What Disasters Do Social Scientists Study?
Social Science Extreme Events Research (SSEER) Network

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Background

The National Science Foundation-funded Social Science Extreme Events Research (SSEER) network was formed, in part, to respond to the need for more specific information about the status and expertise of the social science hazards and disaster research workforce. We examined the relationship between the number of events studied by SSEER members, identified the most frequently studied hazards and disasters under study, and explored SSEER members' self-selected level of involvement in the field. These analyses use the 2020 Vintage (n=1,230).
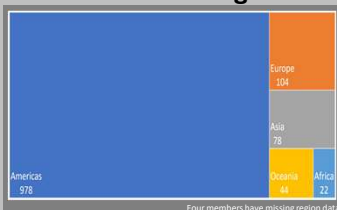
While SSEER members indicated studying over 1,000 unique disaster events, we analyze the top 10 most frequently studied events.

Researcher Involvement Levels

- **Core Researcher:** Strongly self-identifies as a hazards/disaster researcher, has a deep commitment to the field, and has engaged in hazards and disaster research for a sustained amount of time.
- **Situational Researcher:** Not previously trained or involved in the hazards field, but had the opportunity to study new phenomena based on a situational event. For example, a researcher who undertook a study after his or her community was affected by a major disaster.
- **Periodic Researcher:** Is not primarily engaged in hazards and disaster research but focuses on related topics from time to time during his/her professional career.
- **Emerging Researcher:** Includes students and others who are new to the field and who are still learning about its history, theories, and methods.

Source: Peek, Lori, Heather Champeau, Jessica Austin, Mason Mathews, and Haorui Wu. 2020. "What Methods Do Social Scientists Use to Study Disasters? An Analysis of the Social Science Extreme Events Research Network." *American Behavioral Scientist* 64(8):1066–94
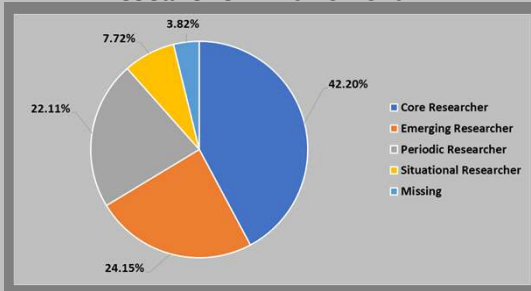
Researcher Region

Demographic Controls

Variable	Code	Demographic Characteristic	N	%
Gender				
	0	Man	512	41.63%
	1	Woman	654	53.17%
	2	Some other answer [a]	64	5.20%
		Total	1,230	100.00%
Race/Ethnicity				
	0	White	721	58.62%
	1	Asian / Asian American	188	15.28%
	2	Hispanic / Latino	92	7.48%
	3	Black / African American	73	5.93%
	4	Two or More Racial/Ethnic Identities	22	1.79%
	5	Some Other Provided Racial/Ethnic Identity [b]	15	1.22%
	6	Missing [c]	119	9.67%
		Total	1,230	100.00%
Educational Attainment				
	0	Doctoral degree	773	62.85%
	1	Master's degree	325	26.42%
	2	Bachelor's degree	82	6.67%
	3	Associate degree	14	1.14%
	4	Missing or Other [d]	36	2.93%
		Total	1,230	100.00%

Notes
[a] Includes: nonbinary/queer, prefer not to answer, prefer to self-describe, and missing responses
[b] Includes: American Indian or Alaska Native/Native Hawaiian Pacific Islander or Arab/Arab American/Middle Eastern
[c] Includes those who selected "prefer to self-describe" but did not offer a description.
[d] Includes those who selected "Professional degree" due to small number of people selecting this response

Researcher Involvement

- 42.20% Core Researcher
- 24.15% Emerging Researcher
- 22.11% Periodic Researcher
- 7.72% Situational Researcher
- 3.82% Missing

