

Climate Change in the Austin Area:

Perceptions, Impacts, and Behavior Change

-A project of the Austin Area Sustainability Indicators-

Joint Sustainability Committee

September 25, 2019

Prepared by:

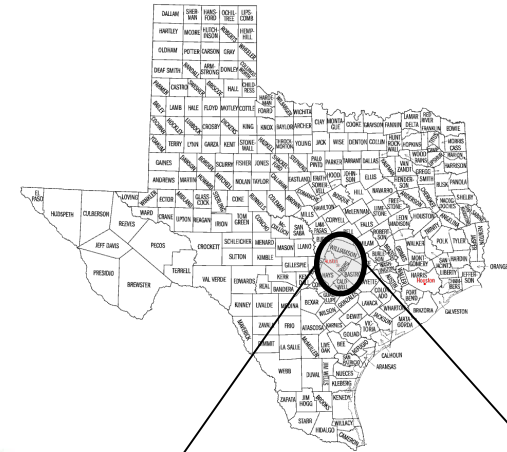
R. Patrick Bixler & Jessica Jones

LBJ School of Public Affairs

UT-Austin



A²SI Mission: To measure quality of life and sustainability trends and serve as the foundation for a systems approach to address the challenges of our region.



www.austinindicators.org



Sources of Data

Federal, State, Local statistics

- Secondary data compilation
- 8 dimensions
- 36 indicators
- 128 data metrics



Sources of Data

Community Survey

- Primary data collection on biennial basis
- 2004, 2006, 2008, 2010, 2015, 2018, 2020 (planned)
- 136 Survey Questions
- Total N = 13,015;
 - 2018 N = 1,135

Federal, State, Local statistics

- Secondary data compilation
- 8 dimensions
- 36 indicators
- 128 data metrics



Sources of Data

Community Survey

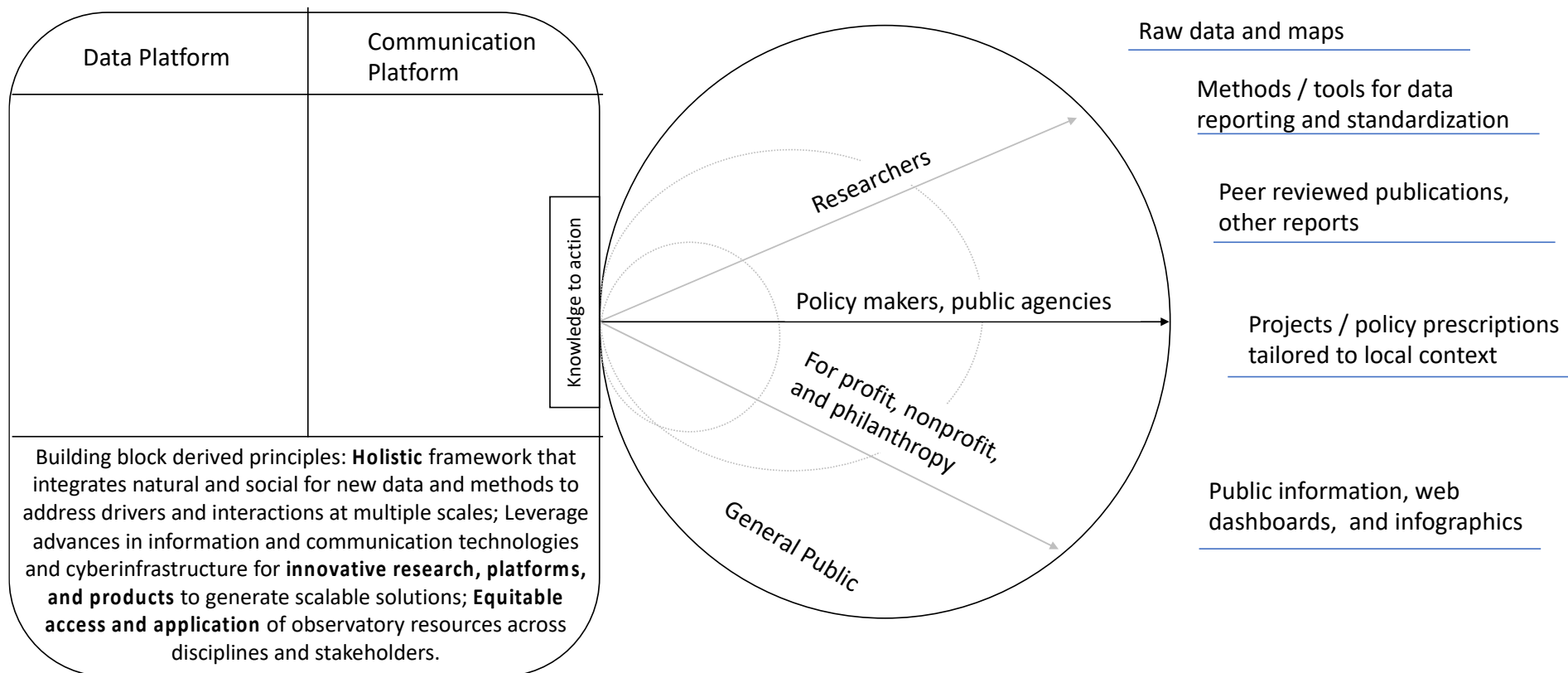
- Primary data collection on biennial basis
- 2004, 2006, 2008, 2010, 2015, 2017 (planned)
- 136 Survey Questions
- Total N = 11,988;
 - 2015 N = 1,984

Federal, State, Local statistics

- Secondary data compilation
- 8 dimensions
- 36 indicators
- 128 data metrics

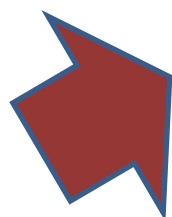


Passive data streams
(i.e., Big Data)



*Figure from Bixler, et al. 2019. An Observatory Framework for Metropolitan Change: Understanding Urban Social–Ecological–Technical Systems in Texas and Beyond. *Sustainability*, 11 (13): 3611.

