

# Exits From HUD Assistance and Moves to Higher Poverty Neighborhoods Following the Camp Fire

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## Abstract

*Little is known about U.S. Department of Housing and Urban Development (HUD)-assisted households following a natural disaster, including continued participation status in low-income rental assistance and post-disaster location outcomes. This article compares changes in participation in HUD assistance and neighborhood poverty status between HUD-assisted households in Paradise and Magalia, California, and the rest of Butte County following the 2018 Camp Fire. The wildfire destroyed most of the community, making it the deadliest and most destructive wildfire in California's history. Approximately one-half of HUD-assisted households were not participating in HUD assistance in 2019. Of households that remained assisted, most had moved out of their neighborhood, often to higher poverty neighborhoods. This research suggests that further research is necessary to measure changes in participation in HUD assistance and locational trends for low-income subsidized households following a natural disaster.*

## What Was the Camp Fire?

The Camp Fire in and around Paradise, California, was the most destructive wildfire in California's history (CAL FIRE, 2022), killing 85 people, injuring others, and destroying nearly 19,000 structures (CAL FIRE, 2019). Nearly 90 percent of Paradise's housing was destroyed, and 83 percent of its residents were displaced (Kuczynski and Sharygin, 2019). Only one-fourth of

residential addresses were occupied by the end of 2021 (Din, 2022). Although some research has been conducted on households assisted by HUD after other natural disasters, little is known about HUD-assisted households after the Camp Fire or other natural disasters. This article compares the 2017 and 2019 spatial locations of HUD-assisted households in Paradise and Magalia, California, with HUD-assisted households in the rest of Butte County, California.

## HUD-Assisted Households After a Natural Disaster

Approximately one-half of California's housing units are in the wildland-urban interface (WUI) (Hammer, Stewart, and Radeloff, 2007), and housing growth inside the WUI outpaces housing growth outside the WUI (Radeloff et al., 2018). However, government-subsidized housing in California is disproportionately outside of the WUI (Gabbe, Piece, and Oxlaj, 2020). Some studies have researched HUD-assisted households in disaster-prone areas in general, but fewer studies have analyzed the intersection of HUD-assisted households in wildfire-prone areas or the spatial locations of HUD-assisted pre- and post-disaster, regardless of disaster type.

Despite limited information about HUD-assisted households in either wildfire areas or post-disaster location patterns, some information is known about HUD-assisted households following a natural disaster in general. HUD-assisted households were disproportionately in neighborhoods with greater flood extents following Hurricane Harvey in Harris County, Texas (Chakraborty et al., 2021). Public housing residents in Galveston, Texas, were displaced due to Hurricane Ike and post-disaster redevelopment efforts (Rongerude and Hamideh, 2019), similar to the displacement of public housing residents in Lumberton, North Carolina, after Hurricane Matthew (Khajehei, 2019). Insufficient resources for displaced residents, particularly those who are low-income or homeless, growth in post-disaster rental costs, and housing reconstruction costs are frequent barriers to remaining or returning to a community after a disaster (Peloton Research and Economics, 2020; Rouhanizadeh, Kermanshachi, and Nipa, 2020).

## Where Were HUD-Assisted Households After the Camp Fire?

After the Camp Fire destroyed most of Paradise, one-half (50.0 percent) of HUD-assisted households in Paradise and nearby Magalia that were present in the HUD administrative data in 2017 were not present in HUD's administrative data for 2019,<sup>1</sup> more than double the rate of HUD-assisted households elsewhere in Butte County (22.1 percent).<sup>2</sup> In all categories of move types, as shown in exhibit 1, households from Paradise and Magalia greatly exceed moves from the rest of Butte County.

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<sup>1</sup> An assisted household not being present in later HUD administrative data defines an exit in this article's context.

<sup>2</sup> Exits from HUD assistance between 2017 and 2019 in the rest of Butte County were similar to the full universe of HUD-assisted households during the same time period.

