



# Climate Justice, Social Networks and Equitable Resilience: iCAR Phase VII

October 20-21, 2021  
Virtual Workshop (Main iCAR website):  
[iCAR | USF St. Petersburg Campus](#)



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## THANK YOU TO OUR PARTNERS:



Dr. Martin Tadlock, Regional Chancellor,  
USF St. Petersburg Campus



The Minority Health Coalition  
of Pinellas County



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Dr. Rebecca Johns (Director of Community Outreach and Education)  
Dr. Donny Smoak (Director of Research, Climate Science)

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**iCAR 2021 Workshop Organizers**

Barnali Dixon  
Rebecca Johns  
Jarod Norris  
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## **Introduction:**

This 2-day workshop, hosted by the Initiative on Coastal Adaptation and Resilience (iCAR), the University of South Florida (USF) and the Tampa Bay Regional Planning (TBRPC) will highlight the eminent scholar Dr. Robert Bullard as the keynote speaker to talk about *'Confluences of Environmental And Climate Justice: Bringing Diverse Partners Together For Community Resilience'* on Oct 20<sup>th</sup> followed by a series of panel discussions on October 21<sup>st</sup> on social networks, social justice and climate resilience.

## **Background:**

Everyone will be impacted by natural disasters including extreme weather events, flooding and sea level rise (SLR) but not in the same way. Research conducted by the iCAR team has shown that the ability to prepare for and cope with disaster, including flooding, varies from community to community and individual to individual. Resiliency and effective/timely recovery efforts require comprehensive planning at the neighborhood level before and after a disaster occurs. This cannot be done without understanding the unique vulnerabilities and needs of diverse neighborhoods as well as bringing diverse partners to work together to promote community resilience in addition to environmental and climate justice.

## **Workshop Objectives:**

- ✓ Provide the community-at-large (including citizens, professionals in the environmental field, NGOs, city, county and federal agencies, political leaders, scholars, students, etc.) the opportunity to learn from Dr. Robert Bullard, one of the premier national experts on issues of environmental and climate justice.
- ✓ Explore community-level needs for customized information and how they change from community to community as major concerns of communities and access to resources/information vary based upon specific socio-economic backgrounds and levels of biophysical vulnerabilities. Impacts of flooding, SLR and extreme weather events are experienced by affluent coastal communities differently than inland socio-economically marginalized communities. There is a need for customized information and targeted resources to foster preparedness, adaptation and resiliency to flooding, extreme weather events and SLR.
- ✓ Explore the vision and implementation plan for resiliency efforts to flooding and SLR (sea level rise) noted in CS/HB 7019: Statewide Flooding and Sea Level Rise Resilience in the context of fostering equitable resilience.
- ✓ Develop a concrete Action Plan for addressing the three most pressing issues that communities are experiencing, identified by residents through 'listening sessions,' while also creating a structure and road map to continue to address other environmental and climate justice issues in the future.

**Day 1: Keynote** by Robert Bullard: *‘Confluences of Environmental And Climate Justice: Bringing Diverse Partners Together For Community Resilience’*

**Day 2 Topics include:**

- ✓ Overview of CRIS, a resiliency information system.
- ✓ Summary of survey results regarding community resilience priorities.
- ✓ Evaluating the potential impacts of climate gentrification on Pinellas County.

**Key questions and topics that will be explored are:**

- ✓ How does the confluence of climate and environmental justice impact building community capacity and resiliency?
- ✓ How does the CS/HB 7019 legislation address equitable resiliency to flooding and SLR?
- ✓ What roles do digital platforms such as CRIS play in fostering resiliency by collecting data from diverse communities?
- ✓ What lessons can be learned from the Community Resiliency Survey using Metroquest?
- ✓ What are the challenges in reaching out to marginalized communities to identify their unique concerns and include them in resiliency planning?

**Benefits:**

- ✓ Learn from speakers chosen as a result of their academic and professional credentials as well as proven expertise in their fields.
- ✓ Learn about the cutting edge of information (data, model and tools including surveys) and the ways in which they are used in promoting resiliency and reducing marginalization.
- ✓ Learn about the CS/HB 7019 Bill that is aiming to address statewide flooding and sea level rise related resiliency throughout Florida.
- ✓ Shape research agendas and future climate adaptation efforts in the Tampa Bay region and beyond and for iCAR’s community-driven research agenda and action plan.