Communication Strategies to Connect



Reports



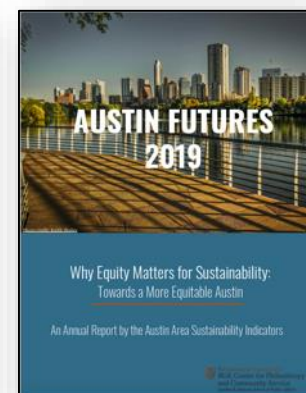
Online



October 2018



Twitter



March 2019

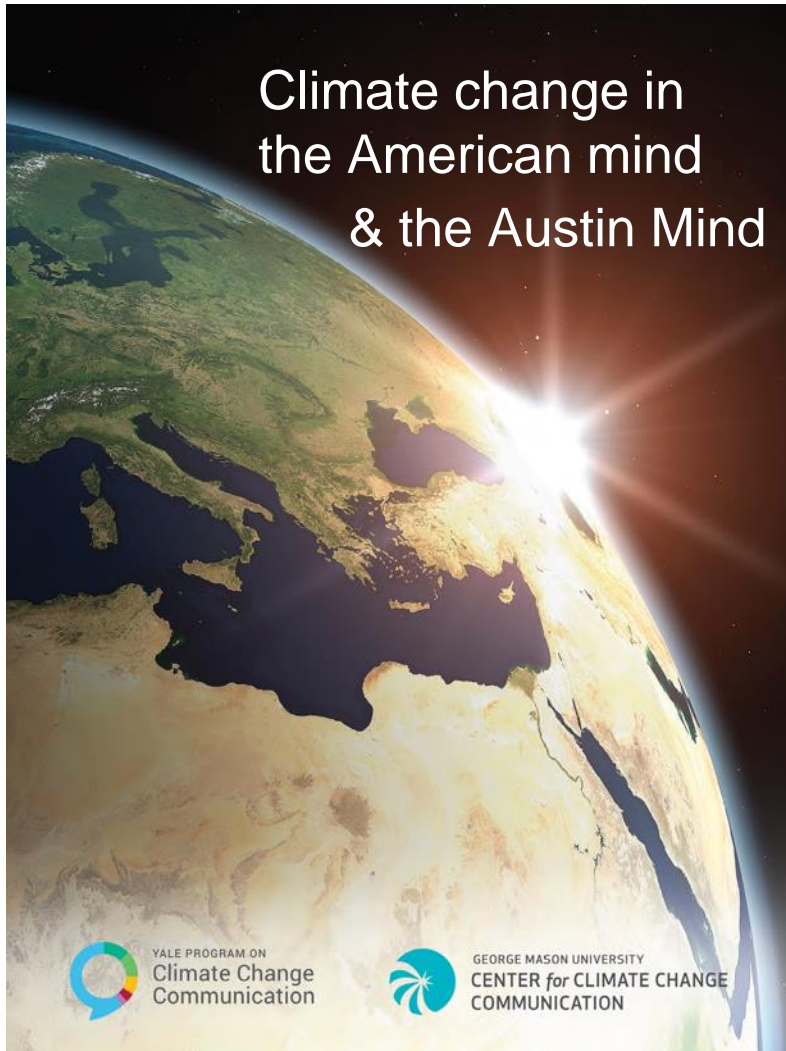


Revamped website,
more dashboards,
blog

**Austin
Futures
2020:
Climate and
Community
Resilience**

March 2020

Climate Change and the “Austin Mind”

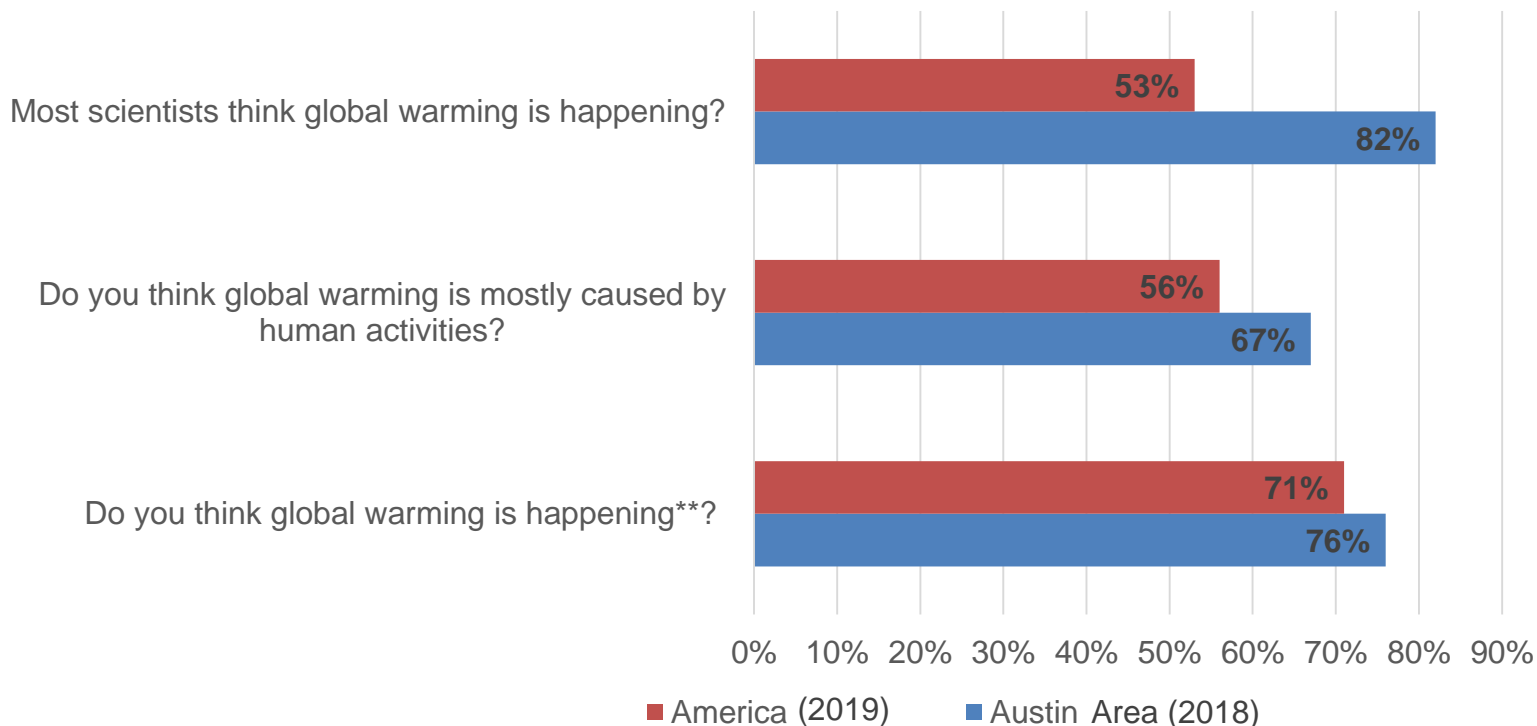


Global Climate Strike, Austin, Sept. 2019

Climate Change and the “Austin Mind”

How does Austin compare to America*?

Climate Change Beliefs in Austin vs. America



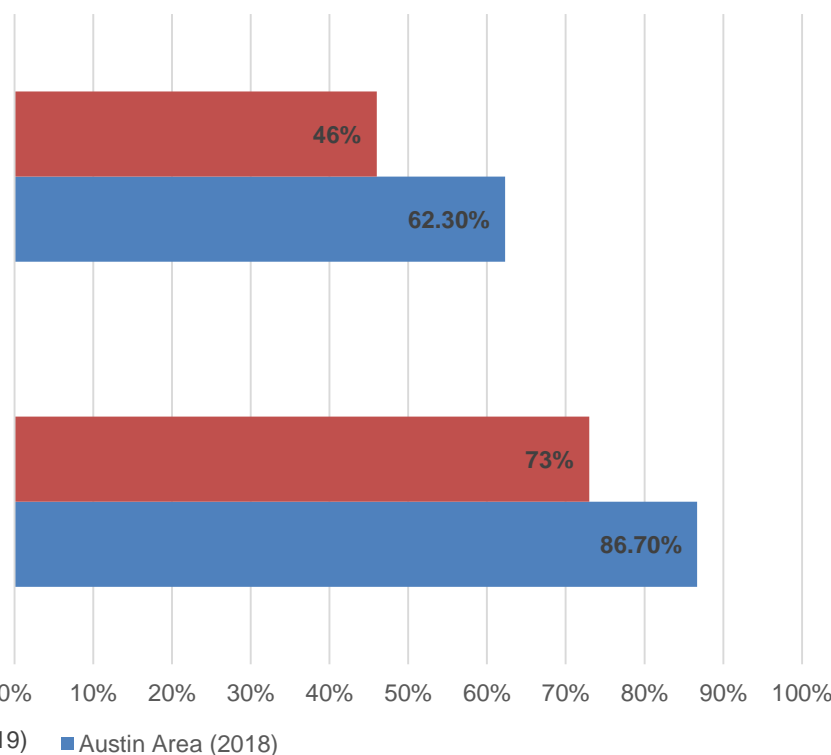
*Results from Apr. 2019 Yale Program on Climate Change Communication Survey