**Exhibit 1**

Presence and Locations in 2019 of HUD-Assisted Households in Butte County, California, in 2017

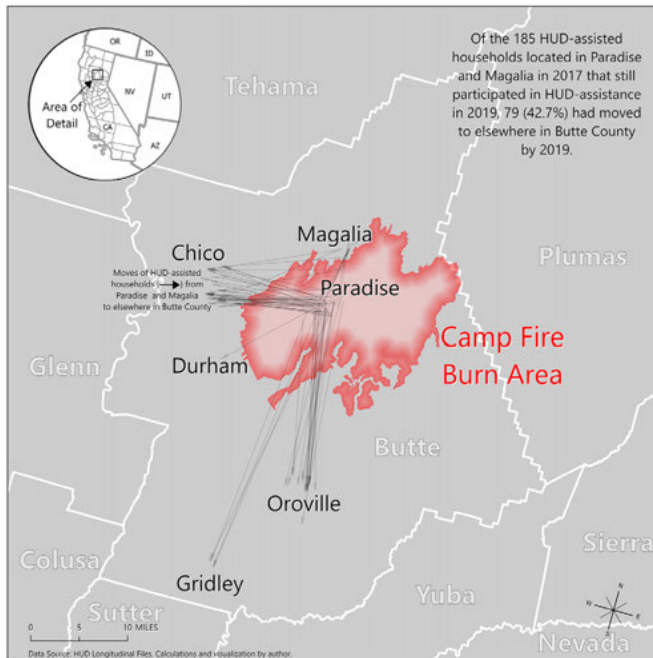
Location Category	HUD-Assisted Households			
	Paradise/Magalia		Rest of Butte County	
	Count	Share (%)	Count	Share (%)
HUD-Assisted in 2017	370	100.0	2,597	100.0
Not HUD-Assisted in 2019	185	50.0	575	22.1
HUD-Assisted in 2019 and in Different State	17	4.6	24	0.9
HUD-Assisted in 2019 and Same State but Different County	69	18.6	48	1.8
HUD-Assisted in 2019 and Same County but Different Census Tract	79	21.4	103	4.0
HUD-Assisted in 2019 and Same Census Tract	20	5.4	1,847	71.1

Note: Percentages may not total 100 percent due to rounding.  
 Sources: HUD Longitudinal Files; Calculations by author

HUD households from Paradise and Magalia primarily moved to Chico and Oroville, with fewer numbers going to Gridley, Durham, and Magalia outside of the Camp Fire, as shown in exhibit 2. Half of these households moved between 11.6 and 17.6 miles from their original locations.

**Exhibit 2**

Moves of HUD-Assisted Households From Paradise and Magalia to Elsewhere in Butte County, California, Between 2017 and 2019

