



# Social Science Community Newsletter

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## NOAA Transitioning Research on Risk and Behavior

The National Oceanic and Atmospheric Administration (NOAA) spends **billions** of dollars each year monitoring and predicting risk from environmental hazards to help people, communities, businesses, and local governments find and use the correct information to understand risk and make smart decisions. However, those investments only achieve their full potential value if risk is communicated effectively, which empowers people to pursue the response options that are best for them. Research from NOAA and its external partners improves the ability to deliver weather and coastal warnings more effectively, communicate local hazards and risks, and provide guidance and decision support tools to stakeholders.



NOAA is working across its line offices to transition research on risk communication and behavior to application. This will help improve the public's response to information regarding risk and lead to more protection of life and property. The Social Science Committee recently released a report titled "*Risk Communication and Behavior: Best Practices and Research Findings.*" The report reviews risk communication and public response research literature within the context of key episodic hazards. It covers three weather hazards (tornadoes/severe wind, floods, and tropical cyclones), findings for general weather, and three other environmental hazards (tsunami, volcano, and wildfire). These specific hazards were chosen for their relevance to NOAA's mission, priorities, and vision for the future.



This report also recommends best practices for risk communication relevant to NOAA practitioners including manager and forecasters, outreach coordinators, warning coordination meteorologists, and communication directors. The goal of this work is to provide information to develop community resilience and accelerate the transition of research to application across NOAA.

For more information on the Risk Communication and Behavior Report, contact [Denna.Geppi@noaa.gov](mailto:Denna.Geppi@noaa.gov).

## Multilevel Partnership to Support a More Weather-Ready Nation

Recently, the Office of Oceanic and Atmospheric Research (OAR), National Weather Service (NWS), and the Federal Highway Administration (FHA) partnered to study how broadcasters, private companies, government forecasters, academics, and others use and support social and behavioral science research in the field of meteorology. Interest in social and behavioral sciences has grown because despite high-quality forecasts, recent weather events impacted communities negatively. For example, people have lost their lives because they ignored barricades, drove through flooded roadways, and were swept away. The NWS, OAR, and FHA recognized a need to partner with external groups to improve their risk communication capabilities. While interest has grown, concerns remain about the amount of resources dedicated to social and behavioral science and the barriers that may exist in implementing research findings in operations. To address these concerns, the study will evaluate research implementation and make recommendations to improve the links between researchers and practitioners.

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# “Gender Mainstreaming” in the National Weather Service

## ***Did you know?***

**For some weather hazards, men are 80% of the fatalities in the United States because they do not perceive the threat.<sup>1</sup>**

Across the globe, natural disasters such as droughts, floods and storms kill more women than men, and tend to kill women at a younger age, according to the World Health Organization. In the U.S. however, statistics show more men die than women annually, due to cold, heat and floods. The reason for these inconsistencies are complex, and the National Weather Service is looking to social science to help explain these unique vulnerabilities.

Social science revealed that gender has tremendous, and sometimes inequitable, impacts on a partner’s reception of and reaction to weather information. Gender roles are of particular concern. For one, socio-economic status, which is largely a product of gender roles, affects response and resilience to weather events differently for men and women. Consider that women, especially single mothers, are the majority of the nation’s poor and simply don’t have the tools, means, and opportunities to take protective

***“Situational and cultural context are extremely important with regard to the ways women and men access information”***

action. Women also make up a greater proportion of the elderly—more of the groups with the highest mortality rates during disasters such as heat events.

There are many gender differences, such as communication practices, social relations, and risk behaviors, that directly affect individual responses to weather information. Social science perspectives and approaches help to further understand how these and other gendered social norms, roles, behaviors, and preferences influence weather event outcomes for men and women. For example, men have been found to be more risk prone; thus making them more vulnerable to hazards.



**58.6 percent of the U.S. population between the ages of 70-100 are female (U.S. Census Bureau, 2012)**

In light of these findings, the National Weather Service is actively integrating “Gender Mainstreaming” into its operations. Gender Mainstreaming refers to the concept of assessing the different implications for women and men of any planned policy action, program design, and education. In practice it is simply to take into consideration gender differences when planning, deciding, studying, providing, and all other activities that serve people through organizational efforts. As such, Gender Mainstreaming functions as a social science lens through which implications for both men and women are viewed and assessed to determine appropriateness, which in turn places the focus directly on the impact piece of the National Weather Service’s Impact Based Decision Support services, and the Weather-Ready Nation program (<http://www.nws.noaa.gov/com/weatherreadynation/>).

