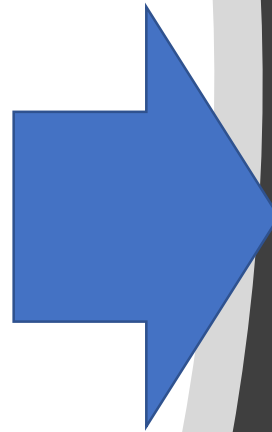# Making climate data more usable in social science

Goal is to make it easier for non-climatologists to compare climate data to demographic-based research

- Rescale nClimGrid-Daily temperature data to 2020 Census Tracts
- Maximum, minimum and average temperature
- 1951 – Present (1895-Present to come)
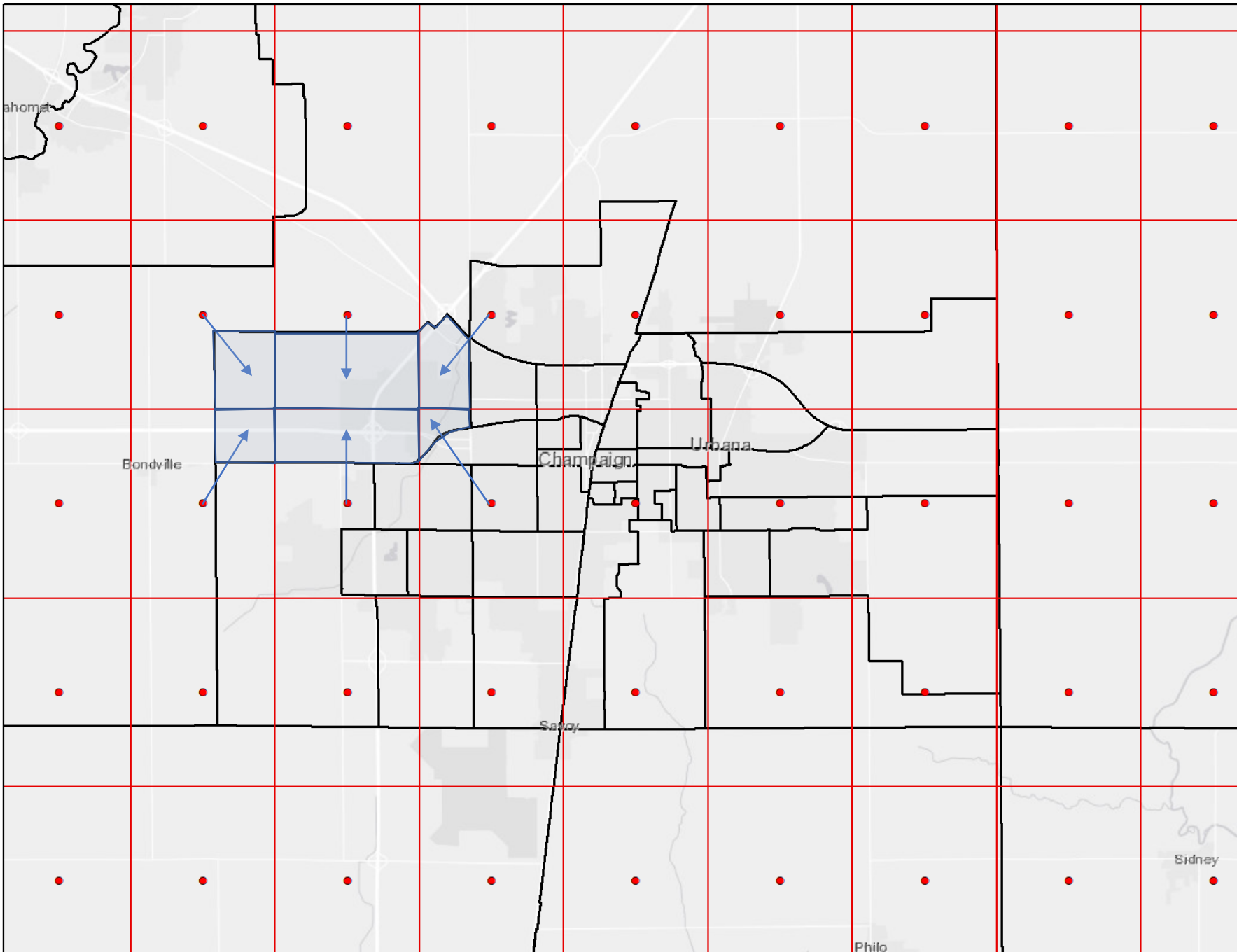- Quantify expected errors associated with rescaling
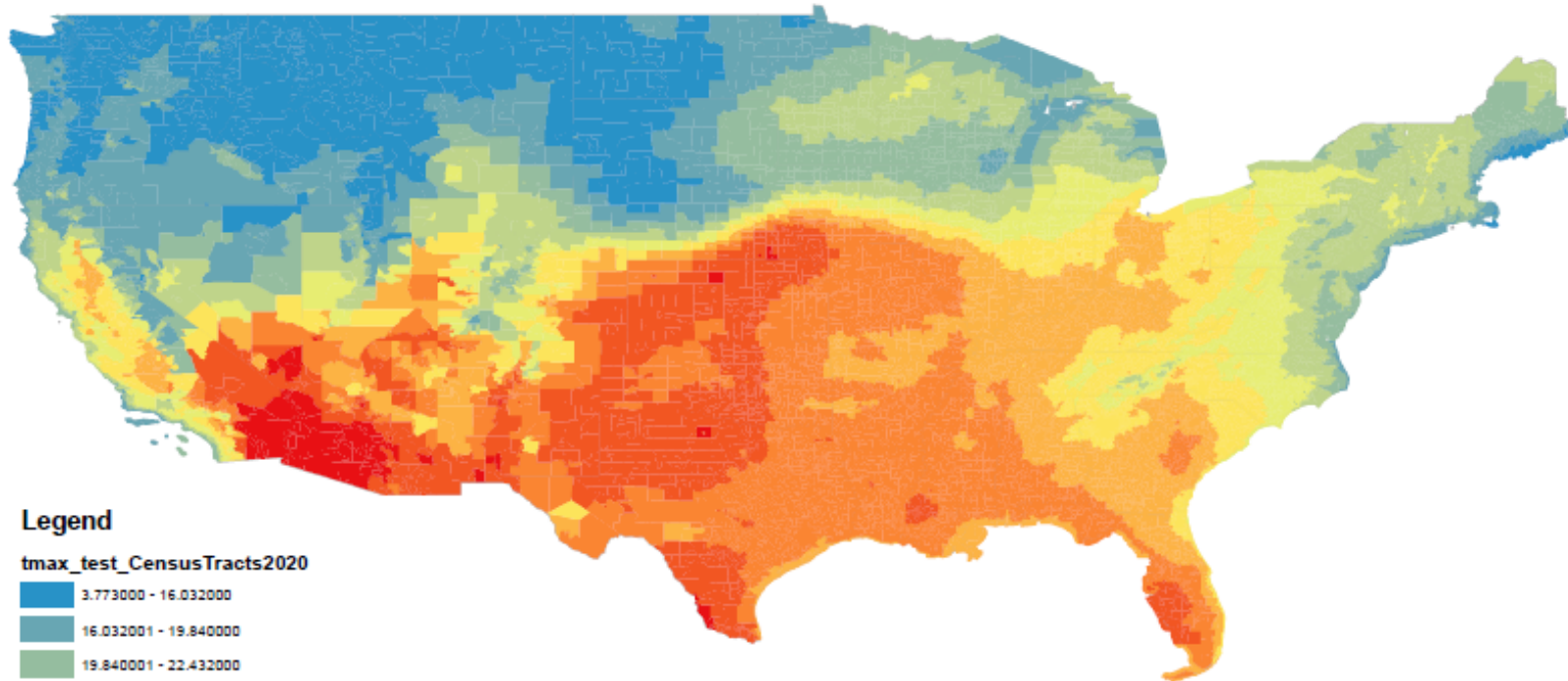
Champaign/Urbana and Vicinity

Census tract boundaries (black)
Grid cell boundaries (red)

Areal averaging methodology:
- Each grid point value contributes to census tract value according to normalized area: (contributed area)/(sum of contributed areas).

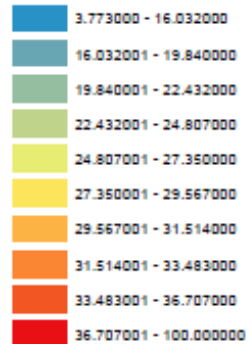# 1 June 2000 maximum temperature (°C) Rescaled to Contiguous-US Census Tracts

2020 census tracts

Legend
tmax_test_CensusTracts2020

- 3.773000 - 16.032000
- 16.032001 - 19.840000
- 19.840001 - 22.432000
- 22.432001 - 24.807000
- 24.807001 - 27.350000
- 27.350001 - 29.567000
- 29.567001 - 31.514000
- 31.514001 - 33.483000
- 33.483001 - 36.707000
- 36.707001 - 100.000000

- Error analysis underway

- Remaps census tract estimates back to nClimGrid parent grid and compare to input grid

- Quantify both spatial and temporal (e.g. seasonal) variation in expected error as well as bias

- Dataset complete by early May

Thank You!

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