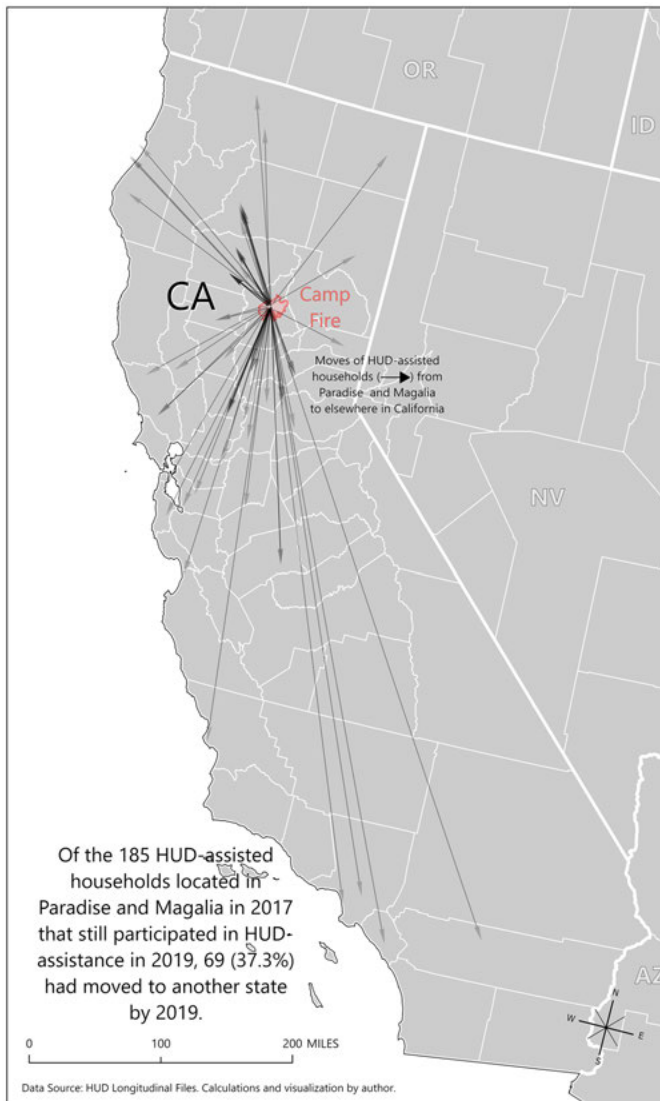


Sources: HUD Longitudinal Files; Calculations and visualization by author

Slightly more than one-third (37.3 percent) of HUD-assisted households that remained in assistance between 2017 and 2019 moved elsewhere in California outside of Butte County. This group mostly remained in northern California; however, a few moved to the San Francisco Bay Area. One-half of the households in this group of movers moved 72 or fewer miles. Popular destinations for this cohort were Eureka, Redding, Red Bluff, the Sacramento area, and Yuba City. Exhibit 2 visualizes the moves of this group.

**Exhibit 3**

Moves of HUD-Assisted Households From Paradise and Magalia to Elsewhere in California Outside of Butte County Between 2017 and 2019

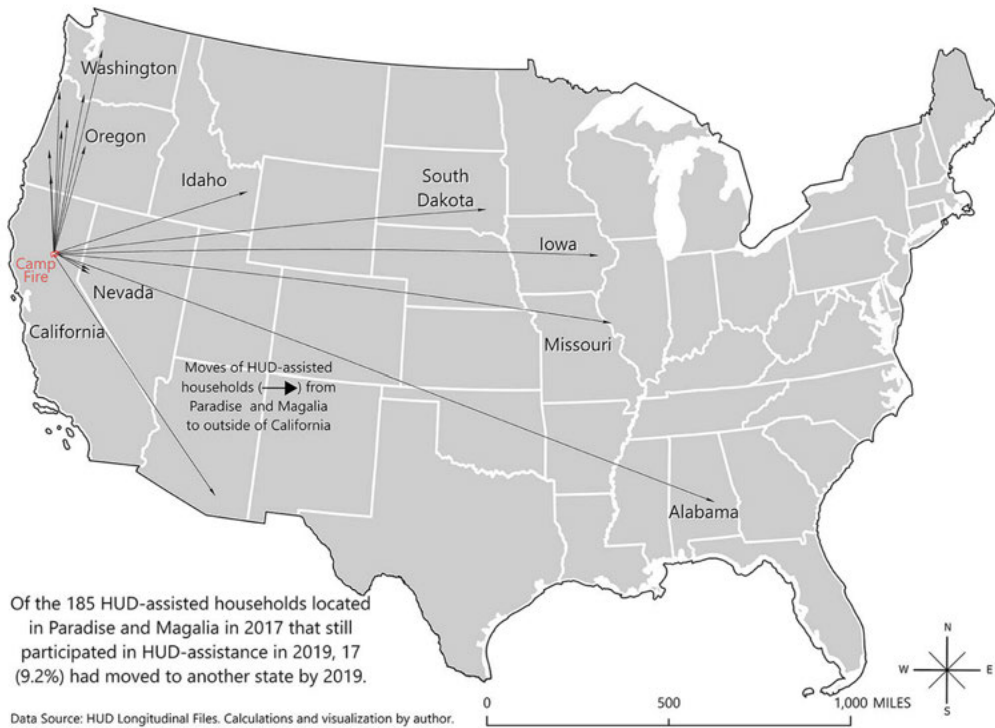


Sources: HUD Longitudinal Files; Calculations and visualization by author

A small number (17) of HUD-assisted households from Paradise and Magalia that remained in assistance from 2017 to 2019 left California for another state by 2019. Many went north to Oregon and Washington, a few to nearby Reno, Nevada, and others scattered around the country, as shown in exhibit 4.

