



# DISPLACEMENT AFTER THE CAMP FIRE

Jacquelyn Chase

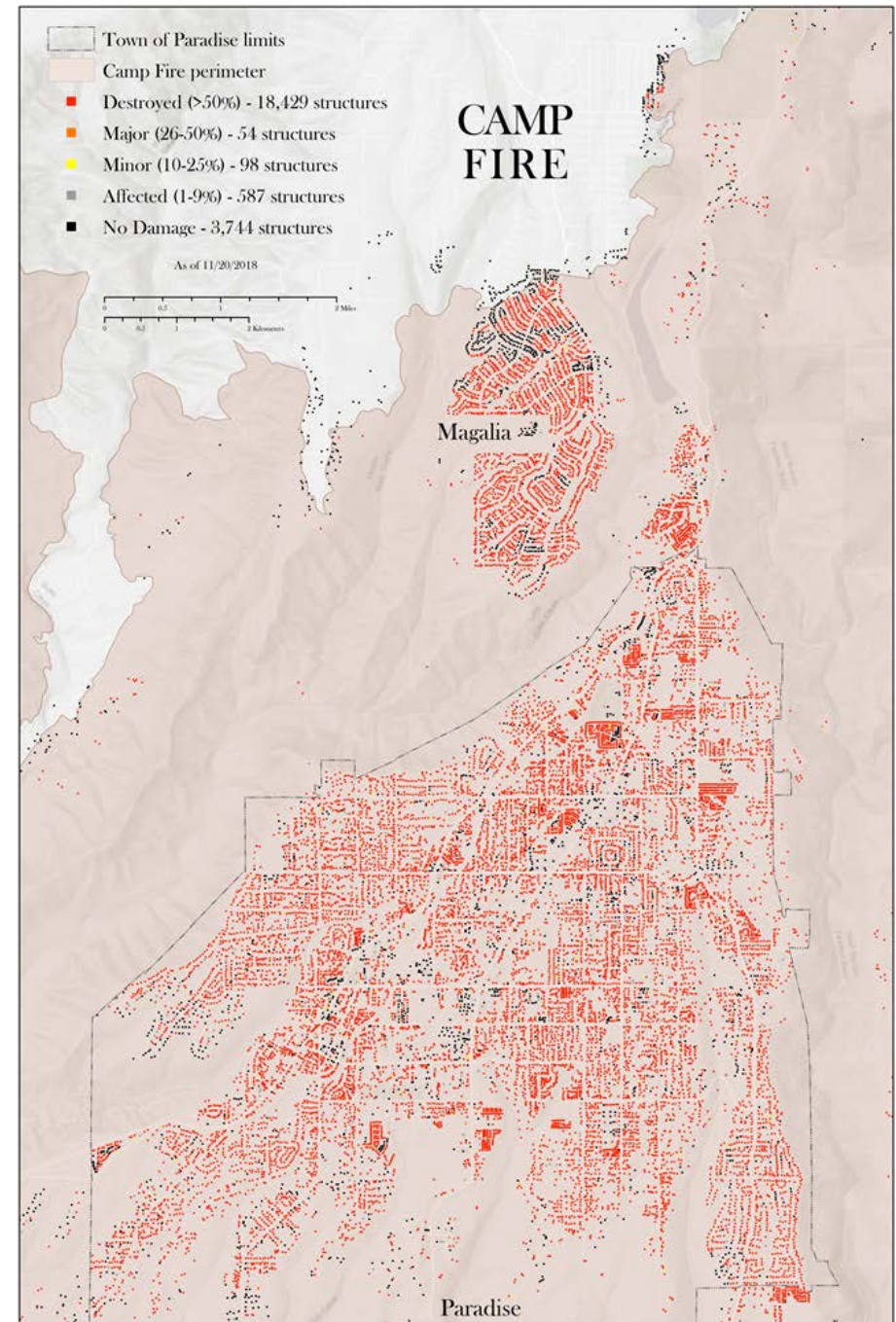
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CCPCA October 25, 2019

# CAMP FIRE AND DISPLACEMENT

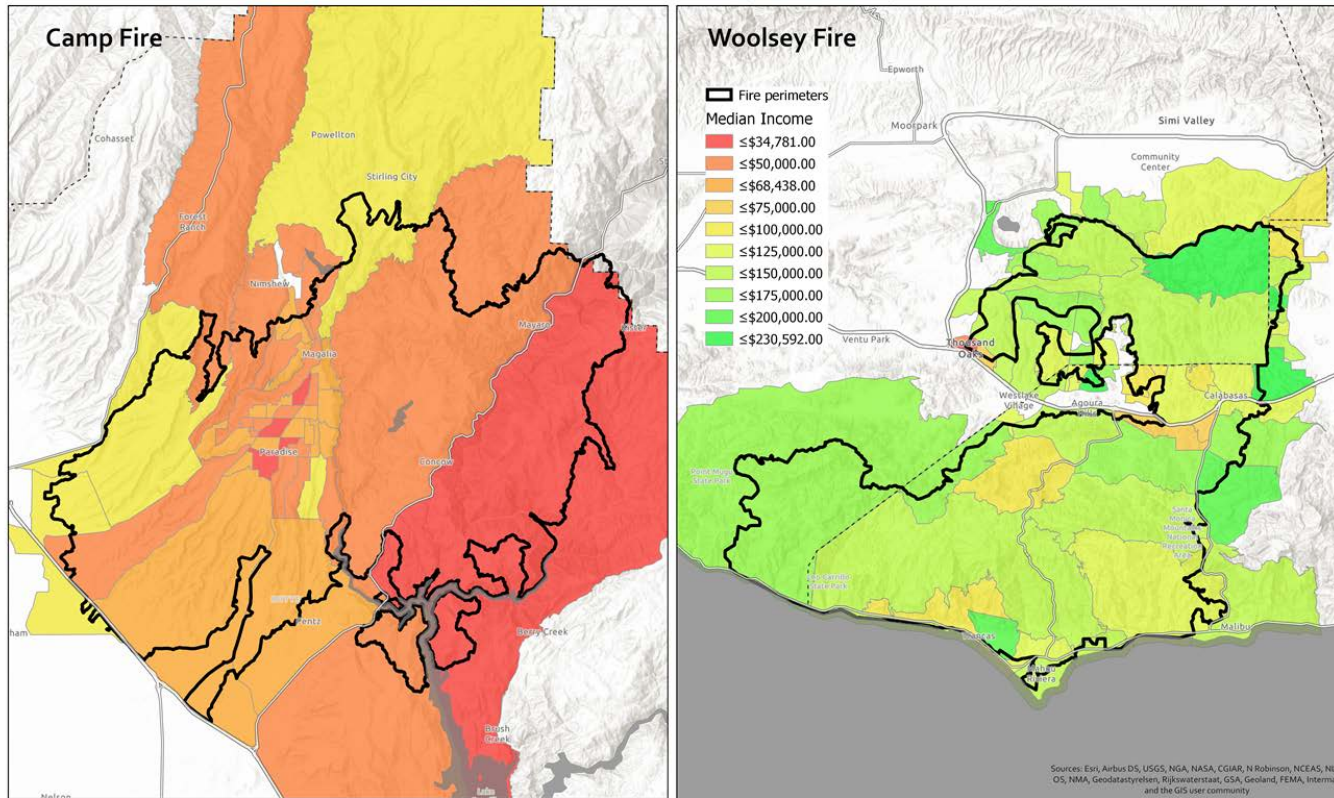
- Displacement is unfolding in time and place
- Indicators of vulnerability
- Official data not granular (FEMA, i.e.)
  - County and local area displacement important to understand for recovery
  - Hypothesis—local displacement, less vulnerable
- Use of alternative data:
  - Change of Address Data (USPS/NCOA) April and September 2019
  - St. Vincent de Paul, Butte211





