TRAVERSE CITY, MI
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Michigan as a Receiver Place for Migration

Beth Gibbons, National Resilience Lead
Farallon Strategies

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Presentation References & Links

AMERICAN SOCIETY OF ADAPTATION PROFESSIONALS

American Society of Adaptation Professionals

Climate and Demographic Change in the Great Lakes Region: a Narrative Literature Review of Opportunities and Opportunity Barriers

https://adaptationprofessionals.org/resources/typologies-of-perspectives-needs-and-challenges-of-climate-in-migration-to-the-great-lakes-region/

Additional Resources on Climate Migration & Receiving Communities:

https://adaptationprofessionals.org/climate-migration-and-climate-opportunities-projects-2/

Presentation References & Links
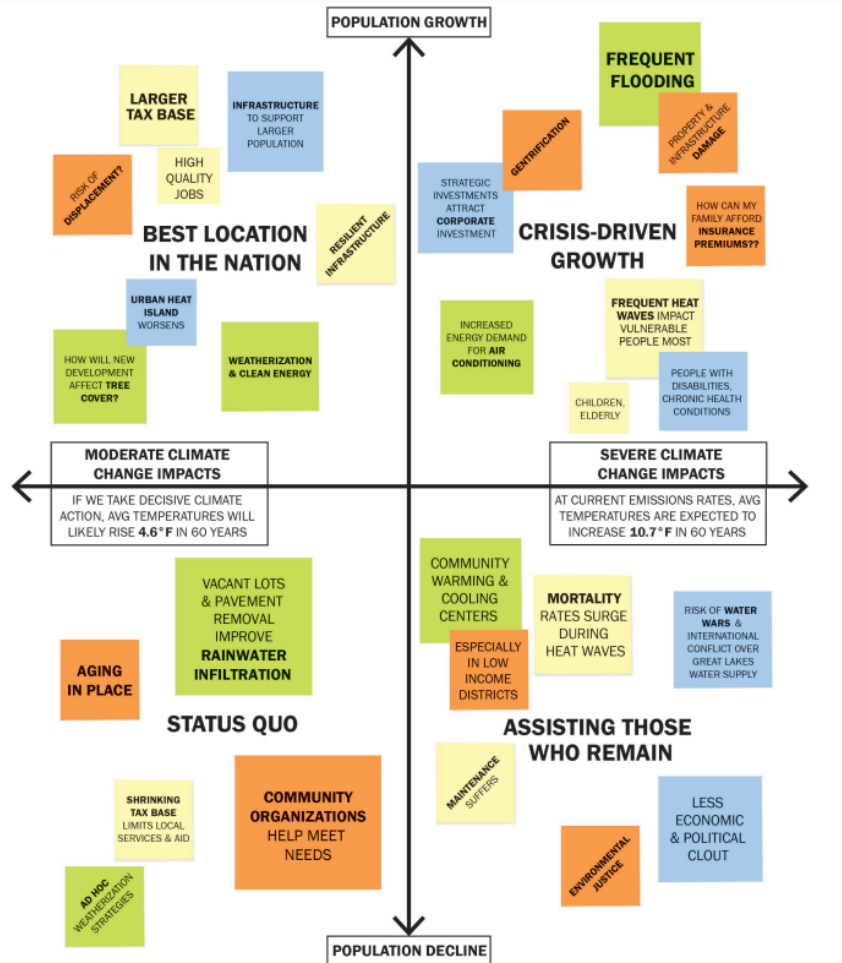
Lincoln Land Institute

Exploratory Scenario Planning for Climate In-Migration

A Guide for Cities in the Great Lakes Region

https://www.lincolninst.edu/publications/working-papers/exploratory-scenario-planning-climate-in-migration

Authors' Contact:
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Presentation References & Links

National League of Cities - What Cities Should Know About Climate Change and Populations on the Move

https://www.nlc.org/resource/the-next-american-migration-what-cities-should-know-about-climate-change-and-populations-on-the-move/

