

California Fire Cause & Prevention Analysis

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About Our Dataset





California Fires

- **Source:**
 - Kaggle with 100k+ fire incident records
- **Data categories:**
 - Structural and Incident Damage, Geospatial, and Demographic
- **Stakeholders:**
 - CAL FIRE
 - Public Safety Specialists

02



Exploratory Analysis

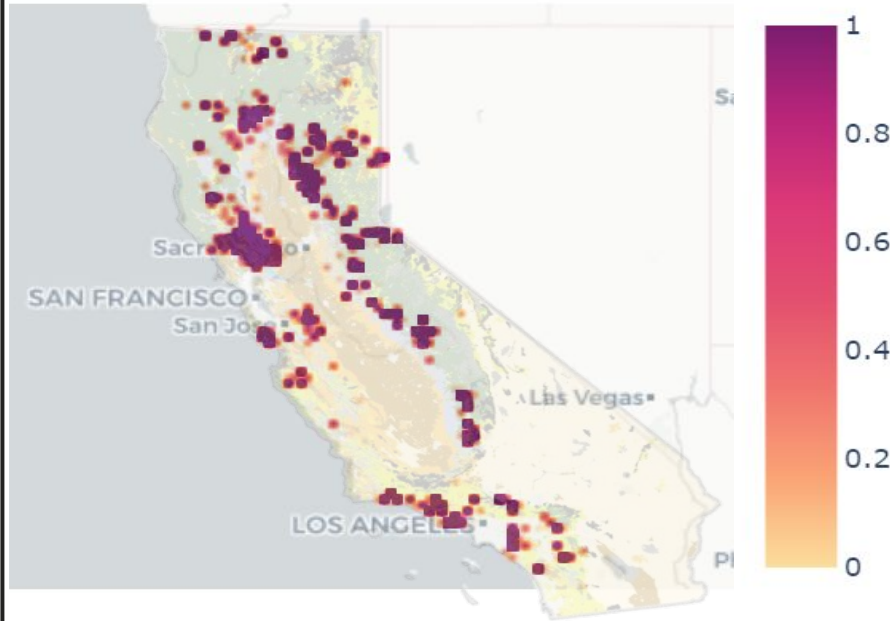
Areas With Greatest Fires in 2015



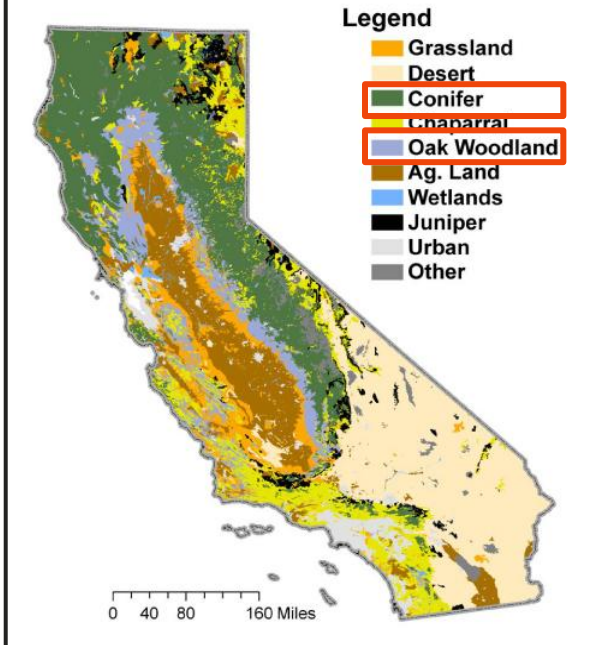
Year: 2015



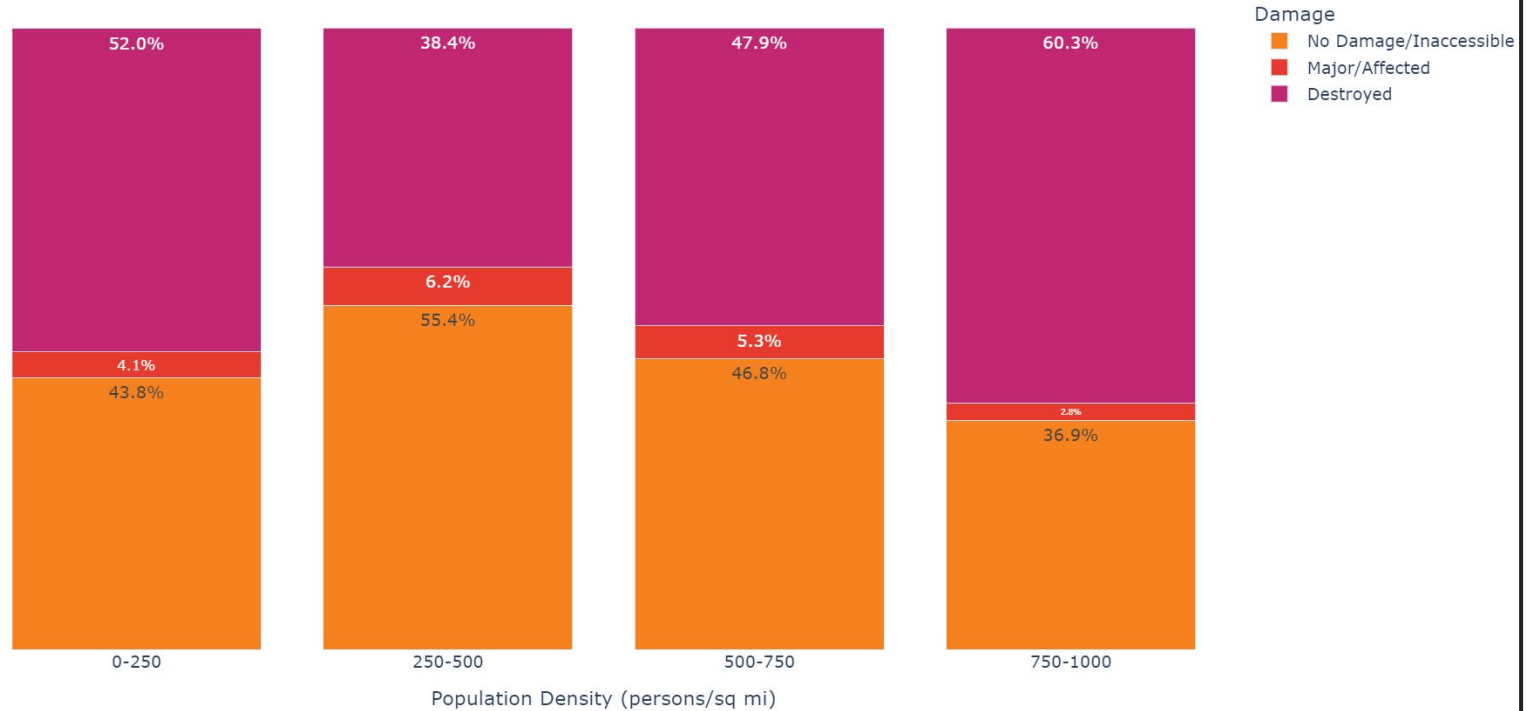
Areas With Highest Density of Fire Incident Reports