To learn more about iCAR and past workshops please visit our website at:

[Events | iCAR | USF St. Petersburg Campus](#)

# iCAR PHASE VII

CLIMATE JUSTICE,  
SOCIAL NETWORKS AND  
EQUITABLE RESILIENCE

October 20 & 21 • VIRTUAL • Keynote Address by Dr. Robert Bullard: Oct. 20, 7:30 pm

PRESENTED BY:

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Day 1: October 20		Title
7:15 pm	<a href="#">Click here to access this session via zoom</a> (Password required and embedded with the link.)	<b>Opening and Overview of the Workshop:</b> Dr. Rebecca Johns, iCAR Director of Education and Outreach
7:20 pm		<b>Welcome:</b> Dr. Barnali Dixon, iCAR Executive Director
7:25 pm		<b>Introduction to Keynote Speaker:</b> Dr. Martin Tadlock, Regional Chancellor, USFSP
7:30 pm		<b>Keynote Address:</b> <i>'Confluences of Environmental and Climate Justice: Bringing Diverse Partners Together for Community Resilience'</i> : by Dr. Robert Bullard, Texas Southern University
8:30 pm		<b>Q&amp;A</b>
9:00 pm		<b>Adjourned</b>

# iCAR PHASE VII

CLIMATE JUSTICE,  
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Day 2: October 21		Title
1:00 pm	<a href="#">Click here to access this session via zoom</a> (Password required and embedded with the link.)	<b>Opening:</b> Dr. Rebecca Johns iCAR Director of Education and Outreach
1:05 pm		<b>Framing the workshop: 'Impacts of Flooding on Equity and Resilience and Community Impacts':</b> Dr. Barnali Dixon, iCAR Executive Director
1:15 pm		<b>Community Resilience Priorities:</b> CJ Reynolds, TBRPC
1:30 pm		<b>Q&amp;A</b>
1:35 pm		<b>Resiliency Planning – Nowhere to Go: Evaluating Climate Gentrification Scenarios for Southern Pinellas County:</b> Drs. Rebecca Johns & Barnali Dixon
1:55 pm		<b>Q&amp;A</b>
2:00 pm		<b>Challenges Associated with Flooding, Extreme Weather Events and Evacuation:</b> Ms. Amy Polen
2:20 pm		<b>Q&amp;A</b>
2:25 – 2:45 pm		<b>Break</b>
2:45 pm		<a href="#">Click here to access this session via zoom</a> (Password required and embedded with the link.)
3:05 pm	<b>Q&amp;A</b>	
3:10 pm	<b>Overview &amp; key findings: Community Resiliency Information Systems (CRIS):</b> Drs. Barnali Dixon and Rebecca Johns	
3:35 pm	<b>Q&amp;A</b>	
3:40 pm	<b>Overview of CS/HB 7019, the Flood Hub and Related Efforts by USF and FDEP:</b> Dr. Tom Frazer, USF	
4:00 pm	<b>Q&amp;A</b>	
4:10 pm	<b>Estimating the Economic Impact of Natural Hazards on Shared Accommodation in Coastal Tourism Destinations:</b> Dr. Chen Yin-Hsuen, UF	
4:25 pm	<b>Q&amp;A</b>	
4:30 pm	<b>Role of Personal Networks on Resiliency:</b> Dr. Noriko Tateyama, Kanto Gakuin University Japan	
4:45 pm	<b>Q&amp;A</b>	
4:50 pm	<b>Wrap up and Announcement of Action Plan Meeting on Nov 10<sup>th</sup>:</b> Drs. Barnali Dixon and Rebecca Johns	
5:00 pm	<b>Adjourned</b>	

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Dr. Martin Tadlock, Regional Chancellor,  
USF St. Petersburg Campus



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**Thank You Partners and Sponsors**  
**Speakers/Moderators and Workshop Organizing Committee Members**