Usage of ‘Global Warming’ terminology from Yale Program on Climate Change Communication Survey

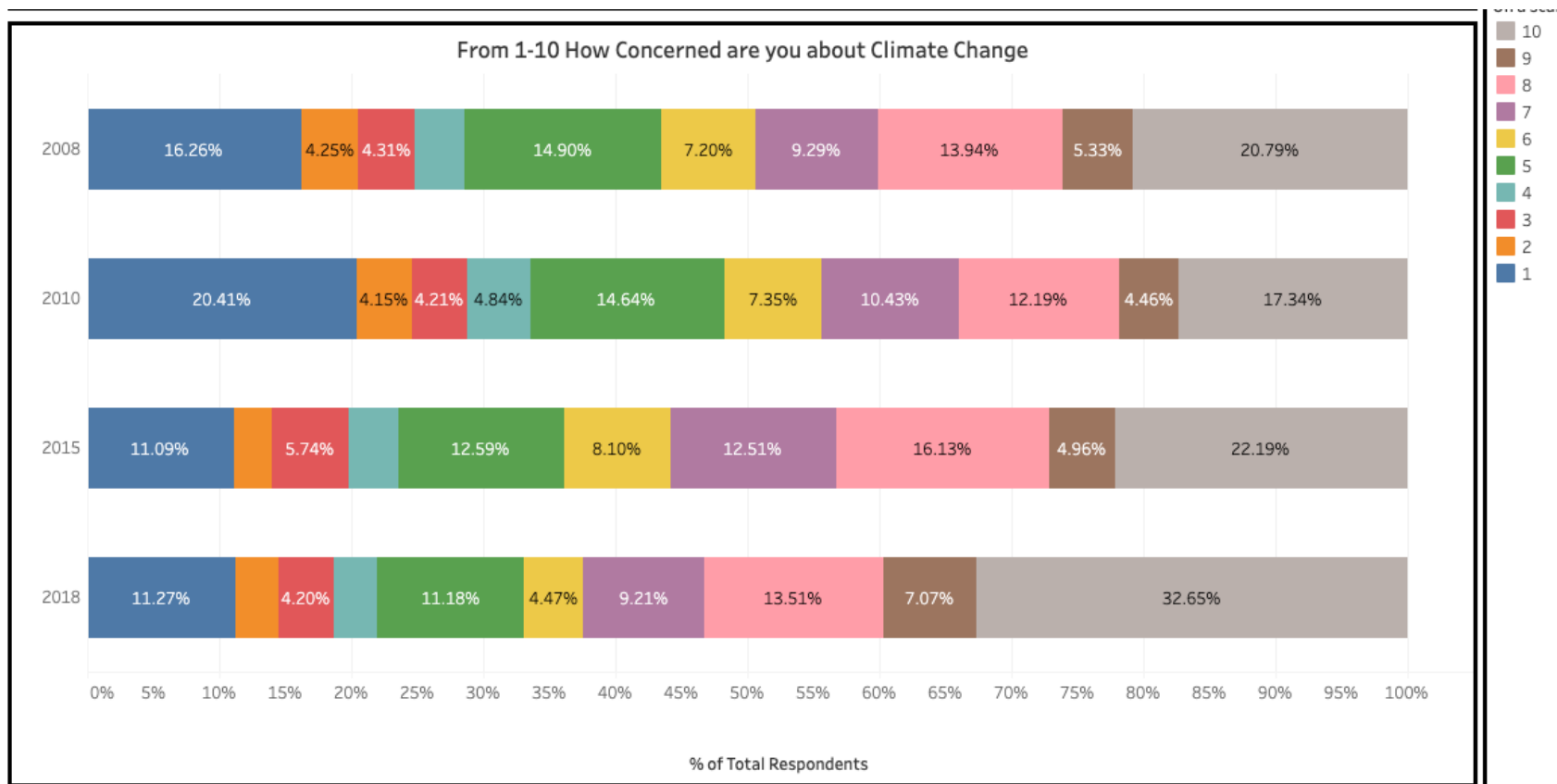
Climate Change and the “Austin Mind”

How does Austin compare to America*?

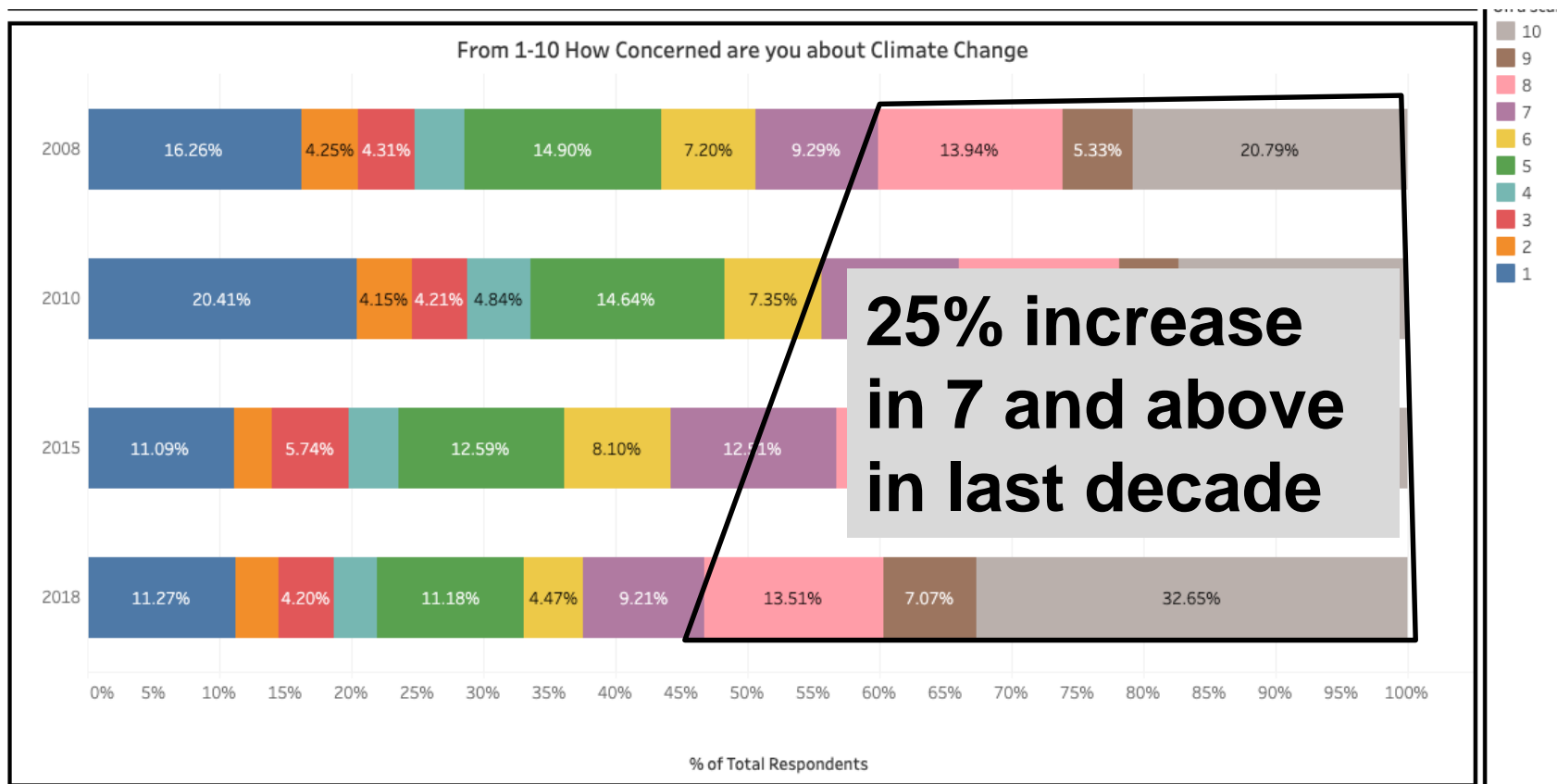
How much do you think global warming will harm you personally?