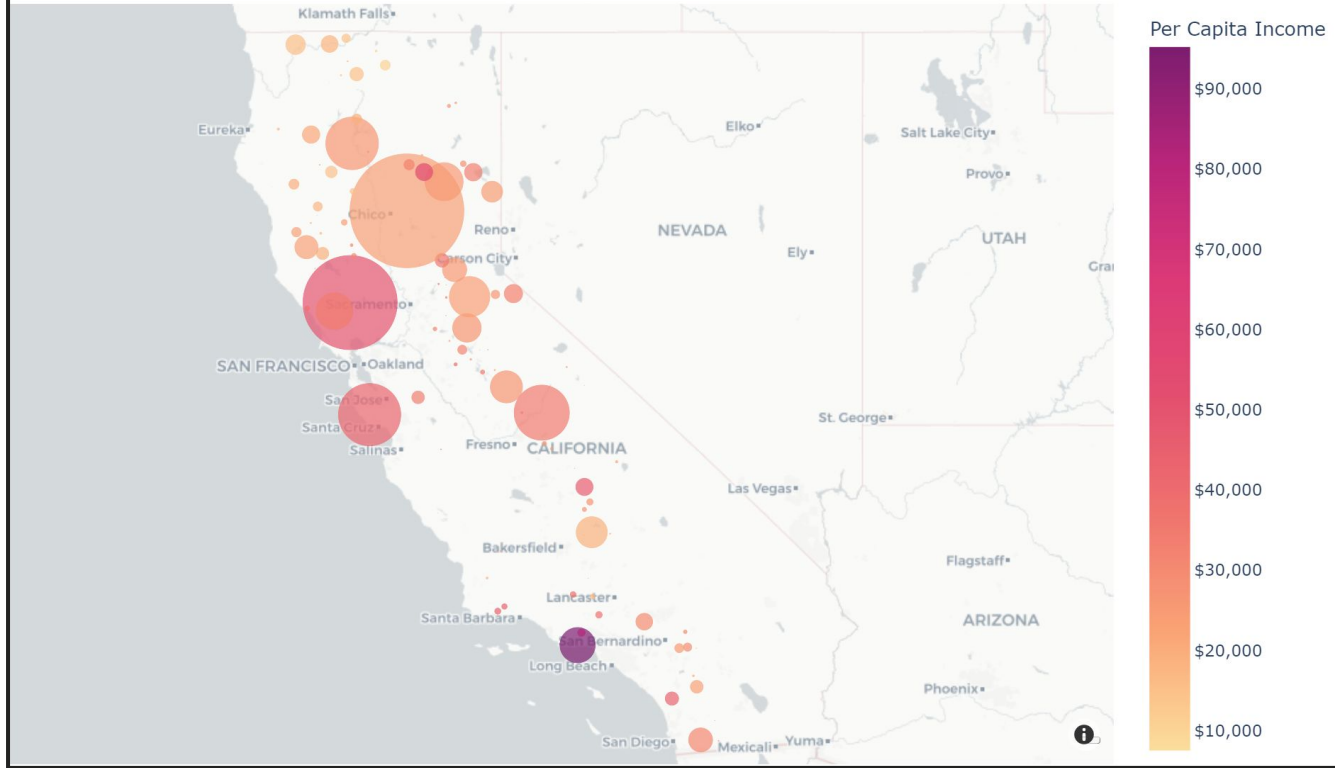
California Biome Map



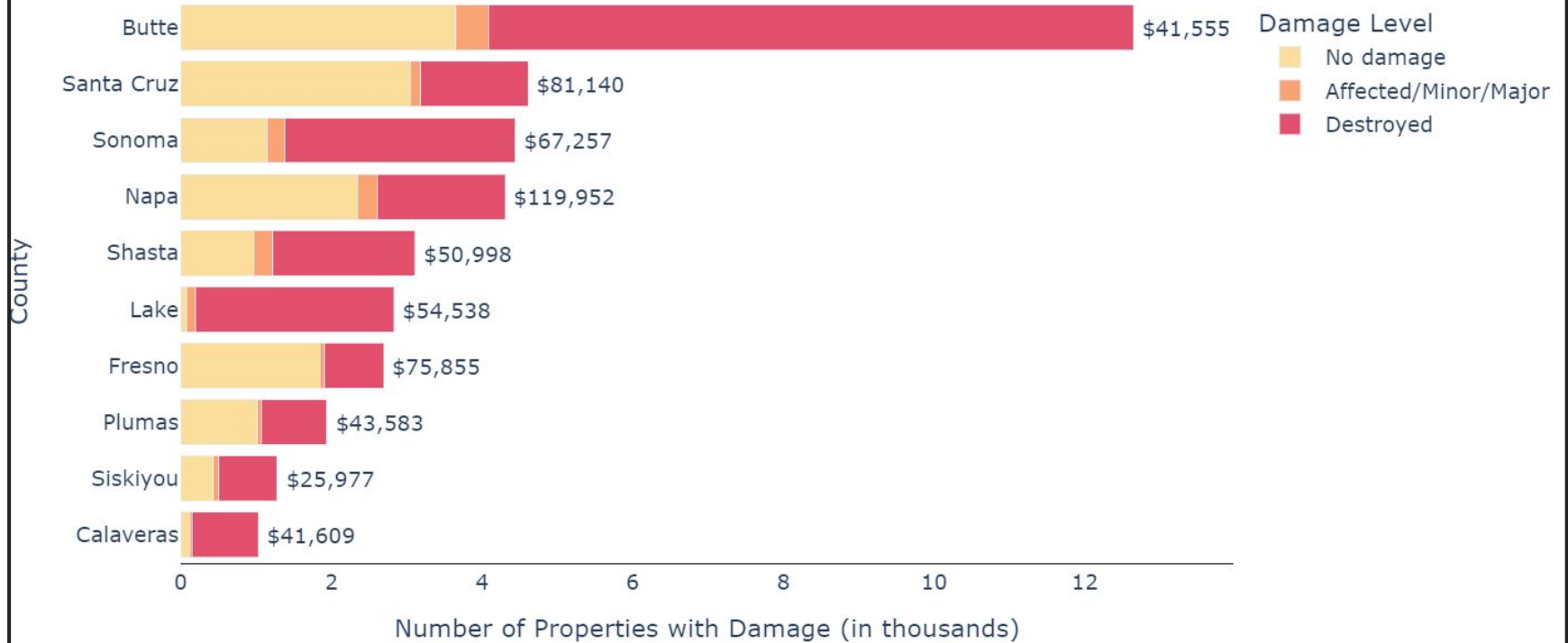
Fire Damage is Highest at the Lowest and Highest Population Densities



