



RESEARCH BRIEF SERIES

MITIGATION MATTERS

AWARD RECIPIENTS

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AWARD AMOUNT:
\$1,865.00

FEMA defines mitigation as the effort to reduce loss of life and property by lessening the impact of disasters. Effective mitigation requires that we all understand local risks and invest in long-term planning to reduce risks and enhance community well-being.

THE EFFECT OF FEDERAL RECOVERY FUNDS ON MITIGATION BEHAVIOR LINE TWO

SUMMARY

Moving businesses and residents out of hazardous areas is an important mitigation priority. At the same time, disaster recovery spending is increasing as the frequency and nature of hazards intensifies. Research has suggested that disaster assistance, given its focus on infrastructure replacement, may encourage development in the same hazardous area or prevent recipients from moving.

This study examined residential and business mobility in Galveston County after 2008 Hurricane Ike and 2017 Hurricane Harvey for recipients of post-disaster loans using a combination of parcel data, surveys, and interviews. Respondents were asked whether these loans encourage or discourage residents or businesses to move out of hazardous areas and the factors that influenced their location decisions.

The research found that 19% of single-family residences receiving assistance changed ownership after Hurricane Harvey and 13% did so after Hurricane Ike. Similarly, 9% and 24% of businesses (respectively) moved to a new location after the same events. Location decisions were not only motivated by economic and personal reasons, but also by disaster risk. Disaster assistance did influence whether businesses and residents chose to remain at their current location or mitigate against a future hazard, indicating a need to further integrate mitigation and recovery policy.



Research found only 13% of residents receiving federal funds chose to move out of harms way after Hurricane Ike, and just 19% after Hurricane Harvey. ©U.S. Airforce/Nicholas Dutton, 2017.

KEY FINDINGS

- Businesses and residents were similar in rankings of factors that influence their location decisions: the highest ranked priority was economic, the second was personal, and the third was disaster risk.
- Receiving disaster assistance affected the decision to move or stay for 32% of residents and 19% of the businesses responding to our survey.
- Approximately 27% of residents and 18% of businesses responding to the survey used recovery funds to mitigate against a future disaster.

POLICY IMPLICATIONS

- Business and residential decision-making is similar and interrelated. Buyout programs should consider both residential and commercial structures. Mitigation planning should acknowledge the interdependencies of community sectors wherever possible.
- Recovery and mitigation processes are also highly related. Leveraging recovery funds can be an importance tool for increasing mitigation, which can be made easier with education and planning.

STAKEHOLDERS

This research should interest federal recovery fund providers interested in seeing how funds are ultimately being used in both recovery and mitigation. The research should also interest local planners and economic developers that can take advantage of the business-household linkages found in this research to improve mitigation programming.

Average Ranking of Factors Influencing the Decision to Move or Stay in Disaster-Impacted Locations.

Residents

3.50	Proximity to job
4.62	Proximity to family
4.69	Disaster risk
4.83	Proximity to services and stores
5.02	Proximity to friends
5.43	Access to amenities such as parks, waterfront, etc.
6.57	Sentimental reasons
7.07	Current mortgage or lease related limitations
7.36	Proximity to school and or daycare
7.38	Availability of alternative housing
9.52	Other

Businesses


2.56	Existing customer base
4.13	Personal ties with the community
4.56	Disaster risk
4.88	Business ties with the community
5.75	Established business network
5.75	Cost of moving to another location
5.81	Effort required to move versus staying in place
6.44	Friendly business environment
7.44	Availability of the workforce
8.13	Availability of an alternative location
10.56	Other

Full report: Watson, M. & Yu, S. (2021). The Effect of Federal Recovery Funds on Mitigation Behavior. Natural Hazards Center Mitigation Matters Grant Report Series, 7. Boulder, CO: Natural Hazards Center, University of Colorado Boulder. Available at: <https://hazards.colorado.edu/mitigation-matters-report/the-effect-of-federal-recovery-funds-on-mitigation-behavior>



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