Gender Mainstreaming was first introduced to NWS by Deputy Director, Laura Furgione. “Situational and cultural context are extremely important with regard to the ways women and men access information. Even more important still are the ways women and men process and relay information, particularly disaster risk related weather and climate information,” said Ms. Furgione, “and building a Weather-Ready Nation is about understanding those processes to make ALL people climate and weather resilient.”

NWS established a Gender Mainstreaming Working Group to promote the concept within the organization and consider ways in which the concept can be used to address external partner needs. Among other activities, NWS will also host a Diversity and Inclusion Conference in October that will feature Gender Mainstreaming.



**55.6 percent of the 45.3 million people living in poverty in the United States are women and girls (American Community Survey, 2013).**

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# Social Science Gets Big Boost with New Chief Economist

In April, NOAA welcomed the new Chief Economist, Dr. Monica Grasso. She brings several years of experience in the social science including but not limited to socio-economic assessments and ecosystem service valuation.

Prior to joining NOAA, Dr. Grasso served as Chief Economist at the Transportation Security Administration (TSA) in the Department of Homeland Security, for approximately four years. Her main responsibilities were to provide expert advice, guidance, and assistance to the agency's leadership and key management officials on economic trends in the transportation industry, the impact of policies on the public and industry, and the economic consequences of threats to the Homeland. Before joining TSA, she served as a Senior Economist at the U. S Coast Guard where she worked on key environmental, safety, and security issues, such as water quality, control of aquatic invasive species (including ballast water discharge regulations), towing and fishing vessel safety, and port security. Dr. Grasso has extensive experience with socio-economic assessments and ecosystem service valuation. She led economic analyses at national and international levels on merger and acquisitions projects, regulatory compliance support and auditing for a diversity of industries, such as maritime, oil (pipelines, transportation and refineries), chemical, mining, manufacturing, and energy (power plants). Dr. Grasso holds a M.Sc. Degree in Oceanography from University of Sao Paulo (Brazil), a Ph.D. in Ecological Economics from the University of Maryland, a certificate in Advanced Business Management from Georgetown University, and a certificate in Executive Education from Harvard Kennedy School.



We look forward to her impact on the social science world at NOAA and beyond.

## References

1. Laura Furgione at the *Leadership Roundtable: Community Action for Resilient Coasts* Panel Discussion. Capitol Hill Ocean Week, June 9, 2016
2. See USGS, Flood Inundation Mapping (FIM) Program: [http://water.usgs.gov/osw/flood\\_inundation/](http://water.usgs.gov/osw/flood_inundation/)

## Did you know?

Inundation and flooding are the most frequent and costly hazards in the U.S. More than 75 percent of declared Federal disasters related to floods resulted in more than 90 fatalities per year and annual flood losses averaging nearly \$8 billion.<sup>2</sup>

- \* [\*The effect of rights-based fisheries management on risk taking and fishing safety\*](#)  
PNAS . Pfeiffer and Gratz 2016.
- \* [\*Surviving Sandy: Identify and Cultural Resilience in a New Jersey Fishing Community\*](#)  
Taking Chances on the Coast After Hurricane Sandy. Oberg et al. 2016.
- \* [\*Performance of Federally Managed Catch share Fisheries in the United States\*](#)  
Fisheries Research. Brinson and Thunberg 2016.
- \* [\*Using Socioeconomic and Fisheries Involvement Indices to Understand Alaska Fishing Community Well-Being\*](#)  
Coastal Management. Himes-Cornell and Kasperski 2016.
- \* [\*Applying Portfolio Management to Implement Ecosystem-Based Fishery Management\*](#)  
North American Journal of Fisheries Management. Jin, DePiper and Hoagland 2016.
- \* [\*The Affordable Care Act and Opportunities for Change in North Carolina's Commercial Fisheries\*](#)  
Marine Resource Economics. Crosson 2016.

