

Studies, Research, and Best Practices Subcommittee

12 April 2021, 11:00 am - 12:30 pm

Agenda:

1. Welcome
2. Approval of Minutes
3. Presentation from Dr. Anamaria Bukvic
 - Title: ***Advancing towards the sustainable relocation strategy: lessons learned from the empirical evidence***
 - Q&A
1. Updates from working groups:
 1. Relocation
 2. Natural and Nature-Based Infrastructure
 3. Socioeconomic Equity
 4. Resources for working-group work
2. Discussion and Comments
3. Public comments
4. Adjourn

Virginia Coastal Resilience Technical Advisory Committee - Studies, Researches, Best Practices



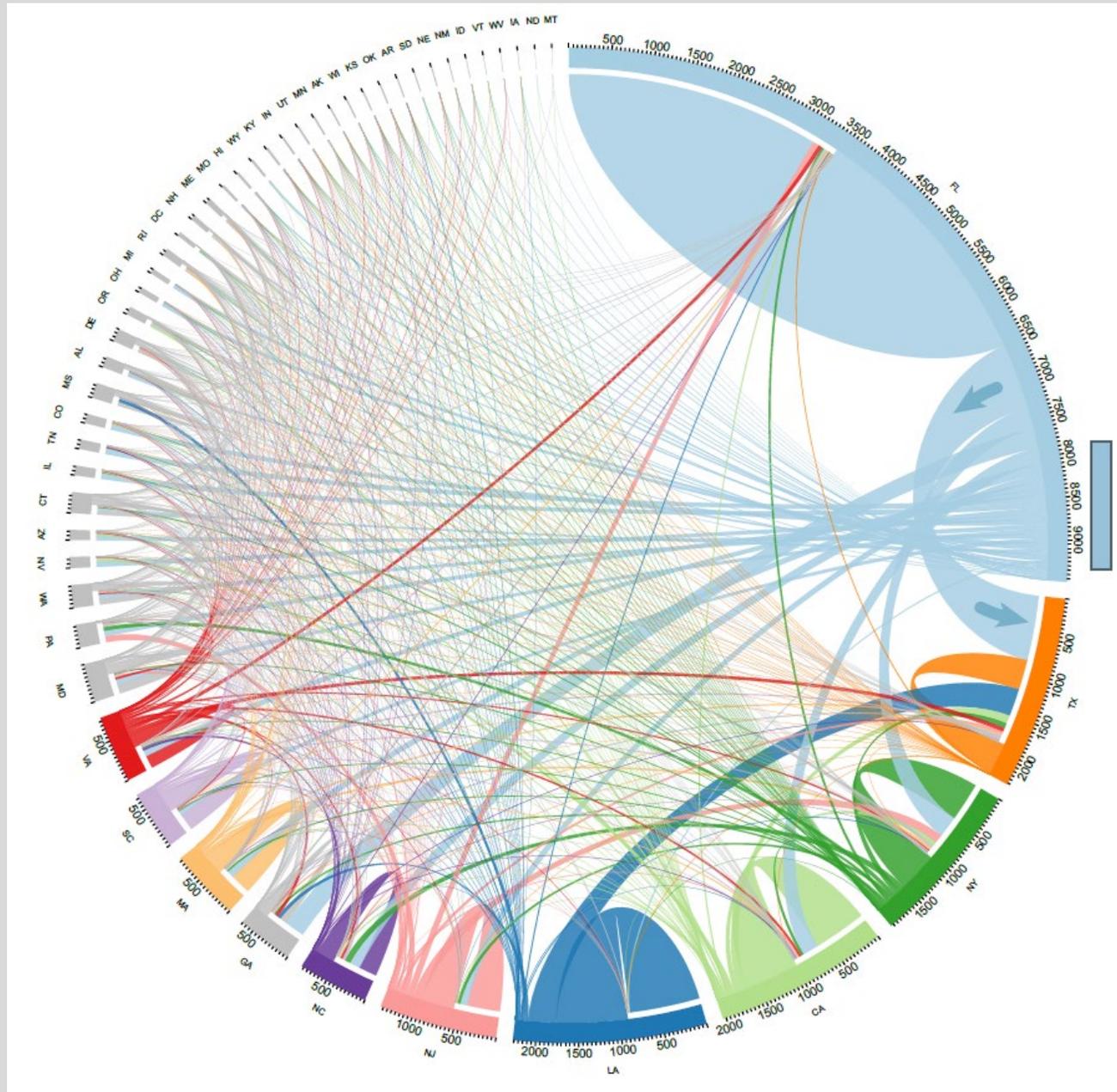
Advancing towards the sustainable relocation strategy: lessons learned from the empirical evidence