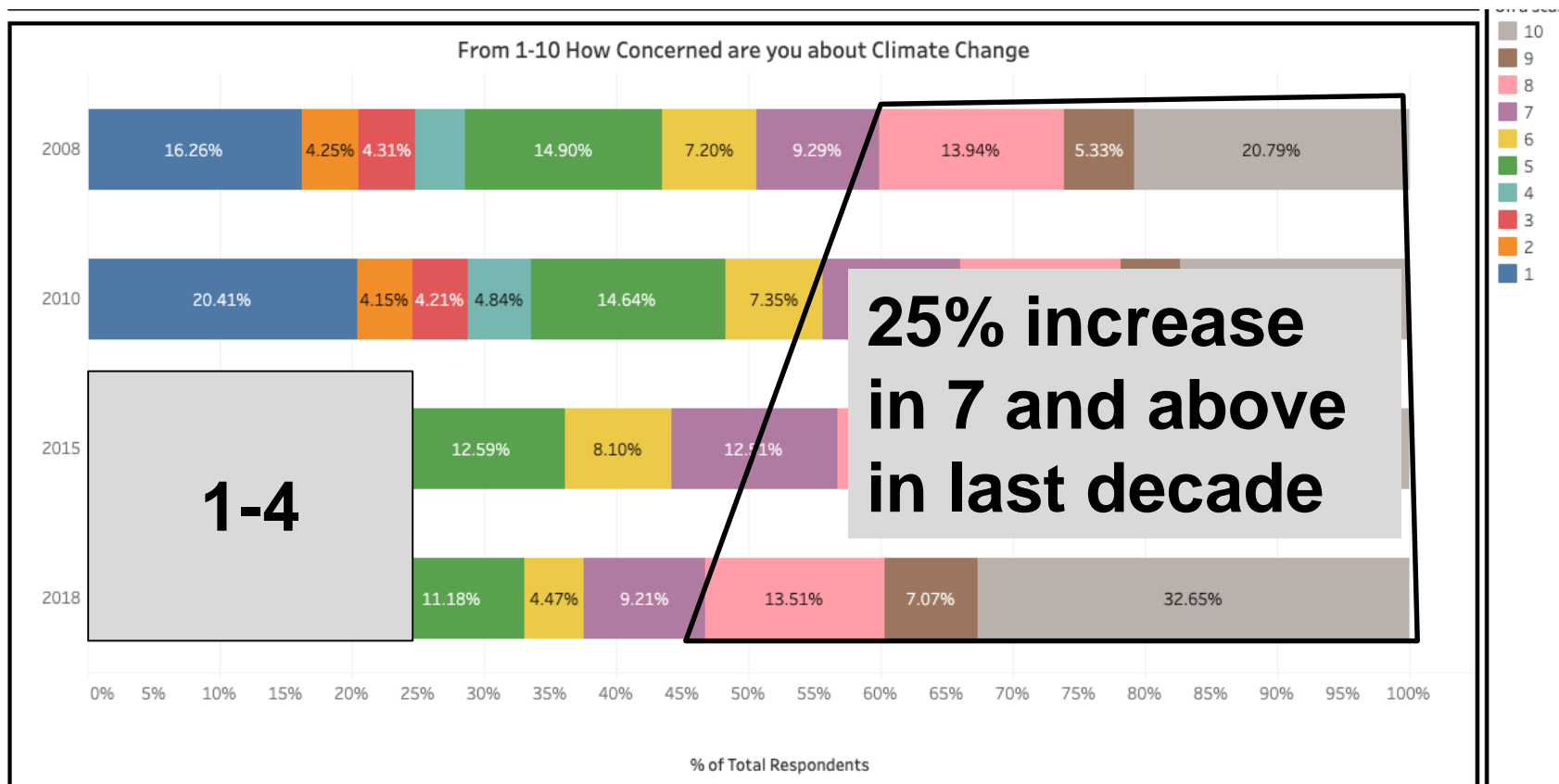
Climate Change and the “Austin Mind”



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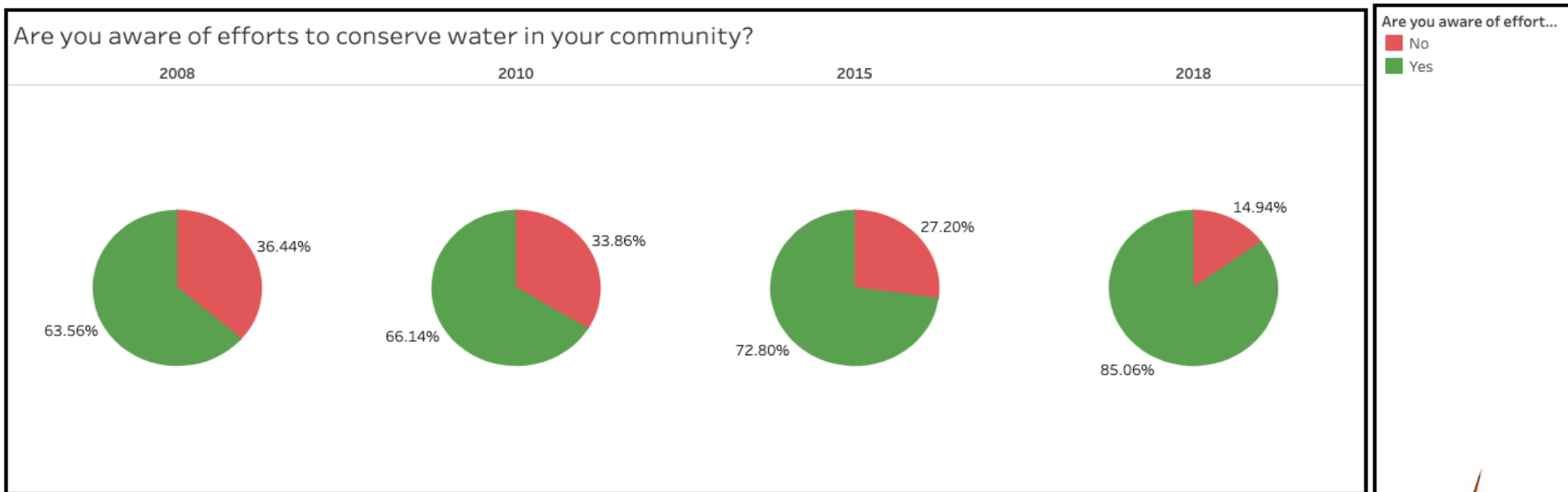
Climate Change and the “Austin Mind”



Climate Change and the “Austin Mind”

Water Awareness

85% of Austinites indicate knowledge and practice of water conservation habits in their communities. This sentiment is shared across all income and racial groups (MSA Data).