**Robert Bullard PhD.**

([drrobertbullard@gmail.com](mailto:drrobertbullard@gmail.com)) Professor Bullard is currently Distinguished Professor of Urban Planning and Environmental Policy at Texas Southern University. He is an award-winning author of eighteen books that address sustainable development, environmental racism, urban land use, industrial facility siting, community reinvestment, housing, transportation, climate justice, disasters, emergency response, and community resilience, smart growth, and regional equity. Dr. Bullard is also co-founder of the HBCU Climate Change Consortium. In 2020, WebMD gave him its Health Heroes Trailblazer Award and the United Nations Environment Program (UNEP) honored him with its Champions of the Earth Lifetime Achievement Award, the UN's highest environmental honor, recognizing outstanding leaders from government, civil society and the private sector whose actions have a transformative impact on the environment. In 2019, Apolitical named

him one of the world's 100 Most Influential People in Climate Policy, Washington State University honored him with the William Julius Wilson Award for the Advancement of Justice and Climate. Some of his noteworthy recent books include: *The Quest for Environmental Justice: Human Rights, and the Politics of Pollution*. San Francisco: Sierra Club Books, 2005. *Growing Smarter: Achieving Livable Communities, Environmental Justice, and Regional Equity*. Cambridge: MIT Press, 2007. *Race, Place and Environmental Justice After Hurricane Katrina: Struggles to Reclaim, Rebuild, and Revitalize New Orleans and the Gulf Coast*. Boulder, CO: Westview Press, 2009. *The Wrong Complexion for Protection: How the Government Response to Disaster Endangers African American Communities*. New York: New York University Press, 2012.





**Barnali Dixon Ph.D** ([bdixon@usf.edu](mailto:bdixon@usf.edu)) a professor of GIS and Remote Sensing at the Univ. of South Florida Saint Petersburg. She is also the Director of the Geospatial Analytics lab. She is the Executive Director of iCAR and PI of the Conference Grant and research project related to iCAR <https://works.bepress.com/barnali-dixon/#> . Her research focuses on the development and application of Environmental Decision Support Systems (EDSS) integrated with Geospatial Technologies and geocomputation for modeling and managing land-water interfaces for water contamination and vulnerability, with a particular focus on terrestrial source and aquatic sinks in the

context of extreme weather events and climate change (including sea level rise). Dr. Dixon is particularly interested in modeling land-water interface under climate change in the context of planning, adaptation and resilience with a particular emphasis on human dimension. Her current projects include analysis of contamination levels in the coastal waters of Florida using GIS, and an integrative analysis of biophysical and socio-economic vulnerability to coastal flooding, coastal adaptation and resilience. Her current project includes the development of an integrated Community Resiliency Information System (CRIS). She has extensive experience in the application of Geographic Information Systems (GIS), remote sensing and approximation tools such as fuzzy logic for environmental modeling. She earned her PhD in Environmental Dynamics from the University of Arkansas in 2001. Dr. Dixon's study areas include Florida, USA; and internationally, Argentina, China, Greece, India, Iran, Kuwait, Malaysia, Nigeria, Thailand and Turkey. She has over 50 refereed publications and 5 monographs. She recently gave a TEDEx Youth talk in China about Climate change related adaptation and resilience. She co-authored the book, "GIS and Geo Computation for Water Resources Science and Engineering" (Wiley), which was recognized on the 2021 list of 20 Best Water Resources Engineering Books by Book Authority (20 Best Water Resources Engineering Books of All Time - BookAuthority). She is the recipient of the Fulbright Specialist award and worked with Thailand's space agency GISTDA to explore role of space technologies to benefit society, resiliency and sustainability. Her faculty website page is located at <http://hennarot.forest.usf.edu/main/depts/geosci/faculty/bdixon/>.. She is the recipient of the Fulbright Specialist award and worked with Thailand's space agency GISTDA to explore role of space technologies to benefit society, resiliency and sustainability. Her faculty website page is located at <http://hennarot.forest.usf.edu/main/depts/geosci/faculty/bdixon/>.



