

2019 Midwest Floods

After the Waters Receded:
Surveying the Impact of the
2019 Midwest Floods



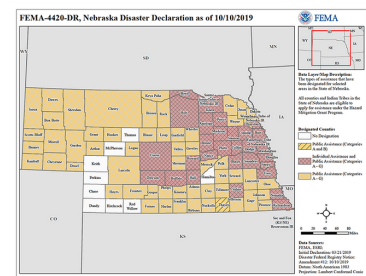
In March 2019, following a winter of prolonged low temperatures and heavy snowfall, the Midwestern U.S. experienced Winter Storm Ulmer, a late season bomb-cyclone bringing heavy winds, snow, and frigid temperatures. Following, high temperatures led to a swift thaw, resulting in record riverine flooding. The Missouri River and its central U.S. tributaries experienced ice jams resulting in floodwaters destroying bridges, highways, and farmland in at least three states. While 84 of Nebraska's 93 counties received disaster declarations, Eastern Nebraska was most affected by the flood event. This flood event, and subsequent damage, resulted in one of the costliest inland flood events in U.S. history.

Goals of the Survey

- Assess satisfaction with emergency response.
- Grasp self-perceived emergency preparedness in households.
- Gain insight into community recovery and resiliency.
- Understanding the unmet needs of the affected communities.
- Inform future flood planning.

Counties Selected to Survey

Boone
Buffalo
Dodge
Douglas
Howard
Hall
Knox
Madison
Platte
Seward



Counties and/or tribes under disaster declaration resulting from floods, Nebraska Emergency Management Agency

Why Nebraska?

Although flooding is not uncommon in Nebraska, this event affected 104 cities, 84 counties, and 5 tribal nations, making it one of the most significant, costliest, and widespread flood events in recent Midwest history.

Summary of Survey Results

Emergency Response



Preparedness

- Only 11% of households report having an **emergency supply kit**.
- Of those without an emergency supply kit, 34.38% report **not knowing what to pack** in an emergency supply kit.
- Word of mouth, television, and the internet** were the most common ways HHs heard of the flood event.
- The least number of HHs knew of **ways to exit their community** in the case of evacuation.
- Perceived levels of household preparedness **increased** following the flood event.

Recommendations

- Timely, accessible, and reliable message dissemination** into the impacted community.
- Increase **knowledge sharing** among community members, organizations, and emergency services.
- Integrate the local knowledge, experiences, and lessons learned** of community members into existing emergency plans.
- Increase the **accessibility and understanding** of emergency supply kits.
- Emphasize and educate the **importance of household emergency preparedness** in your community.
- Build connections** with local news and increase social media presence for **accurate and timely news distribution**.

Infrastructure Repair

In general, how would you rate the infrastructure repairs in your area following the 2019 flooding?
(Roads, levees, buildings, etc..)

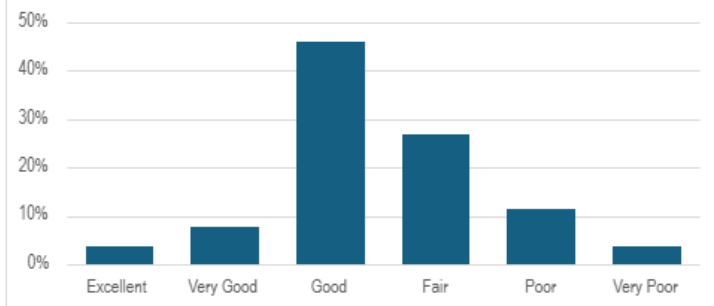
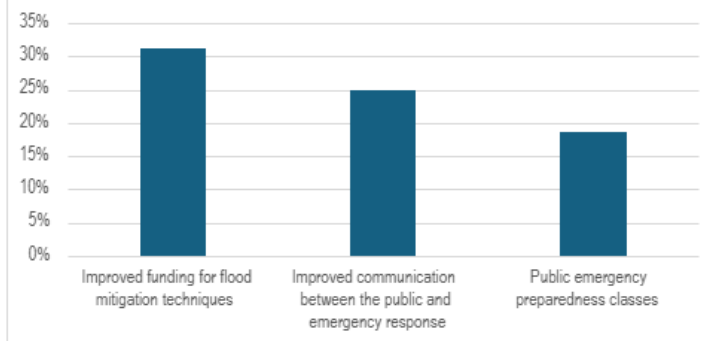


Image of Valley, Nebraska, March 16th, 2019. Courtesy of Office of Governor Pete Ricketts, handout via Reuters.

Flood Management

What improvements would you like to see regarding flood management in your town?



Open Ended

Participants were given the opportunity to respond to an open-ended question to share additional thoughts or experiences.

Two recurring responses arose.

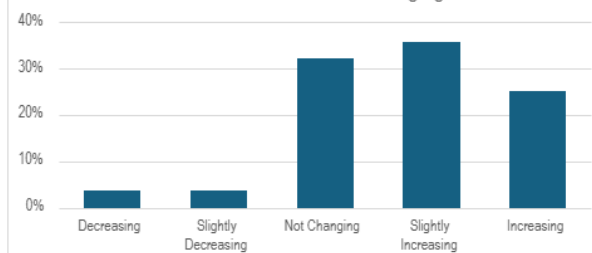
- 💧 The need for strengthened flood infrastructure and more effective mitigation measures.
- 💧 A perceived lack of external assistance, leaving many feeling unsupported during recovery efforts.

Future Flood Events

Floods are not uncommon in Nebraska. Over the last four decades, Nebraska has seen an increase in the number of flood events per year. **Four of the five** major flooding events ($\geq \$5.0B$) in Nebraska happened within the last 17 years.

Flood Risk Perception

When your household is planning for flood disasters, how do you feel the flood risk facing Nebraska as a whole is changing?



Recommendations

- 💧 The implementation of **community education programs**.
- 💧 **Available information on flood safety and emergency planning** during peak flood season.
- 💧 Continued engagement in community resilience planning, ensuring that recovery efforts are **inclusive and locally driven**.
- 💧 **Transparent upkeep** of key flood infrastructure.

Future Concerns

What are you most concerned about regarding future flood disasters?

