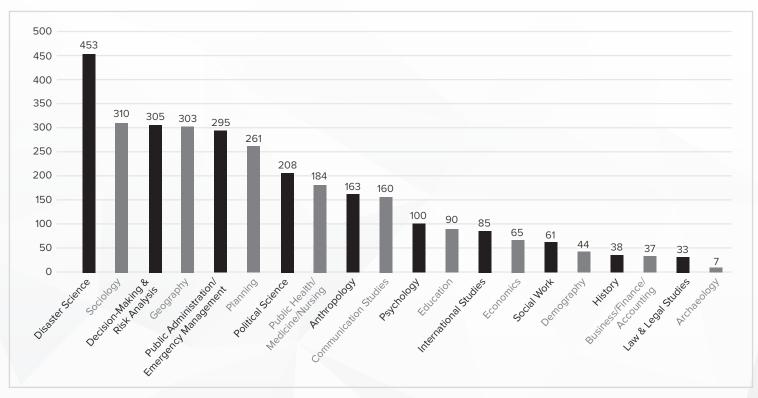


Figure 5. SSEER Researchers and Their Self-Selected Disciplinary Backgrounds.



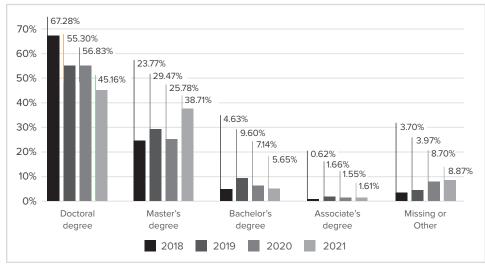


Figure 6. SSEER Researchers by Highest Academic Degree Completed, 2018-21.

In terms of primary professional status, most SSEER researchers identify as academic researchers (N = 792; 56.72%), followed by students (N = 256; 18.34%) and government researchers (N = 127; 9.10%). Fewer members identify as non-profit researchers (N = 71; 5.09%), independent researchers (N = 60; 4.30%), or private sector researchers (N = 31; 2.22%). The remaining members identify as another kind of professional, indicate they are retired, or had missing data (N = 59; 4.23%). **Table 2** shows that the primary professional statuses of SSEER members have been fairly consistent from 2018 to 2021.

	2018		20	)19	20	20	2021		Total	
	N	%	Ν	%	Ν	%	Ν	%	N	%
Academic Researcher	400	61.73	154	50.99	187	58.07	51	41.13	792	56.72
Student	99	15.28	61	20.20	57	17.70	39	31.44	256	18.34
Government Researcher	57	8.80	32	10.60	24	7.45	14	11.29	127	9.10
Non-Profit Researcher	26	4.01	18	5.96	20	6.21	7	5.65	71	5.09
Independent Researcher	29	4.48	14	4.64	11	3.42	6	4.84	60	4.30
Private-Sector Researcher	14	2.16	11	3.64	6	1.86	0	0.00	31	2.22
Other or Missing	23	3.54	12	3.97	17	5.28	7	5.65	59	4.23
Total	648	100	302	100	322	100	124	100	1,396	100

Table 2. SSEER Researchers by Primary Professional Status, 2018-21.

## WHAT IS THE LEVEL OF INVOLVEMENT OF SSEER MEMBERS IN HAZARDS AND DISASTER RESEARCH?

In 2020, our team published a typology of levels of involvement in the hazards and disaster field (see **Peek, Champeau, Austin, et al. 2020**). We use that typology in the SSEER membership survey and ask respondents to select

which of the following best describes their current status as a hazards and disaster researcher:

- Core Researcher: Strongly selfidentifies as a hazards or disaster researcher, has a deep commitment to the field, and has engaged in hazards or disaster research for a sustained amount of time.
- **Periodic Researcher:** Is not primarily engaged in hazards or disaster research but focuses on related topics from time to time throughout one's professional career.
- Situational Researcher: Not previously trained or involved in the hazards or disaster field but had the opportunity to study new phenomena or processes based on a situational event; for example, a researcher who undertook a study after their community was affected by a major disaster.
- Emerging Researcher: Includes students and others who are new to the hazards or disaster field and who are still learning about its disciplinary, multidisciplinary, or interdisciplinary histories, theories, methods, and approaches. Emerging researchers may have limited experience or may not have yet conducted their own original empirical research.