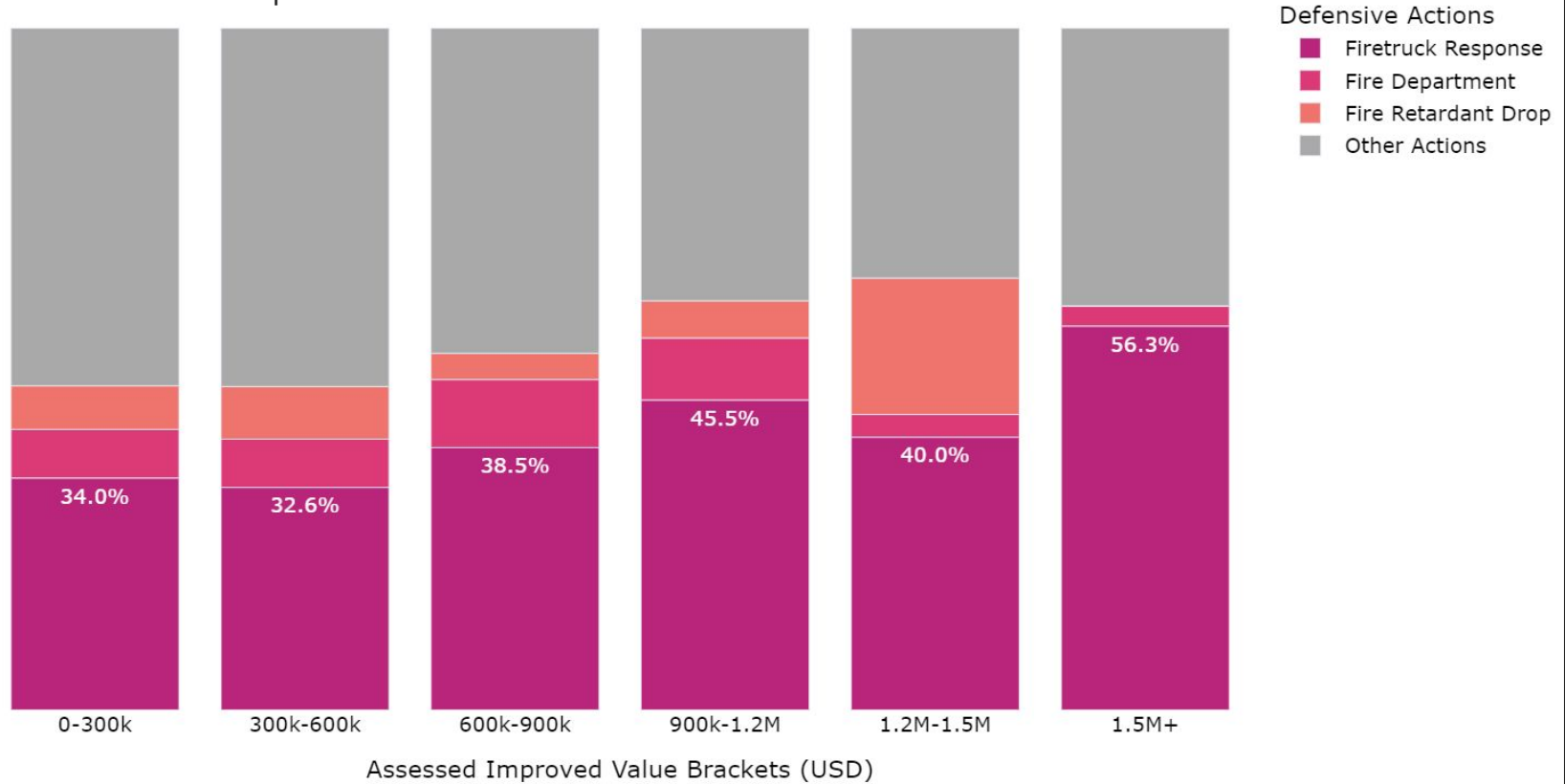
Fires Disproportionately Affect Low Income Zones