**Tom K. Frazer** PhD. ([tfrazer@usf.edu](mailto:tfrazer@usf.edu)) is a Professor and Dean of the College of Marine Science at the University of South Florida. Prior to his arrival at USF, Dr. Frazer was Director of the School of Natural Resources and Environment at the University of Florida and served also as Chief Science Officer for the State of Florida. Dr. Frazer holds a Bachelor's Degree in Fisheries Biology from Humboldt State University and a Master's Degree in Fisheries and Aquatic Sciences from the University of Florida. He earned his Ph.D. in Biological Sciences from the University of California, Santa Barbara. His research addresses contemporary and emerging environmental issues, and is, by nature, interdisciplinary. His work involves collaborators from disparate disciplines, and it includes sampling and experiments conducted across a wide

range of spatial and temporal scales. Dr. Frazer has received more than \$14 million in research funding to address topics pertaining to water quantity and quality, nutrient dynamics, biogeochemical processes, fish population dynamics, food web interactions, and ecological restoration of degraded ecosystems. He has conducted field research in both freshwater and marine systems around the globe, and he is intimately familiar with a broad suite of environmental and natural resource issues (e.g., eutrophication of fresh, estuarine, and coastal waters, invasive species, and the ecological impacts of contemporary environmental change, including coral bleaching, ocean acidification, and sea level rise). Dr. Frazer has authored and/or co-authored more than 175 peer-reviewed publications, technical reports, and book chapters. Dr. Frazer currently serves as Chair of the Gulf of Mexico Fisheries Management Council. He is also a member of APLU's Board on Oceans, Atmosphere and Climate, and he previously served as member of the US EPA's Oil Spill Research Strategy Review Panel.



**Rebecca Johns, Ph.D** ([rjohns@mail.usf.edu](mailto:rjohns@mail.usf.edu)) Rebecca Johns, Ph.D. is an associate professor of geography based on the St. Petersburg campus. She teaches courses in nature-society relations, environmental thought, animal geography, qualitative research methods and world regional geography. Dr. Johns works with students majoring in geography, environmental science and policy, interdisciplinary social science, and sustainability studies. Dr. Johns' recent scholarly work focuses on rhetorical representations of human-nature relationships in environmental education programs and exhibits, including parks, museums, zoos and aquariums. Dr. Johns also works with the Initiative on Coastal Adaptation and Resilience ([iCAR](#)), for which she serves as Director of Community Education and Outreach. With Dr. Barnali Dixon, she works on research projects

related to building equitable and just community resilience to climate change in vulnerable and marginalized neighborhoods of St. Petersburg, including a project funded by AT&T & the

Argonne Lab of the Department of Energy. Dr. Johns recently received a grant to conduct research at the Smithsonian Institute in Washington, D.C. and has a contract to publish her book on the social creation of nature, environmental citizenship and social action with the University of Florida Press. She directs the annual community outreach and education series for iCAR. More information can be found at <http://www.usfsp.edu/icar/community-outreach-and-education/>. Dr. Johns' website is [www.rebeccajohns.net](http://www.rebeccajohns.net)



**Amy Polen** ([amypolen@usf.edu](mailto:amypolen@usf.edu)) Amy Polen, MPH, CPH, is a recent graduate of the University of South Florida College of Public Health. She specializes in emergency management and disaster sciences, utilizing an educational background in public policy, meteorology, and public health. She earned her bachelor's in Environmental Science and Policy at USF in 2018. During her time at USF, Polen has worked with the USF Hurricane Research Team and the Florida Center for Community Design and Research on projects regarding risk perception, hurricane evacuations, coastal vulnerability, and coastal resiliency. Currently, Polen is working as a research consultant on various survey-driven projects related to evacuation behaviors during the COVID-19 pandemic.