Most SSEER members identify as core researchers (N = 560; 40.11%), followed by emerging researchers (N = 340; 24.36%), periodic researchers (N = 301; 21.56%), and situational researchers (N = 110; 7.88%). **Figure 7** illustrates patterns of researcher self-identification for 2018 through 2021.



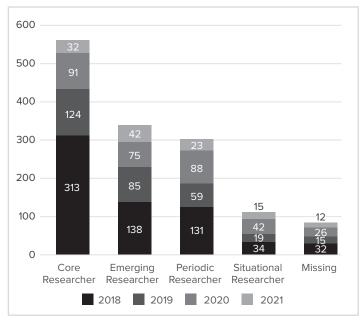


Figure 7. SSEER Researchers by Level of Involvement in the Field, 2018-21.

40% OF SSEER MEMBERS IDENTIFY AS CORE RESEARCHERS, MEANING THEY HAVE A DEEP COMMITMENT TO THE FIELD AND HAVE ENGAGED IN DISASTER RESEARCH FOR A SUSTAINED AMOUNT OF TIME.

## WHAT METHODS AND APPROACHES DO SSEER Researchers use in their work?

Social scientists use a range of methods and approaches to collect and analyze data. To characterize the methodological skills among this community, the SSEER membership survey asks researchers to identify each of their primary approaches to data collection and analysis. As summarized in **Figure 8**, the most frequently selected methodological approaches include survey research (N = 810; 58.02%), case studies (N = 804; 57.59%), and in-depth interviews (N = 804; 57.59%). The numbers in the figure do not sum to the sample size of 1,396 because researchers had the option to choose more than one approach, and most did so.

## WHAT PHASES OF THE DISASTER CYCLE HAVE SSEER RESEARCHERS STUDIED?

Social scientists who research hazards or disasters often study distinct disaster phases including preparedness, emergency response, short-term reconstruction, long-term recovery, and mitigation (see **Figure 9**).

Figure 10 shows the different phases across the disaster cycle that SSEER researchers have studied. Most SSEER researchers have focused on disaster preparedness (N = 1,036; 74.21%), followed by mitigation (N = 861; 61.68%),

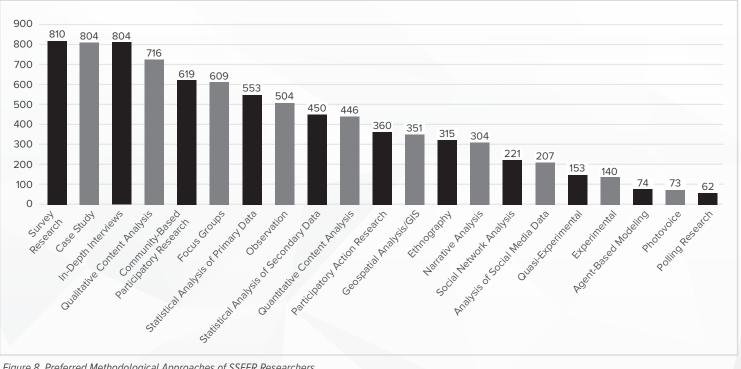


Figure 8. Preferred Methodological Approaches of SSEER Researchers.



emergency response (N = 797; 57.09%), long-term recovery (N = 784; 56.16%), and short-term reconstruction (N = 510;36.53%). The numbers here and in the figure do not sum to the sample size of 1,396 because researchers had the option to choose more than one phase, and most did so.

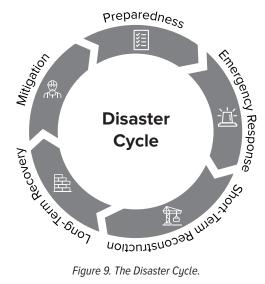


Figure 9. The Disaster Cycle.