Authors & Contact:
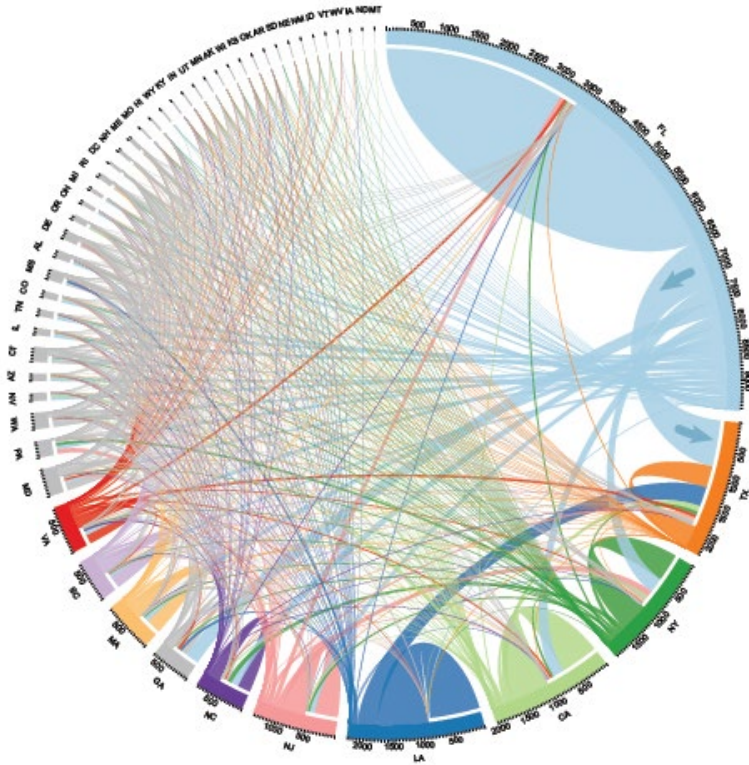
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➢ **Kelly@buy-in.org**

Presentation References & Links

Migration induced by sea level rise could reshape the U.S. population landscape

Academic References

Source: Hauer, M. E. (2017). Migration induced by sea-level rise could reshape the US population landscape. Nature Climate Change, 7(5), 321-325.

Authors & Contact:

Matt Hauer, PhD

➢ **mehauer@fsu.edu**

Presentation References & Links

Welcoming America

Welcoming Standards 2.0

https://welcomingamerica.org/resource/welcoming-standard-certified-welcoming/

Finding our way through the climate migration hype

Why are we here?

Climate Change, what is at risk at home, and away

Demography and what moves people

Tools & resources to guide decision making

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Move To Michigan As Soon As Possible

Douglas A. McIntyre
Published: August 20, 2023 12:13 pm

Last October, author Parag Khanna released a book titled "Move: The Forces Uprooting

Can climate migrants offset Michigan's population woes? Maybe, experts say

Is Michigan prepared to be a climate refuge?

Ryan Patrick Hooper   January 4, 2023

MLive reporters Lindsay Moore and Sheri McWhirter join CultureShift to discuss how
current residents and ecology.

CLIMATE · CLIMATE

Go Midwest, Young Man

MILWAUKEE

U.S. CITIES SAFEST FROM CLIMATE CHANGE

Where Americans Can Move To Avoid Climate Change

SHARE

Want to Escape Global Warming? These Cities Promise Cool Relief

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Move To Michigan As Soon As Possible

Can climate migrants offset Michigan's population woes? Maybe, experts say

Douglas A. McIntyre

Last October, author Parag Khanna released a book titled "Move: The Forces Uprooting

Go Midwest, You

MILWAUKEE

GROWING MICHIGAN TOGETHER

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Barriers for Elected Officials

"We need numbers!"

Complexity of the issue

Politics and fear - How will we be affected by climate migration?

Limited frameworks or guidance

buy in
for a better buyout

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Barriers for Local Elected Officials

Short terms for elected officials (1-4 years)

Competing priorities

Limited capacity, time and expertise

Revenue and tax loss for shrinking cities

COVID-19

IIJA/IRA/CHIPS

buy in
for a better buyout

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Annual Precipitation

Observed

Future

5.6 in. per **year**

0.3 to 3.8 in. per **year**

1951-2020

2040-2059

Source: GLISA, National Centers for Environmental Information, & U of Wisc. Nelson Institute