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“As the pace and extent of coastal flooding and erosion accelerate, climate change impacts along our coasts are exacerbating preexisting social inequities, as communities face difficult questions about determining who will pay for current impacts and future adaptation and mitigation strategies and if, **how, or when to relocate.**”



PEOPLE WILL BE ON THE MOVE



Hauer, M. E. (2017). Migration induced by sea-level rise could reshape the US population landscape. *Nature Climate Change*, 7(5), 321.



WHAT WE KNOW SO FAR

- It is not a new concept and has been extensively used in the past
- Controversy stems from the social costs and lack of transparency associated with this process
- We learned a lot from the past experiences
- It is already happening in many coastal areas
- Not everything can be protected
- Change is difficult but possible
- It is all about the rhetoric! Different terms have different meanings

IN THE REGION | CONNECTICUT

To Repair the Shore, or Retreat?



Christopher Capozziello for The New York Times

IRENE WAS HERE Tropical Storm Irene damaged many shoreline houses on Cosey Beach Avenue in East Haven last August. Some owners have rebuilt; others lack the wherewithal.

By LISA PREVOST

Published: May 3, 2012

State lawmakers have begun to grapple with that question as they consider how to plan for the effects of climate change and rising sea levels on coastal development. But they have temporarily put aside the more delicate question of whether homeowners in Connecticut's most vulnerable shoreline areas ought to rebuild at all, after a bill before the Environment Committee prompted a great deal of concern.

That legislation, proposed by the Connecticut chapter of the Nature Conservancy, called for **“a fair and orderly legal process to foster strategic retreat of property ownership, over a period of several decades,”** in coastal areas subject to erosion or repetitive structural damage.

The words **“retreat”** and **“orderly legal process”** sparked suspicions that the bill was laying the groundwork for the seizure of private homes by eminent domain.

Displacement

Involuntary, temporary, physical, dislocation of people from their homes
(Muggah 2008)

Migration

The movement of persons away from their place of usual residence, either across international border or within a State
(IOM 2021)

Resettlement

An organized process where a group of homogenous people from one location move together to another location
(Lieber 1977)

Relocation

Permanent or long-term movement of a whole or significant part of community from one location to another
(Campbell et al. 2005)

Managed retreat

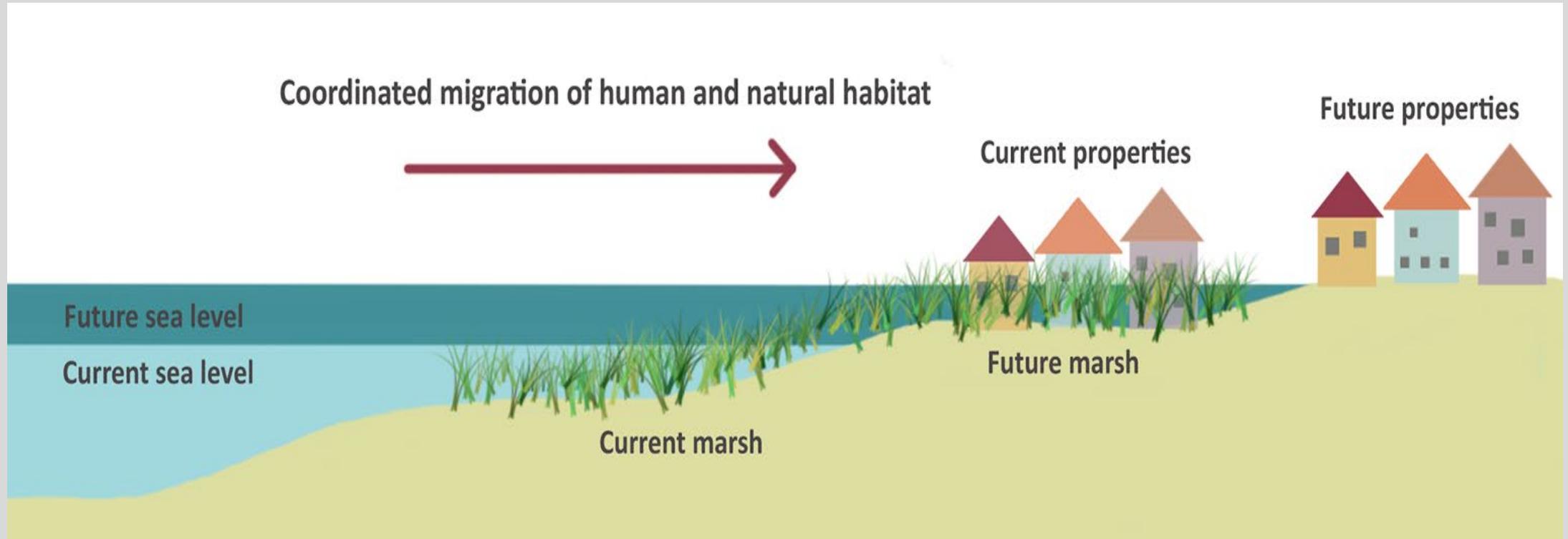
Voluntary movement and transition of people and ecosystems away from vulnerable coastal areas
(Georgetown Climate Central 2021)