**Yi Qiang PhD.** ([qiangy@usf.edu](mailto:qiangy@usf.edu)) is an Assistant Professor at the School of Geosciences, University of South Florida. He also serves as an Affiliate Graduate Faculty at Department of Geography and Environment at University of Hawaii at Manoa. Dr. Qiang holds a Ph.D. in Geography from Ghent University. His primary research area is in GIScience and spatial data science, with focuses on spatio-temporal modeling, geo-computation/visualization, disaster resilience assessment, and coupled natural and human (CNH) systems. Dr. Qiang leads the Laboratory of Computational Spatial Science for Sustainability (COMPASS Lab, <https://compasslab.info>) at University of South Florida. His current projects cover topics on multi-scale spatio-temporal data modeling, community and infrastructure resilience assessment, sustainable agriculture, and climate/disaster-driven human migration. Dr. Qiang frequently publishes in top journals in GIScience, Geography, and Environmental Sciences. His research projects have been funded from NSF, USDA and NOAA.



**C.J. Reynolds**, ([cjreynolds@tbrpc.org](mailto:cjreynolds@tbrpc.org)) is the Director of Resiliency and Engagement at the Tampa Bay Regional Planning Council. CJ has extensive experience working with scientists, leading companies, associations, and state and federal agencies to address emerging risks through innovative education and public-private partnerships. CJ coordinates the Regional Resiliency Coalition which includes 31 local Governments and more than 100 partners. From 2011 to 2018, CJ was a research associate at the University of South Florida College of Marine Science where she developed and coordinated stakeholder engagement research with local governments and assessed information and

training needs related to climate adaptation and municipal sustainability. CJ is a native of Chicago and previously worked for a global technical consulting firm, national association and marketing agency where she developed industry and citizen education and outreach programs to reduce food borne illness risks. CJ earned her BS in Journalism at Northern Illinois University.



**Joseph M. Smoak Ph.D** ([smoak@usf.edu](mailto:smoak@usf.edu)) is a professor of biogeochemistry at the University of South Florida in St. Petersburg. He has over 80 publications in peer-reviewed journals and book chapters, and has received research funding from numerous regional, state and federal agencies including the National Science Foundation. Dr. Smoak has conducted research at sites ranging from Florida to locations around the world including Antarctica, Australia, Brazil, China, Iran, Mexico and Venezuela. He has examined lakes, freshwater wetlands, coastal ecosystems, continental margins and deep-sea sediments. Dr. Smoak's current research focus is on how coastal wetlands respond to climate change and sea-level rise. Specifically, his work examines carbon burial (i.e., sequestration) in coastal wetlands, and how that burial might change and influence

the global climate <https://works.bepress.com/joseph-smoak/> . He serves as the Director of Research, Climate Science for iCAR. His faculty website is located at <http://hennarot.forest.usf.edu/main/depts/geosci/faculty/ssmoak//>.



**Noriko Tateyama** ([tateyama@kanto-gakuin.ac.jp](mailto:tateyama@kanto-gakuin.ac.jp)) is a professor of the department of symbiotic design, college of interhuman symbiotic studies at the Kanto-Gakuin University in Yokohama-city, Japan. She is an invited scholar at the University of South Florida (Mar. 2021-Mar.2022). Her specialized field is sociology, urban sociology, family sociology, and the personal network. She is particularly interested in 1) the relation between personal the network and urbanism, and 2) relation between the personal network and the household in the context of disaster and resiliency.

She has a research project in iCAR now, focusing on the personal network of disaster victims as a resource of resilience for individuals and the community. She has conducted in-depth- interviews with disaster victims of TEPCO (Tokyo electric power company) nuclear power accident after the huge earthquake on 11 Mar. 2011. She has received an award of Isomura Eiichi (Award of Japan Association for Urban Sociology) for her “New Edition Social Map of Tokyo Metropolitan Area -1975-1990” published by Tokyo University Press.



**Chen Yin-Hsuen, PhD.** ([eisen520@ufl.edu](mailto:eisen520@ufl.edu)) is a postdoctoral fellow at the Department of Geography, University of Florida. She received her doctoral degree at the same department. Her research interests focus on the human-natural interactions that can be applied to develop sustainable environments. To archive this goal, her research topics include 1) estimating impacts of natural hazards to coastal communities, 2) evaluating influences of anthropogenic activates to the river-floodplain system, and 3) applying GIS and remote sensing techniques to transform data into visual, actionable information.