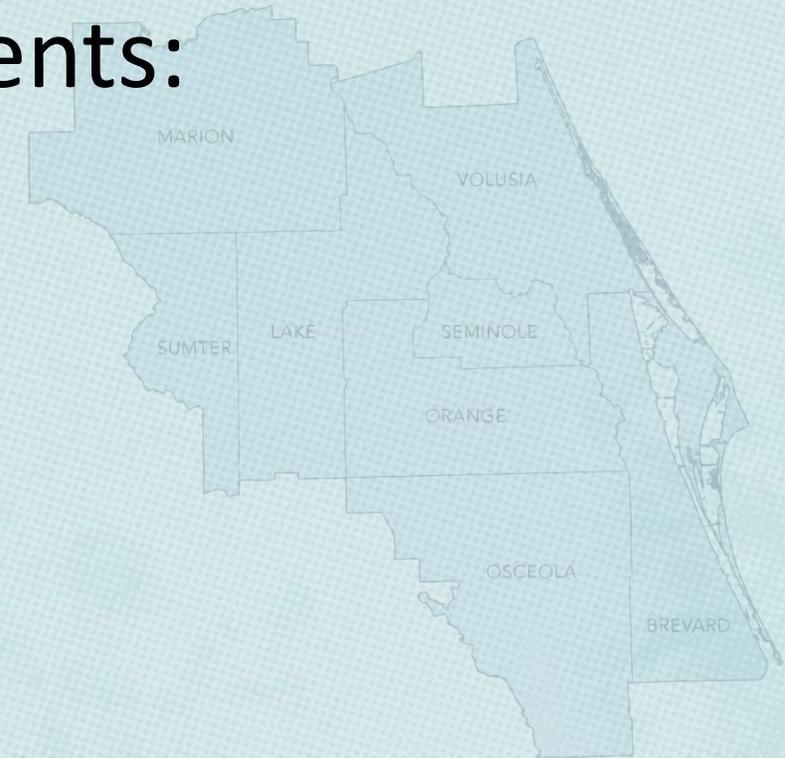


New Model for Vulnerability Assessments: Housing + Compounding Vulnerabilities in East Central Florida

Andrea Galinski, Assistant Professor, University of Florida

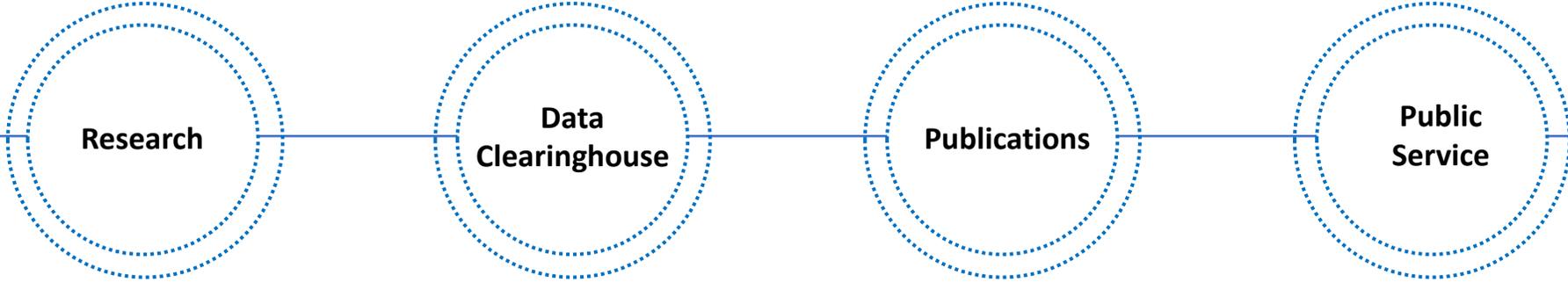
Environmental Justice Approaches in Water Research, Education and Policy
UF Water Institute Symposium

Feb 20, 2024



University of Florida Shimberg Center for Housing Studies

The Shimberg Center for Housing Studies was established at the University of Florida in 1988 to promote safe, decent and affordable housing and related community development throughout the state of Florida.



Research

**Data
Clearinghouse**

Publications

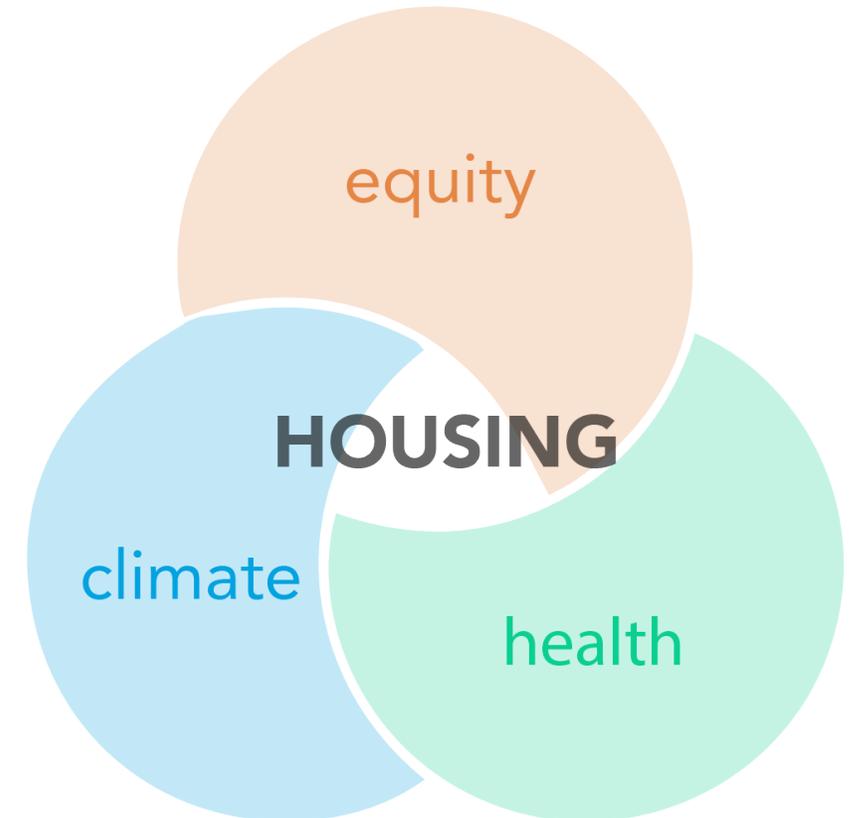
**Public
Service**

Shimberg Center's Disaster Resilient Florida

The Disaster Resilient Florida (DRF) initiative addresses the effects of climate hazards on Florida's affordable housing and communities through actionable data, interactive visualization tools, and community outreach.

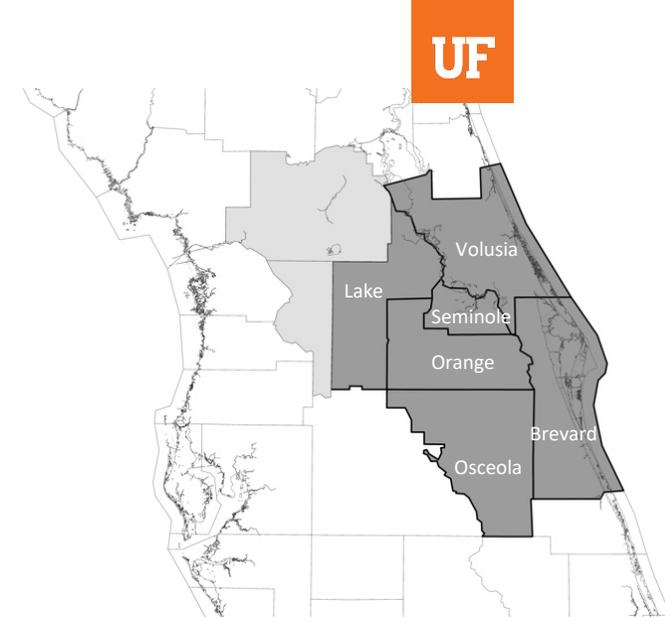
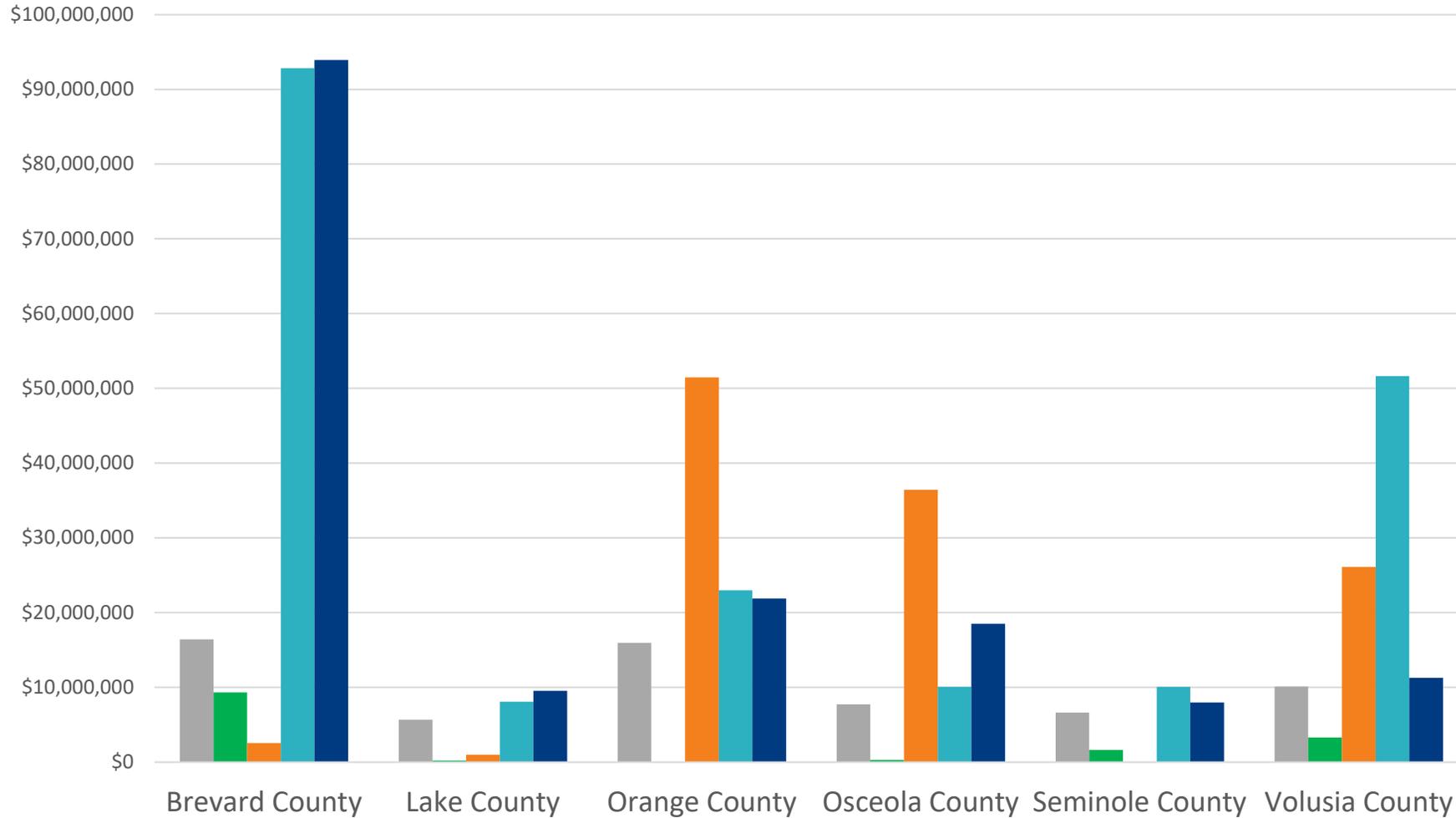
We work at the intersection of housing, disaster preparedness and recovery, and resiliency planning.