Muggah, R. (2008). Relocation Failures in Sri Lanka: A Short History of Internal Displacement and Resettlement. Zed Books, London, UK.; Campbell, J. R., Goldsmith, M., & Kosh, K. (2005). Community Relocation as an Option for Adaptation to the Effects of Climate Change and Climate Variability in Pacific Island Countries (PICs). Asia-Pacific Network for Global Change Research; IOM, see: International Organization for Migration (2021). Available at: <https://www.iom.int/key-migration-terms>.; Lieber, M. D. (1977). Exiles and migrants in Oceania. University Press of Hawaii.

RELOCATION DECISION-MAKING



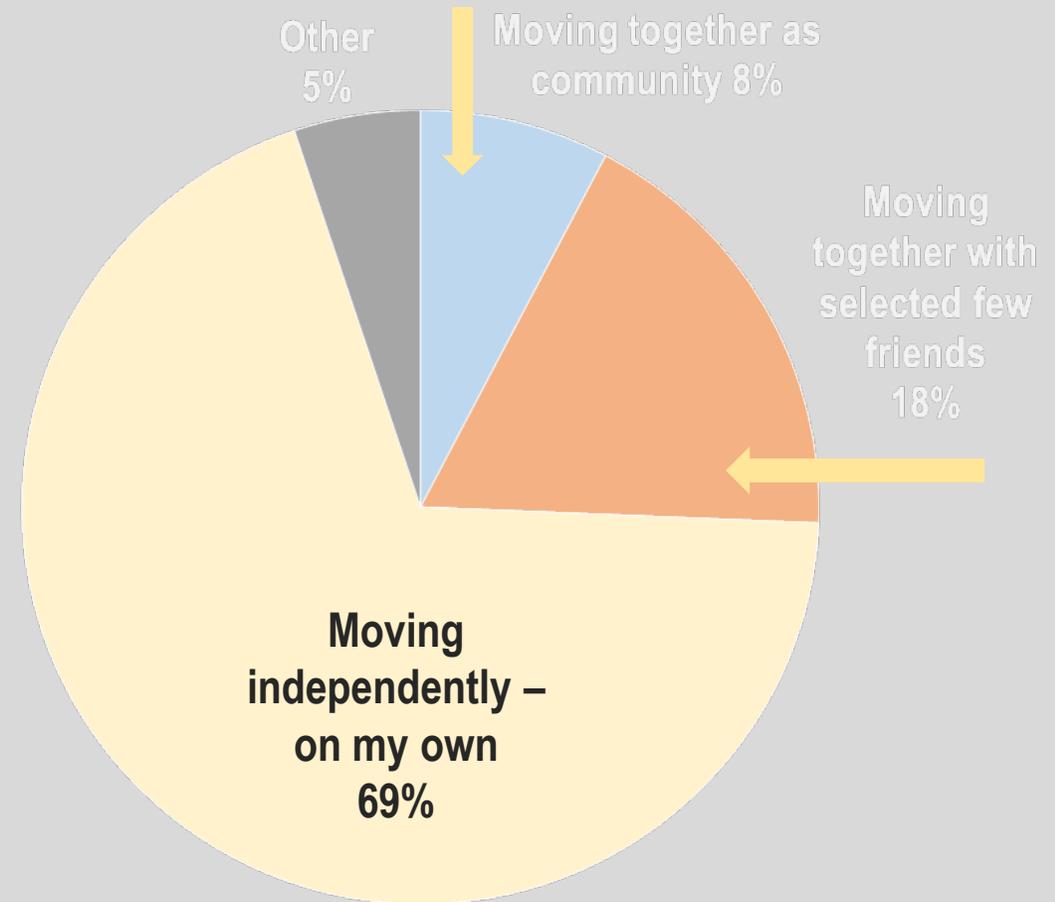