# NARRATIVES ABOUT FIRE AND DISPLACEMENT IN LITERATURE

Median Income by 2017 Census Block Group for Woolsey and Camp Fires



- Higher income, exurbia, second home, recent
- There by choice, shouldn't live there
- We are subsidizing
- Have insurance
- Treated as individuals
- **In fact, wildfire affects wide range of people**



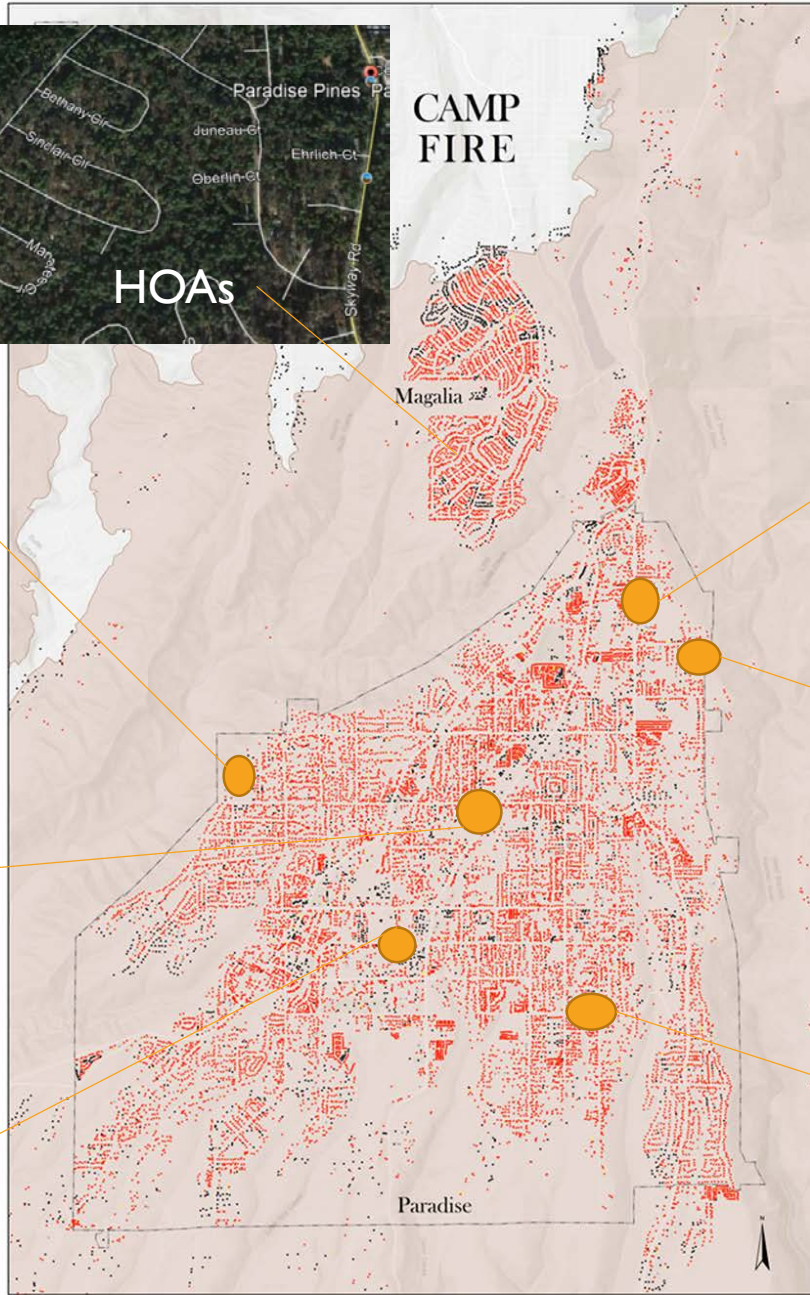


Ridge Properties

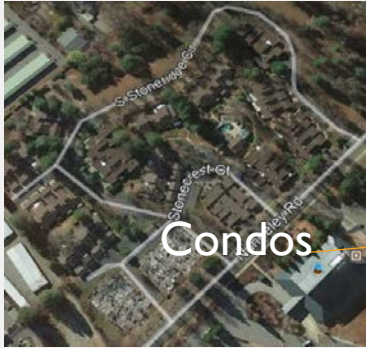


HOAs

# CAMP FIRE



Orchards



Condos



Mobile Homes



Horse Properties



Modest Residences

Map by Peter Hansen | peterhansen@outlook.com | 2018/11/09

# PARADISE STRUCTURES OVER TIME 1900-PRESENT



1945—from CSU Chico Special Collections

- [Ridge growth map](#)



# INFOGROUP CONSUMER DATA

- About 193,000 records for Butte County
- Individuals 18 years+
- Attributes such as:
  - Household income
  - Age
  - Presence of children
  - Owner/Renter status
  - Marital status
  - Length of residence
  - Name
  - Address
- Limitations
  - Data integrity
  - Data redundancies
  - Cost

# CAMP FIRE FOOTPRINT DEMOGRAPHICS

**37,198** Total individuals (18+)

**74%** Homeowners

Median age

**59**

Median Estimated Home Value

**\$194,000**

Median household income

**\$40,000**

# MAPPING DISPLACEMENT WITH NATIONAL CHANGE OF ADDRESS (NCOA)

- Purpose and use
- Requirements for access
  - Name and address
- Limitations
  - Data integrity & Redundancies
  - Permanent vs. Temporary
  - Participation
- Starting list of residents purchased from InfoGroup—pre-fire data





# NCOA TWO POINTS IN TIME

**Forwarding Address Totals of Displaced from the  
Camp Fire burn footprint November 8, 2018  
37,198**

Dates of NCOA Capture	April 2019	September 2019
Total Permanent Change of Address	<b>11,957 (32%)</b>	<b>13,153 (35%)</b>
Total Temporary Forwarding or other scenario	25,241	24,045

# PERMANENT CHANGES OF ADDRESS BY OWNER/RENTER STATUS

Assumed Owners		Assumed Renters	
New Address	No new address	New Address	No new address
42%	58%	17%	83%

