Security Questions: A Crowdsourced Dataset and Analysis of Bias

Jennifer Golbeck and Simon Li

College of Information Studies
University of Maryland

NIHILISTIC PASSWORD SECURITY QUESTIONS

by SOHEIL REZAYAZDI

What is the name of your least favorite child?

In what year did you abandon your dreams?

What is the maiden name of your father's mistress?

At what age did your childhood pet run away?

Data Collection

- 649 submitted questions
- 300 unique questions
- Labeled, normalized, categorized

People's Names (94) – names of people and pets. Names of locations or things are under other appropriate categories

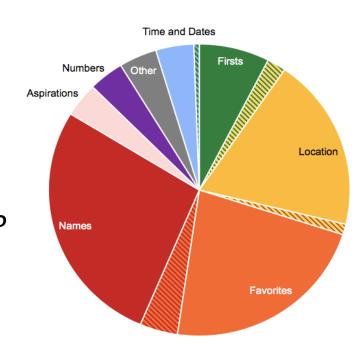
What is your spouse/significant other's father's first name? What is your spouse's mother's maiden name? What was the name of the best man at your wedding?

Favorites (77) – this includes "least favorite" items

What is your favorite musical instrument? What is your favorite kind of cookie? What is your favorite musician's name?

Locations (66)

What street did you grow up on? What school did you attend for sixth grade? In what city or town does your youngest sibling live?



Firsts (26)

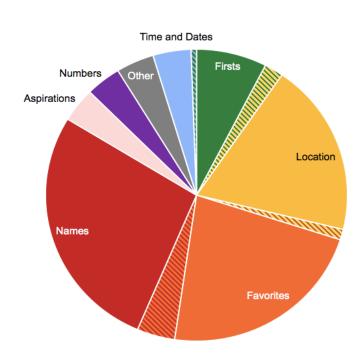
What was the first stage play you ever went to? What year did you first fly in an airplane? What was the first concert you attended?

Time and Dates (14)

What is the longest time you have lived in a city or town? When is your anniversary (mm/dd/yy)? What year did you get your first car?

Numbers (13)

What are the last four digits of your driver's license? What are the last four digits of your credit card? What are the last five digits of your student ID?

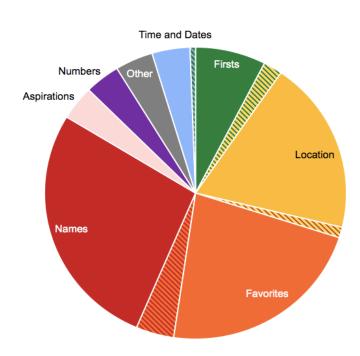


Dreams and Aspirations (13)

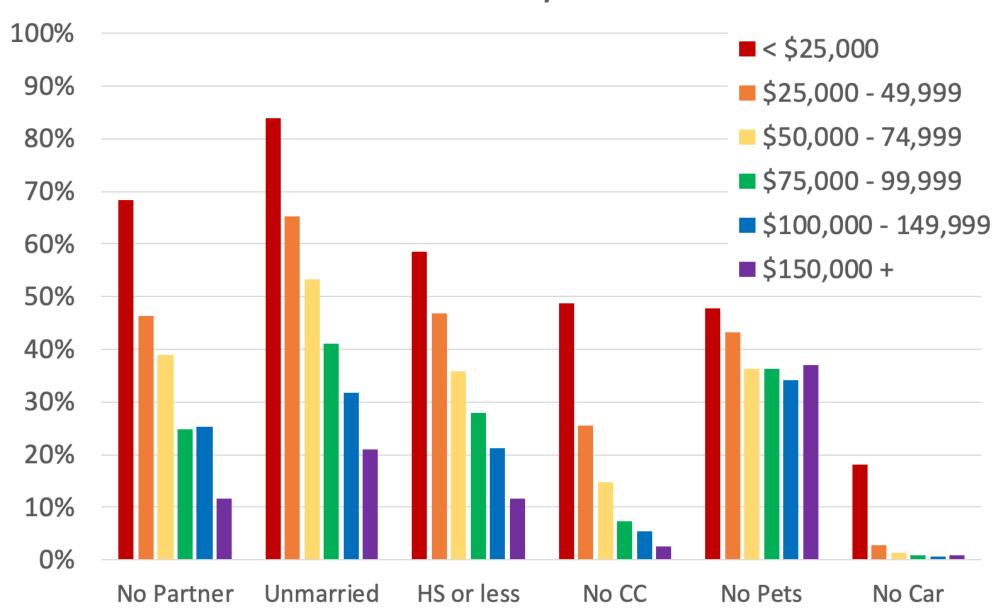
What is your dream job as a child? What city would you most like to visit? What is your dream car?

Other (14)

What was your high school mascot?
What is your most unique characteristic?
If you were an animal, what animal would you be?



Income Levels vs. Missing Personal Info in Common Security Questions



Data

https://github.com/jgolbeck/SecurityQuestions

Contact

jgolbeck@umd.edu

@jengolbeck