Climate Change and the “Austin Mind”

Climate and Water Awareness

**Strong Environmental
Awareness, Attitudes,
and Concern in Austin**



Climate Change and the “Austin Mind”

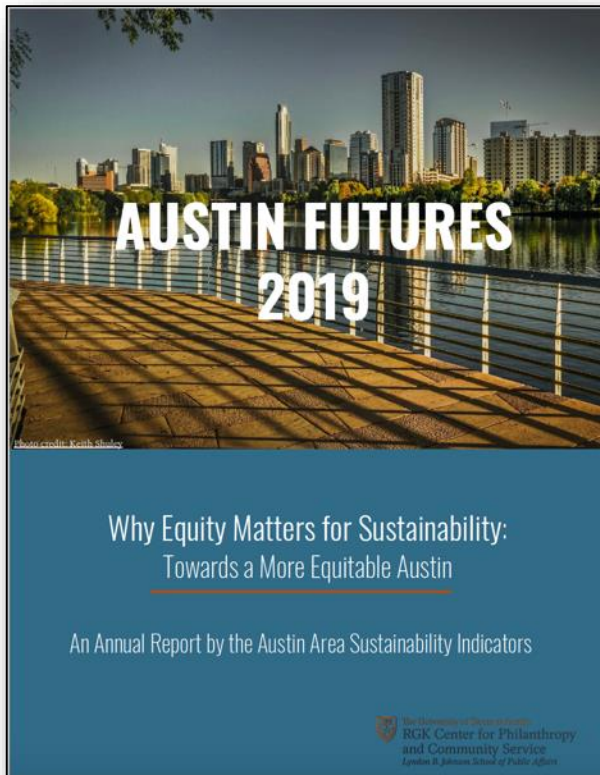
Mobility in Austin

- **About a third (34.5 %)** of Austinites identify long/ unreasonable travel times to travel around the metro area. This sentiment is shared across all income groups (MSA Data).
- **Roughly the same (34.1 %)** say that current public transportation services do not meet their needs.



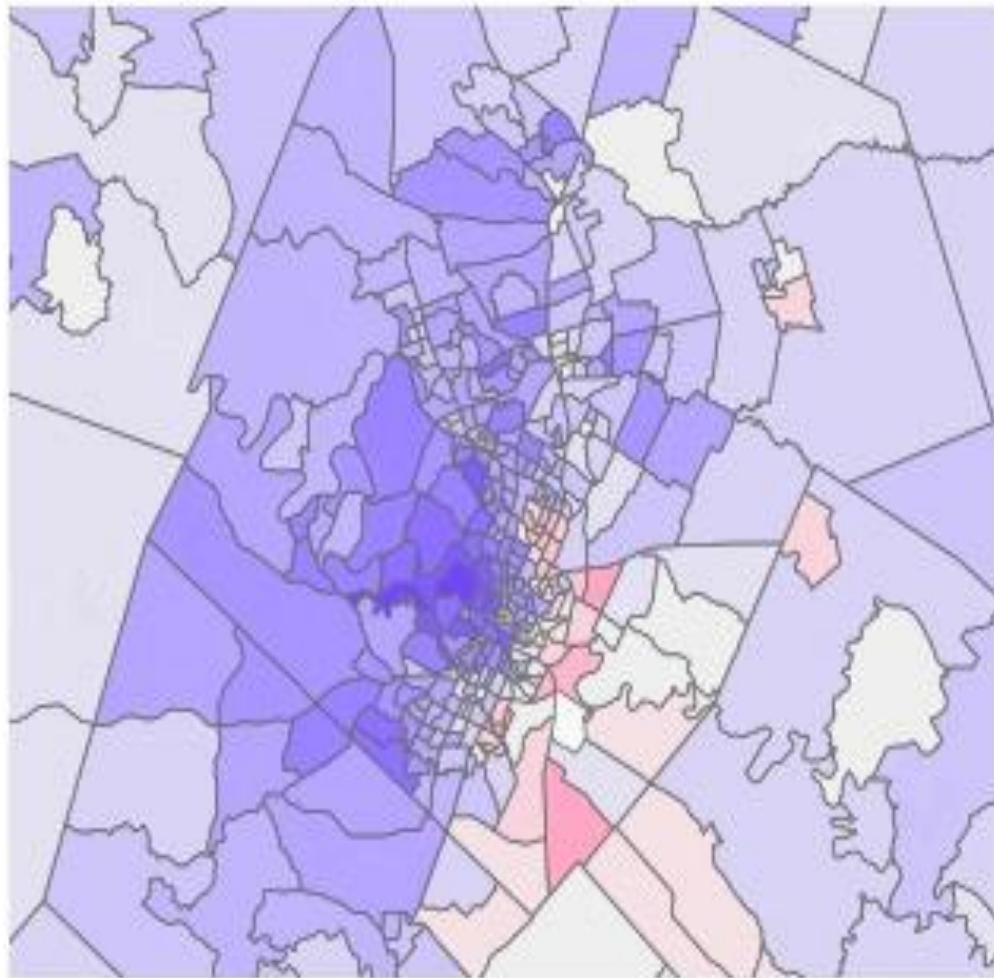
- **~70%** of Blacks say that more travel options would significantly impact their quality of life (with 62% of Hispanic and 42% of whites saying the same) (MSA Data).

Equity and Climate Change in Austin



- The geographical distribution of greenspace and access to greenspace is not equal.
- **25%** of Black residents report **not having access to nature or greenspace** in their neighborhood as compared to 8% of white residents.

Equity and Climate Change in Austin



Social Vulnerability Index

- **Census tract level**
- **Includes 22 variables in 6 components**
 - Social status
 - Wealth
 - Elderly
 - Housing
 - Historically underserved
 - Gender

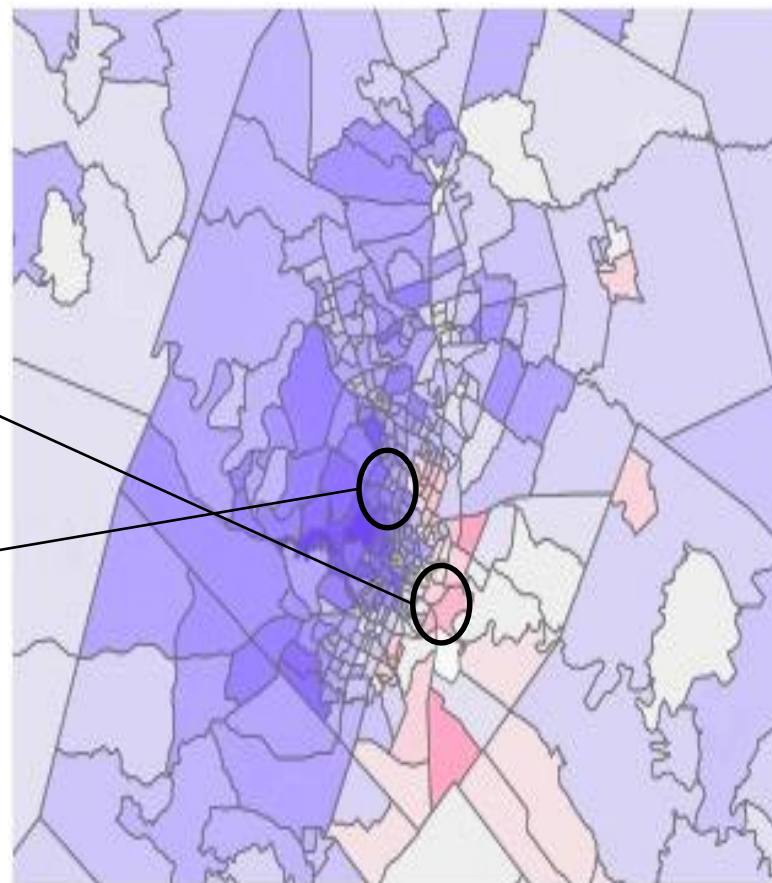
Equity and Climate Change in Austin

78744

- Medium Income: \$41,721
- 52% white
- 48% Renter Occupied HH
- 35% have less than a high school diploma
- Average Life Expectancy ~76 yrs. old