ITS NOT ALL ABOUT PEOPLE



LESSONS LEARNED POST HURRICANE SANDY

Would you currently consider a buyout program to move somewhere else?

49% YES | MAYBE IN THE FUTURE





WOULD CONSIDER RELOCATION IN THE FUTURE IF:

QUALITY OF LIFE

- Crime becomes worse
- Services and amenities do not restore their full function
- School system deteriorates
- Businesses do not reopen

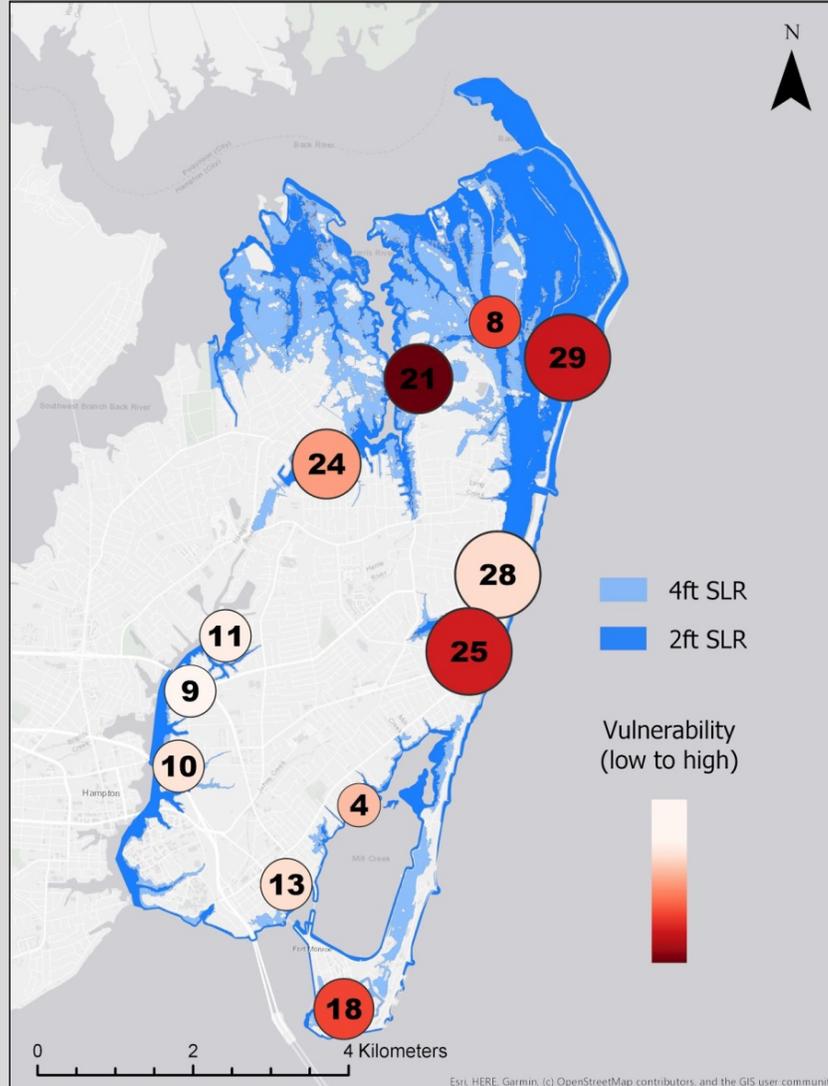
HAZARD

- We have two or more floods in the next few years
- We have one more flood in the next few years

FINANCIAL

- Insurance cannot cover full reconstruction
- I am offered financial compensation (buyout)