<https://tinyurl.com/disaster-resilient-florida>



Hurricane and Tropical Storm Impacts in East Central FL Region

From Irma, Fay, Bonnie/Charlie, Frances, and Jeanne



- Hurricane Irma (2017)
- Tropical Storm Fay (2008)
- Tropical Storm Bonnie/Hurricane Charlie (2004)
- Hurricane Frances (2004)
- Hurricane Jeanne (2004)

Equity-Embedded Vulnerability Assessment

Affordable Housing + Compounding Vulnerabilities

*UF Shimberg Center + East Central Florida Regional Resilience Collaborative (ECFR2C) conducted an **equity-embedded vulnerability assessment**, which serves as a new VA model focusing on 1) affordable housing analysis, 2) its compounding vulnerabilities to flood hazards, and 3) the planning/policy recommendations that will make the region better prepared for the next disaster event.*

Project Partners:

- East Central Regional Planning Council / East Central Regional Resilience Collaborative
- UF Shimberg Center for Housing Studies
- Volusia County
- Florida Department of Environmental Protection

Funding:

- 2 FDEP resilience grants to ECFRPC to support implementation of the East Central Florida Strategic Resilience Action Plan through the "Housing Assets and Resilient Policies" (HARP) Project



Project Goals

Phase 1 (2020-2021)

- Affordable housing **needs assessment** (overview)
- Geospatial **inventory of residential properties** with a focus on:
 - Publicly subsidized housing
 - Naturally occurring affordable housing (NOAH)
 - Mobile homes + mobile home parks
- Analysis of affordable housing exposure to coastal flood hazards

Phase 2 (2022-2023)

- Develop a new methodology to identify the **compounding vulnerabilities affecting the affordable housing** inventory with a focus on:
 - Investor-owned residential properties (IOPs) including short-term rental properties (vacation rentals) and expiring publicly subsidized housing
- Expand the base of **knowledge and potential actions** to increase the resilience of communities' affordable supply of housing

phase 1:affordable housing + flood hazards

“Climate change disproportionately affects low-income communities...

...Affordable housing and community development sectors need to approach disaster resilience and climate change adaptation through a cross-sector lens...

...anticipating how a changing climate, extreme events, ecological degradation and their cascading effects will shape housing needs.”

Enterprise Community Partners

Like much of Florida, the East Central Florida Region faces an affordable housing “crisis” ...

...But it is more than a crisis.
It has become a permanent structural condition of unaffordability.

As Florida home prices spike, middle-class residents wonder if they can afford to stay

AFFORDABLE HOUSING

In Palm Bay, rent hikes are pushing some seniors into homelessness

Orlando-area rent prices are up 20% since January, the highest increase in market history

Osceola County mom gets a new job to afford rent hike

Volusia County leaders discuss affordable housing as rents soar; no easy solutions

Mary Helen Moore The Daytona Beach News-Journal
Published 8:25 a.m. ET Dec. 8, 2021 | Updated 8:32 a.m. ET Dec. 8, 2021

‘We are out of balance:’ Orlando housing market soared in 2021 amid low inventory, high demand

December 2021 report shows median price of a home reaches \$340,000

Affordable Housing Opportunities Scarce for Volusia Residents

Florida sees signals of a climate-driven housing crisis

Shrinking inventory, rising rents and \$2 billion loss created Florida’s affordable housing crisis

Lawmakers took over \$2 billion from Florida housing trust fund

Older Orlando apartment complex trades for \$1.2M over listing, reflecting continued demand

'Red-hot' housing market on Space Coast marked by record prices and low inventory

Who is particularly vulnerable to disasters?

- Many factors!
- We focused on **housing tenure**- renters vs. owners
- Individual renter households are particularly vulnerable in **all stages of the disaster cycle** due to a lack of resources and other challenges in comparison to homeowners (Lee and Van Zandt, 2019)
 - **Preparedness:** Fewer resources → emergency supplies
 - **Impact:** Lower quality construction of affordable housing, disproportionate likelihood in hazard area
 - **Emergency response:** Fewer options, longer time in shelters
 - **Recovery:** Finding affordable housing is even more difficult; low-income housing is re-built much more slowly, it at all after, a disaster

So, what is affordable housing?



Assisted Housing (AHI)

Assisted housing is receiving, or will receive, financial assistance under any governmental program (federal, state, or local) for the construction or substantial rehabilitation of low- and moderate-income housing.

Naturally Occurring Affordable Housing (NOAH)

NOAH is housing that is more affordable due to age or other housing characteristics, and not subsidized by government; Includes both single-family and multi-family rental properties.

Mobile Homes

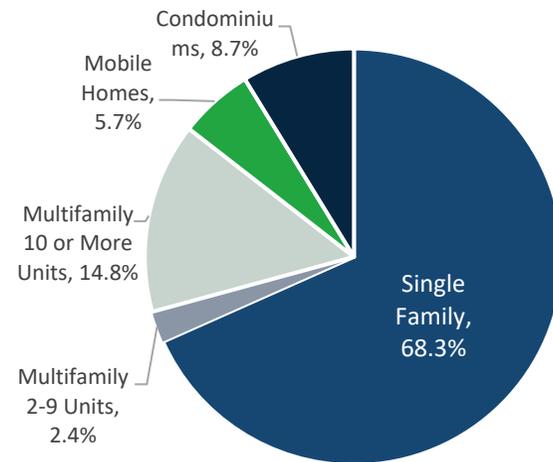
Manufactured homes are homes built in a factory under a federal building code administered by the U.S. Department of Housing and Urban Development (HUD). Manufactured homes are either single- or multi-section and are transported to the site and installed.

Where is the region's housing located?

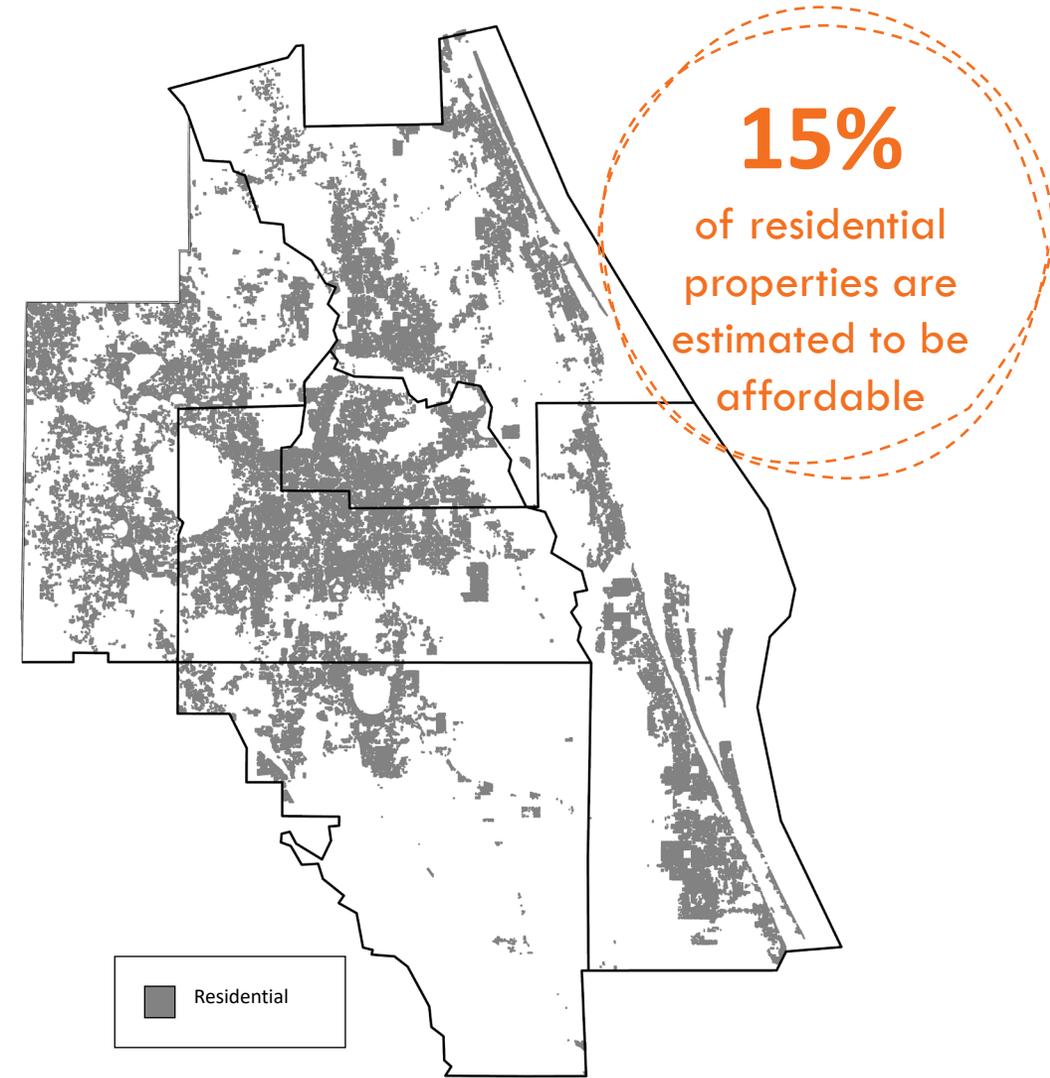
All Residential Properties

1,225,600 residential properties
across the Regional Resilience Collaborative (6)
member counties