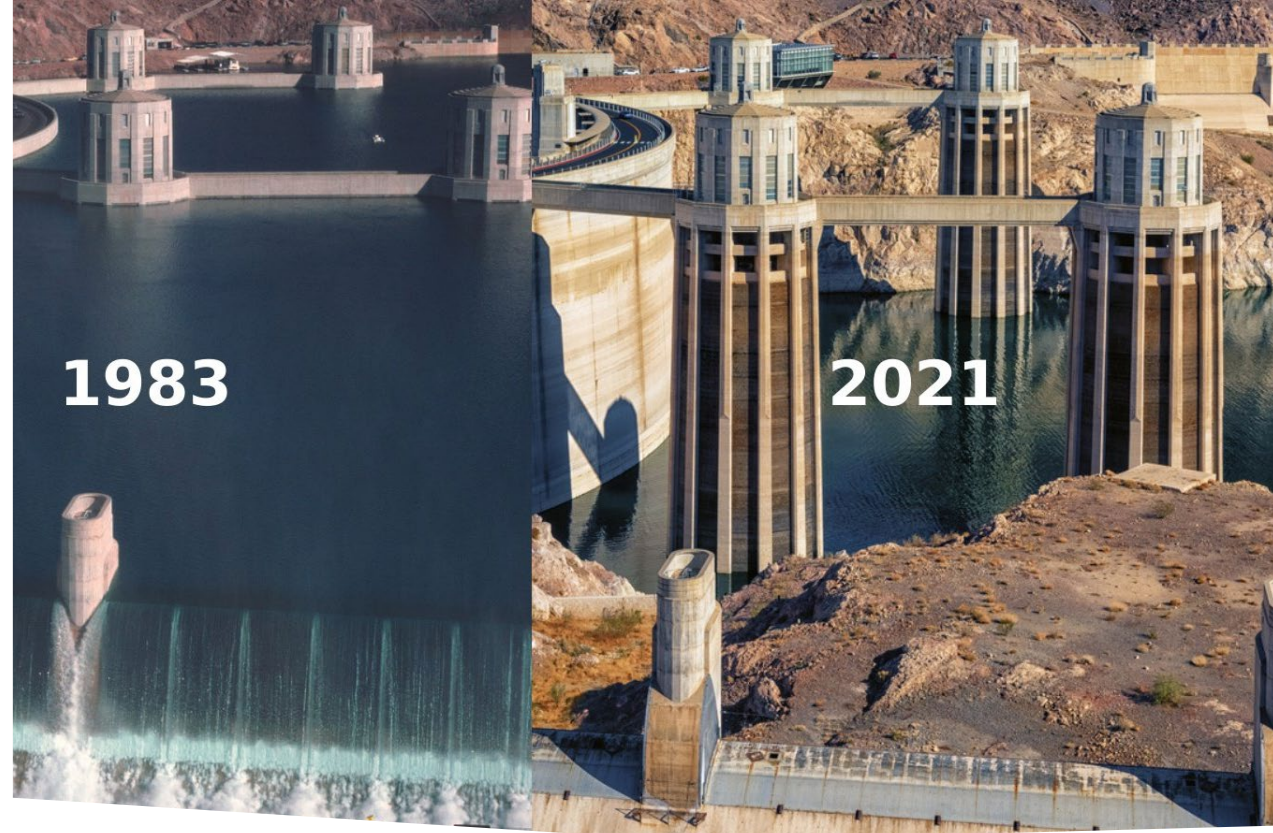That's **23 more** than **30 years ago.**
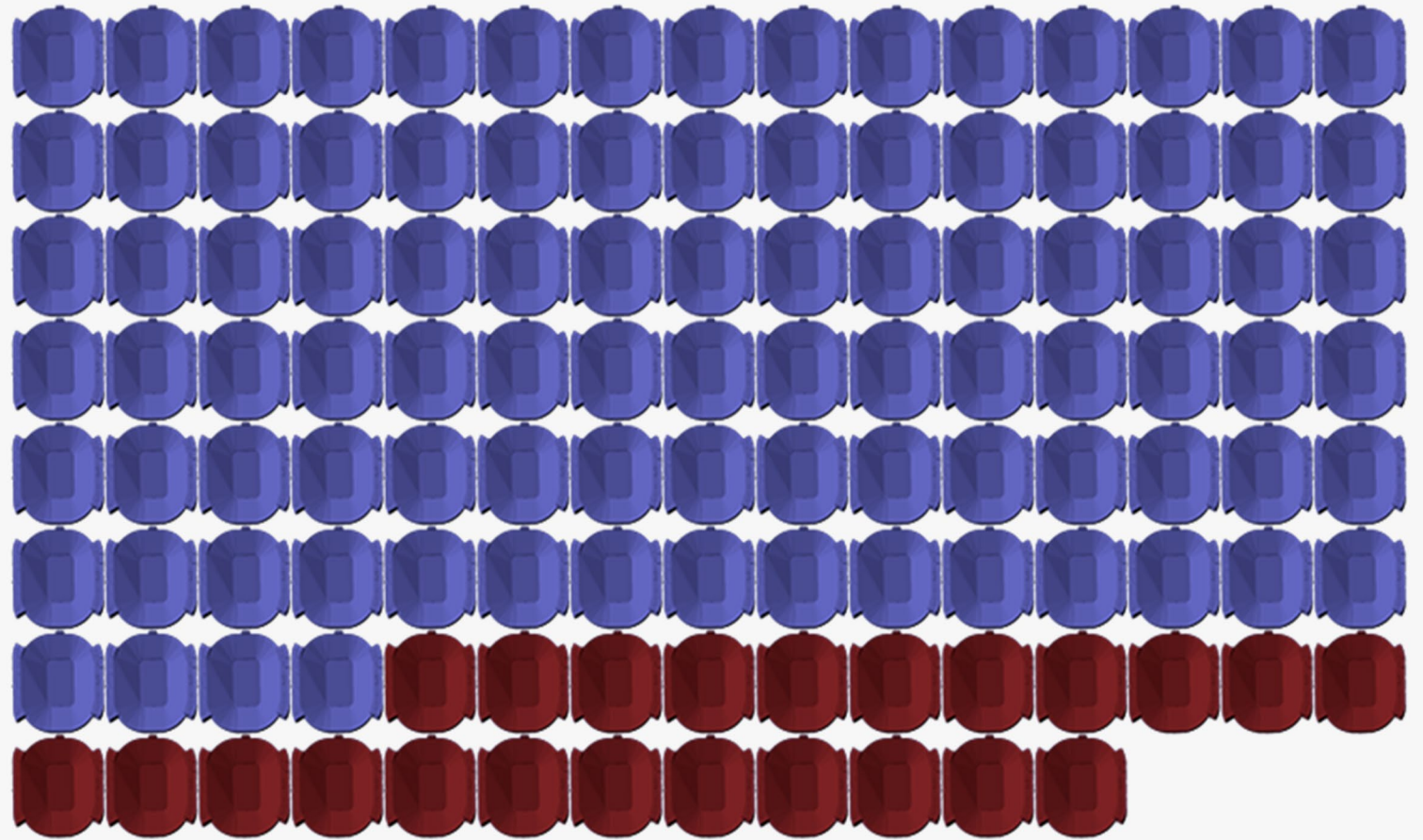
Based on 30-year averages of annual precipitation totals recorded at the University of Michigan, COOPID# 200230. Data available from the National Climatic Data Center.