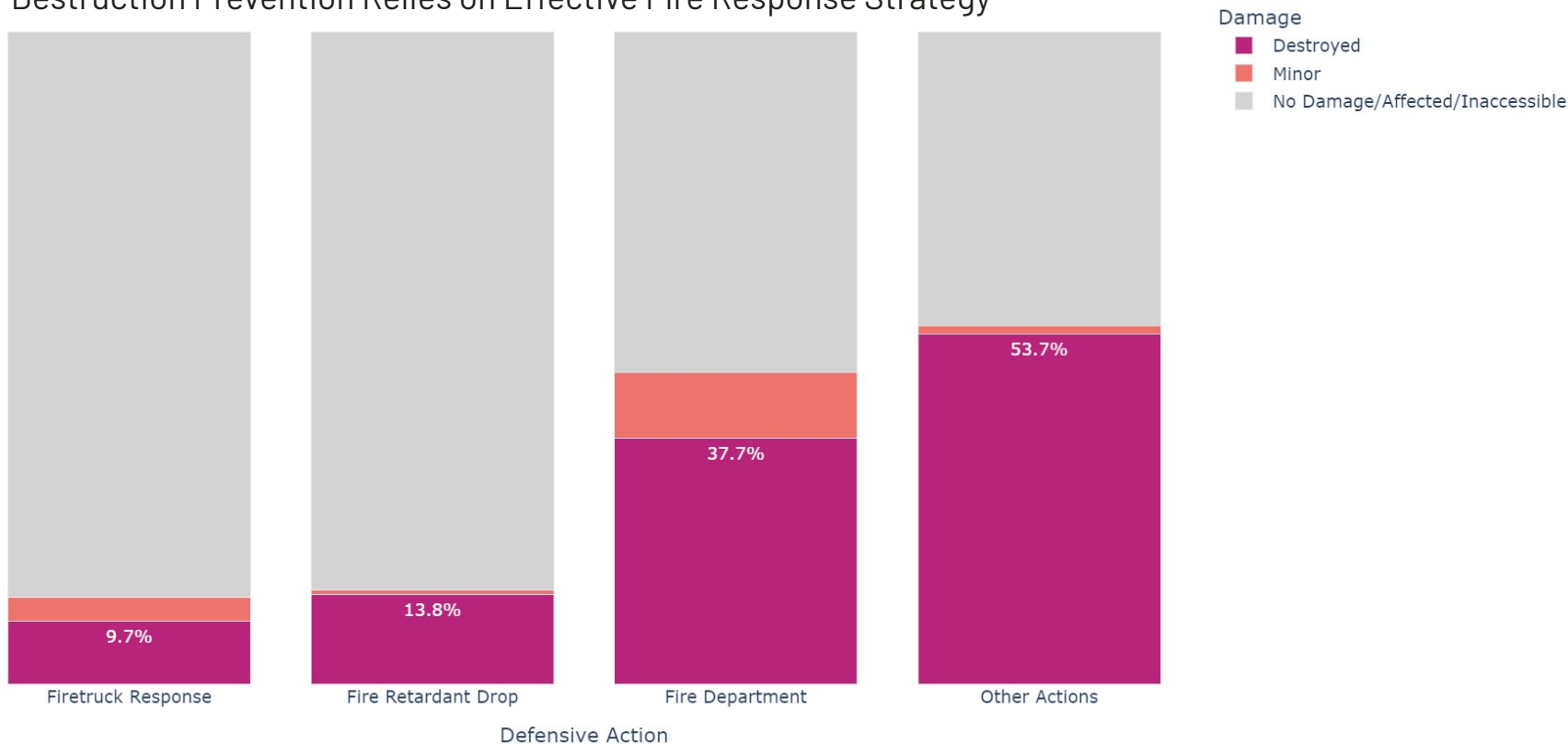
Countries Requiring First-Priority Recovery Phase



Fire Defense Response Grows with Home Value in California



Destruction Prevention Relies on Effective Fire Response Strategy



03



Takeaways and Recommendations

Takeaways



Low/high-density areas, wooded regions, and low-income zones face the most fire damage



High-value homes get **more** fire response, while **low-value homes lack support**

Recommendations



Increase fire truck deployments and fire retardant drops to improve overall response effectiveness



Enhance fire response efforts and resources for **low-income** communities to ensure equitable protection

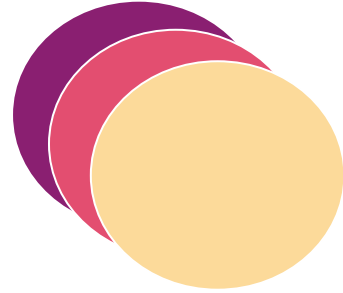
04

Justifying Design

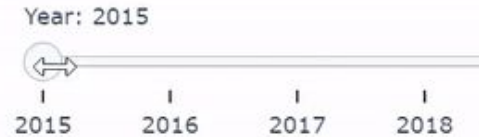


Design Items

- **Color Palette** - Colorblind Friendly and Highlighting Important Details with Color
- **Layout and Typography** - Simple Designs and Clear Text
- **Chart Design** - Category Concatenation and Dynamic Charts



Aa Bb Cc



Storytelling

Context



- Background on Fire Data
- Locations and Details

Danger



- Fires in Relation to Data Features
- Damage Associated with Fires

Resolution



- Target Areas for Deployment
- Fire Safety Strategy

Thank You!

Do you have any questions?

