

Workshop on Barriers and Opportunities for Facilitating Team Science

The National Academies of Sciences, Engineering, and Medicine

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Zeynab Jouzi, PhD

HELLO, EVERYONE!

I am an evidence-based scientist employing multidisciplinary approaches to address the critical needs of under-resourced communities, focusing primarily on food security, environmental justice, and health equity.

2017-2022, PhD. North Carolina State University

2022-2024, Postdoctoral Training, Cornell University



Pushed to the edge: A socio-environmental analysis of climate gentrification along the East Coast of the United States

Principal Investigators

Zeynab Jouzi, Kelsea Best, Md Sariful Islam

Participants

Azmal Hossan, Rebecca Nixon, Richard Nyiawung, Timothy Kirby



Project Type: Team Synthesis Project (Graduate Student Led), 2020

Team Composition

Universities: Vanderbilt, NC State, Purdue, Colorado State, Virginia Tech, Florida International, University of Guelph

Disciplines: Sociology, environmental science, food security, geospatial science, environmental economics, international development, environmental policy

Countries of origin: United States, Bangladesh, Iran, Cameroon

Two external experts in data science and gentrification/ food security



How it started



Annapolis in August 2019

How it went (due to the pandemic)



Virtual meeting, July 2020

Climate Gentrification Team Virtual Kickoff!

July 8-9, 2020



Here are some activities that we've used to strengthen our team's bond!



What strengths do you bring to the team?

VIA Character Strengths Survey:

<https://www.viacharacter.org/survey/>

Team strengths inventory

Azmal- Teamwork, kindness, spirituality

Becca- Kindness, fairness, humility

Kelsea- Love of learning, fairness, perseverance

Richard- Honesty, kindness, love

Sharif- Honesty, love of learning, kindness

Tim- Curiosity, appreciation of beauty and excellence, judgement

Zeynab- Honesty, love of learning, fairness

Have you ever been a member of interdisciplinary team? (any context, any scale)

How was that? What will you do differently next time?

Our team's deliverables





Urban Climate

Volume 48, March 2023, 101430



Typologies of multiple vulnerabilities and climate gentrification across the East Coast of the United States

Kelsea B. Best ^a  , Zeynab Jouzi ^b, Md Sariful Islam ^c, Timothy Kirby ^d,
Rebecca Nixon ^e, Azmal Hossan ^f, Richard A. Nyiauwung ^g

Future Cities **Podcast** episode 55:

Climate Gentrification in Coastal Cities



Examples of other team sciences, inspired by SESYNC experience

- Leveraging Collaboration
- Building a new team



Image from Canva

Leveraging Collaboration



WOMEN IN DATA SCIENCE
RALEIGH AND NASHVILLE

WiDS Raleigh and Nashville

Data Science in Coupled Human and Natural Systems

April 22, 2021

Our Collaboration started with
SESYNC

WiDS Raleigh and Nashville was an independent **event organized by Zeynab Jouzi and Kelsea Best** to coincide with the annual Women in Data Science (WiDS) Worldwide conference hosted by Stanford University and an estimated 150+ locations worldwide. All genders are invited to attend **WiDS events, which feature outstanding women doing outstanding work.**

Building a new team

First Annual Environmental Data Science Summit, Feb 2023

Harnessing Diversity in Environmental Data Science



**Transforming Environmental Science.
Accelerating Discovery.
Generating Solutions.**

“Environmental Data Science (EDS) is a growing field of **interdisciplinary approaches** to investigating and answering environmental questions with modern data science tools”.

- Participated in the summit
- Formed a team of researchers during summit and outlined the plan
- Surveyed participants on barriers and opportunities for broadening participation in environmental data science

Broadening participation in environmental data science: insights from practitioners

CR Fong, C Galaz García, E Abbasi, N Gubbins, **Z Jouzi**

The outcome: Paper accepted in *Environmental Data Science* journal



Takeaway

Remember the Pareto Principle (80–20 Rule)?

The key is identifying the right individuals to build a team.

Personal characteristics are as important as scientific abilities.

This makes the biggest difference in the team's success.



THANK YOU FOR LISTENING!

Feel free to reach out to me through any of the following:

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