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13 MILLION PEOPLE LIVE IN PLACES THAT WILL BE UNDERWATER WITH 3' SLR

40 MILLION PEOPLE RELY ON LAKE MEAD & LAKE POWELL

1983 2021

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Facts and Figures

- **4-6 x more people** could be exposed to **extreme heat** by 2050

- **40% of the US population** lives in **coastal areas** threatening **63 million by 2100**

- **1 in 7 Americans** experienced dangerous levels of air quality from **wildfire smoke** (2020)

- Nearly **1 in 3 Americans** directly experienced **climate-related impacts** (2020)

- **1.7 million Americans** were **displaced** by weather related disasters (2020)

U.S. 2023 Billion-Dollar Weather and Climate Disasters

Legend: Drought/Heat Wave · Flooding · Hail · Hurricane · Severe Weather · Tornado Outbreak · Wildfire · Winter Storm/Cold Wave

Rockies Hail Storms, Central and Eastern Severe Weather
June 21–26

North Central and Eastern Severe Weather
July 28–29

Minnesota Hail Storms
August 11

Central and Eastern Severe Weather
April 4–6

Central Tornado Outbreak and Eastern Severe Weather
March 31–April 1

Northeastern Flooding and North Central Severe Weather
July 9–15

Northeastern Winter Storm/Cold Wave
February 2–5

California Flooding
January–March

North Central and Southeastern Severe Weather
July 19–21

Northeastern and Eastern Severe Weather
August 5–8

Central and Eastern Tornadoes and Hail Storms
May 10–12

Southern and Eastern Severe Weather
March 2–3

Southern and Eastern Severe Weather
March 24–26

Central and Southern Severe Weather
June 15–18

Central Severe Weather
April 19–20

Southern Severe Weather
April 25–27

Southern/Midwestern Drought and Heatwave
Spring-Fall

Hurricane Idalia
August 29–31

Hawaii Firestorm
August 8

Texas Hail Storms
May 18–19

Southern Severe Weather
June 11–14

Central and Southern Severe Weather
April 15

Central Severe Weather
June 28–July 2

Central Severe Weather
May 6–8

*This map denotes the approximate location for each of the **24 separate billion-dollar weather and climate disasters that impacted the United States through September 2023.***

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U.S. 2023 Billion-Dollar Weather and Climate Disasters

Drought/Heat Wave · Flooding · Hail · Hurricane · Severe Weather · Tornado Outbreak · Wildfire · Winter Storm/Cold Wave

North Central and
Eastern Severe Weather
July 28–29

Central and Eastern
Severe Weather
April 4–6

Central T...
Eastern S...
March 31

Northeastern Flooding and
North Central Severe Weather
July 9–15

SEC Investment Rules
TCFD

Insurance abandonment

Northeastern Winter
Storm/Cold Wave
February 2–5

North Central and
Southeastern...

