

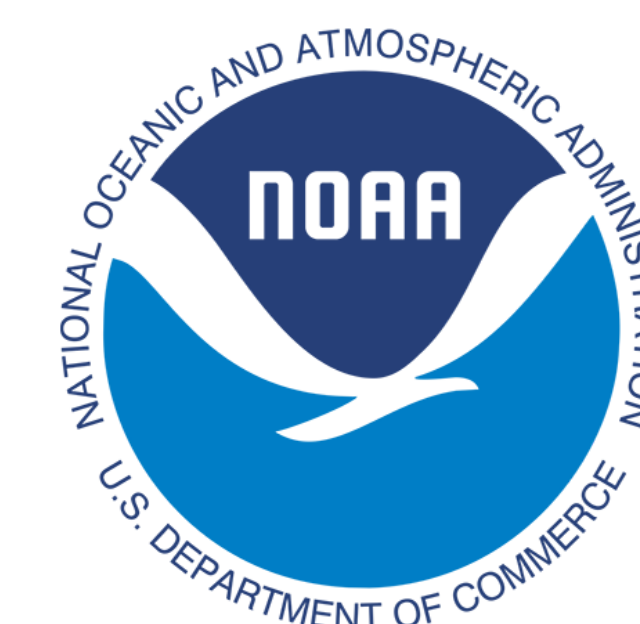
# Examining social resilience in the American lobster fishery



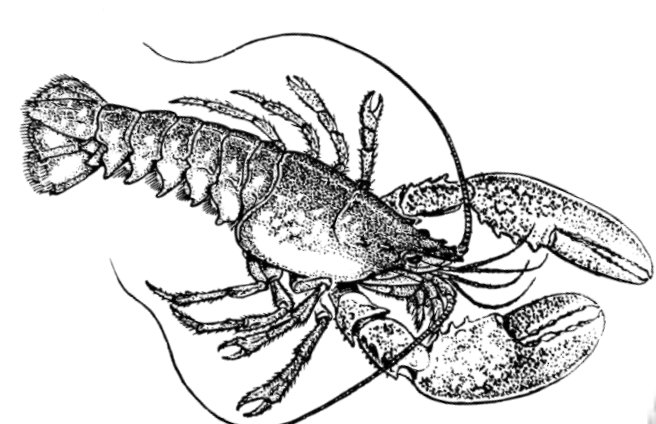
Using news articles and interviews to understand lived experiences and plan for the future

Katherine M. Maltby<sup>1</sup>, Lisa L. Colburn<sup>2</sup> and Katherine E. Mills<sup>1</sup>

<sup>1</sup> Gulf of Maine Research Institute, Portland, Maine, US. <sup>2</sup> Office of Science and Technology, NOAA, US.



## Introduction and methods



- The American lobster (*Homarus americanus*) population in southern New England (SNE) has experienced widespread declines in abundance since the late 1990s due to a range of factors including warming sea temperatures. The fishery has also experienced several short-term mass mortality events in the late 1990s and early 2000s.
- Exploring how lobstermen have responded to these declines and the factors influencing their decisions can help understand the resilience of individuals in SNE, and inform future resilience planning in the Maine lobster fishery which faces mounting future environmental challenges.

How have lobstermen responded to declining stocks in SNE?

What has influenced people's resilience?

