

Research Question

How does a municipality's National Flood Insurance Program class rating influence, if at all, median property values across Florida?

Literature Review

Flood risk plays a major role in shaping housing markets in coastal and flood-prone states, like Florida.

- In 2023, Florida experienced two major flooding events causing more than \$26 billion in damages (NOAA, 2026). Properties located in flood-prone areas often experience price adjustments due to expected damage costs and flood insurance requirements.

Initiated in 1990, the Community Rating System (CRS) under the National Flood Insurance Program (NFIP) rewards and rates municipalities that implement stronger flood-mitigation efforts.

- These mitigation efforts may influence housing markets by reducing perceived risk and lowering insurance premiums, in theory, increasing property values.

Methodology

$$\text{Property Value} = \beta_0 + \beta_1(\text{NFIP Class Rating}) + \beta_2(\text{Median Household Income}) + \beta_3(\text{Population Density}) + \epsilon$$

A preliminary regression analysis was conducted on 403 Florida municipalities examining the relationship between CRS participation and property values.

Property value and population density: 2024 U.S. Census American Community Survey 5-year estimates

CRS class rating: 2025 Federal Emergency Management Agency's Community Rating System

Limitations

- This cross-sectional analysis examines municipalities at a single point in time, limiting the ability to see trends.
 - FEMA only provides current CRS data (2025), while the most recent the U.S. Census Bureau provides is 2024.
- Other factors that influence housing prices (e.g., school quality, local amenities, zoning) are not fully captured in the model.

Preliminary Results

Coefficients:

| | Estimate | |
|---------------------|-----------|--------|
| (Intercept) | -3.049405 | *** |
| rating | -0.034456 | *** |
| log(mhi) | 1.353679 | *** |
| log(popdens) | 0.123241 | *** |
| Adjusted R-squared: | | 0.7609 |

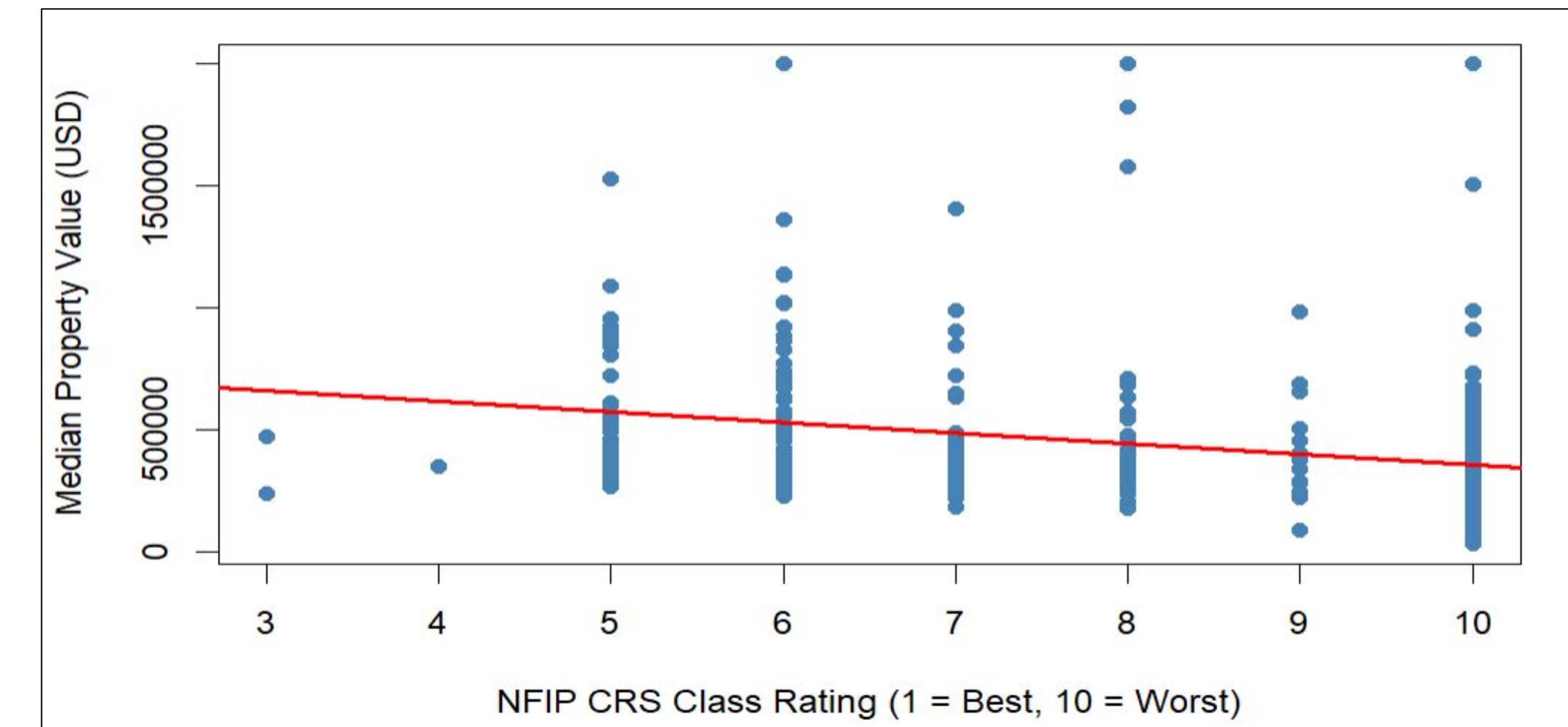


Figure 1. CRS ratings and property values in Florida municipalities

Preliminary results indicate a one-point increase in a municipality's CRS rating is associated with approximately a 3.45% decrease in median property value, holding all else constant.

Discussion

Municipalities with better CRS participation (lower class ratings and more flood mitigation efforts) are associated with higher median property values.

- However, median household income explained a large portion of the variation in housing prices, absorbing effects of the other variables.
- While the CRS rating coefficient is statistically significant, the size of effect is relatively small, suggesting that broader CRS participation and stronger mitigation efforts across more municipalities may be needed to produce larger impacts on housing markets.
- One potential explanation is that flood-mitigation efforts and CRS participation may be factored into housing prices.

Policy Implications, Future Research, & References

- Policymakers may consider expanding incentives for CRS participation, encouraging knowledge across municipalities to reduce flood risk and decrease insurance premiums.
- In addition to folding in additional housing and neighborhood characteristics, future research should incorporate more detailed weather and storm exposure data to better capture flood risk impact on property value.

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