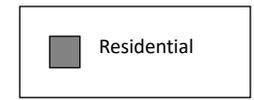
182,700 affordable housing properties, which is
only about 15% of the residential stock



Residential Housing Supply by Unit

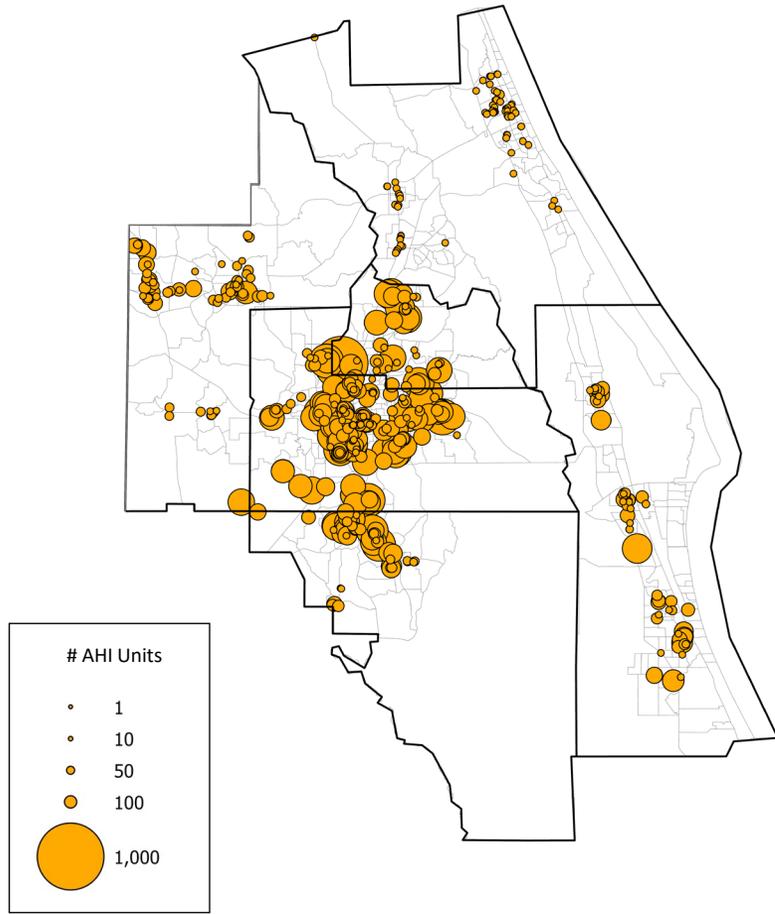


15%
of residential
properties are
estimated to be
affordable

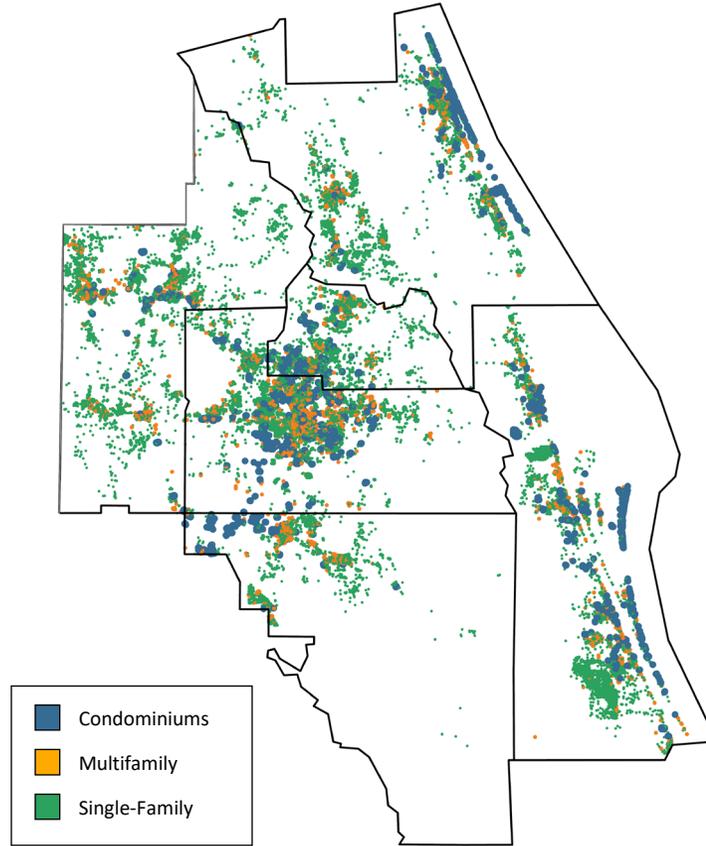


All Residential Parcels

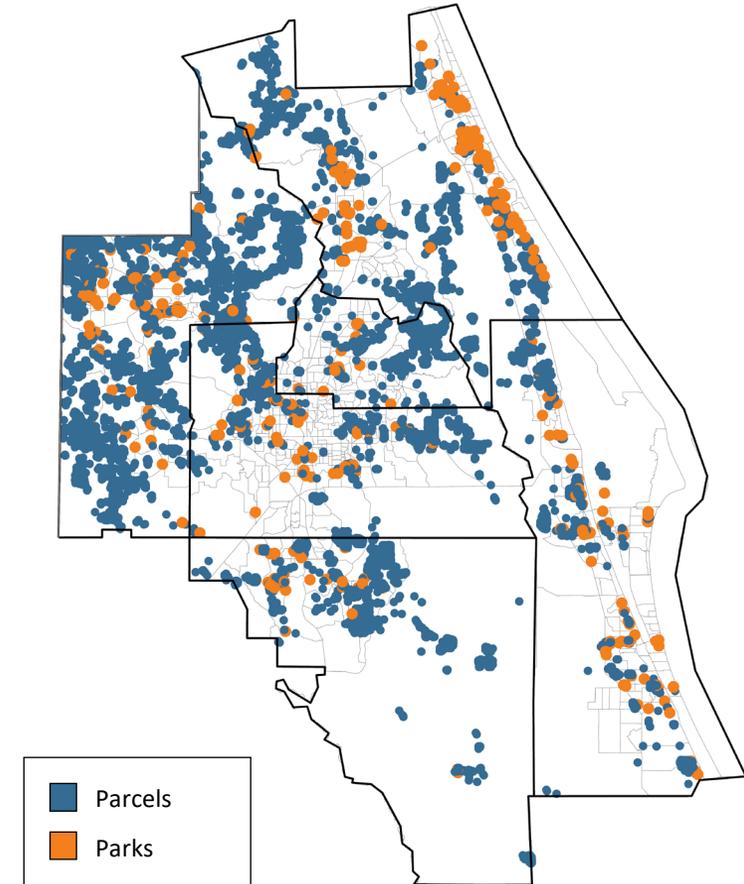
Where is the region's affordable housing located?



