

# Natural Disasters, Economic Stress, and Enrollment Shifts in the ACA Marketplace

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## I. BACKGROUND

### Natural Disasters and Health Insurance

- ▶ Natural disasters create sudden economic shocks for households
- Examples include:**
  - Property damage
  - Income loss
  - Recovery and rebuilding costs
- ▶ These financial shocks may influence household insurance decisions

### ACA Marketplace Structure

- ▶ The Affordable Care Act Marketplace provides tiered health insurance coverage

#### Plan tiers include:

- Bronze
- Silver
- Gold
- Platinum

#### ▶ Tiers vary in:

- Premium costs
- Coverage levels
- Financial protection

### Policy Context: Silver Loading

- ▶ In 2017, federal Cost Sharing Reduction (CSR) payments were terminated
- ▶ Insurers responded with “silver loading”
- CSR costs concentrated in Silver plan premiums

#### Resulting changes:

- Silver premiums increased relative to other tiers
- Marketplace enrollment patterns shifted beginning in 2018

## II. Research Focus

### How do natural disasters affect ACA Marketplace enrollment?

#### Personal Research Question Explored:

- ▶ Does county-level poverty change explain shifts in enrollment after disasters?

#### Hypothesis:

Disaster exposure increases financial strain & Rising poverty may increase ACA marketplace demand

## III. METHODS

### Data Sources

#### Nationwide county-level datasets:

- ▶ ACA Marketplace enrollment by tier
- ▶ Annual county-level poverty rates
- ▶ Natural disaster exposure data

#### Disaster exposure measures include:

- Hurricanes
- Wildfires
- Earthquakes
- Other major disaster events

#### Data Preparation

- ▶ Merged datasets using:
  - County FIPS codes
  - Year

#### ▶ Constructed variables including:

- Total disaster events by county
- Year-to-year poverty rate change

#### Analytical Approach

- ▶ Data analysis conducted using Stata
- Analysis focused on:

- Relationship between disaster exposure and ACA enrollment
- Enrollment changes across coverage tiers
- Trends in enrollment over time

## IV. RESULTS

### Disaster Exposure and ACA Enrollment

- ▶ Analysis shows a positive relationship between natural disasters and ACA Marketplace enrollment

Counties experiencing more disaster events show: Higher levels of ACA Marketplace enrollment

- ▶ Suggests households may rely more heavily on ACA coverage following disaster-related financial shocks

### Marketplace Structural Changes

- ▶ Enrollment trends reveal significant shifts beginning in 2018
- Observed patterns:

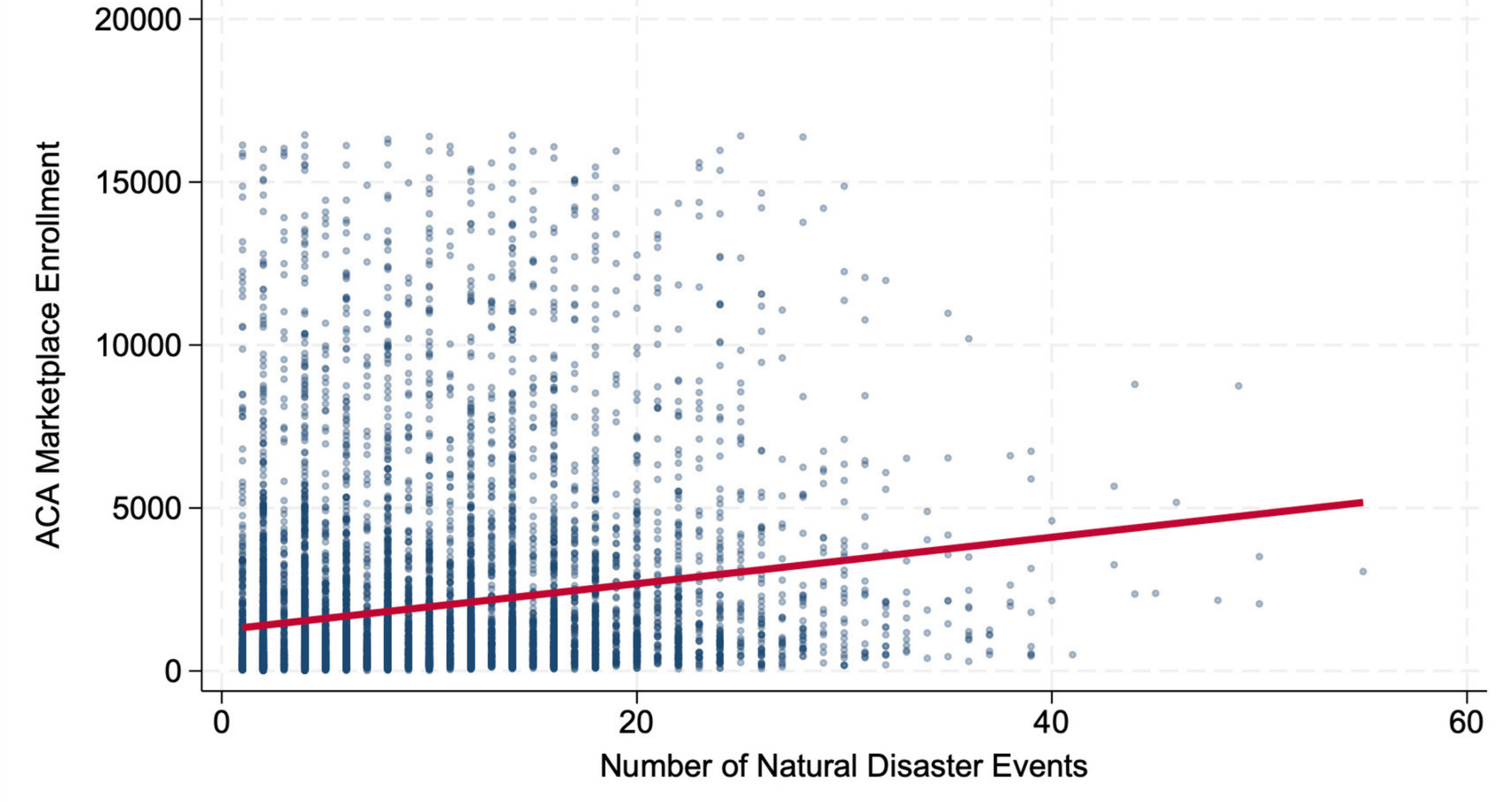
Silver enrollment share declines after 2017  
 Bronze and Gold shares increase beginning in 2018

