Preparing to adapt: Are public expectations in line with climate projections?

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Research Questions

1) Do members of the public expect the same future temperature and precipitation shown by climate projections?
2) What factors contribute to future temperature and precipitation expectations among members of the public being consistent or inconsistent with climate projections?

Data

1) Oklahoma M-SISNet Winter 2019 Survey
2) Downscaled climate model ensembles of projected change in temperature and precipitation (2071-2099)

Factors Inspected

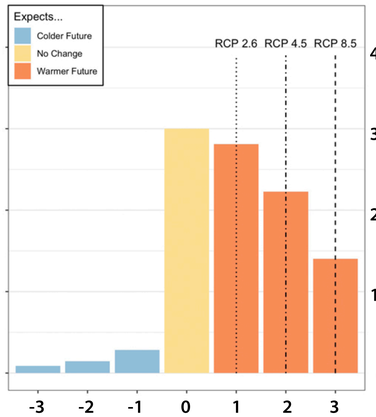
Gender
Race
Age
Urban / Rural
Political affiliation

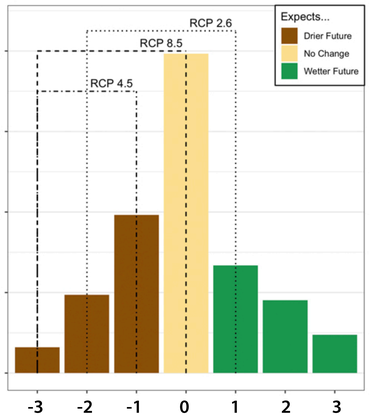
Recent weather experience
Survey response of extreme cold, dry, or wet conditions

Recent temperature experience
Survey response of three-year temperature anomalies

Expectations

Survey Category	Temperature Expectation	Precipitation Expectation
-3	Decrease by 8°F or more	Decrease by 10% or more
-2	Decrease by 4° to 8°F	Decrease by 5% to 10%
-1	Decrease by 1° to 4°F	Decrease by 1% to 5%
0	Stay about the same	Stay about the same
1	Increase by 1° to 4°F	Increase by 1% to 5%
2	Increase by 4° to 8°F	Increase by 5% to 10%
3	Increase by 8°F or more	Increase by 10% or more





Oklahomans generally expect a future that is **colder** and **wetter** than what projections suggest.

Expectations of future temperature and precipitation are **most consistent with RCP 2.6** projections

The consistency of expectations with projections is significantly affected by **age**, **political affiliation**, **gender**, **perceived temperature anomolies**, and **recent dry weather experience**.

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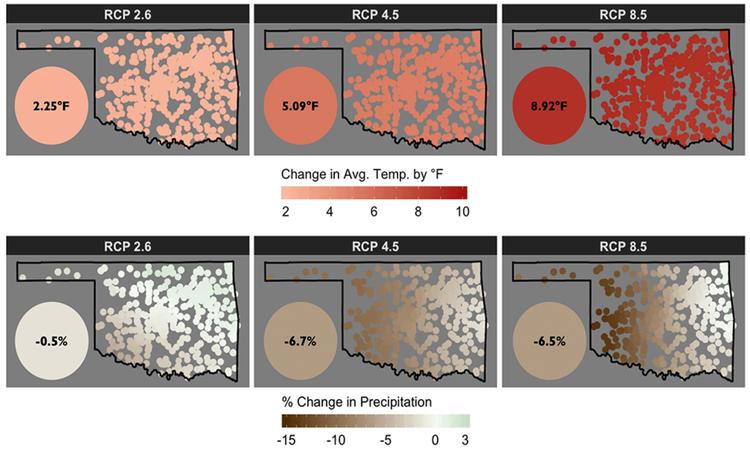
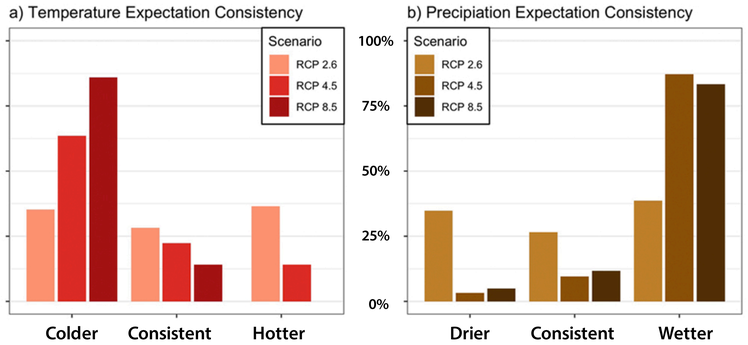
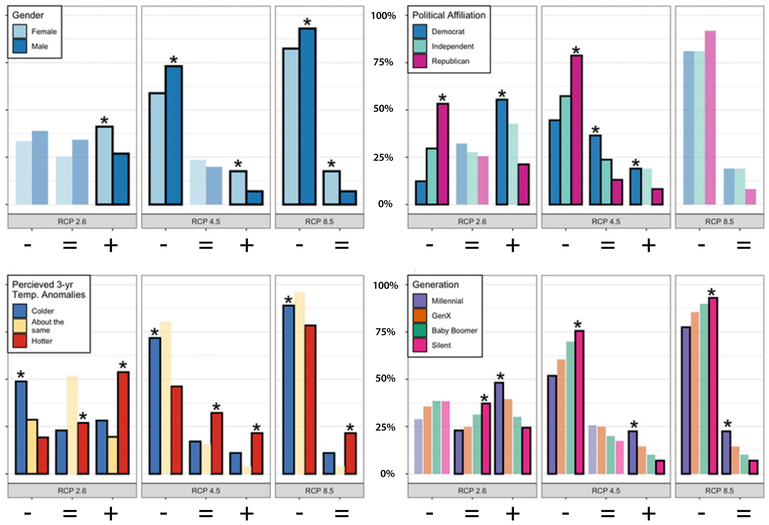
Projections



Consistency



Significant Factors for Temperature



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