78731

- Medium Income: \$75,269
- 86.8 % white
- 39% Renter Occupied HH
- 2% have less than a high school diploma
- Average Life Expectancy ~ 84 yrs. old



Equity and Climate Change in Austin

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78744

- **46.2%** are worried about global warming
- **61.5%** believe global warming is happening

78731

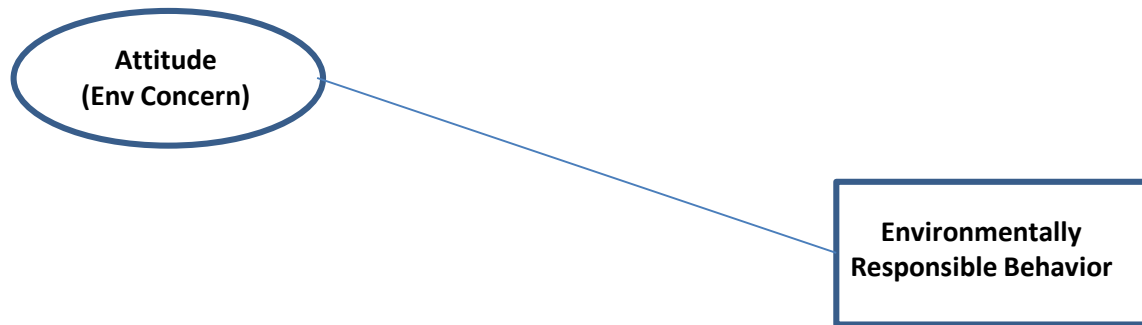
- **28.6%** are worried about global warming
- **42.9%** believe global warming is happening

Climate Change and the “Austin Mind”

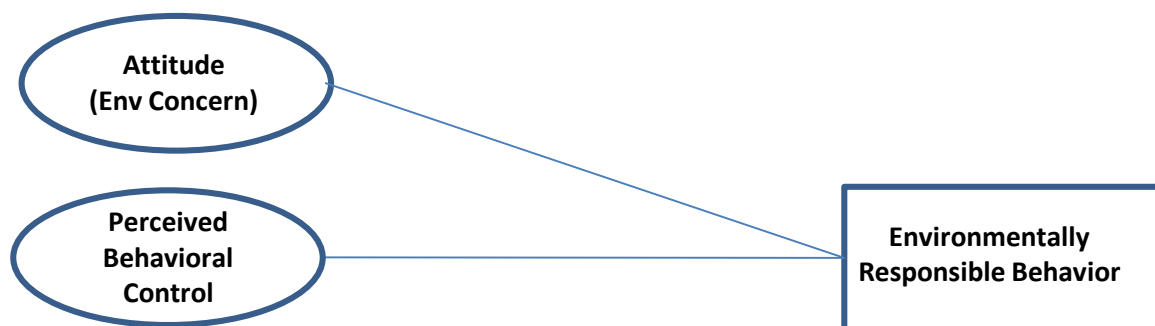
Climate and Water Awareness

**Inequity is a constraint
in Austin**

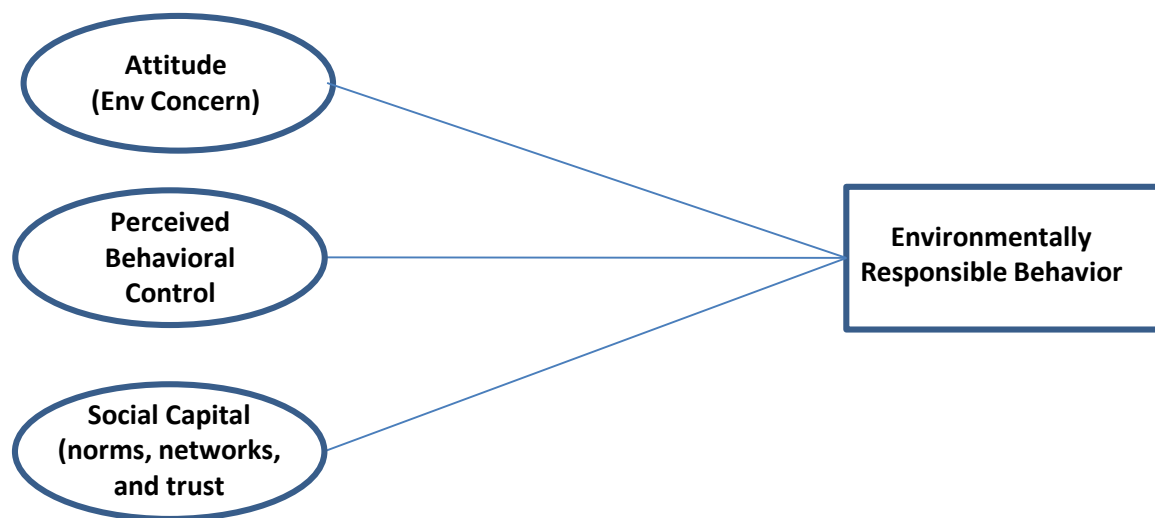
Environmental Concern and Environmentally Responsible Behavior (ERB)