## Recent publications in Social Science

**We would like your input. Please send us ideas for stories, articles, or social science work that we should highlight. You can contact us at: [prss.socsci@noaa.gov](mailto:prss.socsci@noaa.gov)**

# A Fond Farewell to Tracy Rouleau

During the last four years, Tracy has advanced the social science portfolio at NOAA. She has made meaningful connections and created a vast network. We asked some of her colleagues about their experiences working with her. Below are some of their thoughts and experiences.



T, ever since I met you some 10yrs ago, you've constantly wowed me. Your voracious appetite for life, for new experiences; your willingness – even preference – to take on the unknown; your incredible capability to exceed success in every task. And even more, your humor, and your kindness, through it all. I'm so proud to call you my mentor, and so lucky to call you my friend. These past couple years have been so hard. And I know tough roads still are ahead. But like you always do, you will arrive at the next crossroads – with your loved ones - stronger, and even more full of life. Trust your gut. And know that you always have our love. –Katya Wowk



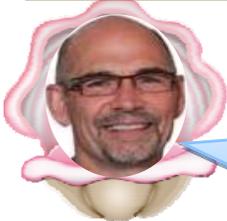
I always appreciated Tracy's persistence. When we all agreed to move in a certain direction, and felt the road-blocks coming, it was her drive that helped us break through. Tracy "Don't Take No for an Answer" Rouleau is a most appropriate nickname and how I will remember our time together at NOAA. -David Yoskowitz



You are going to be sorely missed by many. Your expertise and laughter have touch individuals throughout NOAA and beyond. I remember your first interview at PPI. While your resume peaked our interest, your high-spirited and highly contagious attitude pushed us over the top. I have truly enjoyed working with you from ReCo to SIMOR to Social Science and beyond. We tried our hardest to integrate "through the moist-side" and I believe were successful on many fronts. I look forward to working and interacting with you in the future but likely more on the natural-side. Please stay in touch and give your babies a special hug from my babies. -Laura Furgione



Tracy is a confident person. Not the kind of confidence that comes with a good education or tons of experience—although she has these too. Tracy has the confidence that comes with being extraordinarily competent. One can tell when someone has this kind of confidence because it runs deeper and comes across more genuinely. The first time I met Tracy, I thought to myself: "There's someone whose not afraid to speak her mind!" (I can't say for sure, but I have a feeling that this may be a common first reaction to Tracy.). When I have this kind of first reaction, I feel the path can go one of two ways: (1) Oh God, please no! or (2) I can't wait to work more with this person! Luckily for me, it turned out to be the latter path. Tracy has been a joy to work with. She never says no and when she says yes, which is all the time, she jumps in with every ounce of her considerable energy. Given the rotating (and all-star!) cast of characters we've had in the role of Chief Economist, Tracy has been the continuity of vision, the voice of reason, the firm, but supportive voice in the ear, and the stern, but benevolent task master. Tracy's contribution to the expanding role of social science in the agency should never be under estimated and our work will have her finger prints on it for years to come. I am grateful for the opportunity to have worked with Tracy and wish her the best of luck in her new path. -Pete Wiley



Tracy, thanks so much for bringing me aboard and for your confidence and support every step of the way. We've accomplished so much in what has really been a short time. You're a smart economist and, most of the time, you're a real joy to work with. I'm going to miss your candor, your can-do attitude, and your bulldogging approach to getting things done, done well, and done on time. I'm pretty confident that this isn't the end, but it does close out a season of my professional life that has been fun, productive, and energizing. Much of the credit goes to you. Thanks again, and best wishes in the next big thing. -Jeff Adkins



Tracy, our time together has been far too short. You are truly one of a kind and I will miss you dearly. Thank you for being a wonderful mentor and for the invaluable lessons you taught me. This is merely a farewell as I am sure our paths will cross again -Valerie Were



Wishing you the best as you begin a new chapter in your life. I am so lucky I had the honor to work for someone who is exceptional and unforgettable. You are a special person to me and I cannot thank you enough for everything that you have taught me. I want to thank you for helping me every step of the way. It was wonderful working with you. Our team won't be the same without you. I will miss you so very much :) - Denna Geppi