LESSONS LEARNED FROM HAMPTON ROADS



HOUSEHOLD SURVEY (n=200)

Most common impacts:

- School delays and closures
- Difficulty to commute to work
- Business closures
- Cancelled appointments
- Home and yard damage
- Negative impacts on home value
- Neighbors selling homes and moving out

LESSONS LEARNED FROM HAMPTON ROADS

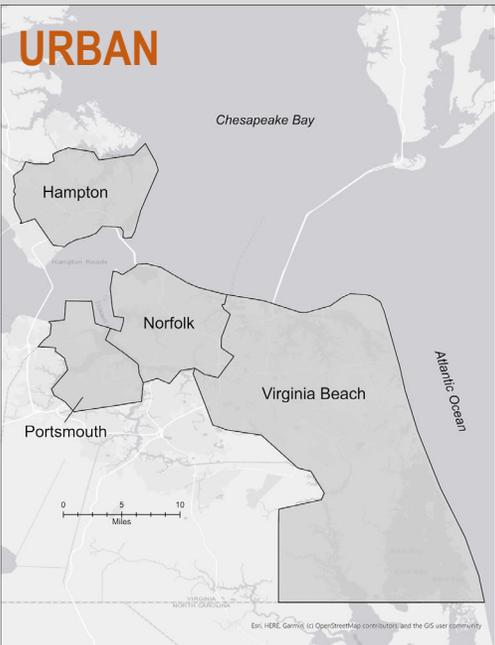
I would consider permanently relocating from this neighborhood to a less flood-prone location if... *(Strongly Agree + Somewhat Agree)*

72% Insurance does not cover the flood damage

68% Crime becomes worse

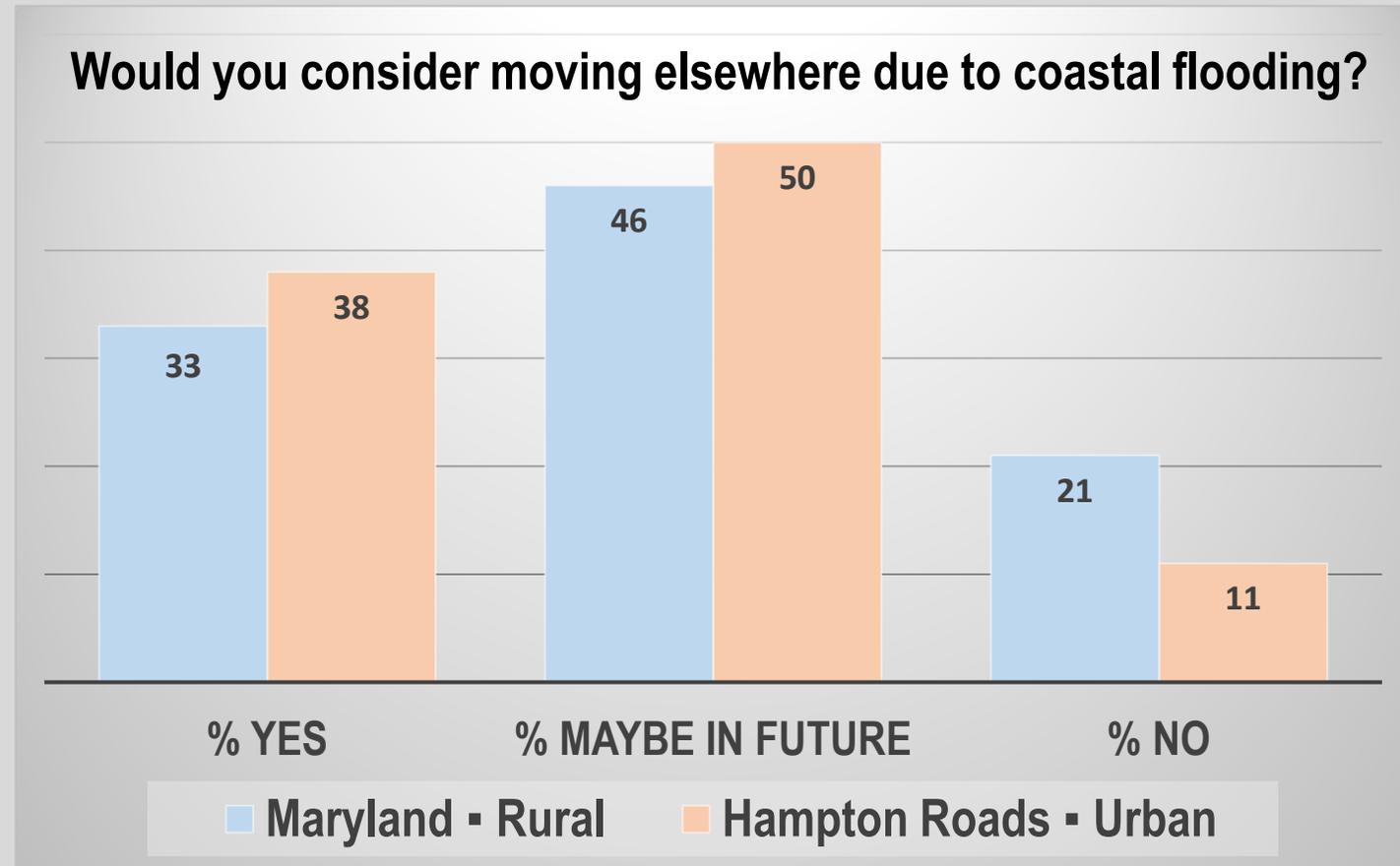
59% I cannot access services and amenities due to flooding