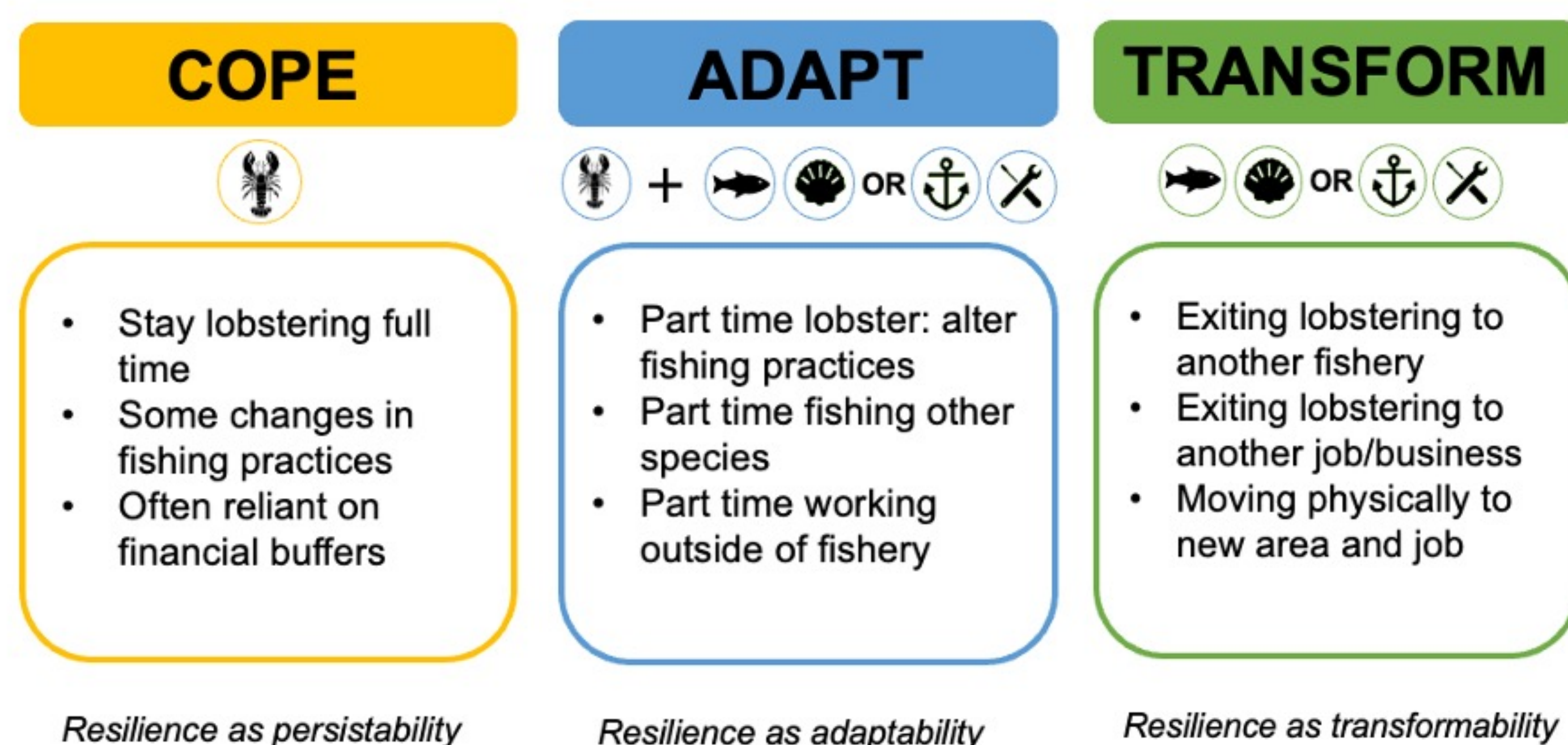
### News article analysis

- Extracted information about 78 lobstermen from 89 news articles to identify and analyse resilience pathways and dimensions.
- Articles span from 1999 – 2021 and cover local, regional and national scales.

