



Alabama

Flood risk and mitigation

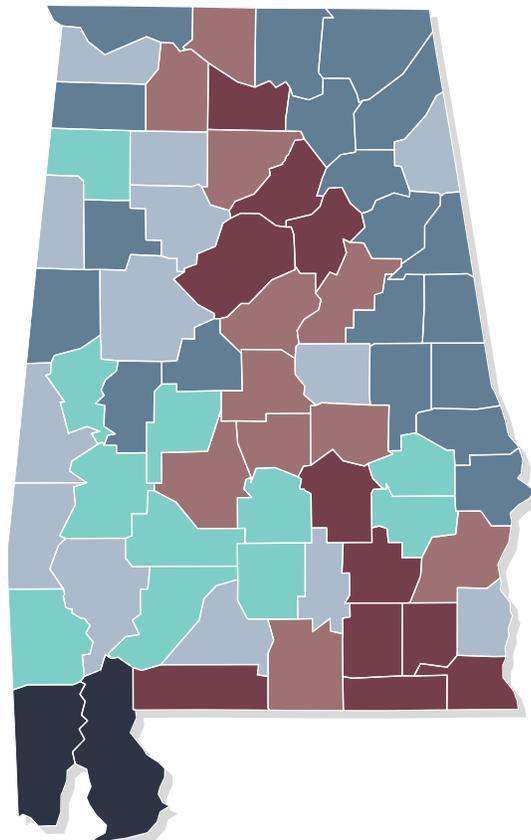
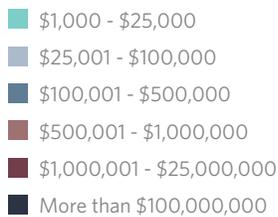
Overview

Floods and hurricanes are becoming more intense in Alabama, and flooding is the state's second-most common natural hazard, occurring on average every 12 days.¹ The state receives about 56 inches of rainfall annually, creating a high risk of riverine and flash flooding, and coastal counties such as Mobile and Baldwin are susceptible to storm surge from tropical storms and hurricanes.² As these events become more serious, the physical and economic damage to communities and the threats to human lives and ecosystems also increase. Between 2000 and 2015, 27 federal disasters and emergencies were declared for floods, hurricanes, and severe storms in Alabama that exceeded \$1 billion in total assistance from the U.S. government.³

Figure 1

Floods and Hurricanes Could Cost Alabama Counties More Than \$1 Million a Year

Breakdown of annual potential flood and hurricane loss estimates by county, 2013



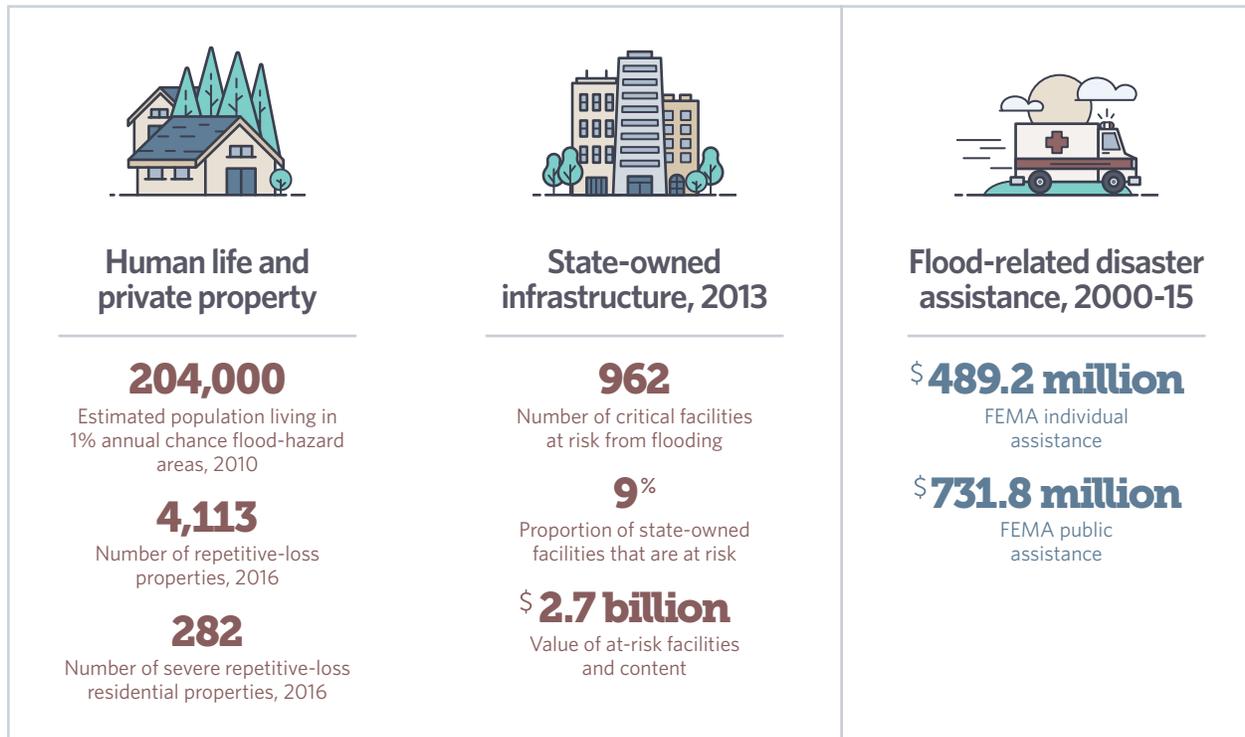
Source: Alabama Emergency Management Agency

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Figure 2

More Than 200,000 Alabamans Live in Flood-Risk Areas

Life, property, and public infrastructure at risk from flooding, and past federal government aid



Notes: One percent annual chance flood-hazard areas are designated locations subject to flooding that has a 1 percent chance of being equaled or exceeded in any year. Repetitive-loss properties are National Flood Insurance Program-insured buildings and/or contents for which the program paid at least two claims of more than \$1,000 in any 10-year period since 1978. Severe repetitive-loss properties are those for which the program has either made at least four claim payments for buildings and/or contents of more than \$5,000 or at least two building-only claim payments for which the total amount exceeds the current value of the property. Disaster assistance figures are as of May 2, 2016.