Renters much less likely to file a permanent change of address

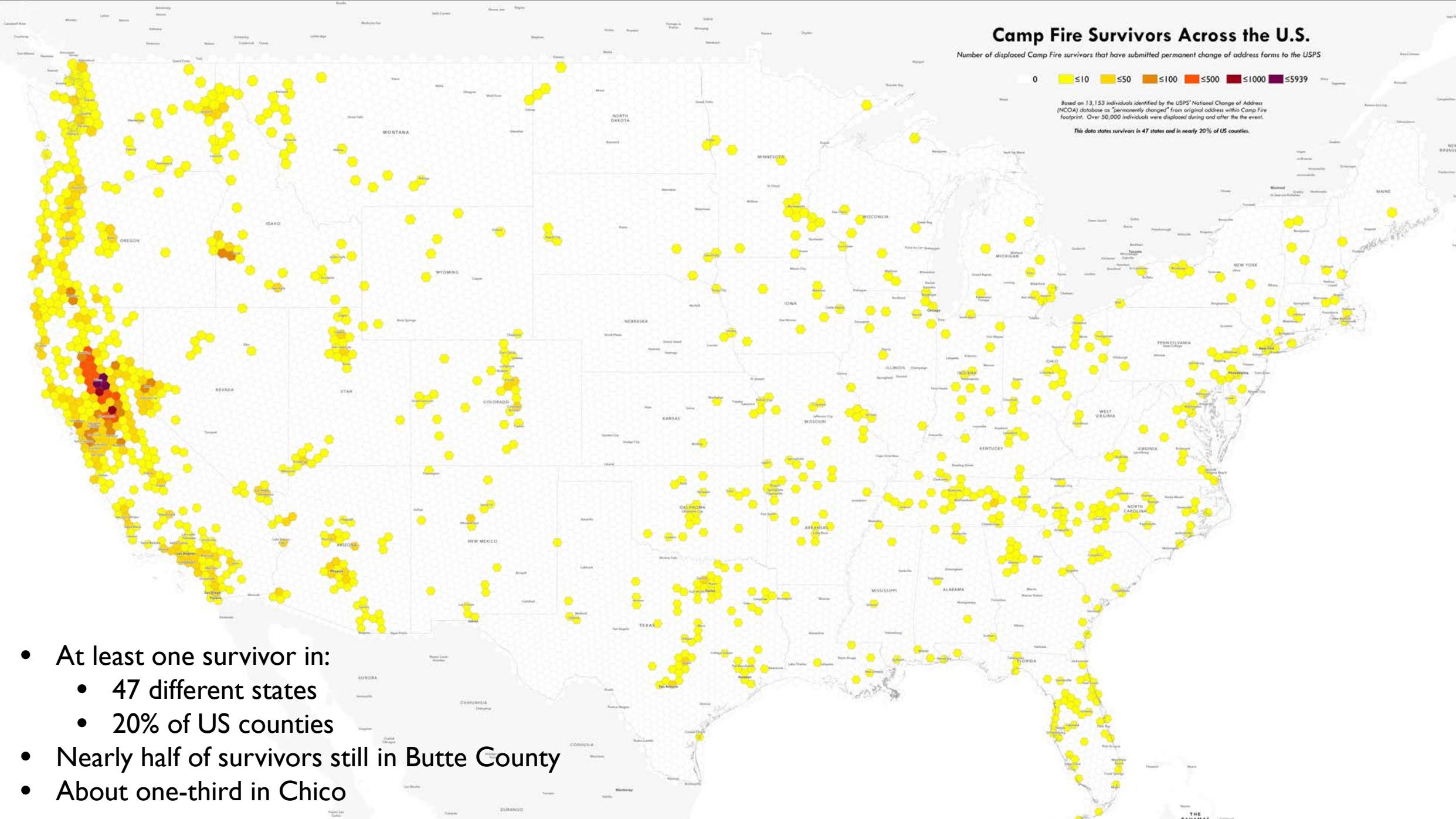
# Camp Fire Survivors Across the U.S.

Number of displaced Camp Fire survivors that have submitted permanent change of address forms to the USPS



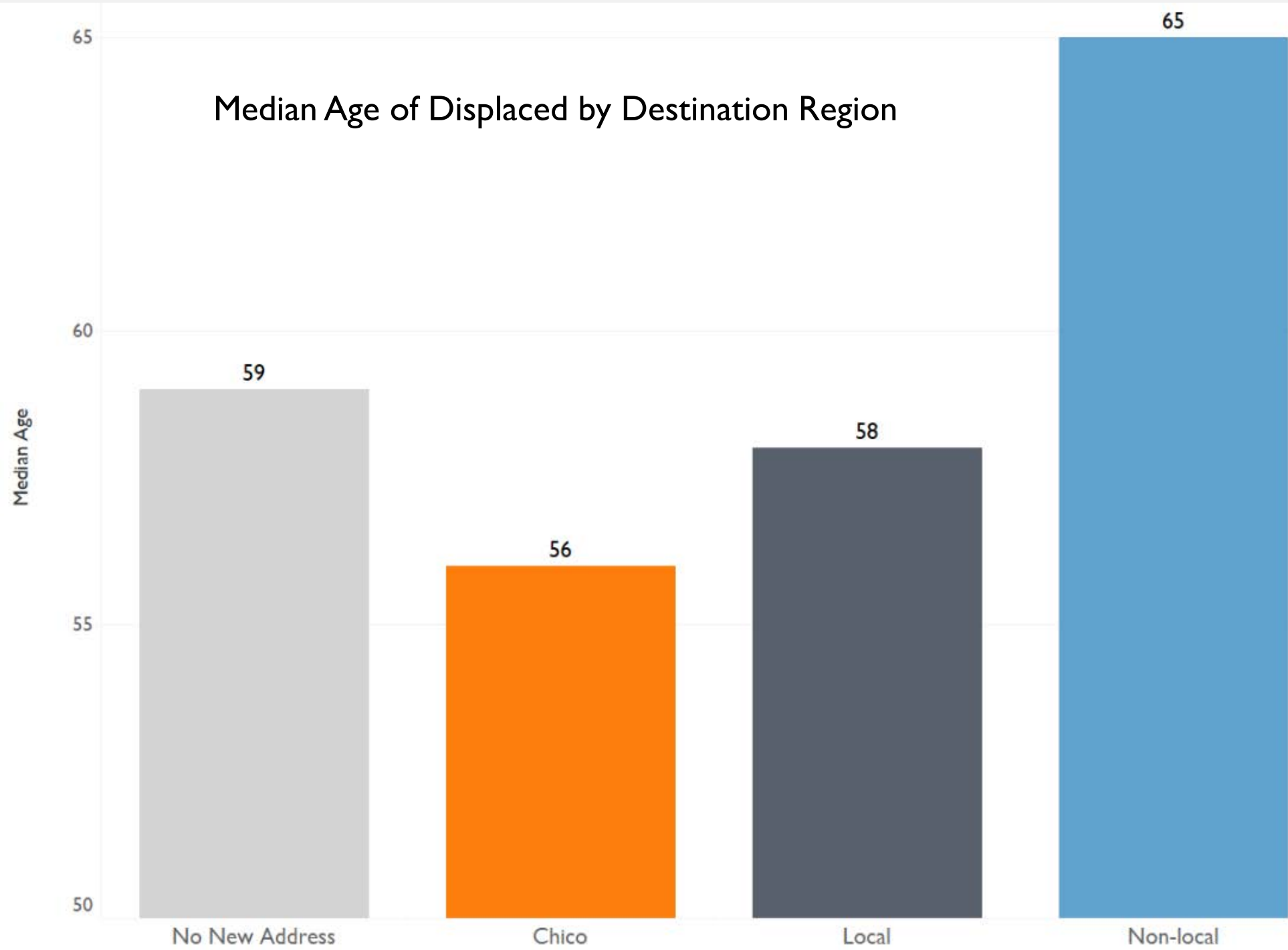
Based on 13,153 individuals identified by the USPS' National Change of Address (NCOA) database as "permanently changed" from original address within Camp Fire footprint. Over 50,000 individuals were displaced during and after the event. This data states survivors in 47 states and in nearly 20% of US counties.