#### SSEER MEMBERS HAVE CONTRIBUTED NEW KNOWLEDGE ACROSS EVERY PHASE OF THE DISASTER CYCLE.

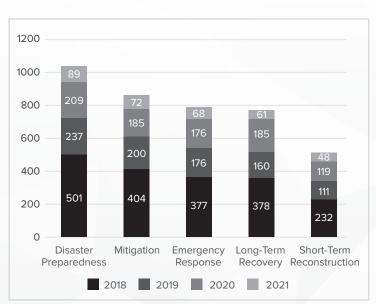


Figure 10. Disaster Phases Studied by SSEER Researchers, 2018-21.

### WHAT HAZARD TYPES AND DISASTER EVENTS HAVE SSEER RESEARCHERS STUDIED?

Figure 11 includes a summary of the hazard types that SSEER members indicated having studied. As shown, the majority of SSEER members study natural hazards (N = 1,271; 91.05%), which include geophysical, meteorological, hydrological, climatological, biological, and extraterrestrial events. In addition, just over one-fourth of respondents indicated that they study technological hazards (N = 360; 25.79%) such as industrial accidents, transport accidents, and toxic exposures. The smallest portion of SSEER respondents indicated that they focus on terrorism or other willful acts of violence (N = 268; 19.20%). The numbers in the figure do not sum to the sample size of 1,396 because researchers had the option to choose more than one hazard type, and many did so.

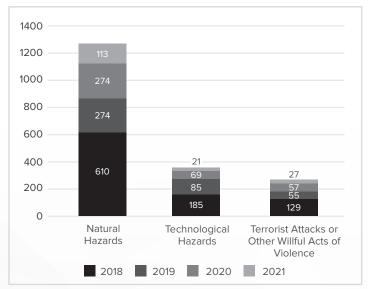


Figure 11. Hazard Types Studied by SSEER Researchers, 2018-21.

The SSEER membership survey asks respondents to identify up to 10 specific, named disaster events that they have studied during their career. Between 2018 and 2021, we received more than 1,100 unique responses to this question, which include disasters studied across several centuries and multiple geographies. The disasters that SSEER researchers have studied, along with keywords characterizing research expertise, are viewable through each researcher's profile in the SSEER map.



#### SSEER RESEARCHERS HAVE STUDIED MORE THAN 1,100 UNIQUE DISASTER EVENTS.

Based on responses detailing disasters studied by name of event and year, nearly one-quarter of SSEER members either refrained from responding to the question or had not studied any disasters (N = 345; 24.71%). From there, a nearly linear pattern emerged in the data such that, for the most part, SSEER members were more likely to respond that they had studied fewer events than more events. Specifically, nearly as many respondents had studied one disaster event (N = 223; 15.97%) as had studied two (N = 198; 14.18%) or three (N = 169; 12.11%). A moderate number of SSEER members studied four (N = 117; 8.38%), five (N = 91; 6.52%), or six (N = 61; 4.37%) disaster events. An even smaller number of SSEER members had researched seven (N = 44; 3.15%), eight (N = 34; 2.44%), or nine events (N = 23; 1.65%), respectively. Just under 5% of members had researched 10 events (N = 68; 4.87%). A small number of members responded to the survey with 11 or more events (N = 23; 1.64%) (see Figure 12).

SSEER researchers have studied a wide range of events. The top 10 most frequently studied disasters, however, all occurred in the 21st century and most of these events happened in the United States (see **Table 3**). This is likely because SSEER membership is heavily concentrated in the United States, although these particularly devastating named events attracted broad international interest as well. In terms of the most named events in the database, Hurricane Katrina in 2005 was the most commonly studied disaster event (N = 251; 17.98%) followed by Hurricanes Harvey in 2017 (N = 152; 10.89%), Maria in 2017 (N = 136; 9.74%), Sandy in 2012 (N = 126; 9.03%), and Irma in 2017 (N = 96; 6.88%). These five hurricanes have remained the most commonly studied disasters since the release of our first SSEER Census in 2018.

#### HURRICANES KATRINA, HARVEY, MARIA, SANDY, AND IRMA ARE THE TOP FIVE MOST STUDIED DISASTER EVENTS IN THE SSEER DATABASE.

A high level of interest in the novel coronavirus earned this disaster a spot among the most commonly researched events again, with 6.09% of SSEER members (N = 85) indicating that they had studied some aspect of the global pandemic. Now the sixth most commonly studied event by SSEER members, COVID-19 debuted at number 10 in the 2020 Census.