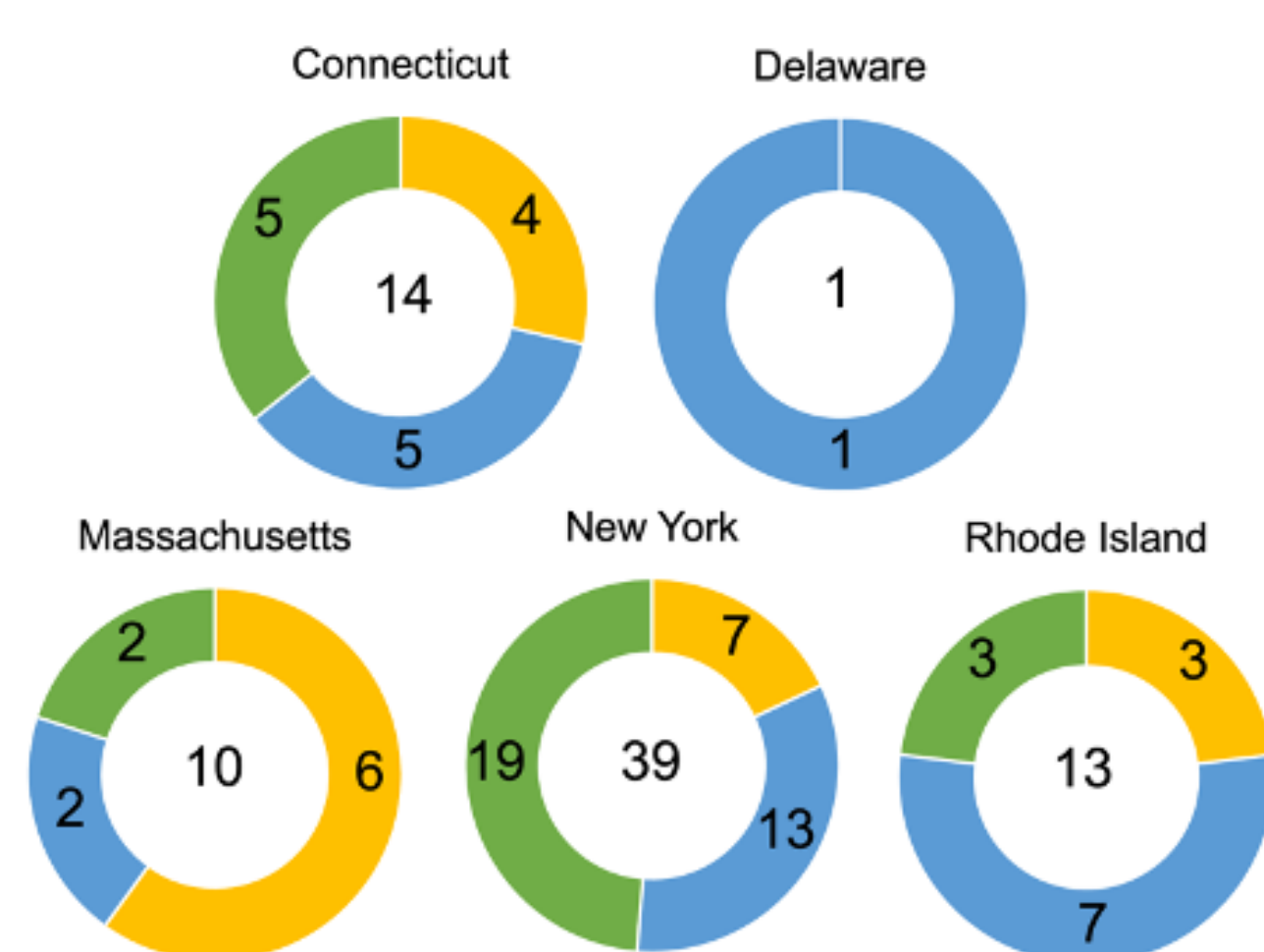
### Interviews

- Conducted semi-structured interviews with 35 current and ex-lobstermen to ground-truth news analysis, examine cross-cutting issues and identify potential strategies for supporting resilience.