- At least one survivor in:
  - 47 different states
  - 20% of US counties
- Nearly half of survivors still in Butte County
- About one-third in Chico

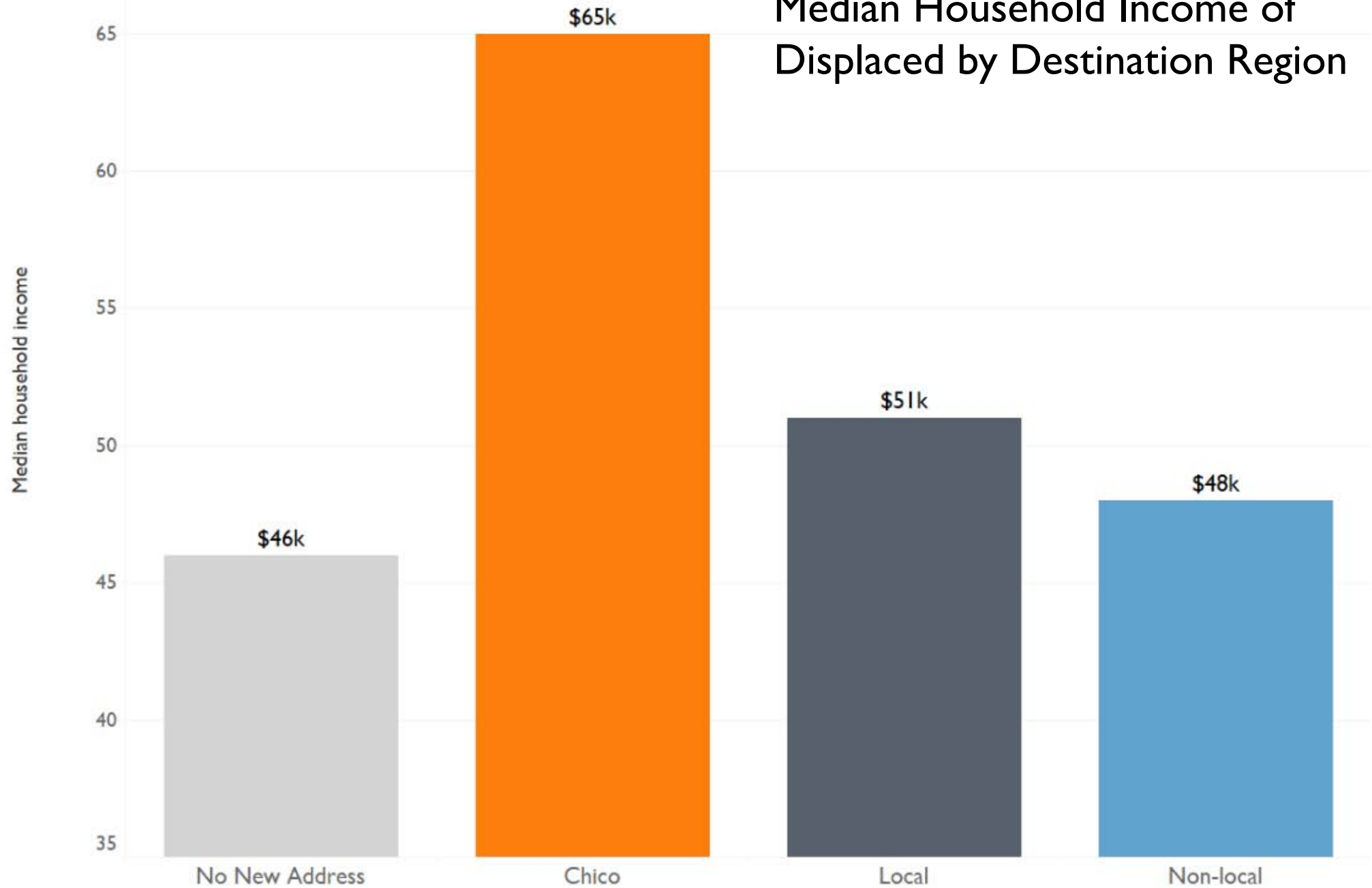




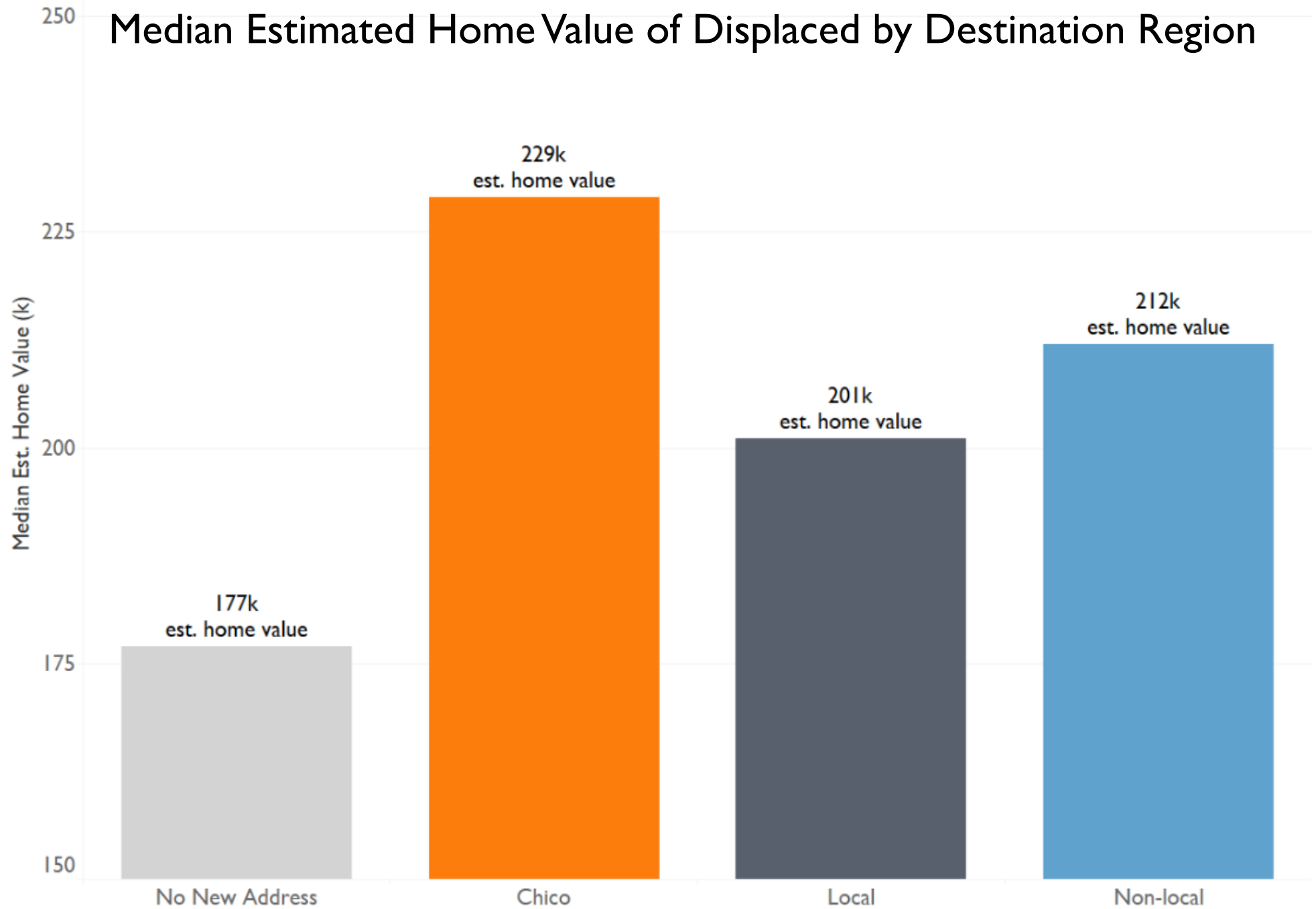
## Median Age of Displaced by Destination Region