Pandemic-related research surpassed the proportion of members who studied the 9/11 terrorist attacks in 2001 (N = 79; 5.66%), the 2004 Indian Ocean earthquake and tsunami (N = 70; 5.01%), and the 2011 Fukushima/Great East Japan earthquake and tsunami (N = 68; 4.87%). As shown in **Table 3**, the 2010 BP Deepwater Horizon Oil Spill (N = 60; 4.30%) completes the ten most commonly studied disaster events.

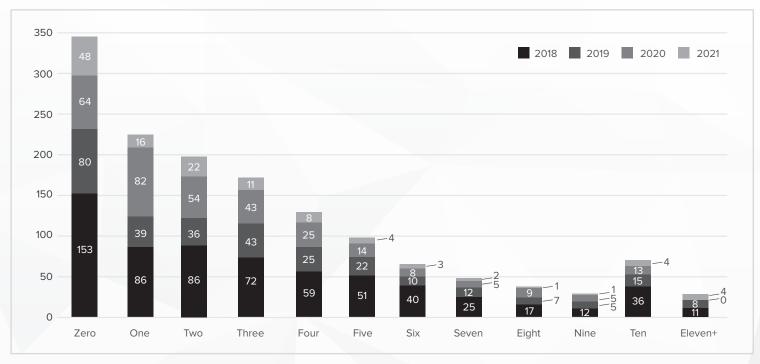


Figure 12. Number of Disaster Events Studied by SSEER Members, 2018-2021.



	N	%
Hurricane Katrina, 2005	251	17.98
Hurricane Harvey, 2017	152	10.89
Hurricane Maria, 2017	136	9.74
Hurricane Sandy, 2012	126	9.03
Hurricane Irma, 2017	96	6.88
COVID-19	85	6.09
9/11 Terrorist Attacks, 2001	79	5.66
Indian Ocean Earthquake and Tsunami, 2004	70	5.01
Fukushima/Great East Japan Earthquake and Tsunami, 2011	68	4.87
BP Deepwater Horizon Oil Spill, 2010	60	4.30

Table 3. Most Commonly Researched Disaster Events by SSEER Members.

### WHAT IS THE DEMOGRAPHIC Composition of the sseer Research Workforce?

In order to characterize the demographic composition of the social science hazards and disaster workforce, the SSEER survey ends with a series of questions regarding respondent age, years of experience, race, ethnicity, and gender identity.

In the 2021 Census, SSEER researchers ranged in age from 20 to 78 years. The average SSEER researcher is 41.37 years old and has 9.11 years of research experience in the hazards and disaster field. More than one-fifth of SSEER respondents (N = 296; 21.20%) did not provide their age in the membership survey.

> THE AVERAGE SSEER RESEARCHER HAS JUST OVER 9 YEARS OF EXPERIENCE IN THE HAZARDS AND DISASTER FIELD.

The SSEER survey prompts respondents to select which racial and ethnic categories best describe their identity. Most SSEER

respondents identify as White (N = 776; 55.59%). Fewer SSEER members identify as Asian/Asian American (N = 180; 12.89%), Hispanic/ Latino (N = 81; 5.80%), or Black/African American (N = 75; 5.37%). A small percentage of respondents selected two or more racial or ethnic categories (N = 50; 3.58%) or some other provided identity option (N = 14; 1.00%) such as Indigenous, Native Hawaiian/Pacific Islander, or Arab/ Arab American/Middle Eastern.

The survey also includes "prefer not to answer" and "prefer to selfdescribe" response options, in recognition that some respondents both inside and outside the United States may be uncomfortable with available fixed identity categories. A sizable minority (N = 220; 15.77%) of SSEER respondents were coded as "missing" because they did not respond to the race/ethnicity question, chose "prefer not to answer," or selected "prefer to self-describe" (see **Table 4**).