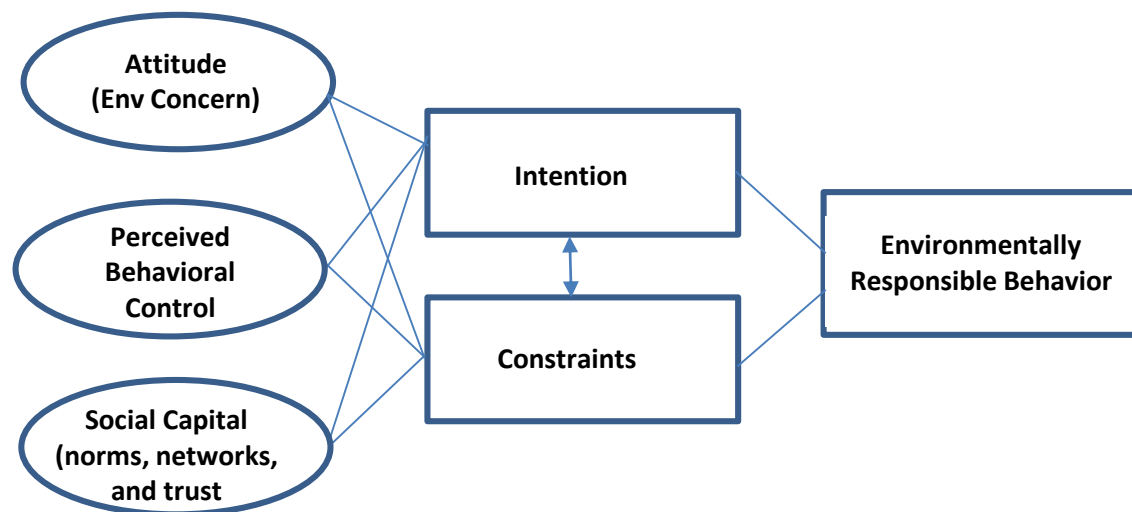
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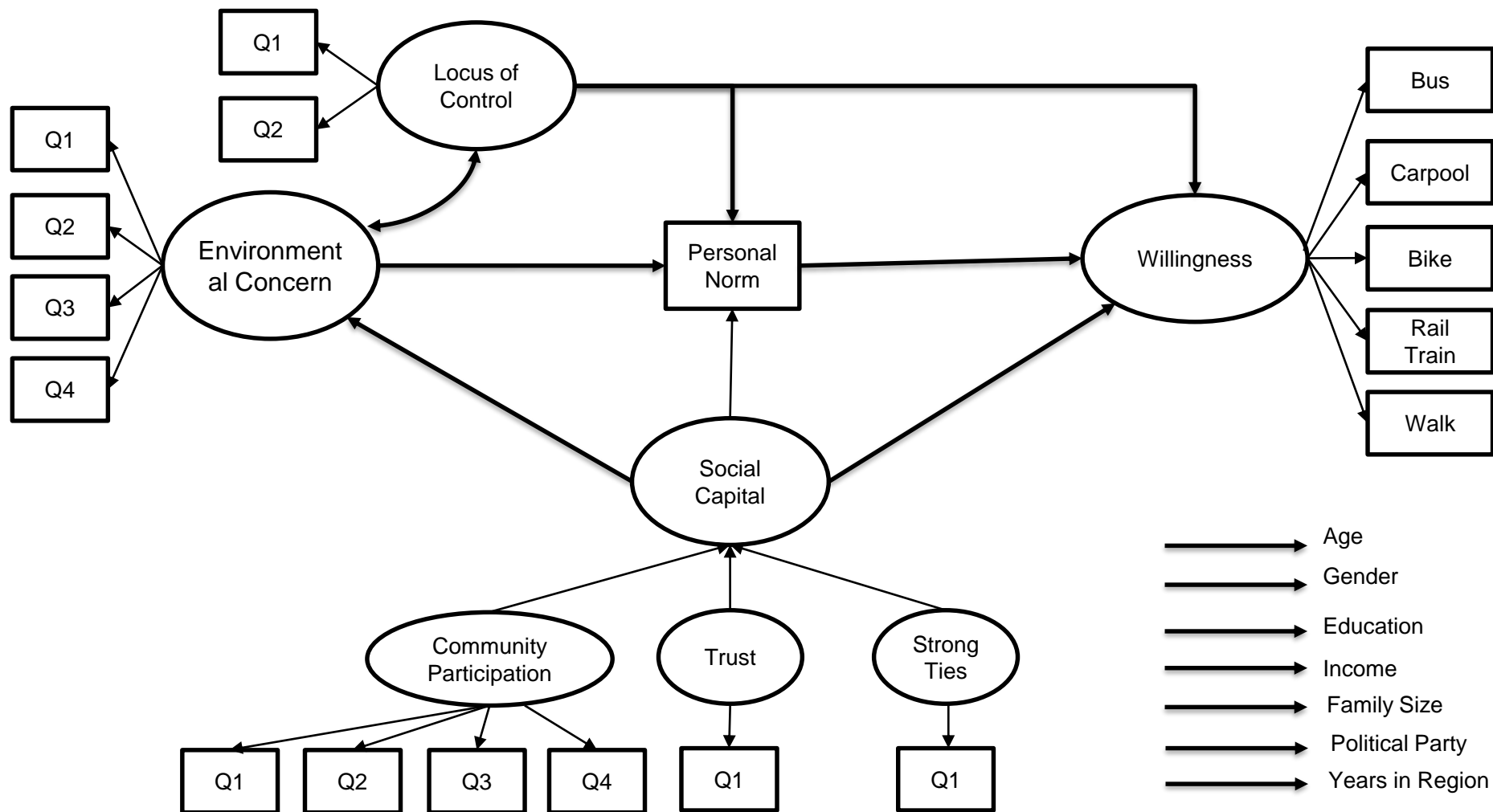


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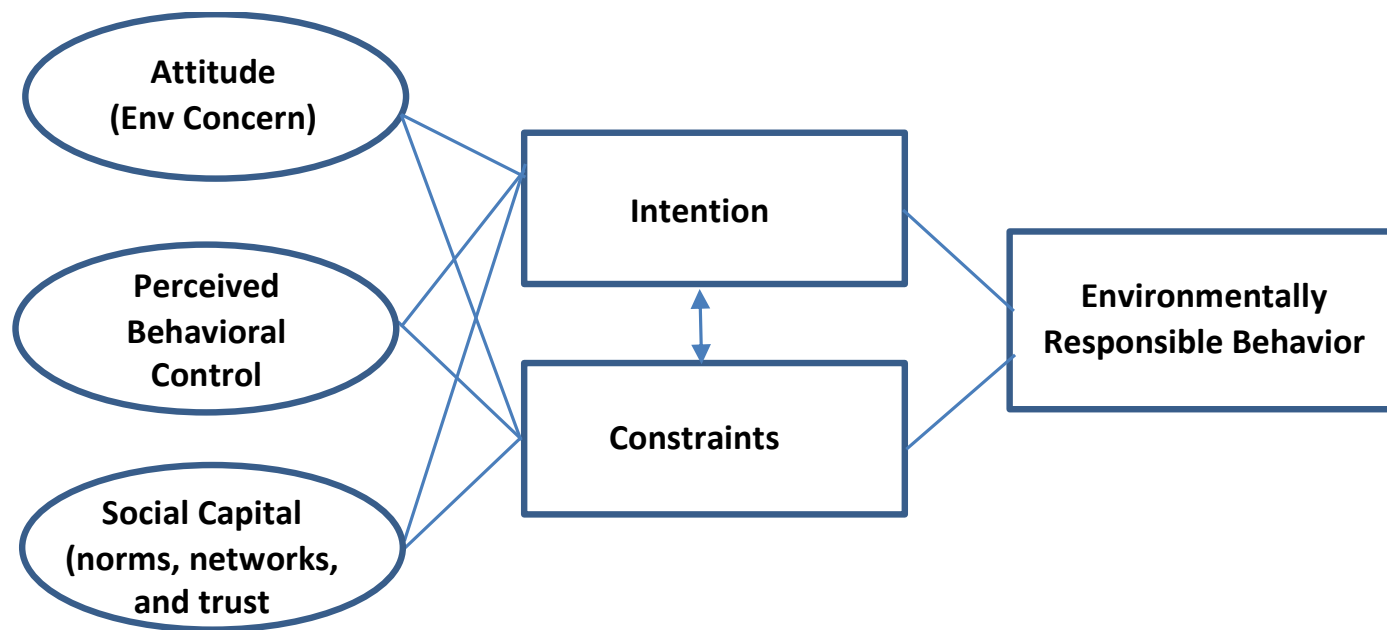