Sources: Mark English, "Special Flood Hazard Area Exposure Resource Map v2.0," accessed April 21, 2016, <http://www.arcgis.com/home/webmap/viewer.html?webmap=5767b4c3ac164e54916bc7ebc20d25d6>; Alabama Emergency Management Agency, *State Hazard Mitigation Plan Update* (April 2013), <http://ema.alabama.gov/filelibrary/AL%20Standard%20State%20Mitigation%20Plan.pdf>; Federal Emergency Management Agency, "Hazard Mitigation Assistance Repetitive Flood Claims (RFC) Data," March 9, 2016, <https://www.fema.gov/media-library/assets/documents/103321>; Federal Emergency Management Agency, "Hazard Mitigation Assistance Severe Repetitive Loss (SRL) Data," March 9, 2016, <https://www.fema.gov/media-library/assets/documents/103337>; and Federal Emergency Management Agency, "Disaster Declarations," accessed May 2, 2016, <https://www.fema.gov/disasters>

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Federal flood insurance helps communities prepare

Seventeen communities in Alabama participate in the National Flood Insurance Program's Community Rating System. The voluntary program provides reduced insurance premiums in communities that proactively implement flood plain management practices—such as acquisition and relocation of flood-prone structures, elevation of structures, and flood proofing—that exceed the program's minimum requirements.⁴ The highest-rated communities in the state are Baldwin County and Birmingham, which each earned 20 percent discounts for eligible properties.⁵

Figure 3

State and Federal Investment Supports Alabama's Mitigation Efforts

Risk-reduction expenditures by program and level of government

Program	Federal	State
Pre-disaster and other mitigation grants	\$22.0 million	\$6.4 million
Hazard Mitigation Grants made after flood-related disasters	\$190.4 million	\$59.7 million

Sources: Federal Emergency Management Agency, "OpenFEMA Dataset: Hazard Mitigation Grants-V1," March 9, 2016, <http://www.fema.gov/openfema-dataset-hazard-mitigation-grants-v1>; Federal Emergency Management Agency, "Hazard Mitigation Assistance Pre-Disaster Mitigation Data," March 9, 2016, <https://www.fema.gov/media-library/assets/documents/103341>; Federal Emergency Management Agency, "Hazard Mitigation Assistance Repetitive Flood Claims (RFC) Data," March 9, 2016, <https://www.fema.gov/media-library/assets/documents/103321>; Federal Emergency Management Agency, "Hazard Mitigation Assistance Severe Repetitive Loss (SRL) Data," March 9, 2016, <https://www.fema.gov/media-library/assets/documents/103337>; and Federal Emergency Management Agency, "Hazard Mitigation Assistance Flood Mitigation Assistance (FMA) Data," March 9, 2016, <https://www.fema.gov/media-library/assets/documents/103339>

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Importance of policy

Communities must prepare for weather-related catastrophes such as floods and hurricanes, and U.S. policymakers should consider reforms that improve protection and preparation; minimize disruptions to the economy; and reduce costs to the federal government and taxpayers by:

- Increasing federal investment in proactive mitigation programs that help communities prepare for and reduce risk of floods.
- Improving resilience and durability requirements for infrastructure that is rebuilt after disasters.
- Protecting ecosystems, such as wetlands, salt marshes, and dunes, which can absorb storm impacts and help shield property.
- Reforming the National Flood Insurance Program to better reflect actual risk, ensure sufficient financial reserves, and compel communities and homeowners to be more proactive in preparing for floods.

Endnotes

- 1 U.S. Department of Energy, Office of Electricity Delivery and Energy Reliability, "State of Alabama Energy Sector Risk Profile" (2015), <http://www.energy.gov/sites/prod/files/2015/05/f22/AL-Energy%20Sector%20Risk%20Profile.pdf>.
- 2 Alabama Emergency Management Agency, *State Hazard Mitigation Plan Update* (April 2013), <http://ema.alabama.gov/filelibrary/AL%20Standard%20State%20Mitigation%20Plan.pdf>.
- 3 Sum of individual assistance and public assistance for Alabama flood-related major disaster and emergency declarations from 2000 to 2015. Federal Emergency Management Agency, "Disaster Declarations," accessed May 2, 2016, <https://www.fema.gov/disasters>.
- 4 National Flood Insurance Program, "Community Rating System (CRS)," https://www.floodsmart.gov/floodsmart/pages/crs/community_rating_system.jsp.
- 5 Federal Emergency Management Agency, "Community Rating System" (May 1, 2014), http://www.fema.gov/media-library-data/1398878892102-5cbcaa727a635327277d834491210fec/CRS_Communitites_May_1_2014.pdf.

For further information, please visit:

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