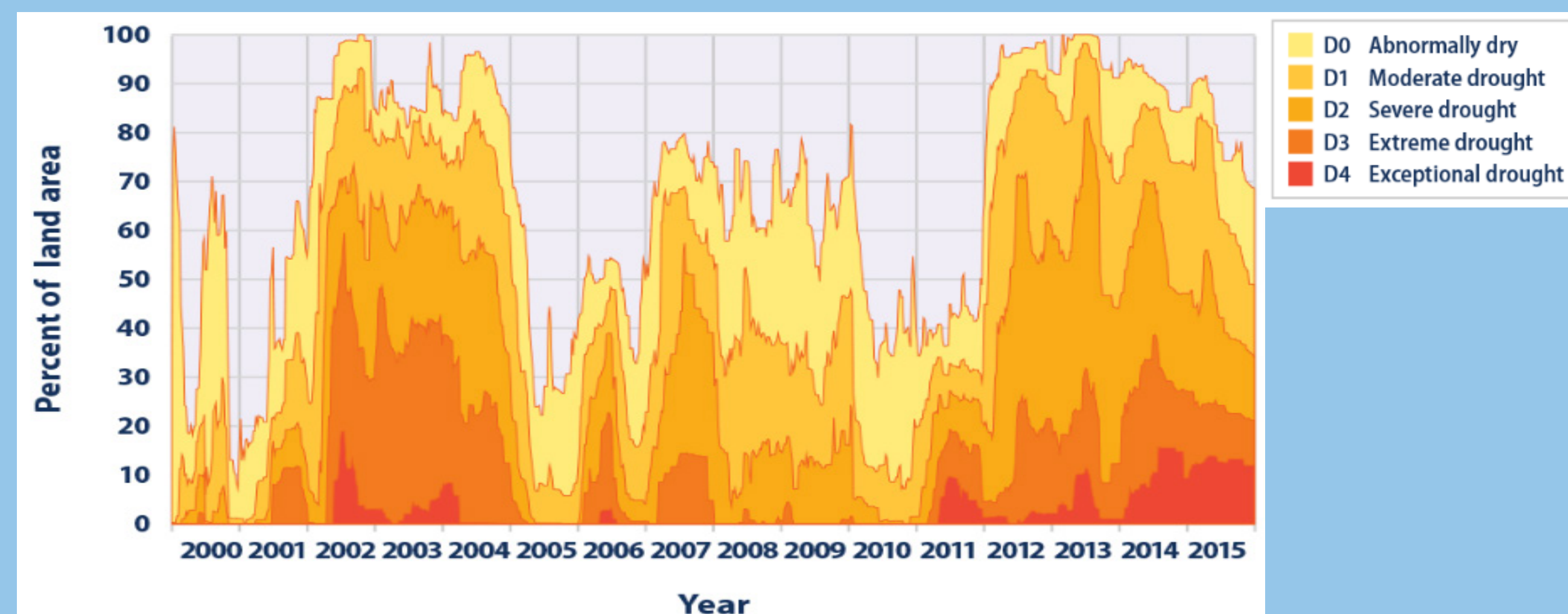


Exploring Resident's Xeriscaping Preference: The Influence of Ecological World View and Place Identity

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BACKGROUND

EPA: Southwestern U.S. Lands Under Drought Conditions, 2000-2015



- Most municipal water in Phoenix goes towards residential landscaping (Balling & Gober, 2007)
- By switching from irrigation to xeric (desert) landscaping, households can cut 40-70% of water use (Hilaire et al., 2008)
- Residents have cultural and historical aversion to xeric landscaping (Sokol, 2005)
- Previous research: White, male, higher income and education may lead to higher xeric preference (Larsen & Harlan, 2006; Larson et al., 2009; Yabiku et al., 2008)
- The longer you live in Phoenix, the less you prefer xeriscaping (Larson et al., 2009; Larson et al., 2017; Yabiku et al., 2008)
- It's unknown how identity with the desert affects landscape preferences

RESEARCH QUESTION

How do socio-demographics and identity with the desert influence residents' preference towards xeriscaping as a water conserving landscape choice?

METHODS

This research utilized specific questions from the larger 2018 Phoenix Area Social Survey (12 neighborhoods, N=496). These questions were analyzed using Ordinary Least Squares analysis.

EXPLANATORY VARIABLES:

Income
Education
Hispanic vs Non-Hispanic
Pro-Ecological Worldview (NEP Scale)
Length of Residence
Sex
Place Identity

DEPENDENT VARIABLE:

Combination of landscape preferences for both front and back yards:

- 4: xeric front + back
- 3: xeric + mesic, xeric + oasis, xeric + other
- 2: oasis front + back, oasis + other
- 1: mesic front + back, mesic + oasis, mesic + other

Xeric



Oasis



Mesic



RESULTS

- Respondents:
60% female
78% Non-Hispanic
57% college degree or higher
41% earn \$100,000 or more annually
- Neutral identity with the desert (mean = 3.48 on a 1-5 scale) and a fairly neutral ecological worldview (mean = 3.71 on a 1 -5 scale)

Explanatory Variables	Xeric Preference
	β
* Household Income	.140
Education Level	.085
* Hispanic	.165
Gender	-.061
* Residency	-.127
* Ecological Worldview	.151
* Place Identity	.158
Adjusted R ²	.180

Variables with a '*' indicates a significant relationship with xeriscape preference at the $p < 0.05$ level

SIGNIFICANCE

Hypothesis		OLS
↑ Income	↑ Xeric Preference	✓
↑ Education	↑ Xeric Preference	
Hispanics	↓ Xeric Preference	✓
Women	↓ Xeric Preference	
↓ Residency	↓ Xeric Preference	✓
↑ Ecological Worldview	↑ Xeric Preference	✓
↑ Place Identity	↑ Xeric Preference	✓

- In other studies, education is a strong predictor of environmentally responsible behaviors and sex a predictor of xeric preference – not supported by this study
- Other socio-demographic findings strengthen previous research
- Untested relationship between identity with the desert and xeriscaping was found to be positive.

DISCUSSION AND IMPLICATIONS

- Expand landscape literature to include additional variables related to identity, such as place dependence
- Work to foster identity with the desert! These types of connections can be more effective than policy alone (Inman & Jeffrey, 2006)
- Phoenix has a unique opportunity with our desert mountain parks.
 - Programs to increase park interest and visitation
 - Education programs about water conservation and xeriscaping at parks
- Further research needed to explore if identity with the desert leads to actual xeric landscaping

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