	2018		20	)19	20	20	20	)21	Total	
	N	%	N	%	N	%	N	%	N	%
White	402	62.04	170	56.29	149	46.27	55	44.35	776	55.59
Asian/Asian American	87	13.43	37	12.25	46	14.29	10	8.06	180	12.89
Hispanic/ Latino	33	5.09	16	5.30	21	6.52	11	8.87	81	5.80
Black/African American	28	4.32	15	4.97	21	6.52	11	8.87	75	5.37
Two or more racial/ethnic identities	15	2.31	15	4.97	17	5.28	3	2.42	50	3.58
Some other provided racial/ethnic identity	4	0.62	3	0.99	5	1.55	2	1.61	14	1.00
Missing or a different identity	79	12.19	46	15.23	63	19.57	32	25.82	220	15.77
Total	648	100	302	100	322	100	124	100	1,396	100

Table 4. Racial/Ethnic Identity of SSEER Researchers, 2018-21.

More women (N = 732; 52.44%) than men (N = 559; 40.04%) have joined the SSEER network. Additionally, a small portion of members provided some other answer (N = 105; 7.52%), including refraining from responding or identifying as nonconforming/nonbinary. Responses regarding the gender identity of SSEER members for 2018 through 2021 appear in **Table 5**.

	2018		2	019	20	)20	2021		Total	
	N	%	N	%	N	%	N	%	N	%
Woman	341	52.62	152	50.50	168	52.17	71	57.26	732	52.44
Man	274	42.28	125	41.20	120	37.27	40	32.26	559	40.04
Some other answer	33	5.09	25	8.30	34	10.56	13	10.48	105	7.52
Total	648	100	301	100	322	100	124	100	1,396	100

Table 5. Gender Identity of SSEER Researchers, 2018-21.



## CONCLUSION

This annual report on the status of the SSEER network has allowed us to characterize the location, disciplinary background, levels of involvement in the field, demographic composition, and other attributes of the social science hazards and disaster research community. Since the release of our first census in 2018, the SSEER network has continued to steadily grow and now includes a total of 1,396 researchers from 67 countries.

SSEER members are predominantly located in the United States. As noted in previous reports, it is not clear if there are actually more social scientists who study disasters in the United States, or if that is where we have been most successful at identifying researchers and encouraging them to join SSEER. Historically, there has been a relatively strong investment in social science research in the United States, but the predominance of members here may be more of a reflection of our reach as a U.S.-led network and the fact that the SSEER survey is currently only available in the English language.

Collectively, members of the SSEER network have studied a large number and wide range of disaster types and events. The most frequently studied disasters, however, are all hurricanes that have occurred in this century and in the United States and its territories. Indeed, the top five most studied disaster events in the SSEER database include Hurricanes Katrina, Harvey, Maria, Sandy, and Irma. The global COVID-19 pandemic, which became the tenth most studied event in 2020, surpassed three other disaster events to become the sixth most studied event in the 2021 Census.

SSEER members use various social science and interdisciplinary methods and approaches to study natural hazards, technological hazards, and willful acts of violence. The most commonly used methods include survey research, case studies, and in-depth interviews.

#### The demographic composition of the hazards and

**disaster research workforce** has long been of interest to leaders within the field. One area of special concern is whether or not those studying disasters reflect the demographic characteristics of the populations and places being studied. Our analyses demonstrate that the social science research community is demographically diverse in terms of race, gender, age, and years of experience, although further analyses are warranted to understand more regarding the roles and activities of specific segments of the SSEER population.

We will continue to release annual **SSEER Census** results via the **CONVERGE website** so that we can regularly assess the status of the social science hazards and disaster research workforce. We also update the interactive **SSEER map** quarterly; if you are a social scientist who studies extreme events and have not yet joined, you are invited to do so by completing the **SSEER membership survey**.

## RECOMMENDED CITATION FOR THIS CENSUS REPORT

Austin, Jessica, Heather Champeau, and Lori Peek. 2022. "2021 Social Science Extreme Events Research (SSEER) <u>Census</u>," in Social Science Extreme Events Research (SSEER) Network Data, Survey Instrument, and Annual Census. DesignSafe-Cl. <u>https://doi.org/10.17603/ds2-jw4k-6w60</u>

## **SSEER ANNUAL CENSUS REPORTS**

Prior census reports are available at:

Champeau, Heather, Jessica Austin, and Lori Peek. 2022. "2020 Social Science Extreme Events Research (SSEER) <u>Census</u>," in Social Science Extreme Events Research (SSEER) Network Data, Survey Instrument, and Annual Census. DesignSafe-Cl.