Stafford Act Updates to support
relocation

Eastern Severe Weather
August 5–8

Southern and Eastern
Severe Weather
March 2–3

Southern and Eastern
Severe Weather
March 24–26

Central and Southern Severe Weather
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*This map denotes the approximate location for each of the **24 separate billion-dollar weather and climate disasters that impacted the United States through September 2023.***
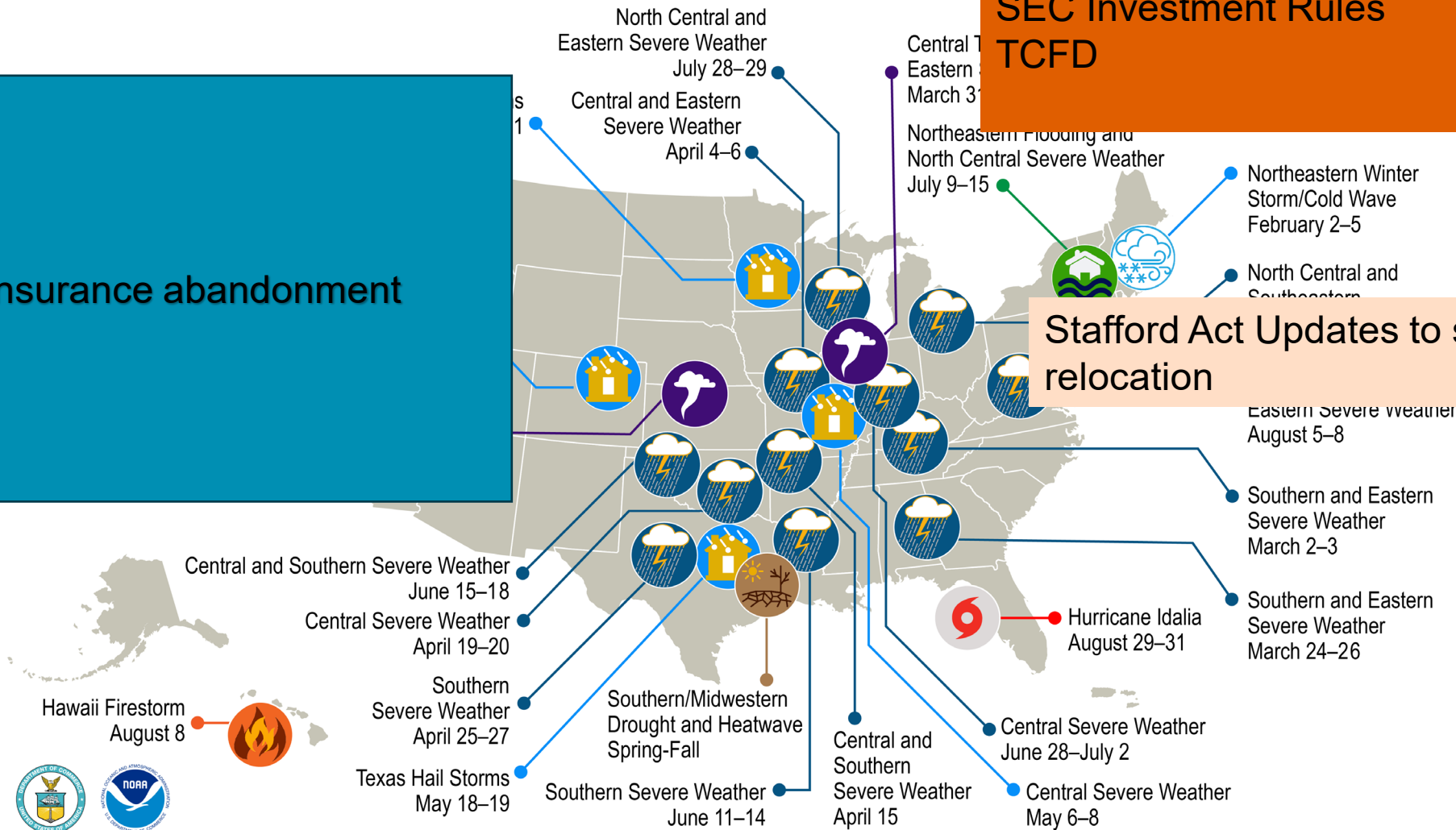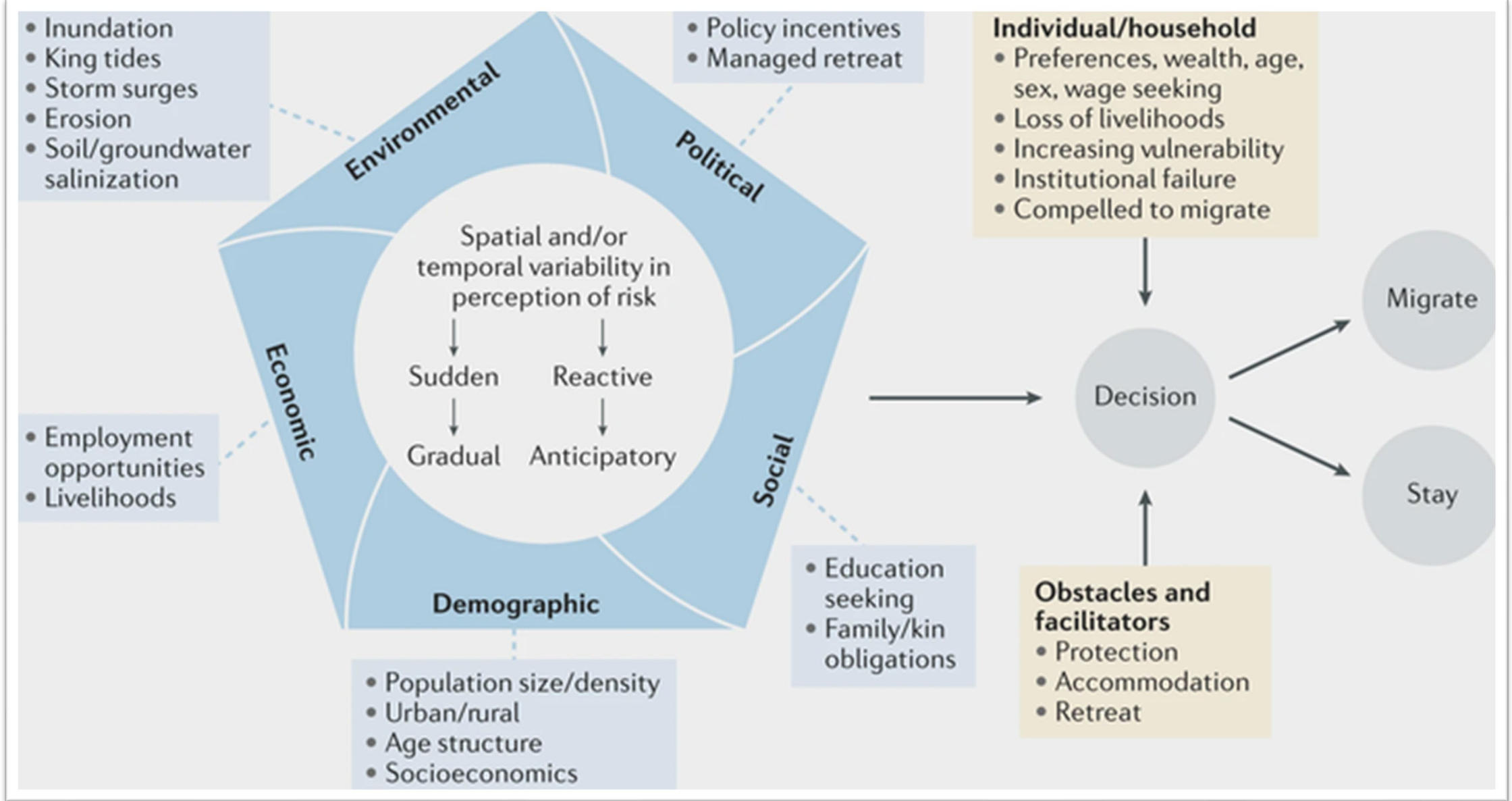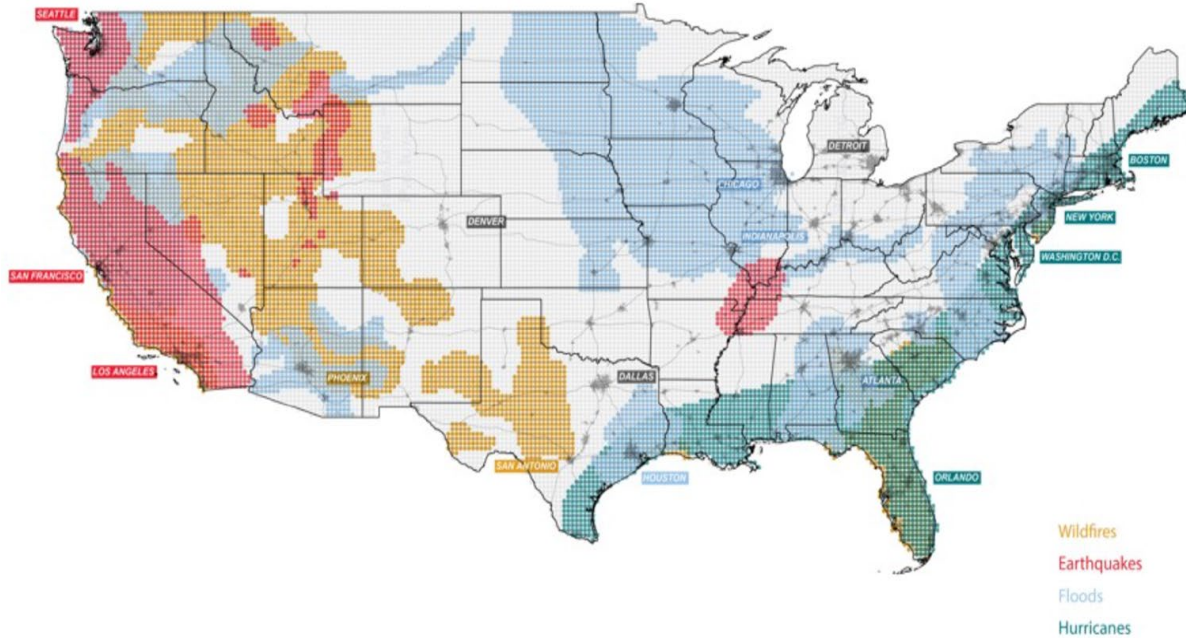
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WHAT IS DEMOGRAPHY?