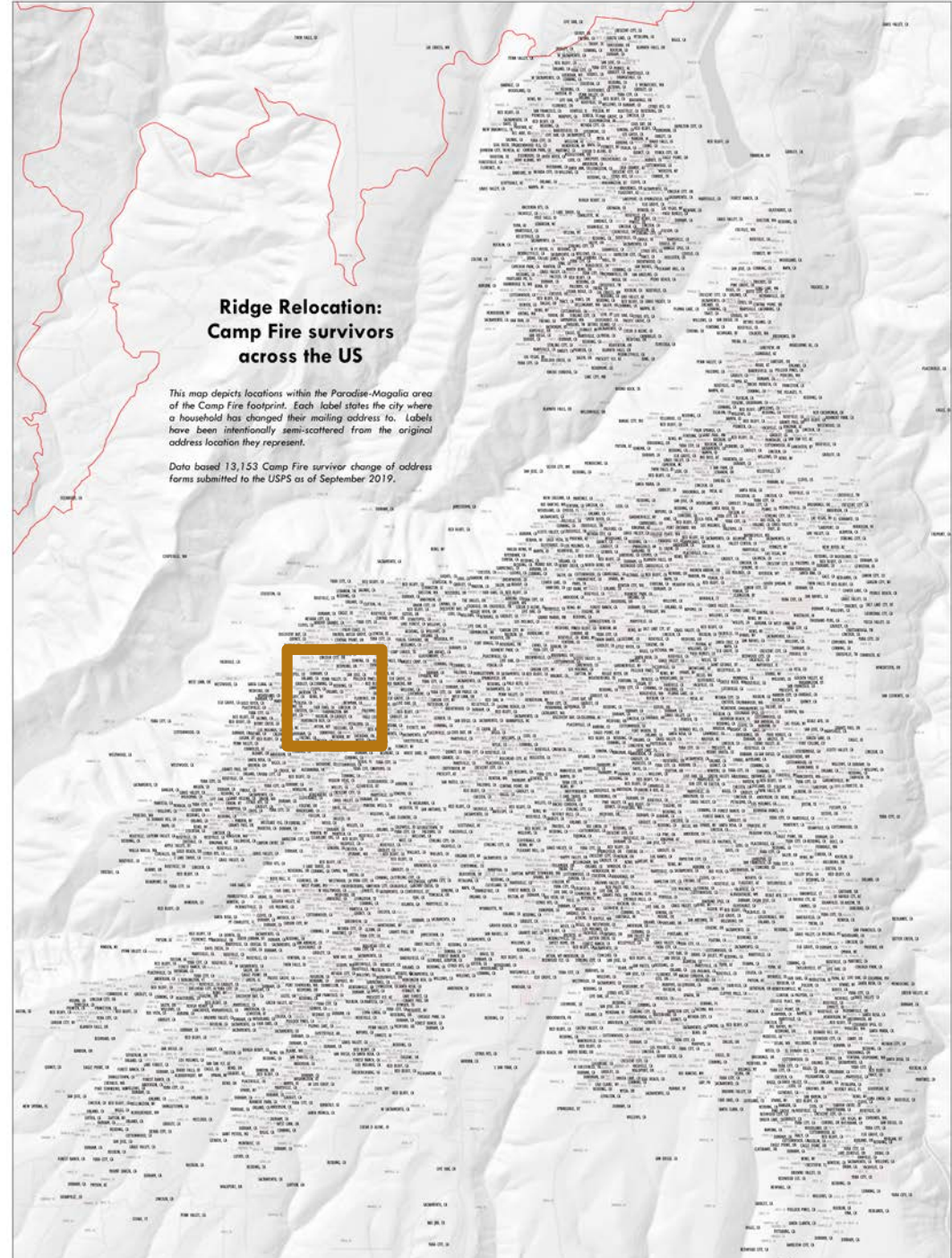
## Median Household Income of Displaced by Destination Region



# Median Estimated Home Value of Displaced by Destination Region







## BUTTE-GLENN 2-1-1 DATASET

- Provides service to Butte and Glenn counties
- Comprehensive phone line and online community resource database for linking to health and human services
- Intake form for those still needing assistance launched September 2019

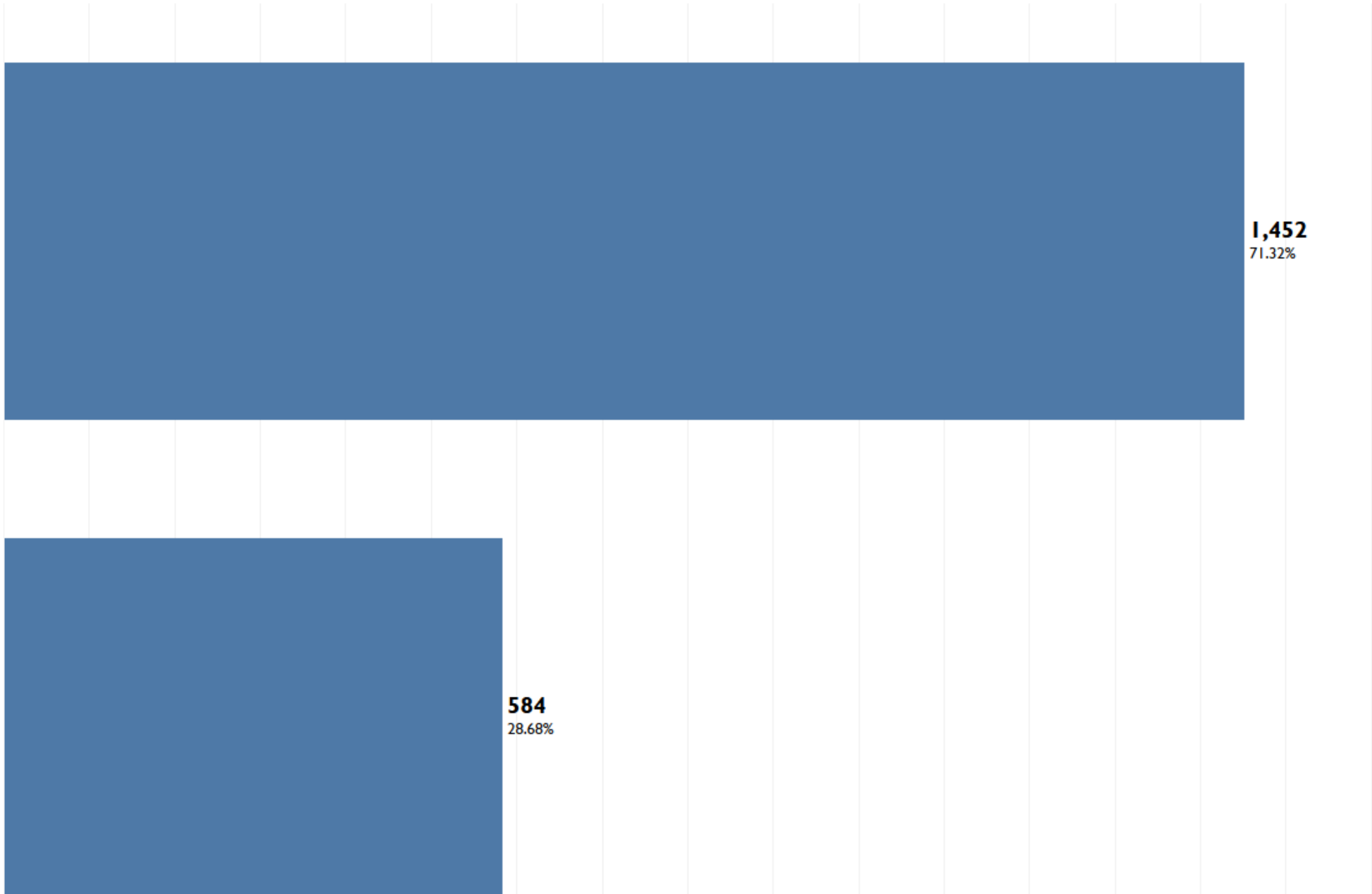
## Pre-fire Residence - Owners & Renters