Number of Researchers for Top 10 Most Frequently Studied Disasters

Disaster	Researchers
Hurricane Katrina, 2005	245
Hurricane Harvey, 2017	149
Hurricane Maria, 2017	120
Hurricane Sandy, 2012	119
Hurricane Irma, 2017	90
9/11 Terrorist Attacks, 2001	75
Indian Ocean Earthquake and Tsunami, 2004	65
Fukushima/Great East Japan Earthquake and Tsunami, 2011	59
COVID-19	55
BP Deep Water Horizon Oil Spill, 2010	51
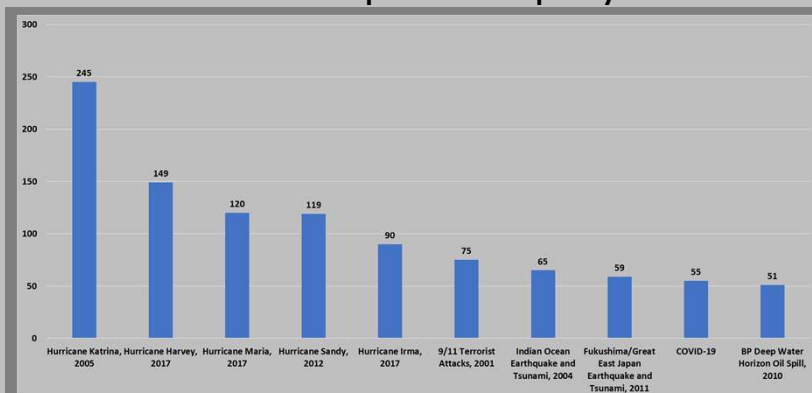
Predicting Number of Disaster Events Studied

Regression Model Notes

Source	SS	df	MS		
Model	3905.5922	18	216.9773	Number of obs =	1,101
Residual	5448.4514	1,082	5.0355	F(18, 1082) =	43.09
Total	9354.0436	1,100	8.5037	Prob > F =	0.0000
				R-squared =	0.4175
				Adj R-squared =	0.4078
				Root MSE =	2.244

	Coefficient	Std. Err.	t	p-value	95% Confidence Interval	
Gender (Control: Male)						
Female *	-0.332	0.142	-2.34	0.019	-0.610	-0.054
Some other answer	-1.197	0.721	-1.66	0.097	-2.613	0.218
Race/Ethnicity (Control: White)						
Asian / Asian American *	-0.475	0.213	-2.23	0.026	-0.893	-0.057
Hispanic / Latino	-0.010	0.251	-0.04	0.969	-0.503	0.483
Black / African American	0.000	0.314	0.00	1.000	-0.617	0.617
Two or More Racial/Ethnic Identities	0.650	0.493	1.32	0.187	-0.317	1.616
Some Other Provided Racial/Ethnic Identity	0.727	0.591	1.23	0.219	-0.433	1.887
Educational Attainment (Control: PhD)						
Master's degree	0.006	0.174	0.03	0.973	-0.335	0.347
Bachelor's degree	0.567	0.295	1.92	0.055	-0.013	1.147
Associate degree *	1.981	0.614	3.23	0.001	0.777	3.186
Region (Control: Americas)						
Europe	-0.106	0.262	-0.40	0.686	-0.619	0.408
Asia *	1.509	0.317	4.76	0.000	0.887	2.130
Oceania *	0.920	0.359	2.56	0.010	0.216	1.624
Africa	-0.574	0.554	-1.04	0.300	-1.660	0.513
Level of Involvement (Control: Core)						
Emerging Researcher *	-1.831	0.196	-9.34	0.000	-2.216	-1.446
Periodic Researcher *	-1.306	0.179	-7.30	0.000	-1.657	-0.955
Situational Researcher *	-2.035	0.272	-7.48	0.000	-2.569	-1.501
N Frequently Studied Events *	1.399	0.067	21.03	0.000	1.268	1.529
Constant	2.876	0.164	17.57	0.000	2.555	3.197

* Denotes statistically significant predictor

Discussion

Controlling for demographics, SSEER members identifying as core researchers reported studying almost three (2.88) disaster events on average; all other levels of involvement studied significantly fewer disaster events (p<.05).

The number of most frequently studied events has a positive and significant effect on the number of total disaster events studied.

Future Directions

In the future, we may explore how the relationship between researcher involvement and the disasters they study relate to the researchers' experiential backgrounds (for example, comparing academics with government researchers) or dive more deeply into specific kinds of disasters (like hurricanes or drought).

Acknowledgements

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