Publicly Subsidized Housing

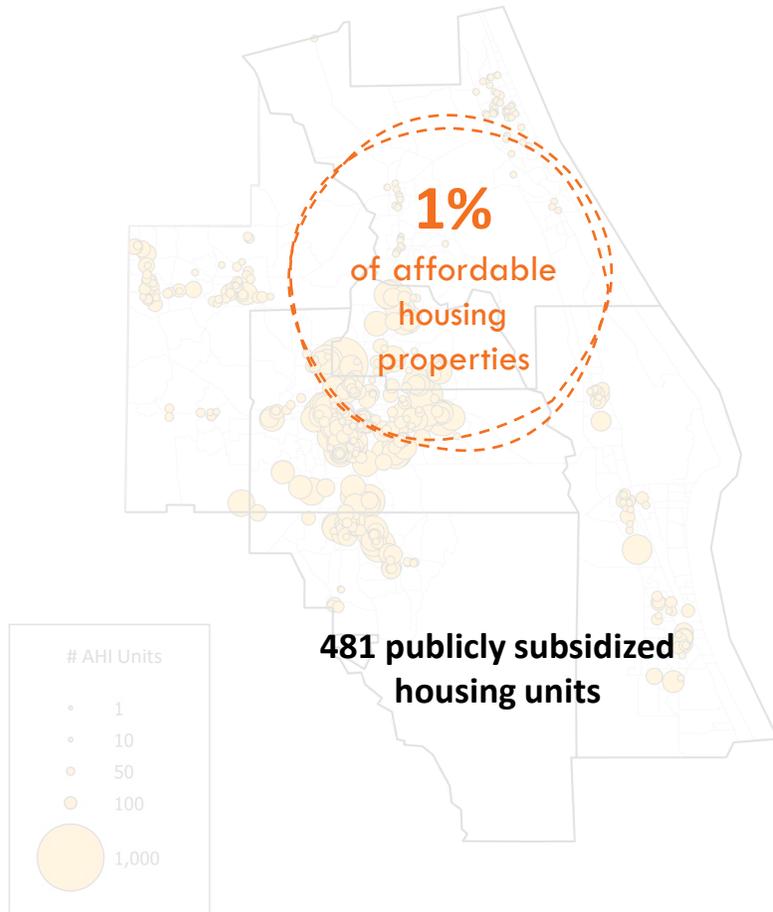


Naturally Occurring Affordable Housing

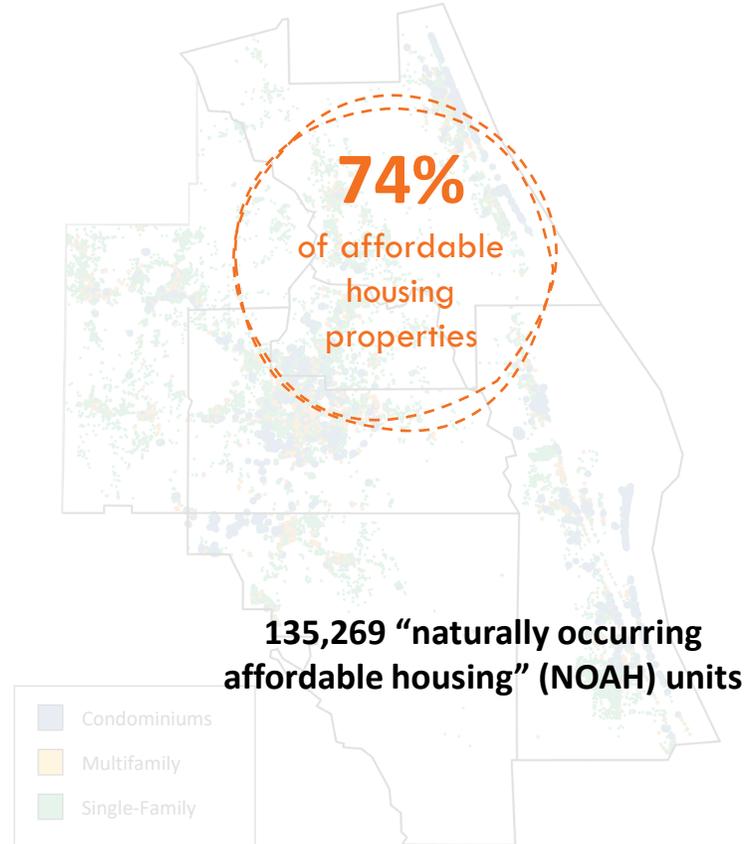


Mobile Home Parcels + Parks

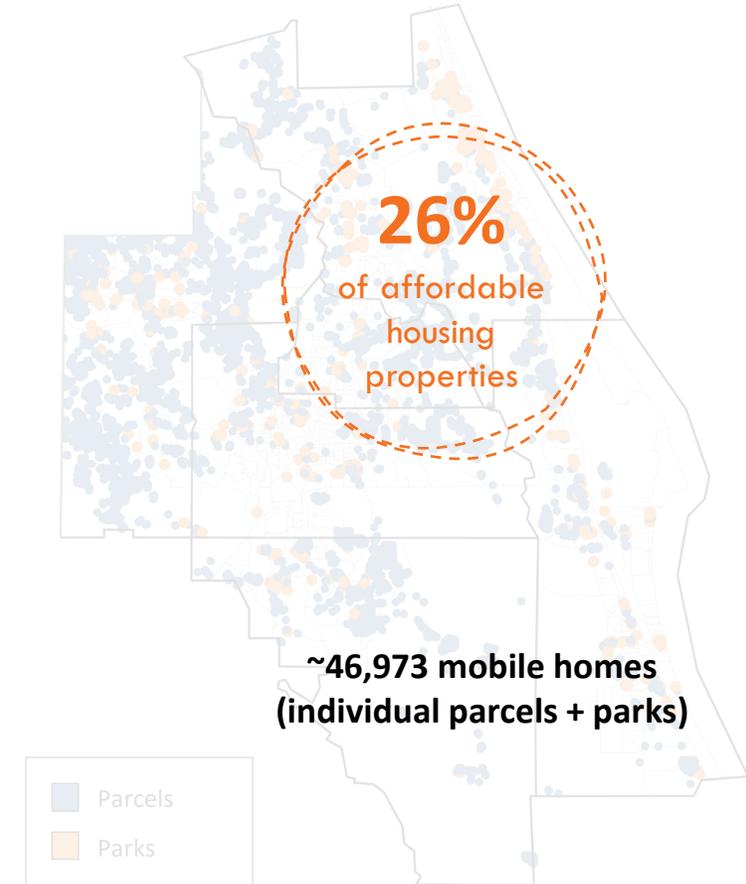
Where is the region's affordable housing located?



Publicly Subsidized Housing



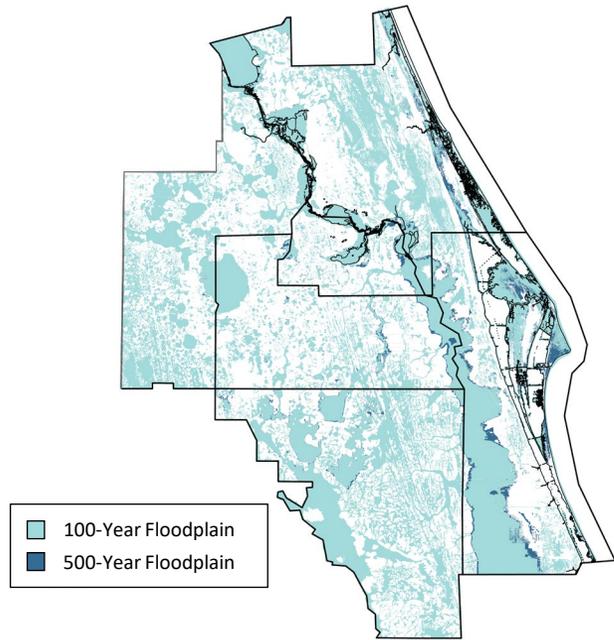
Naturally Occurring Affordable Housing



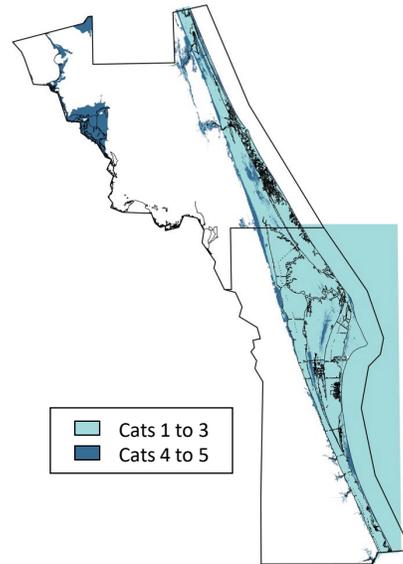
Mobile Home Parcels + Parks

What flood hazards does the region face?

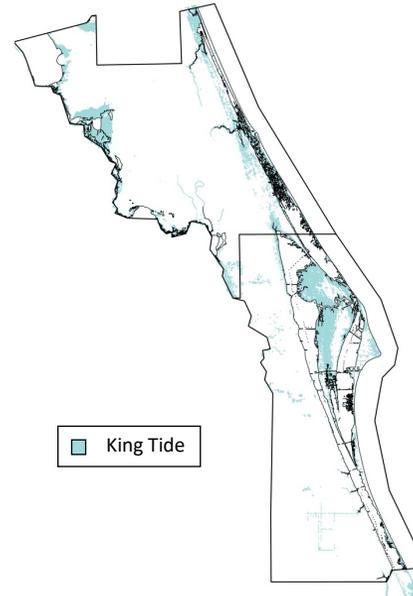
Data Layers



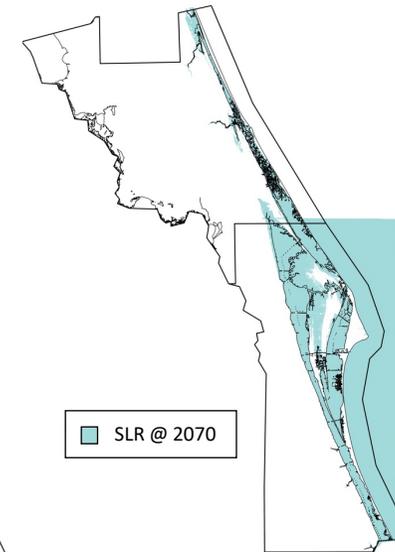
FEMA Floodway
100-year + 500-year Floodplains



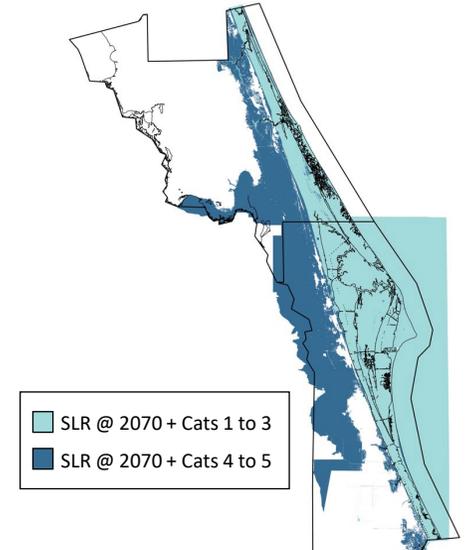
Storm Surge*



King Tide*



Sea Level Rise*
(2070)

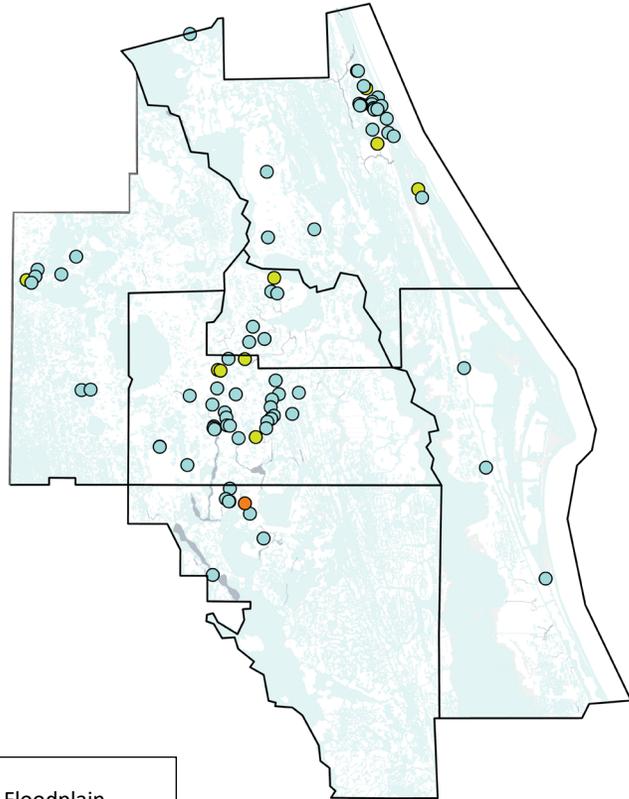


Storm Surge + SLR*
(2070)

* Available for Volusia and Brevard Counties

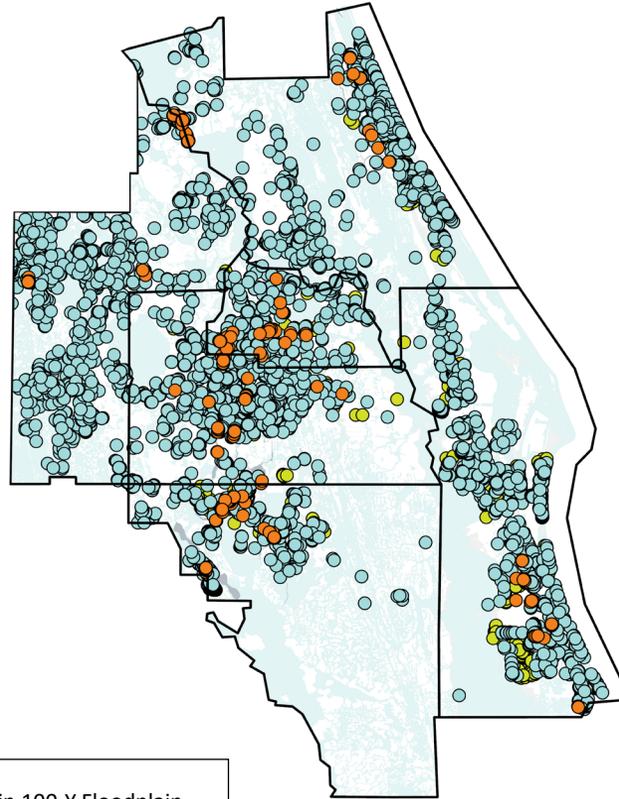
Where is affordable housing exposed to current flood hazards?