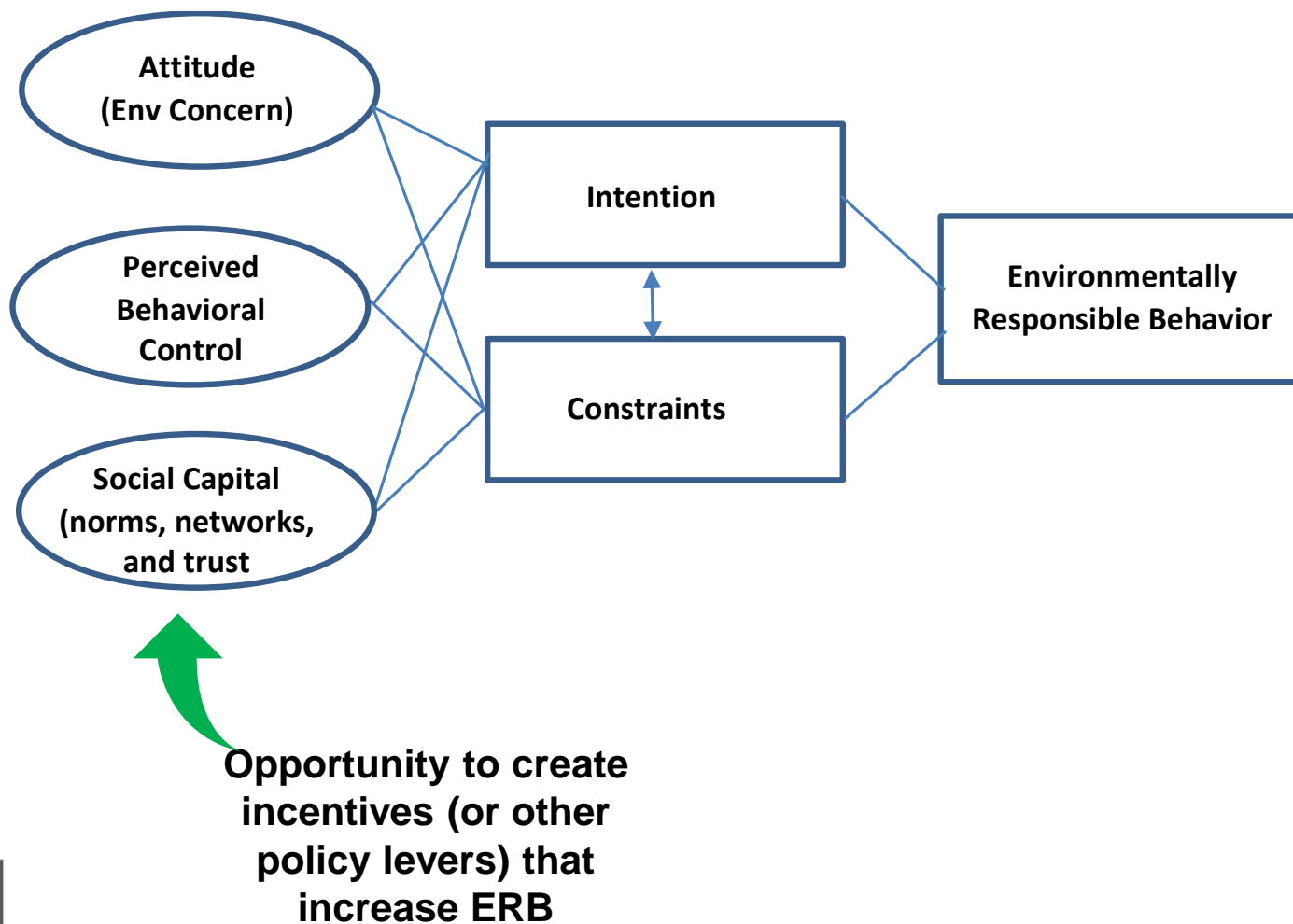
- The effect of environmental concern is strongly mediated by social capital

- Biggest predictor of Environmental Responsible Behavior is social trust

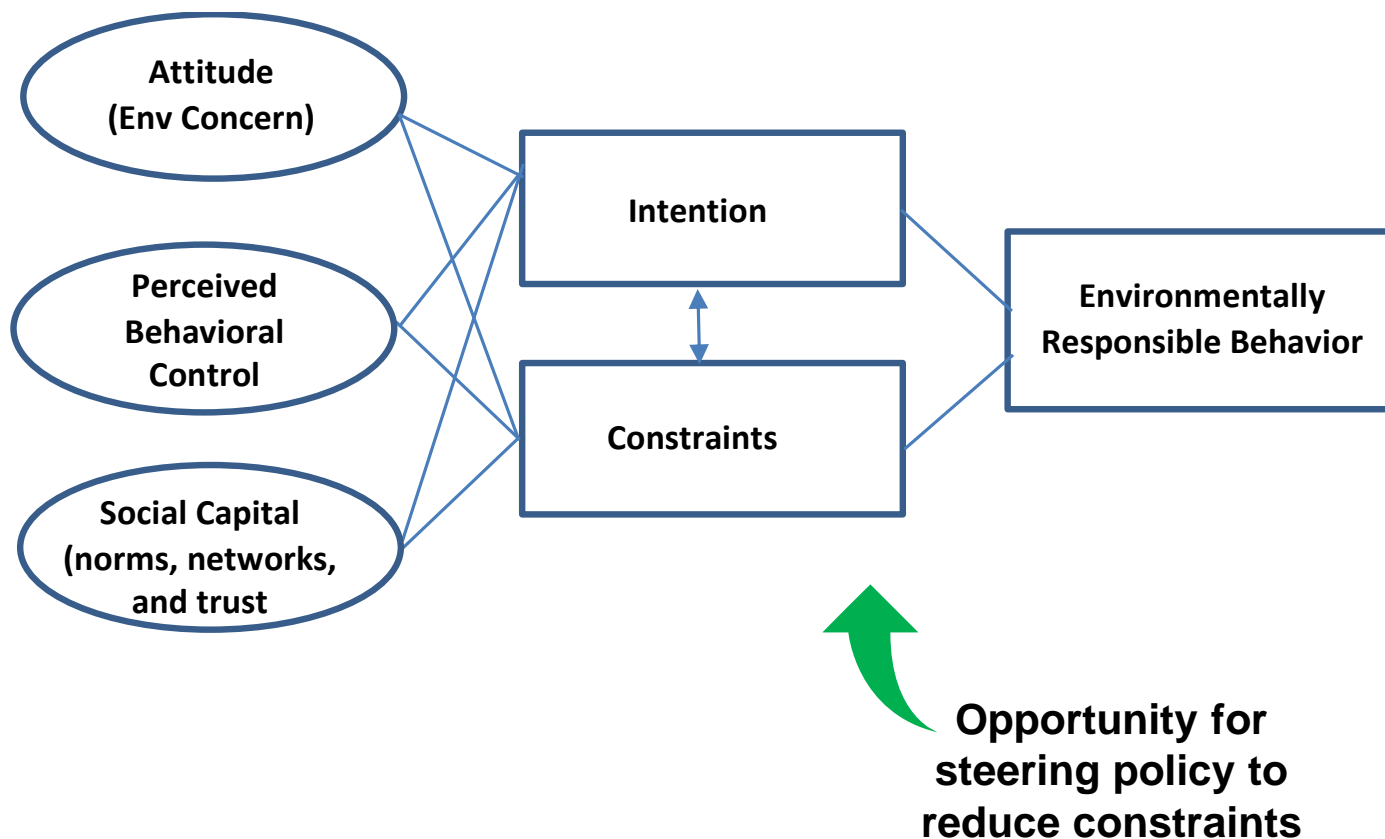
Environmental Concern and Behavior Change



Environmental Concern and Behavior Change



Environmental Concern and Behavior Change



Summary

- Climate awareness and environmental concern strong in Austin Area
- Not necessarily a strong predictor of Environmentally Responsible Behavior
- Community, networks, trust mediates
- Inequity constrains

Summary

Invitation to

- Help steer climate and resilience report (March 2020)
- Help shape data collected by Austin Area Sustainability Indicators project (late-Spring 2020)

Questions & Feedback

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