Rented my residence

**1,452**  
71.32%

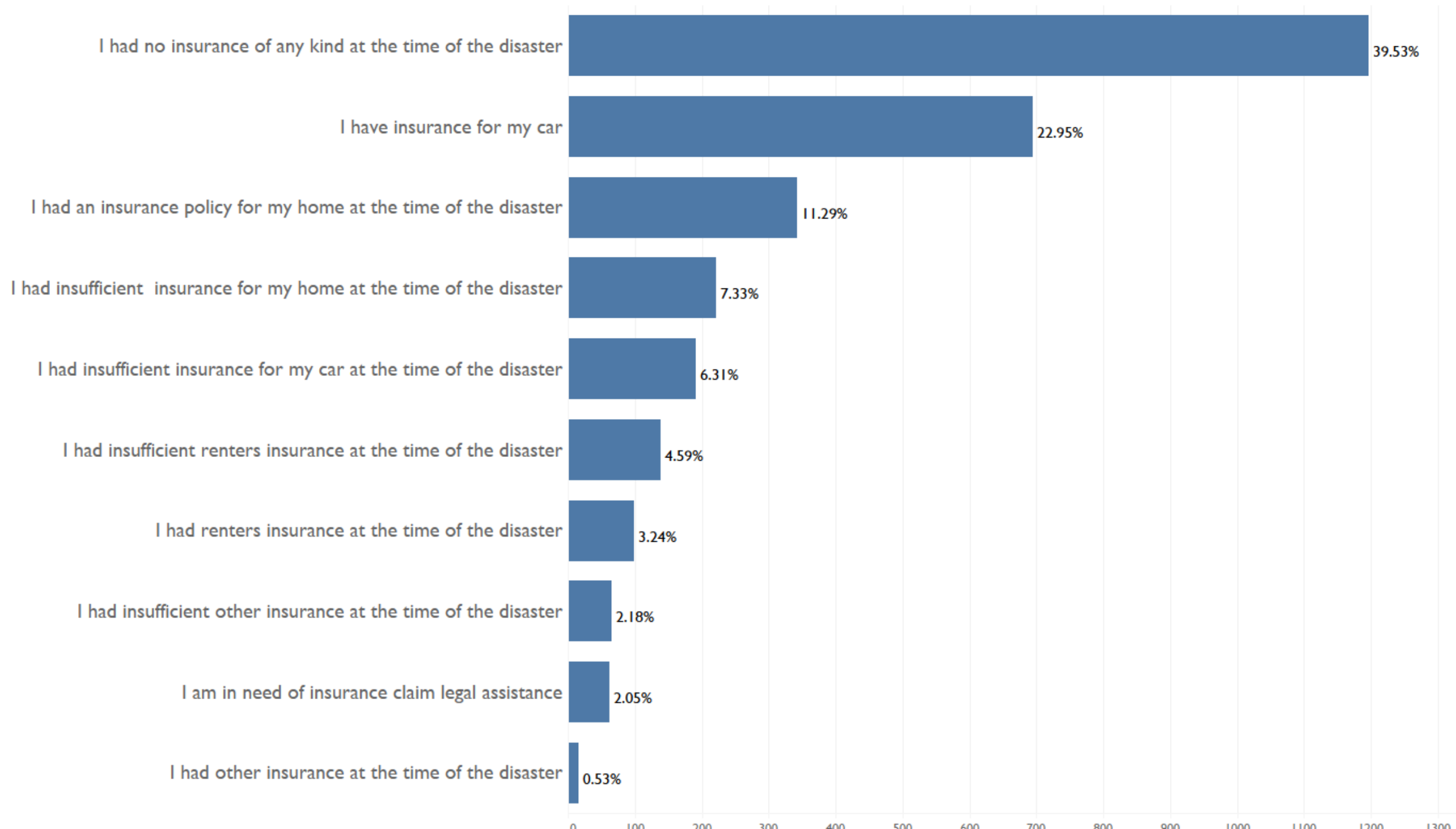
Owned my residence

**584**  
28.68%

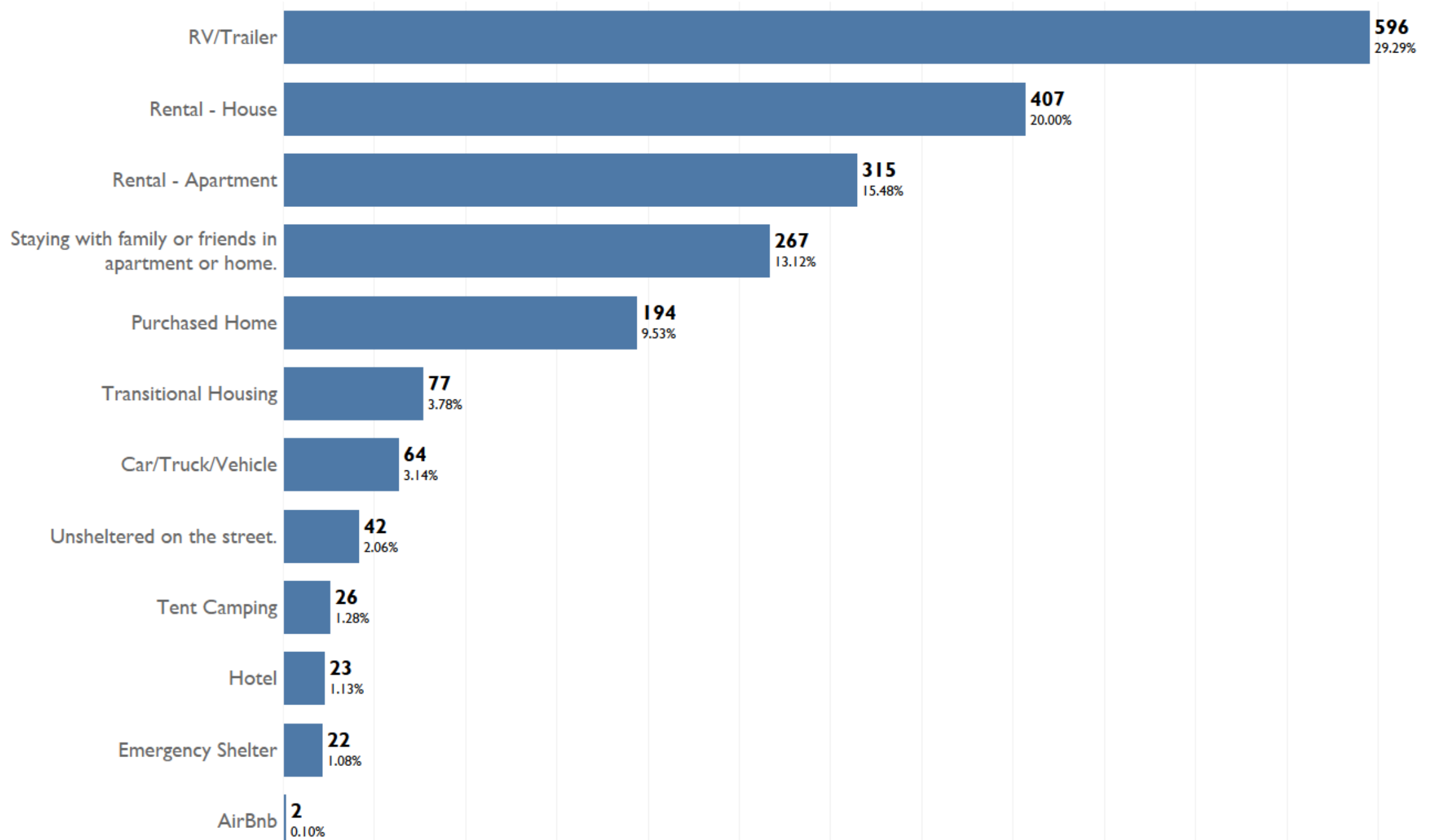