- ▶ These changes align with the introduction of silver loading

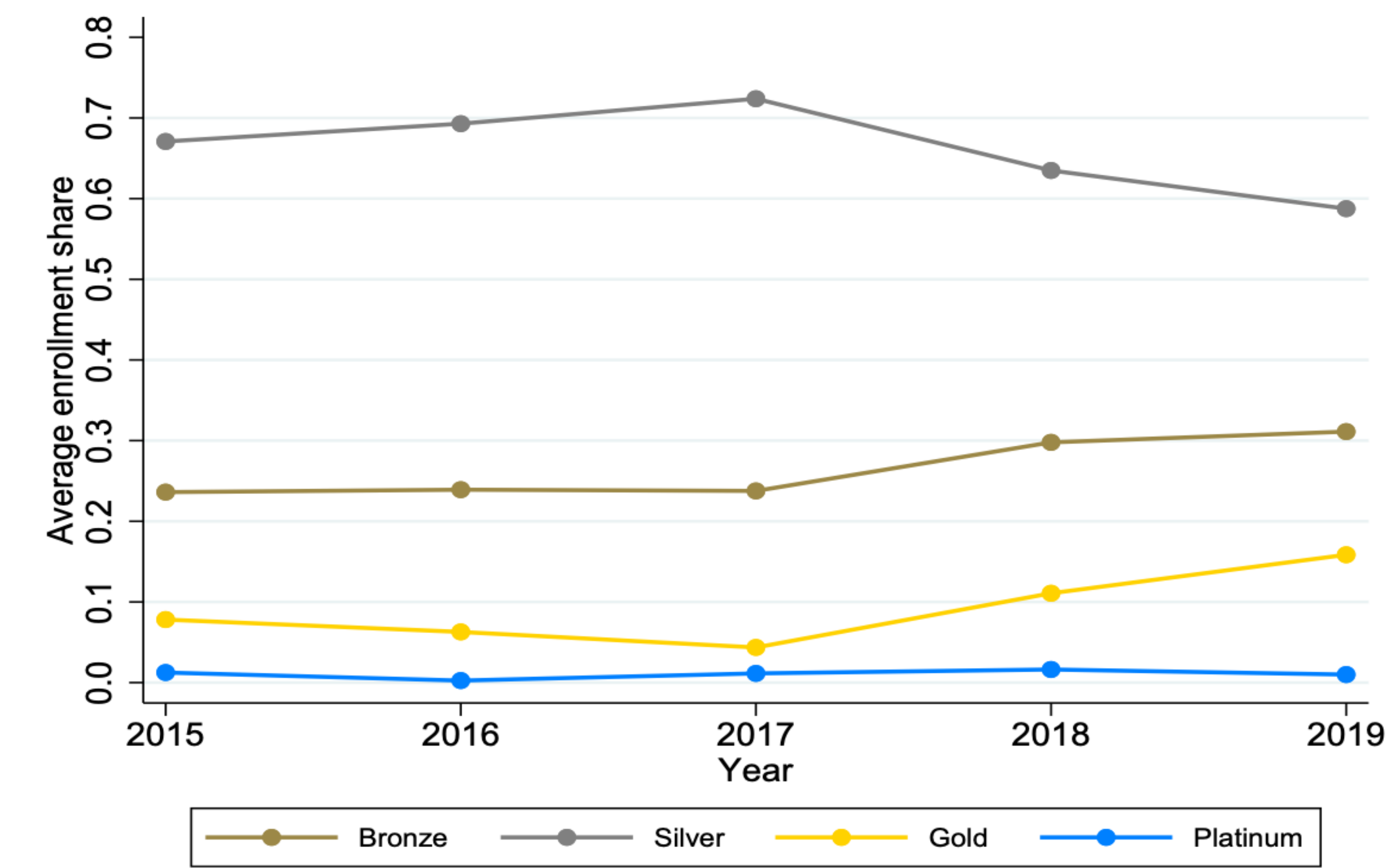
## VII. REFERENCES



Natural Disasters and Marketplace Enrollment



Natural Disasters and Marketplace Enrollment



Average Enrollment Share Per year 2015-19

## V. FUTURE RESEARCH POTENTIAL

- Further research could explore:
- ▶ Improved measures of financial stress following disasters
    - ▶ Household-level insurance decisions
    - ▶ How households allocate resources between:
      - Healthcare
      - Insurance
      - Disaster recovery expenses
  - ▶ Long-term effects of disasters on insurance participation

## VI. KEY TAKEAWAYS

- ▶ Natural disasters are associated with increased ACA Marketplace enrollment
  - ▶ Insurance demand may increase during periods of financial instability
- ▶ Marketplace enrollment patterns are also strongly shaped by policy changes such as silver loading