FEMA DFIRMs



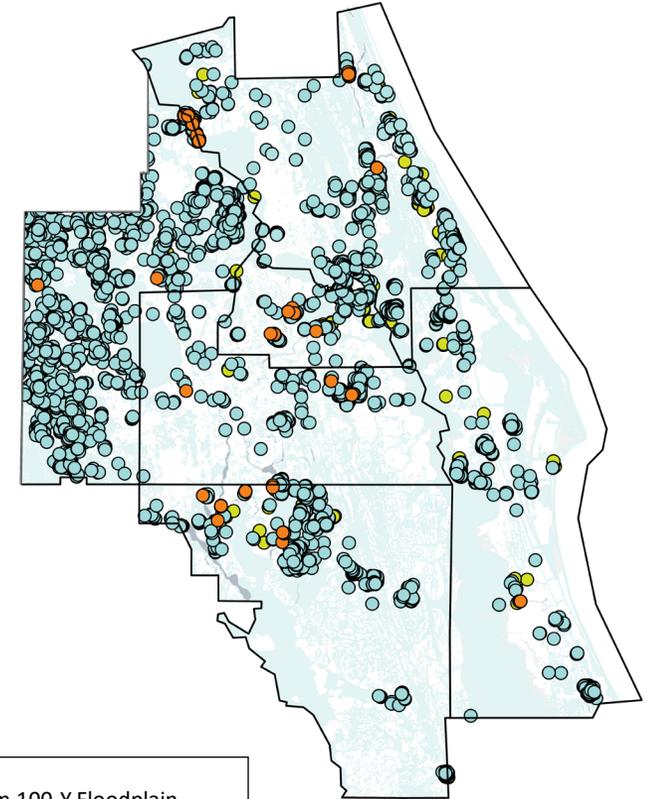
AHI

- AHI in 100-Y Floodplain
- AHI 500-Y Floodplain
- AHI in Floodway



NOAH

- NOAH in 100-Y Floodplain
- NOAH 500-Y Floodplain
- NOAH in Floodway

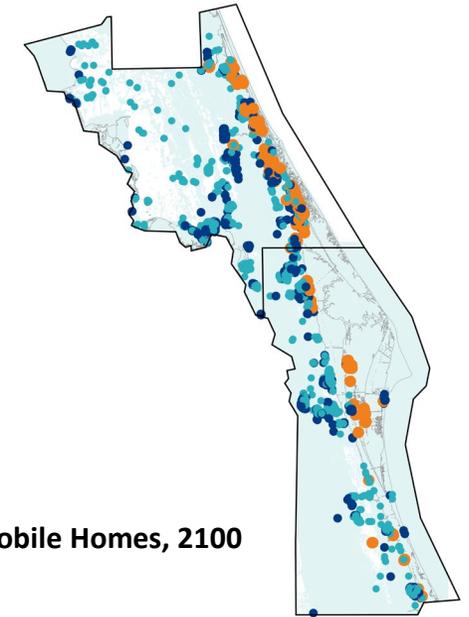
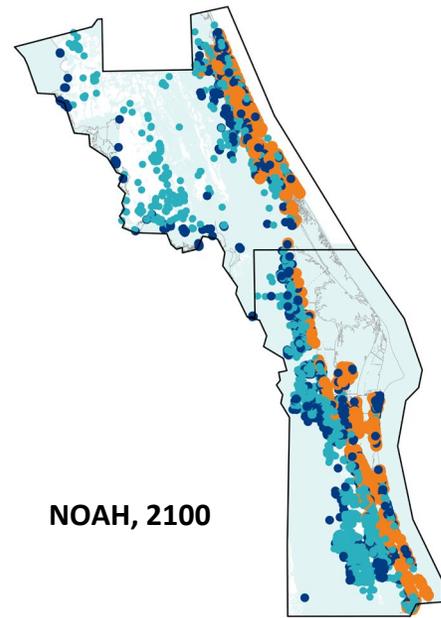
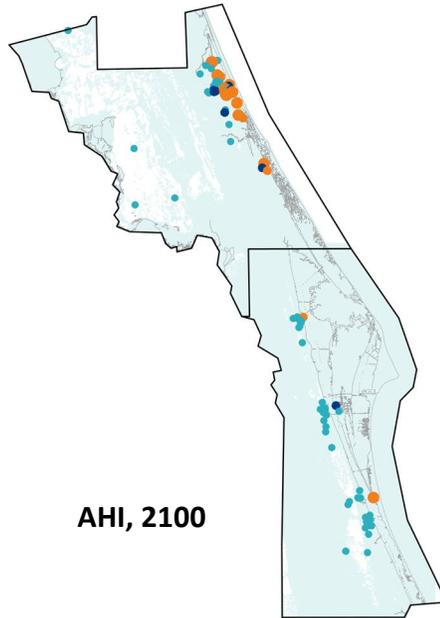


**Mobile Home
Parks/Parcels**

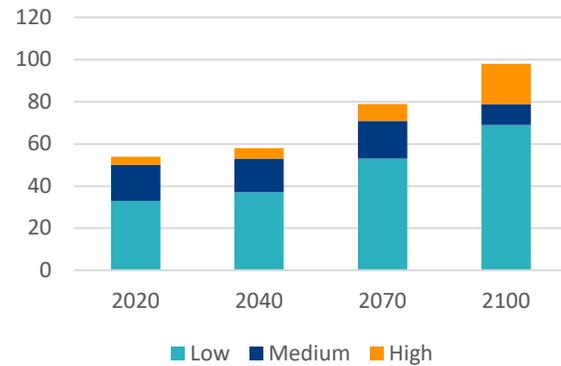
- MH in 100-Y Floodplain
- MH 500-Y Floodplain
- MH in Floodway

Where is affordable housing exposed to current/future flood hazards?

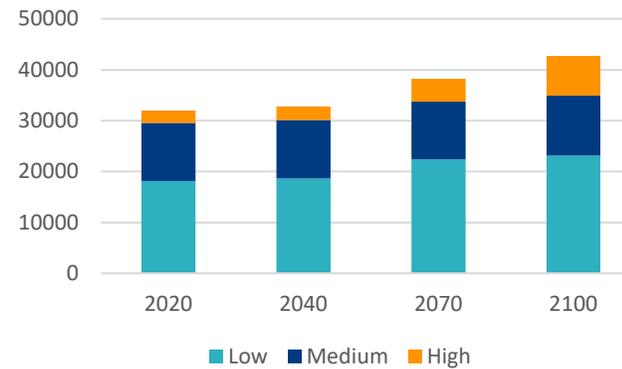
AHI, NOAH, Mobile Homes by Flood Hazard Exposure Index (FHEI)



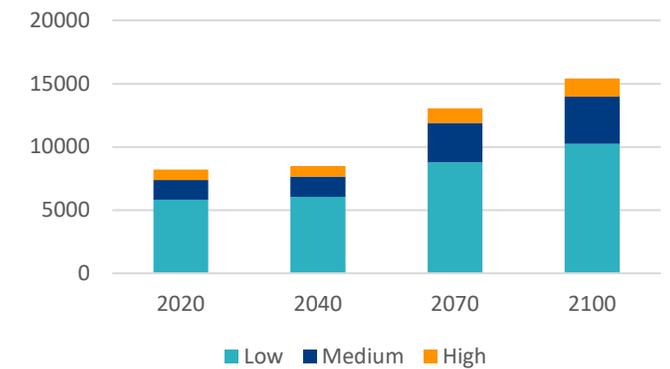
AHI Parcels by FHEI



NOAH Parcels by FHEI



Mobile Home Parks + Parcels by FHEI



Takeaways and Recommendations

Putting information to action

- ***Housing planners and program managers need to be involved in hazard assessment and mitigation planning (LMS)!***
- Information can be used to determine and prioritize mitigation activities
 - Use hazard, housing, and tenant information to refine flood mitigation actions
- Shimberg analysis is conducted at a preliminary planning scale
 - Prioritize certain sub-geographies (Census tracts) for more detailed flood studies
 - For example, you could explore tracts with:
 - High counts of co-located AHI and NOAH
 - Large mobile home parks
 - “High” flood hazard exposure index
 - High counts of properties in the floodway
 - Could overlay the above Census tracts with watershed boundaries for more holistic mitigation approaches
- Better compete for pre-disaster or post-disaster mitigation funding (BRIC, etc.)!

phase 2: affordable housing + compounding vulnerabilities

Affordable Housing + Compounding Vulnerabilities

Investor-Owned Properties

- How may investor owned-properties (IOPs) limit the affordable housing stock?
- How can we find and track IOPs?
- What is the current state of IOPs in the region?
- Policy Recommendations

 Poynter

When corporate investors crowd out individual homebuyers

Elsewhere in Florida, investors pounced on Duval County in the ... at a U.S. House committee hearing on the issue of investor-owned homes in...

3 days ago



The Atlanta
Journal-Constitution

American Dream For Rent ▾

 Log In

American Dream For Rent: Investors elbow out individual home buyers

Metro Atlanta is ground zero for corporate purchases, locking families into renting.