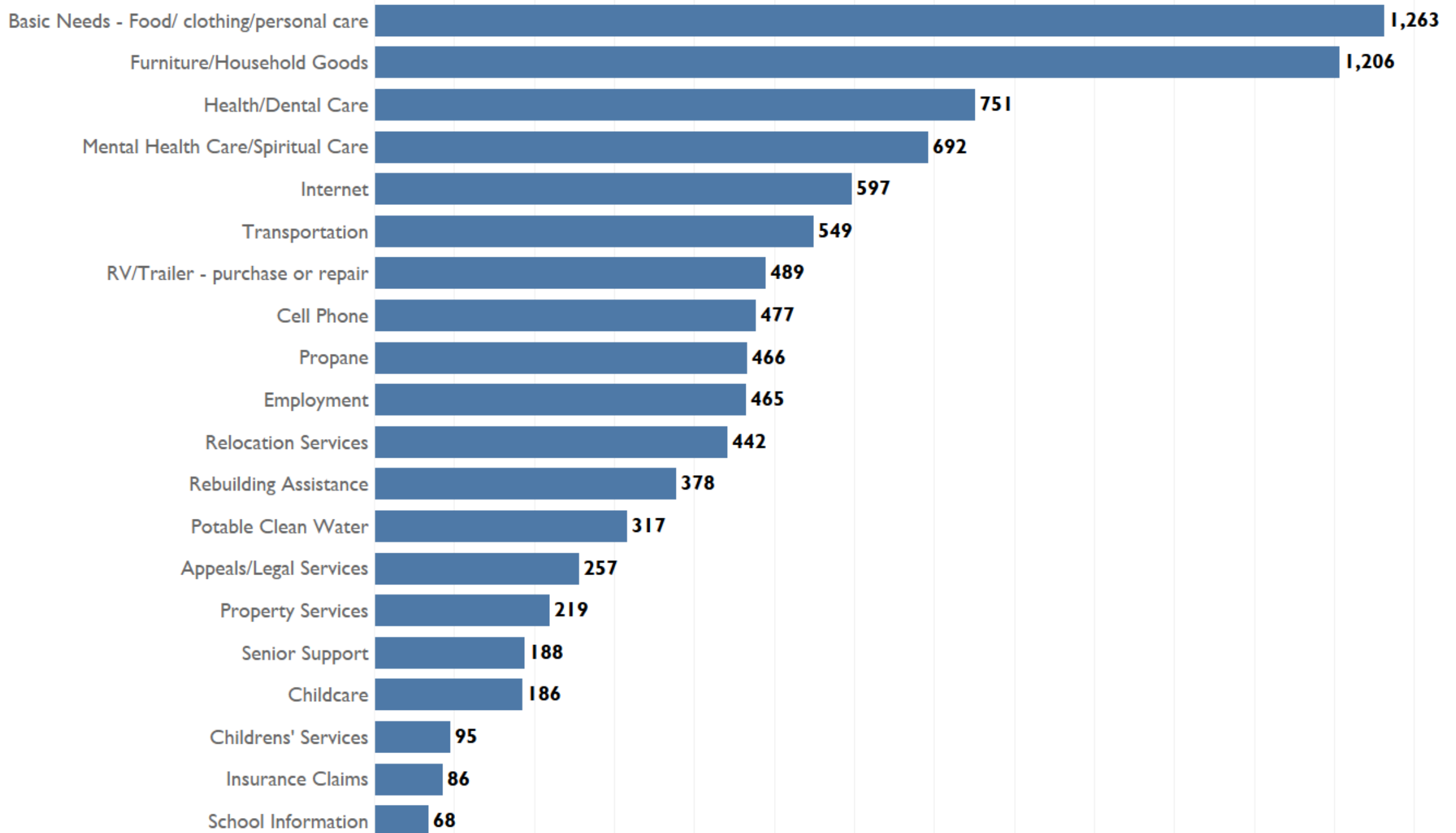
## Pre-fire Insurance Status



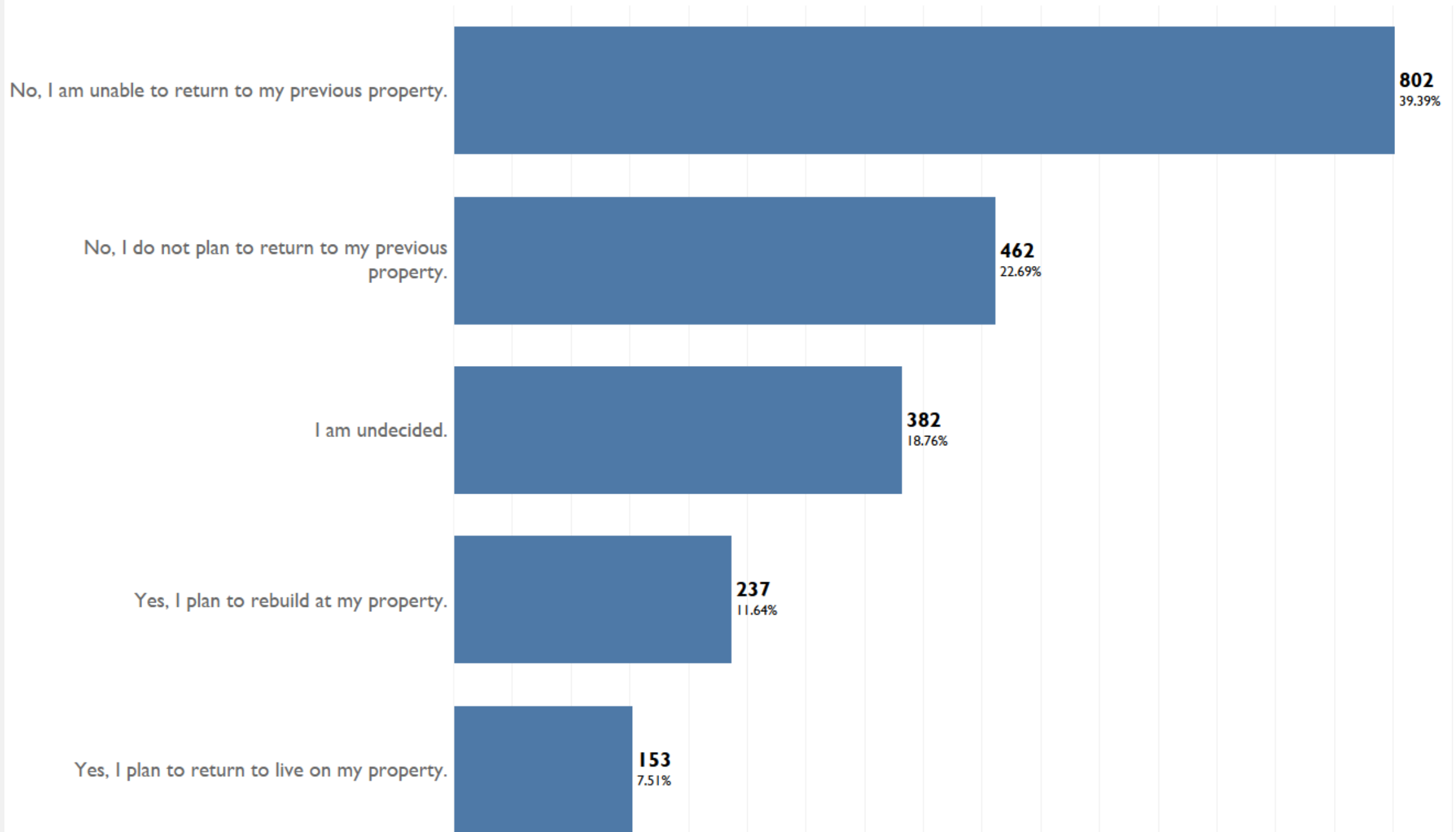
# What type of housing are you currently living in?