## Pathways of resilience

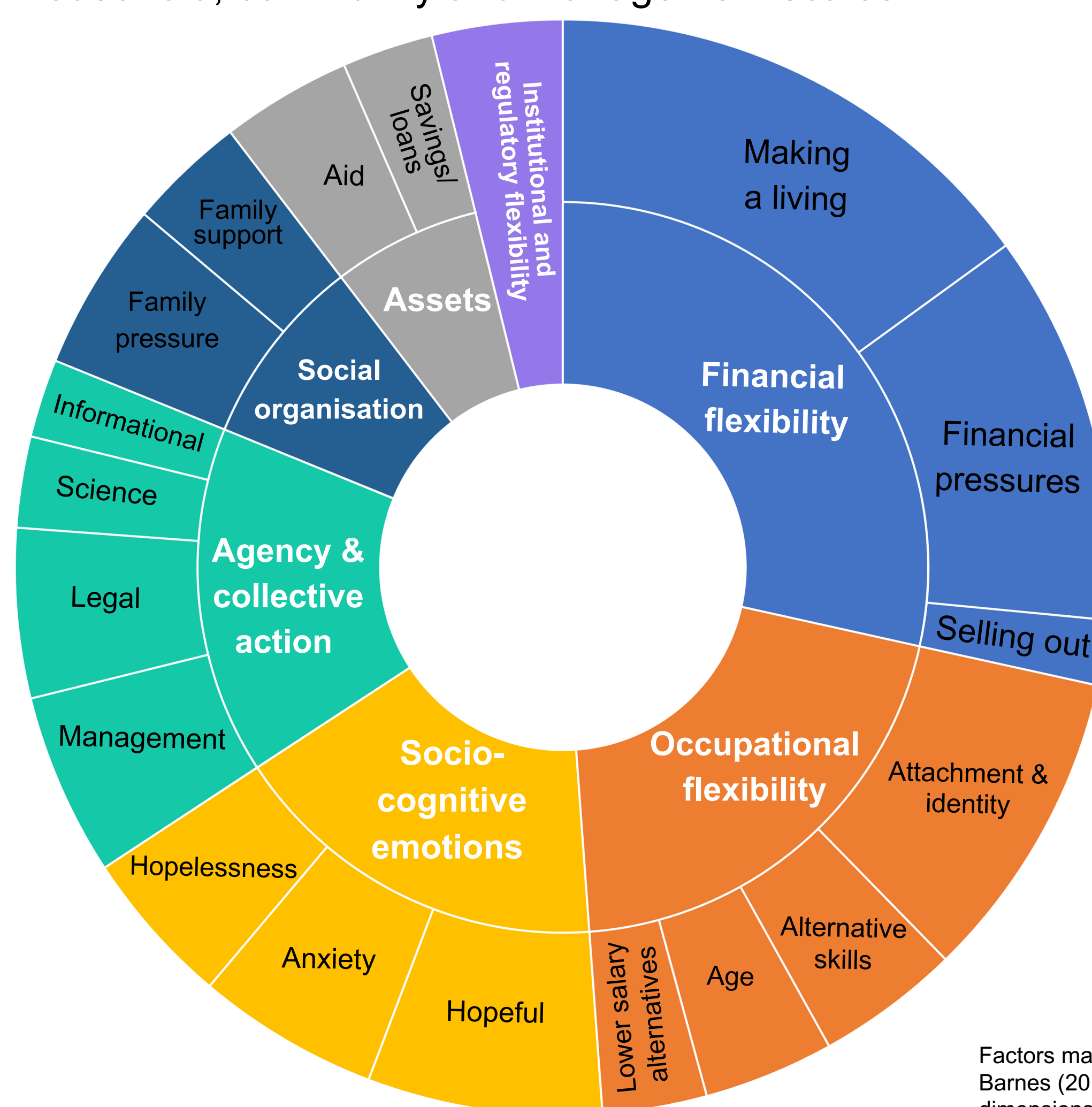


- News articles revealed three main resilience pathways lobstermen took in response to lobster declines.
- Pathways differed across the SNE states, with adaptation and transformation being most common.



## Dimensions of resilience

Diverse overarching factors were identified that influenced lobstermen's resilience pathways. These spanned individual, household, community and management scales.



## Cross-cutting considerations

- Pathways are not necessarily discrete and instead vary across lobstermen's life course.
- Tensions between industry, science and management exist due to differences in perceived causes of lobster declines and ways of being involved in decision-making.
- Broader changes in waterfront access and uses influenced wider resilience and options for lobstermen.
- Declines have wellbeing and sustainability implications at multiple scales.

## Conclusions and next steps

- Individuals show multiple pathways of resilience which are influenced by many interconnecting factors at a range of scales.
- Strategies for supporting resilience include enabling fishery and livelihood diversification, improving value-added for lobster products, promoting alternative seafood markets, and securing waterfront access for future fisheries.
- Future resilience planning for the fishery in SNE and Maine needs to center community voices, include a diversity of stakeholders in development and implementation of plans, and use integrated approaches that address multi-scale, sector and stressor issues.

Thank you to all lobstermen who were involved in this research. For more information, email [kmaltby@gmri.org](mailto:kmaltby@gmri.org)