57% I am offered with financial compensation (buyout)



LESSONS LEARNED FROM RURAL VS URBAN AREAS

MAIL SURVEY (n=102)



National Science Foundation, grant #1920478. Bukvic, A., Mitchell, A., Zobel, C., Irish, J., Shortridge J., & Shao, Y. (2021). Assessing the impacts of coastal flood-induced relocation on local jurisdictions.

LESSONS LEARNED FROM RURAL VS URBAN AREAS

What else other than flooding would you take into account when considering relocation?

To be closer to family/friends

Closer to amenities

RURAL

Closer to hospitals and health care

URBAN

Closer to better job opportunities

Where would you primarily prefer to relocate?

Same region

Different state

RURAL

Same county

URBAN

Same community, different neighborhood

I would consider permanently relocating from this neighborhood to a less flood-prone location if... *(Strongly Agree + Somewhat Agree)*

RURAL	
72%	Insurance cannot cover flood damage
70%	Disastrous flooding
57%	Crime becomes worse
66%	Offered financial compensation (buyout)

URBAN	
78%	Disastrous flooding
77%	Crime becomes worse
74%	Insurance cannot cover flood damage
68%	Damage to home or vehicle

PERSPECTIVES ON RELOCATION

“There is some renaissance, some reservation from some citizens: hey, I still want to stay in this house, I do not want to leave this neighborhood, I love this neighborhood... but after they get flooded that reservation goes down very quickly. And you have a lot of people who just want to get the heck out. It is not a hard sell.”



“We are not expecting a lot of help from the outside, but you still eventually need water and power.”



“They are much more divided community” & “Locals are in the middle of the land-war.”



“Nobody wants to be the last person in the floodplain but how do you do that. How do you afford to move everyone at once?”

PERSPECTIVES ON RELOCATION

- Lots are small, narrow, in a poor location away from other green spaces
- You can rarely obtain a block to get linear capability
- Viscous cycle – homeowners putting homes back on market
- Budget tied to property taxes – community does not want to sell – not clear how this loss could be compensated
- “The transition from living there to not living there” will be difficult process
- Rebuilding trust of marginalized neighborhoods
- Establishing regional consensus on retreat

KEY FOR SUCCESS

- Proactive planning
- Engagement and participation
- Accessible and flexible funding support
- Customized approach aligned with contextual circumstances
- Timely identification and assessment of receiving locations
- Exploring synergies between sending and receiving locations
- Potential benefits and opportunities



CONCLUSIONS

- Spontaneous relocation is already happening under the radar and should be acknowledged
- The major shifts in attitudes and actions, as well as the ability to “think the unthinkable” needed
- Policy and planning barriers to recovery and relocation should be identified and addressed
- More research needed on *when, where, how, & why* of relocation.
- Affected households and businesses should be engaged in the relocation planning from the very beginning
- Creative tools and approaches would support participatory learning about the risks and +/- of staying vs. relocating
- More research needed on understanding peoples’ concerns

ACKNOWLEDGEMENTS



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