## Other Needs - Services



## Do you intend to return to live at your pre-disaster property?





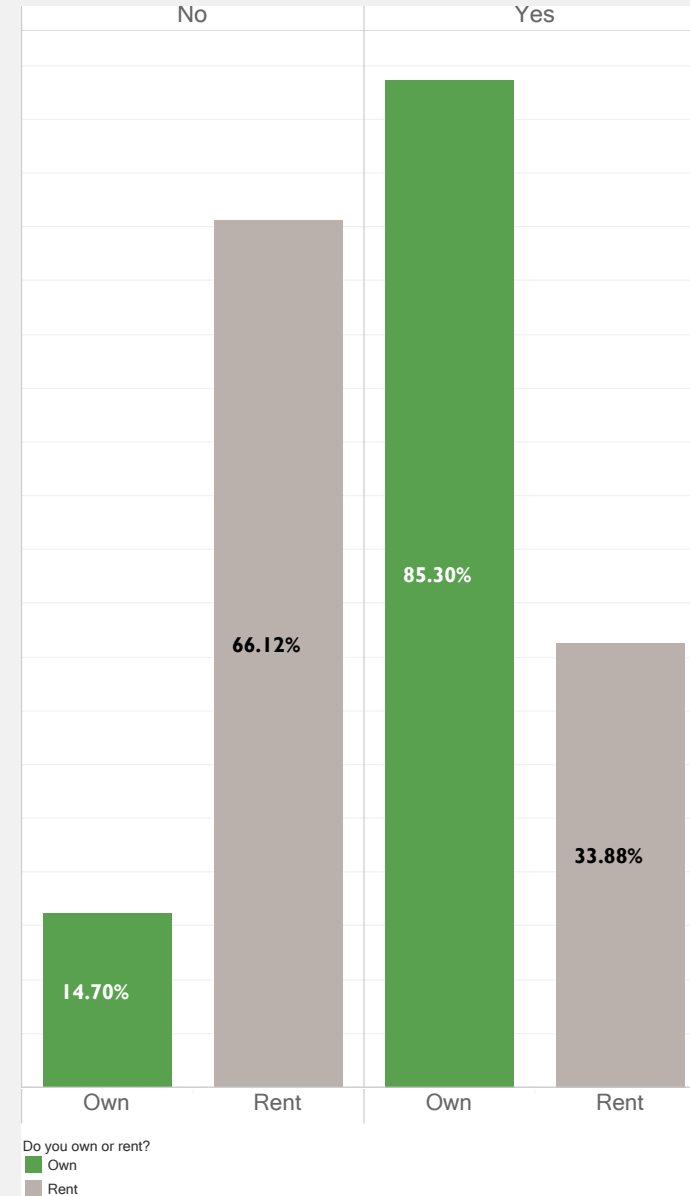
# ST. VINCENT DE PAUL DATASET

- 10,354 individuals in 4,272 households
- Insight into individual characteristics and initial migration strategies
- Examples of other variables
  - Age and number of children
  - Age and number of persons over 65
  - Presence of pets
  - Insurance

By April, about 11% of the individuals in this dataset show up as having a permanent change of address: 1,761

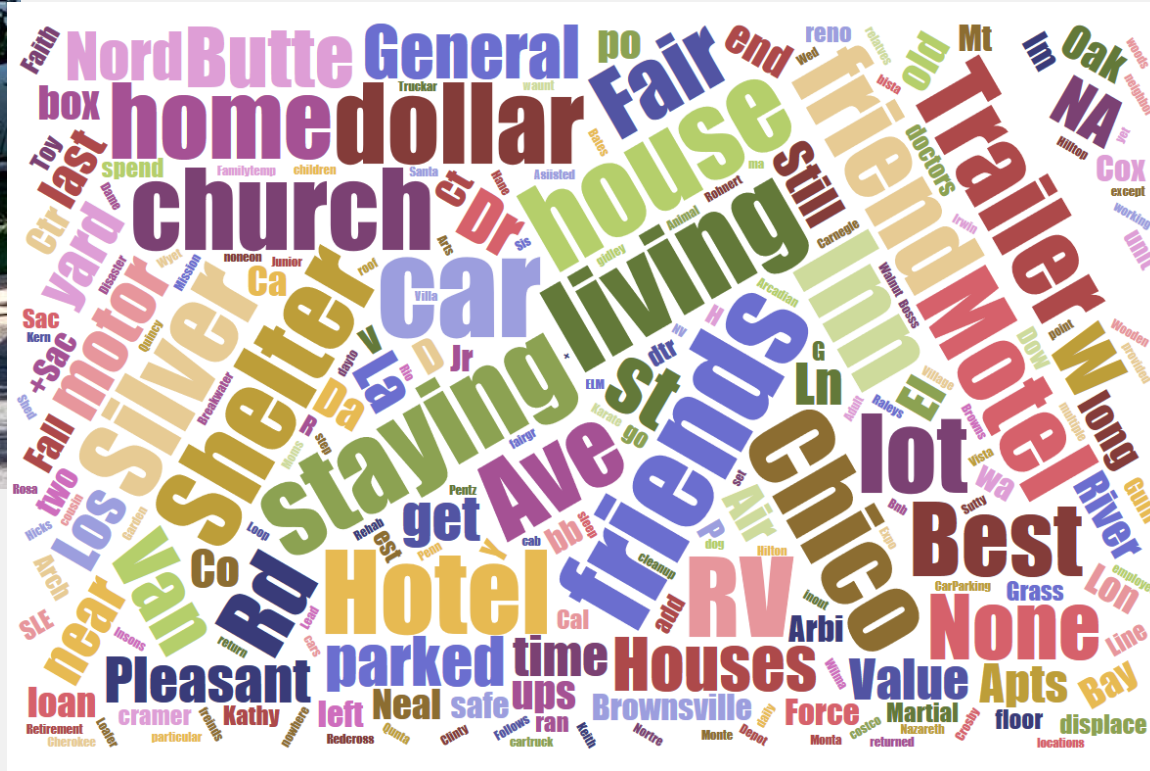
So, this population may be more like the 2/3 of the people in our NCOA data who did NOT file permanent change

## Do you have insurance?



Finding: few renters had insurance: 34% vs 85% for homeowners

# People in Limbo—where are they? Linking survey data to records from NCOA



- 411 with mention of “car”
  - 44 with permanent change of address
- 154 with mention of “church”
  - 8 with permanent change of address
- 106 with mention of “parking”
  - 6 with permanent change of address

Word Cloud of Answers to SVP – Immediate Aftermath



**Finding—those with the least networks that could help them land are likely still unsettled  
But we don't know where they are**

# CONCLUSIONS

- Wildfires are striking complex geographies—not just wealthy second homes
- NCOA data limitations—more granular but many people are not in the data
- Likely to be the most mobile, least likely to have owned a home, had insurance
- Not getting much better as the year progresses—still 35% only have change of address on file
- Suggests the lingering disruption
- Local relocators appear to have slight advantage—younger homeowners—probably had good insurance policies
- Need to be close for jobs, schools
- Older people more able to leave—retired
- Leavers may have poorer insurance policies