Residential Real Estate

Investors buy up billions of dollars worth of South Florida homes

 Email

 Share

 Share

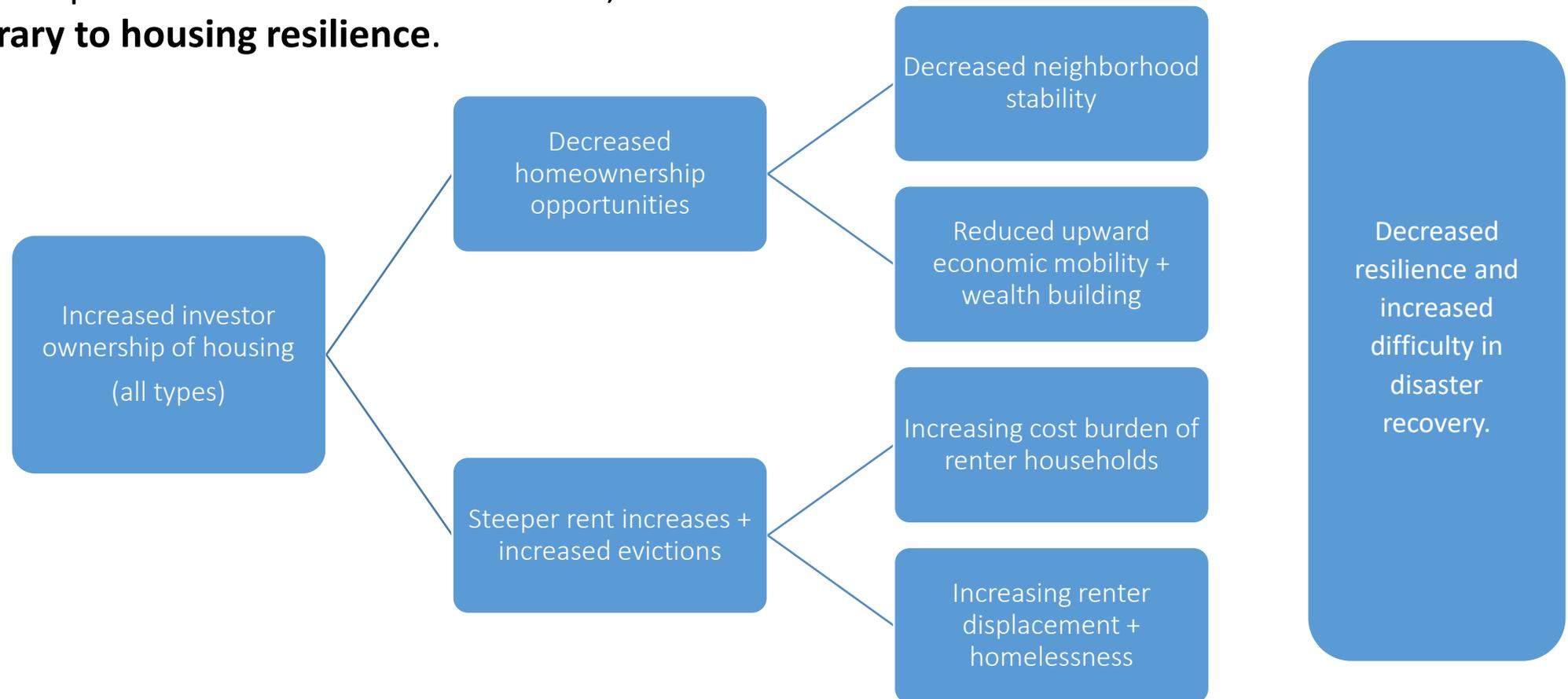
 Tweet

 Print

 Order Reprints

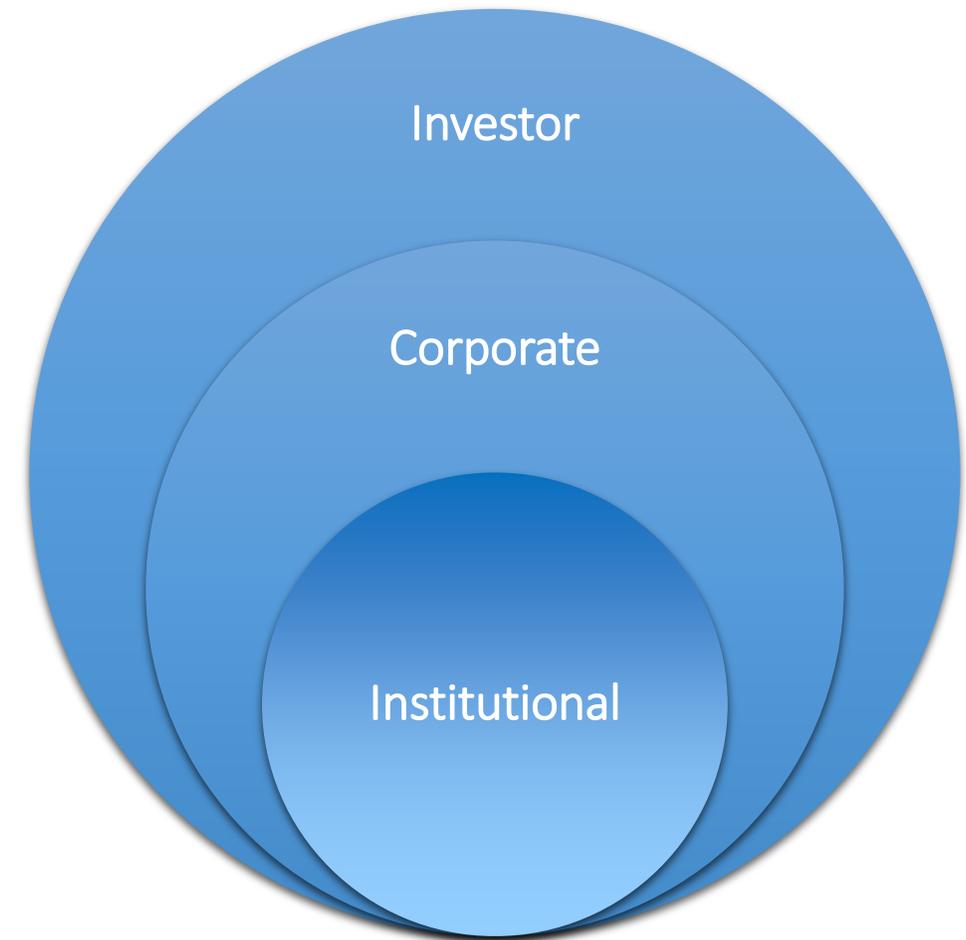
Investor-Ownership Impacts

- Investor-ownership of housing can lead to decreased homeownership opportunities, as well as increased instability and displacement of rental households, which is **contrary to housing resilience**.



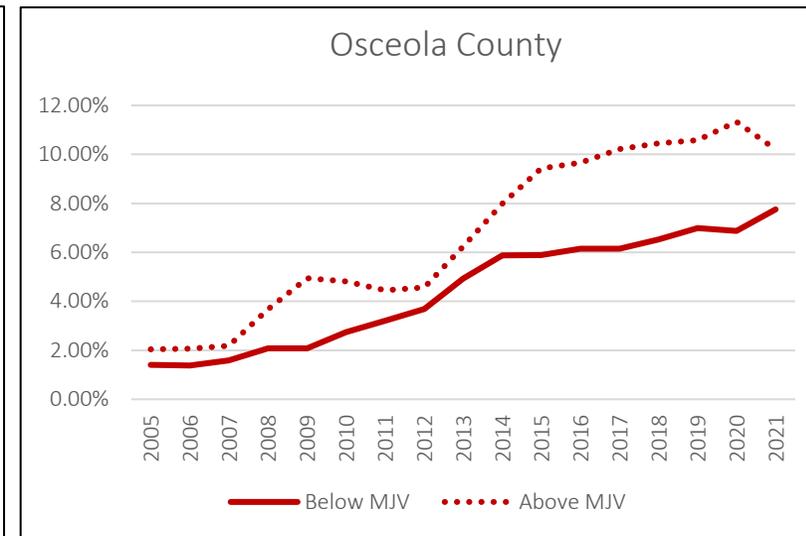
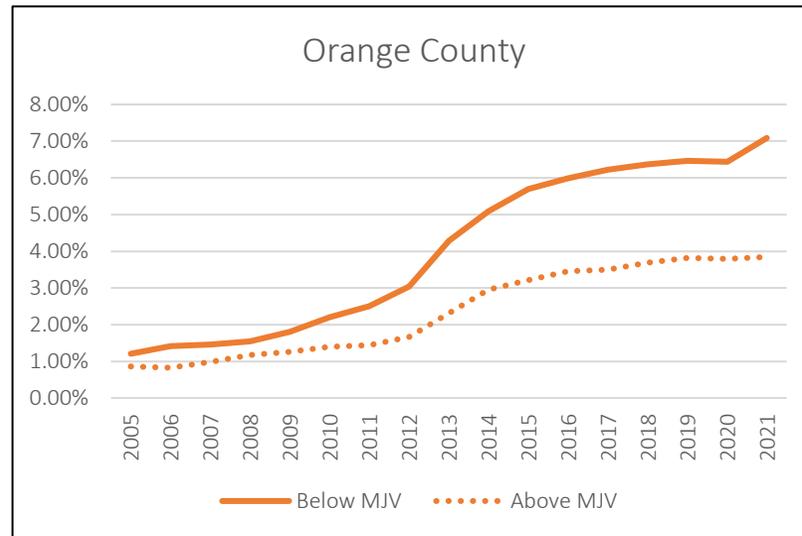
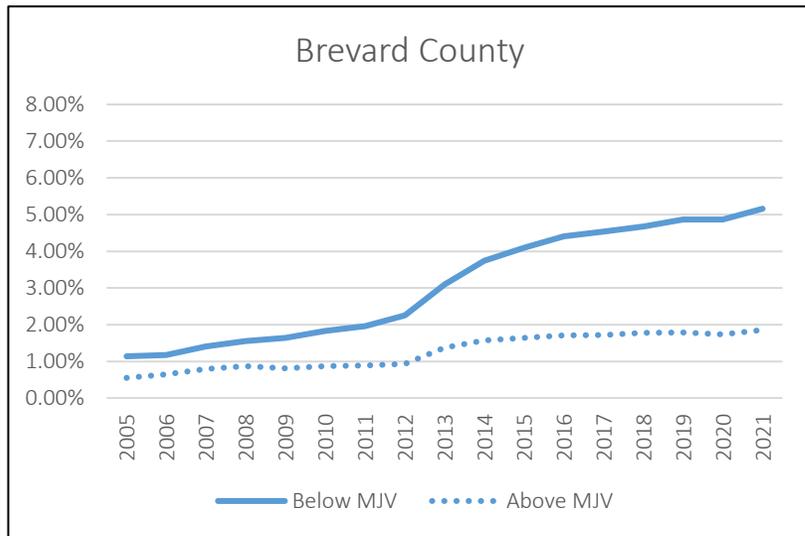
Investor-Ownership includes a wide spectrum of practices, property types, and landlord sizes

- ***Investor-owned*** is an umbrella term: Jane Doe to Houses 4 Rent
- ***Corporate-owned*** is the focus of this study
 - Esp. SF, MH, and condos
- ***Institutionally-owned*** is beyond scope of this study
 - *But* we explore some elements of concentration in a select county



Finding #1: Corporate-ownership rates of single-family homes below MJV have increased more quickly and in larger magnitudes than the single-family homes above MJV in 6 out of 7 counties in the region since 2005.