#### **Exhibit 4**

#### **Moves of HUD-Assisted Households From Paradise and Magalia to Elsewhere Outside of California Between 2017 and 2019**



## **Did the Neighborhood Poverty Rate Change for HUD-Assisted Households That Moved After the Camp Fire?**

Evidence supports that living in neighborhoods with higher opportunity is associated with increased benefits to HUD-assisted households (Chetty, Hendren, and Katz, 2016). A common measurement of neighborhood opportunity is a census tract's poverty rate, where a lower poverty rate is equivalent to a supposed greater level of opportunity (Brazil, Wagner, and Ramil, 2022). Contrary to HUD programs nationwide (McClure, 2010), most HUD-assisted households in Paradise and Magalia lived in low-poverty census tracts prior to the Camp Fire. By 2019, most households that remained in HUD assistance had moved to higher poverty rate census tracts. Exhibit 5 shows that of HUD-assisted households in Paradise and Magalia in 2017, those that

moved shorter distances (e.g., to nearby census tracts within the same county) tended to move to higher poverty neighborhoods, suggesting a decrease in potential neighborhood opportunity benefits for these assisted households.

**Exhibit 5**

Change in Neighborhood Poverty for HUD-Assisted Households in Paradise and Magalia, California, in 2017

Move Type	Neighborhood Poverty Category		HUD-Assisted Households			Poverty Rate Change		Miles Moved	
	2017	2019	Count (N=165)	Within Move Type Share (%)	Overall Share (%)	Mean (%)	Median (%)	Mean	Median
Different census tract within Butte County	Low-Poverty	Low-Poverty	28	35.4	20.4	-0.2	-6.8	13	12
	Low-Poverty	High-Poverty	34	43.0	24.8	16.1	16.6	15	15
	Low-Poverty	Extremely High-Poverty	15	19.0	10.9	30.3	27.4	13	13
Different census tract outside of Butte County but within California	High-Poverty	Low-Poverty	2	2.5	1.5	-6.8	-1.1	7	7
	Low-Poverty	Low-Poverty	38	55.1	27.7	-0.2	-1.3	113	76
Different census tract outside of California	Low-Poverty	High-Poverty	31	44.9	22.6	13.2	11.8	96	45
	Low-Poverty	Low-Poverty	13	76.5	9.5	-4.1	-3.9	740	409
	Low-Poverty	High-Poverty	4	23.5	2.9	16.9	17.6	316	189

Notes: This exhibit does not include the 20 HUD-assisted households that remained in the same census tract in 2017 and 2019. Percentages may not total 100 percent due to rounding.  
 Sources: HUD Longitudinal Files; American Community Survey; Calculations by author

## What Else is There to Learn About HUD-Assisted Households After the Camp Fire or Other Natural Disasters?

Little has been researched about HUD-assisted households following a disaster, including those that have exited assistance. Although public housing authorities can offer some help following a disaster, such as portability or reissuing the voucher (PIH, 2022), the surge in demand for rental housing following the Camp Fire in the tri-county region further constrained an already tight rental market (Peloton Research and Economics, 2020). The Stafford Act mandates that the Federal Emergency Management Agency (FEMA) take the lead on the post-disaster mission. In contrast, HUD’s efforts are directed toward long-term recovery via Community Development Block Grant Disaster Recovery (CDBG-DR) grants, which are long-term and take time to be appropriated by Congress and then enacted by local grantee communities (Martín, Teles, and DuBois, 2021).

The large exit from HUD assistance and moves to higher poverty neighborhoods after the Camp Fire suggests this trend may occur following other disaster types. Analyzing post-disaster spatial trends of HUD-assisted households may help to understand the effects of a natural disaster on long-term outcomes for assisted renters in general. For some of the United States' most vulnerable renters, it would be beneficial to further measure post-disaster mobility and exits from low-income subsidized rental assistance. This assessment would identify potential policy improvements to maintain housing and protect them from harm following a disaster.

## Notes

Prior to the Camp Fire, there were 2,967 HUD-assisted households in Butte County, including 370 households in Paradise or Magalia. A two-thirds majority of assisted households in Butte County participated in the Housing Choice Voucher (HCV) program, followed by Project-Based Section 8 (PBS8) (17.5 percent), Public Housing (11.5 percent), Section 202 (3.3 percent), and Section 811 (1.0 percent). HUD-assisted households in Paradise and Magalia participated only in the HCV and PBS8 programs.

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## Author

Alexander Din is a social science analyst in the Office of Policy Development and Research at the U.S. Department of Housing and Urban Development.

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