☐ HOW MANY BIRTHS?
☐ HOW MANY DEATHS?
☐ WHO MOVED?

- Inundation
- King tides
- Storm surges
- Erosion
- Soil/groundwater salinization

Environmental

Political

- Policy incentives
- Managed retreat

Individual/household
- Preferences, wealth, age, sex, wage seeking
- Loss of livelihoods
- Increasing vulnerability
- Institutional failure
- Compelled to migrate

Spatial and/or temporal variability in perception of risk

Sudden → Gradual

Reactive → Anticipatory

Economic
- Employment opportunities
- Livelihoods

Social
- Education seeking
- Family/kin obligations

Demographic
- Population size/density
- Urban/rural
- Age structure
- Socioeconomics

Decision

Migrate

Stay

Obstacles and facilitators
- Protection
- Accommodation
- Retreat

Climate Projections and Demographic Trends Collide

ENVIRONMENTAL RISKS

Wildfires
Earthquakes
Floods
Hurricanes

Overall climate risks (and earthquakes)

https://mcharg.upenn.edu/2100-project-atlas-green-new-deal

County population groupings, based on population change, 2007-2017

Quickly Shrinking
Slowly Shrinking
Slowly Growing
Quickly Growing
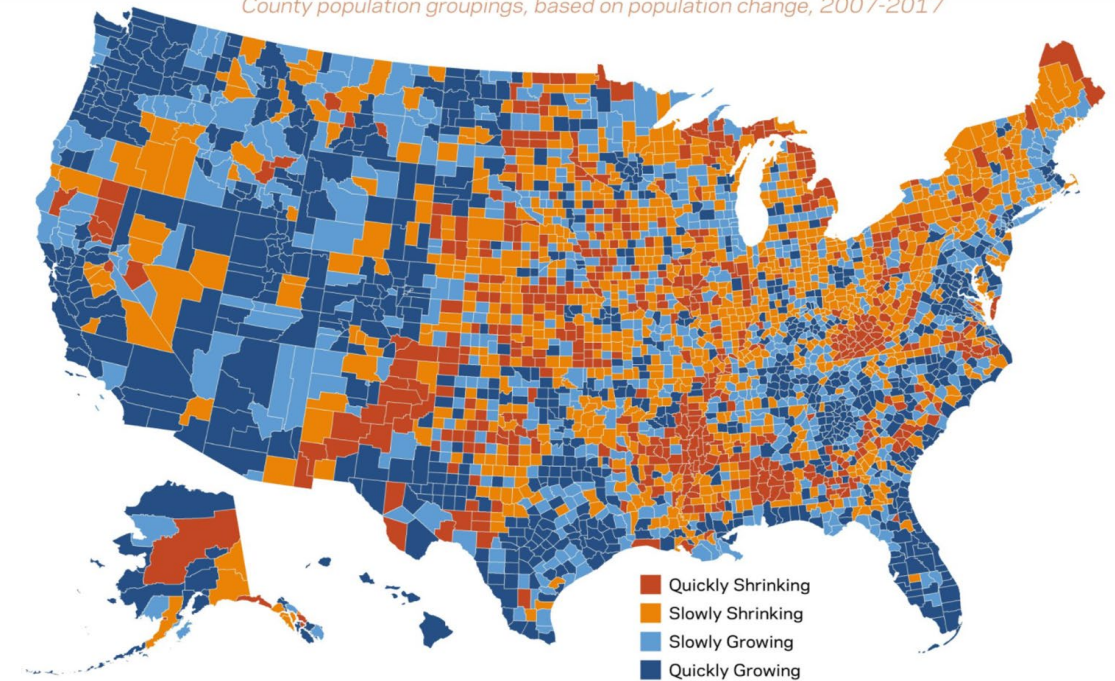
Source: U.S. Census Bureau, Moody's Analytics