Corporate Ownership Rates of Single-Family Housing Above and Below Mean Just Value (MJV)



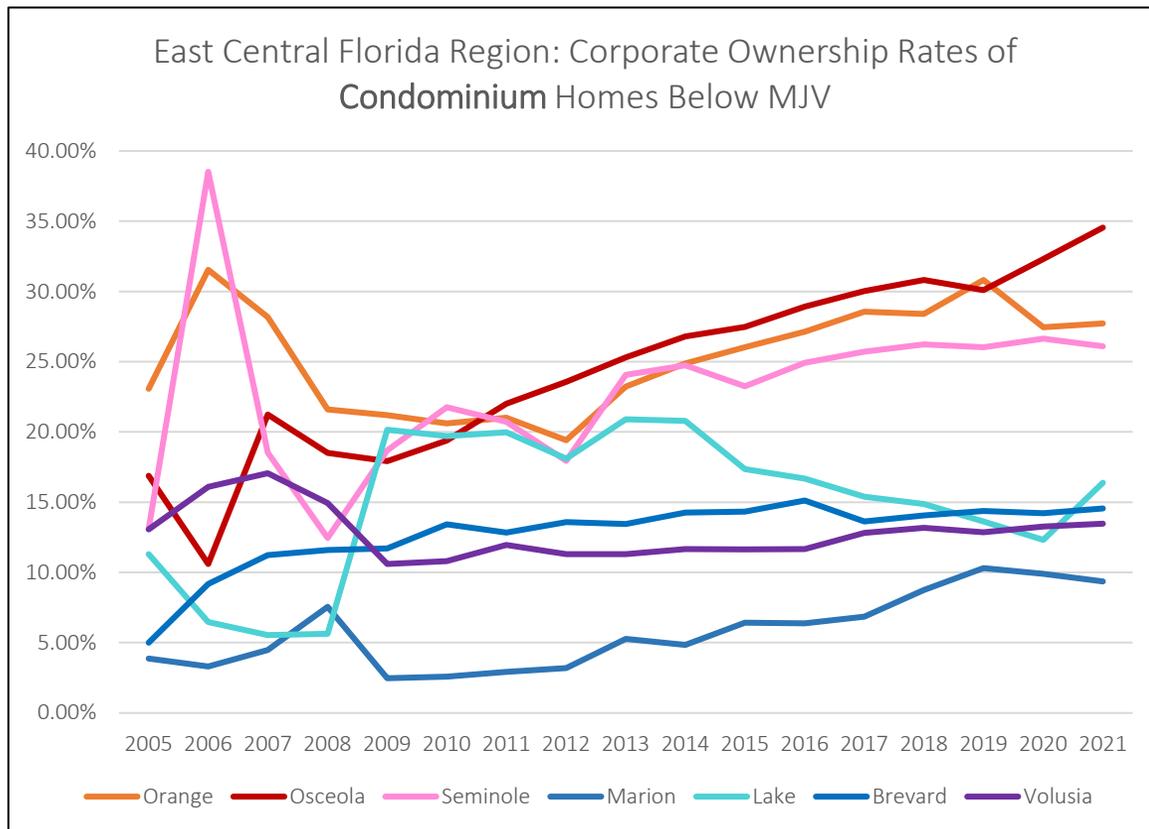
*In Brevard, Lake, Marion, Seminole, Orange, and Volusia Counties, **corporate ownership of single-family homes below MJV has increased more than for those homes above MJV from 2005-2021.***

*In Osceola County, corporate ownership of single-family homes **above MJV has steadily increased more than for those below MJV.***

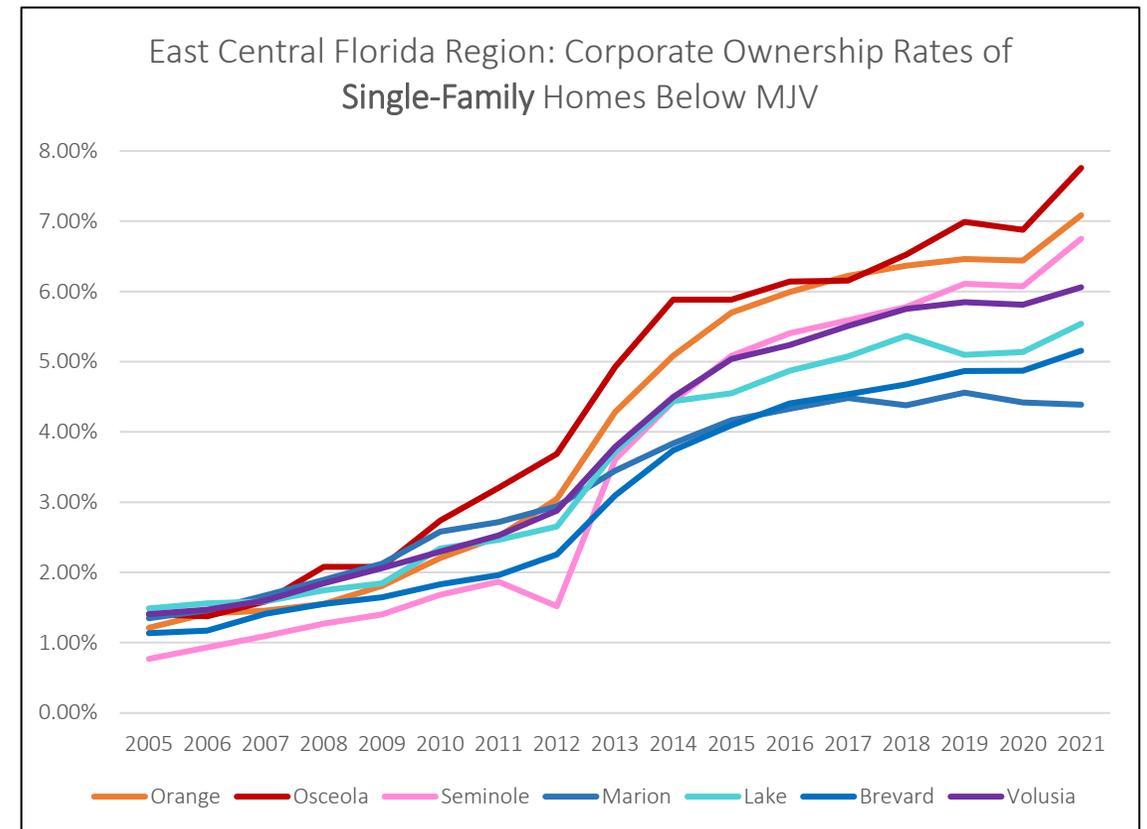
Why are **homes with lower MJV** acquired more often than higher MJV?

- Higher value homes are simply harder to acquire?
- Higher value are sold less often than lower value homes (fewer opportunities for corporate owners to acquire them)?
- Lower value properties offer larger profit margins (depending on the use that a corporate owner has for the properties)?
- *Corporate acquisition of lower-value single-family properties may also be fueled in part by practices such as real estate wholesaling, heirs property acquisitions, and tax delinquency auctions, which all increase profit margins.*

Finding #2: Corporate ownership rates of condominiums below MJV fluctuates with the market, but **corporate ownership rates of single-family homes below MJV have been steadily increasing** across the region since 2005.



Corporate-ownership rates for condominiums have risen from 0.8-1.5% in 2005, to between 9% and almost 35% in 2021.