Peek, Lori, Heather Champeau, and Jessica Austin. 2022. "2019 Social Science Extreme Events Research (SSEER) <u>Census</u>," in Social Science Extreme Events Research (SSEER) Network Data, Survey Instrument, and Annual Census. DesignSafe-Cl.

Peek, Lori, Haorui Wu, Mason Mathews, Heather Champeau, and Jessica Austin. 2021. "**2018 Social Science Extreme Events Research (SSEER) Census**," in Social Science Extreme Events Research (SSEER) Network Data, Survey Instrument, and Annual Census. DesignSafe-CI.

## **SSEER DATA AND INSTRUMENT PUBLICATIONS**

The data used in this and prior census reports are available at:

Peek, Lori, Heather Champeau, and Jessica Austin. 2022. **"2021 Social Science Extreme Events Research (SSEER)** <u>Network</u>," in Social Science Extreme Events Research (SSEER) Network Data, Survey Instrument, and Annual Census. DesignSafe-Cl. https://doi.org/10.17602/ds2.https.

https://doi.org/10.17603/ds2-htk5-9w67



Peek, Lori, Jessica Austin, and Heather Champeau. 2022. "**2020 Social Science Extreme Events Research (SSEER) Network**," in Social Science Extreme Events Research (SSEER) Network Data, Survey Instrument, and Annual Census. DesignSafe-Cl.

Peek, Lori, Mason Mathews, Jessica Austin, and Heather Champeau. 2022. "**2019 Social Science Extreme Events Research (SSEER) Network**," in Social Science Extreme Events Research (SSEER) Network Data, Survey Instrument, and Annual Census. DesignSafe-Cl.

Peek, Lori, Mason Mathews, Emmanuelle Hines, Haorui Wu, Jessica Austin, and Heather Champeau. 2022. **"2018 Social Science Extreme Events Research (SSEER) Network**," in Social Science Extreme Events Research (SSEER) Network Data, Survey Instrument, and Annual Census. DesignSafe-Cl.

## **ADDITIONAL PUBLICATIONS**

For further information regarding the SSEER network, please see the following publications:

Peek, Lori. 2022. "**A New System for Disaster Research**." *American Scientist* 110(4): 226-231.

Peek, Lori, Heather Champeau, Jessica Austin, Mason Mathews, and Haorui Wu. 2020. "<u>What Methods Do</u> <u>Social Scientists Use to Study Disasters? An Analysis of</u> <u>the Social Science Extreme Events Research (SSEER)</u> <u>Network</u>." *American Behavioral Scientist* 64(8): 1066-1094.

Peek, Lori, Jennifer Tobin, Rachel M. Adams, Haorui Wu, and Mason Clay Mathews. 2020. "<u>A Framework for</u> <u>Convergence Research in the Hazards and Disaster</u> <u>Field: The Natural Hazards Engineering Research</u> <u>Infrastructure CONVERGE Facility</u>." *Frontiers in Built Environment* 6.

Peek, Lori. 2018. "<u>A Call to Social Scientists</u>." Director's Corner, August 28. Boulder, CO: Natural Hazards Center, University of Colorado Boulder.

## ABOUT SSEER

The Social Science Extreme Events Research (SSEER)

network identifies and maps social scientists involved in hazards and disaster research in order to highlight their expertise and connect social science researchers to one another, to interdisciplinary teams, and to communities at risk to hazards and affected by disasters. The goals of SSEER are to amplify the contributions of social scientists, to advance the field through expanding the available social science evidence base, and to enhance collective well-being.

SSEER is part of a larger ecosystem of **National Science Foundation (NSF) and Centers for Disease Control and Prevention (CDC)-funded extreme events research and reconnaissance networks**. These networks were established to coordinate disciplinary communities in engineering, the social and natural sciences, and public health, while also encouraging cross-disciplinary information sharing and interdisciplinary integration. More information on SSEER and the other networks is available on the **CONVERGE website**.



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