Fastest growing & shrinking counties

https://eigorg.maps.arcgis.com/apps/Cascade/index.html?appid
=b9416c27eb0542279d01ef66f3fbb617

IT'S VERY DIFFICULT TO DISENTANGLE CLIMATE FROM MANY OTHER FACTORS, ALL OF WHICH TOGETHER WOULD INFLUENCE A FAMILY'S DECISION TO MOVE. THE RESULT IS THE SAME: WE HAVE TO ACCOMMODATE PEOPLE IN A NEW PLACE, HOUSING, JOBS, AND SCHOOLS, ETC.

DO WE NEED TO CALL IT CLIMATE MIGRATION, OR ARE WE FOCUSING ON HOW WE ARE PROVIDING AFFORDABLE, HEALTHY, RESILIENT COMMUNITIES?

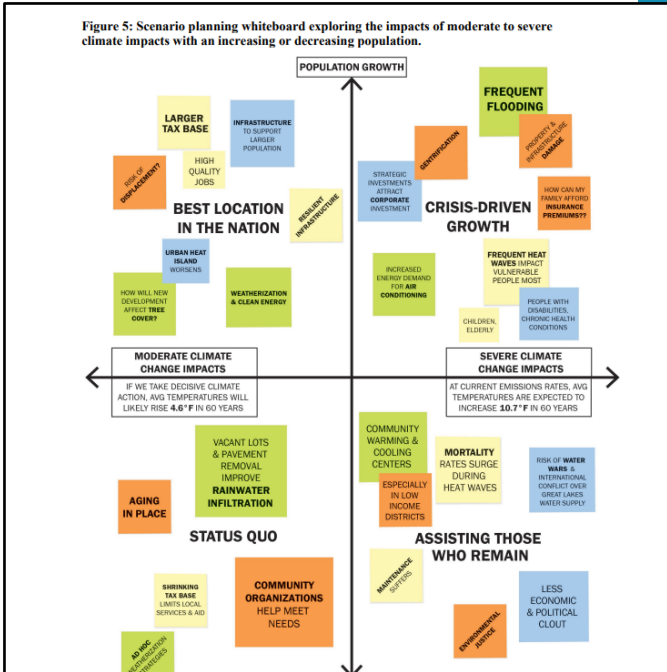– LINDA SHI ASSISTANT PROFESSOR, CORNELL UNIVERSITY

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WELCOMING AMERICA TOOLKIT

NLC'S CLIMATE MIGRATION FRAMEWORK

SCENARIO PLANNING PROCESS & GUIDELINES FOR GLR CITIES

Type	Characteristics	Implications
Climate Destinations	• Less exposure • Access to fresh water • Affordable housing availability (for now) • Legacy Cities are great candidates • Expressed desire to grow • Investing in mitigation and resilience	• Must protect/create existing housing stock to prevent displacement • Community-driven strategies • Enhance existing sustainability and resilience programs • Competitive advantage for investment

Highlights of Recommendations for All Cities

- **Protect and invest in affordable housing**

- **Conduct vulnerability assessments, invest in climate action and resiliency planning**

- **Discuss and examine current growth projections**

- **Prioritize at-risk populations in emergency planning**

- **Use ARPA, IRA, IIJA and other infrastructure funds to make long-term, climate smart decisions**

Recommendations for Climate Destinations

- **Protect and invest in affordable housing**

- **Examine how population growth could impact your existing sustainability goals**

- **Create incentives and funding for low-income homeowners to make climate-friendly/adaptation investments**

- **Invest in public transportation and multi-modal transportation**

Who will we become?

It's a pretty radical idea that your belonging in a place isn't conditional, it's just a given. I believe that there is way for the inflection point of demographic change to prompt communities to step back and say 'who do we want to be?

Can we be a welcoming place not only for the new people who've arrived here but also for the people who've lived here all their lives?'

- Rachel Perric, Welcoming America

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Local institutions have both a heightened burden and opportunity to prepare for climate migration. Communities in the region may poise themselves to gain back population and economic growth while reinforcing larger climate resilience efforts and addressing historic, entrenched issues–like economic segregation–that harm growth. Partnerships with other cities or peer institutions, academic institutions, and philanthropic and for-profit organizations will be key.

- Climate and Demographic Change in the Great Lakes Region: a Narrative Literature Review of Opportunities and Opportunity Barriers

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