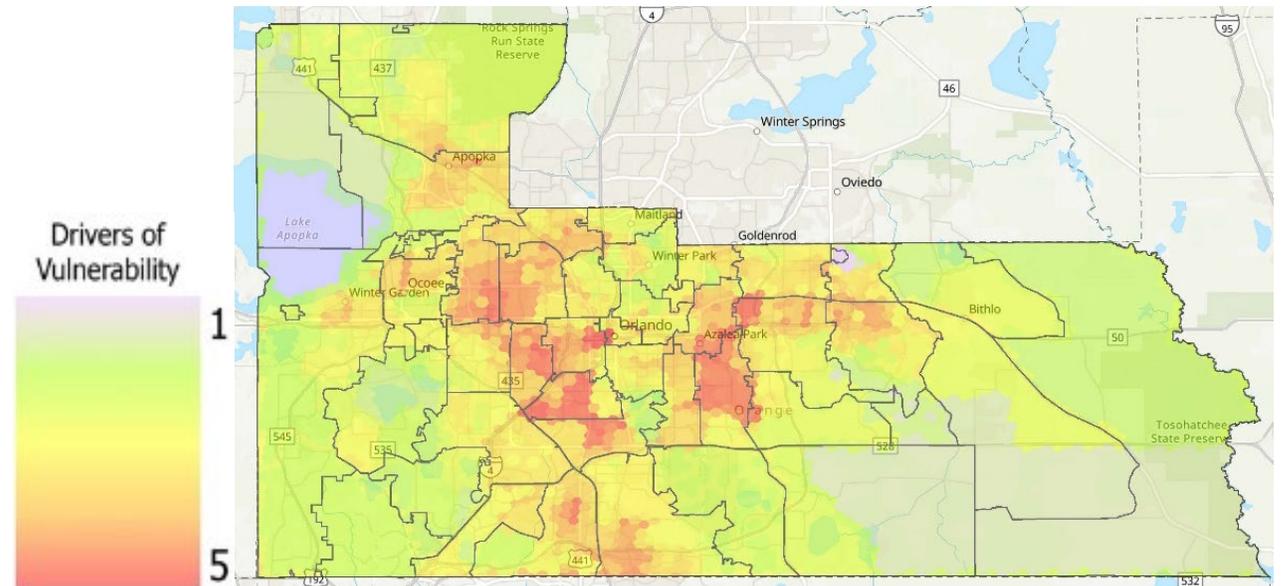
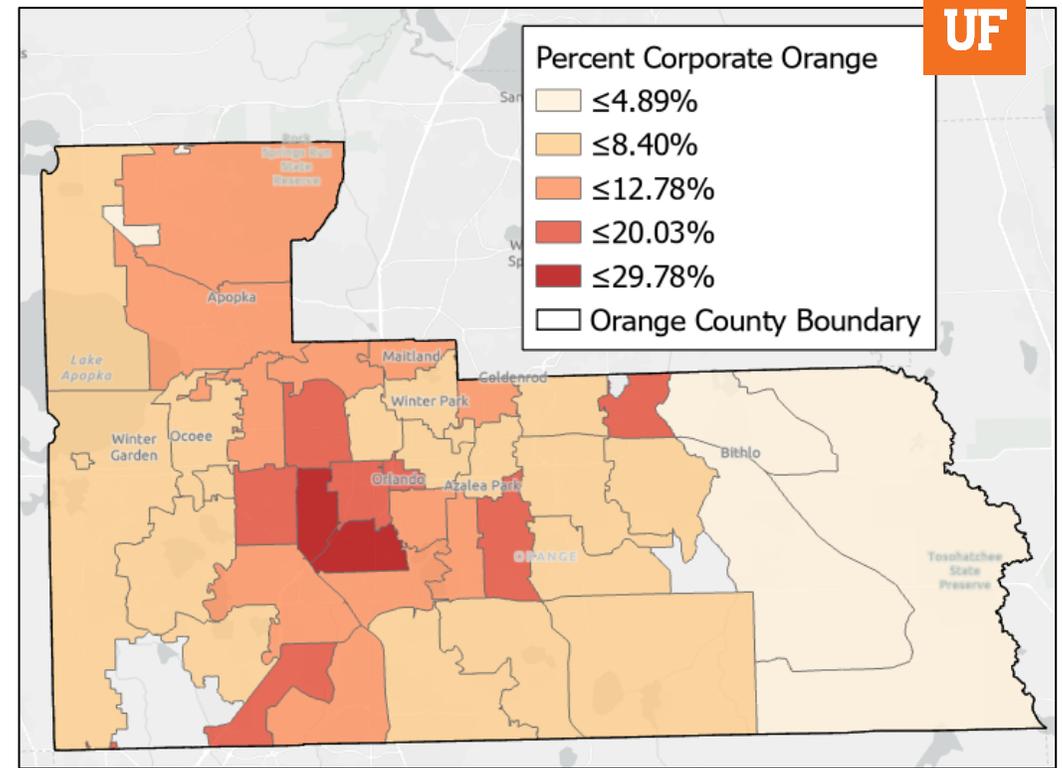


Corporate-ownership rates of single-family homes has risen quite consistently to between 4-8% in 2021.

Growing stock of corporate-owned, single-family homes

- For lower valued properties, **condominiums are more likely to be corporate-owned** than single-family homes.
- However, corporate **investment in single-family homes is increasing** consistently across the entire region.
- Corporate entities may find single-family investments appealing for their constant return on investment across geographies and economic conditions (especially when compared to condominiums).

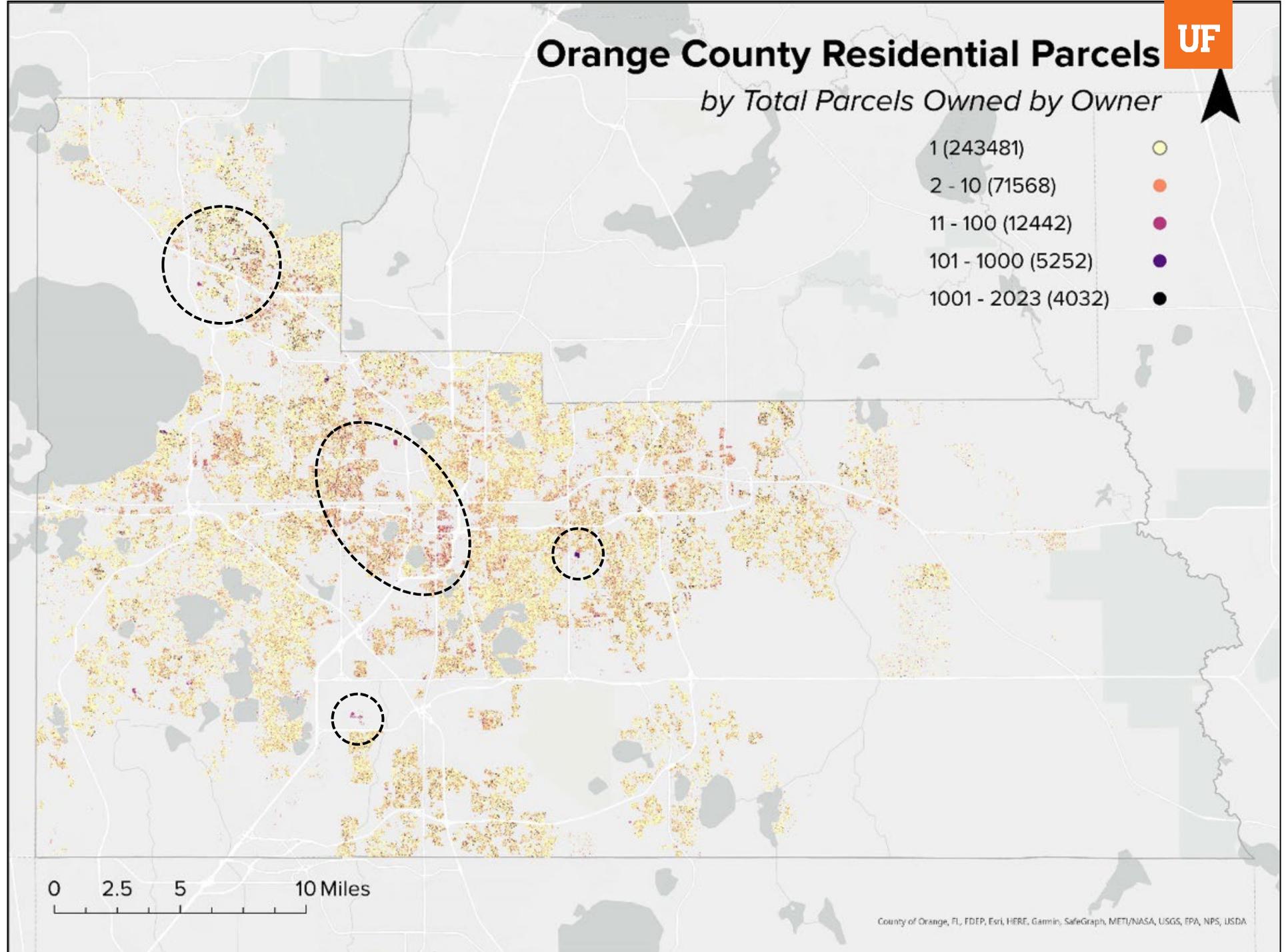
Finding #4: Higher rates of corporate ownership of all residential properties often occur in zip codes commonly associated with high drivers of social vulnerability.



Bottom map shows the ranking (1-5 scale) of the composite “drivers of vulnerability,” which include various social vulnerability metrics in the ECFR2C region.

Estimate of the relative market share of property owners in Orange County

- Corporate ownership is a widespread phenomenon within Orange County, and what could be considered “**institutional ownership**” occurs in **pockets** within local communities.
- This suggests that corporate-ownership of housing has **simultaneous regional and local (neighborhood-level) effects**.



Key Takeaways

- Corporate-ownership rates of **single-family homes below mean just value (MJV) have increased** in larger magnitudes than the single-family homes above MJV in most counties of the region.
- Corporate ownership rates of **single-family homes below MJV have been steadily increasing** across the region since 2005.
- Higher rates of corporate ownership of all residential properties often occur in zip codes commonly **associated with high drivers of social vulnerability**.

Phase I + II Project Outcomes

- Housing and flood hazard exposure **data**
 - OpenData (public download, 28 layers)
 - <https://shimberg-center-spatial-data-1-1-ufl.hub.arcgis.com/pages/9cf4a19ca4324b0eb4fac930dbbbd4ae>
- **Final report:** "Coastal Flood Hazards and Affordable Housing: Developing Housing Data to Support Planning and Action"
- **Final report:** "Critical Housing Assets and Compounding Vulnerabilities: Short-Term Rentals and Investor-Owned Properties in the ECFR2C Region"

The image shows a composite of two pages from a report. The top page is the cover, featuring logos for the University of Florida, Shimberg Center for Housing Studies, and the East Central Florida Regional Resilience Collaborative (R2C). The title is "Coastal Flood Hazards and Affordable Housing: Developing Housing Data to Support Planning and Action". The date is June 9, 2022, and it is prepared by the Shimberg Center for Housing Studies at the University of Florida.

The bottom page is a metadata page from an ArcGIS Online portal. It lists several data layers:

- ECFL All Residential Parcels - No hazard score**: Florida Department of Revenue, County Property Appraisers, and the University of Florida GeoPlan Center. | wramos@bar.ufl.edu. This dataset contains 2019 parcel boundaries with each parcel's associated tax information from the Florida Department of Revenue's tax database. This feature class contains parcel polygons and... Type: Feature Layer | Rows: 1,438,861 | Last Updated: September 12, 2022 | Tag: ECFL_ECFL_housing_no_exposure
- ECFL Low-Frequency Storm Surge**: University of Florida | wramos@bar.ufl.edu. ECFLSSCat4to5. Type: Feature Layer | Rows: 481,756 | Last Updated: May 31, 2022 | Tag: ECFL_ECFL_hazards
- ECFL High-Frequency Storm Surge**: University of Florida | wramos@bar.ufl.edu. ECFLSSCat1to3. Type: Feature Layer | Rows: 425,367

The metadata page also includes a "Content Type" section with options for Feature Layer, Hub Page, Microsoft Excel, and Feature Service. The "Source" section lists the University of Florida and the Florida Department of Revenue, County Property Appraisers, and the University of Florida GeoPlan Center. The "License" section has options for none or custom. The "Tags" section includes ECFL, ECFL_hazards, REACH, ECFL_housing_no_exposure, and ECFL_housing_exposure.

THANK YOU!