

Mind the Supply Gap



what is **Donors Choose.org** ?

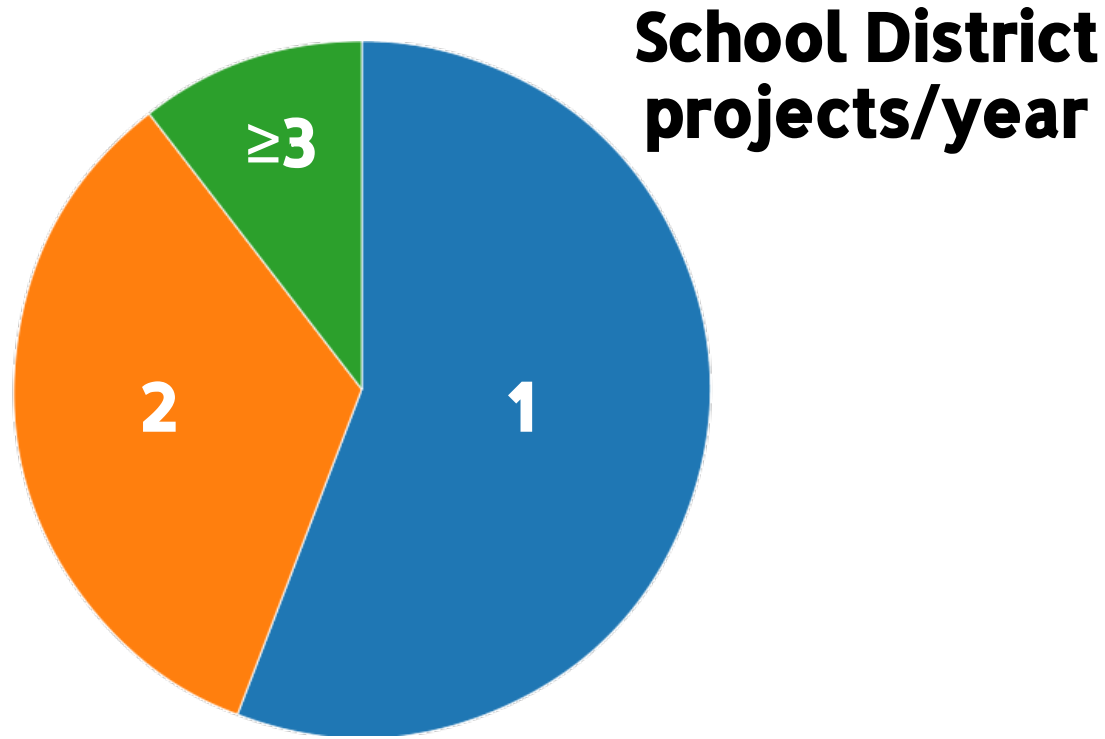
Teachers ask. You choose.

- non-profit organization
- public school teachers propose classroom projects
- you choose which project to donate to

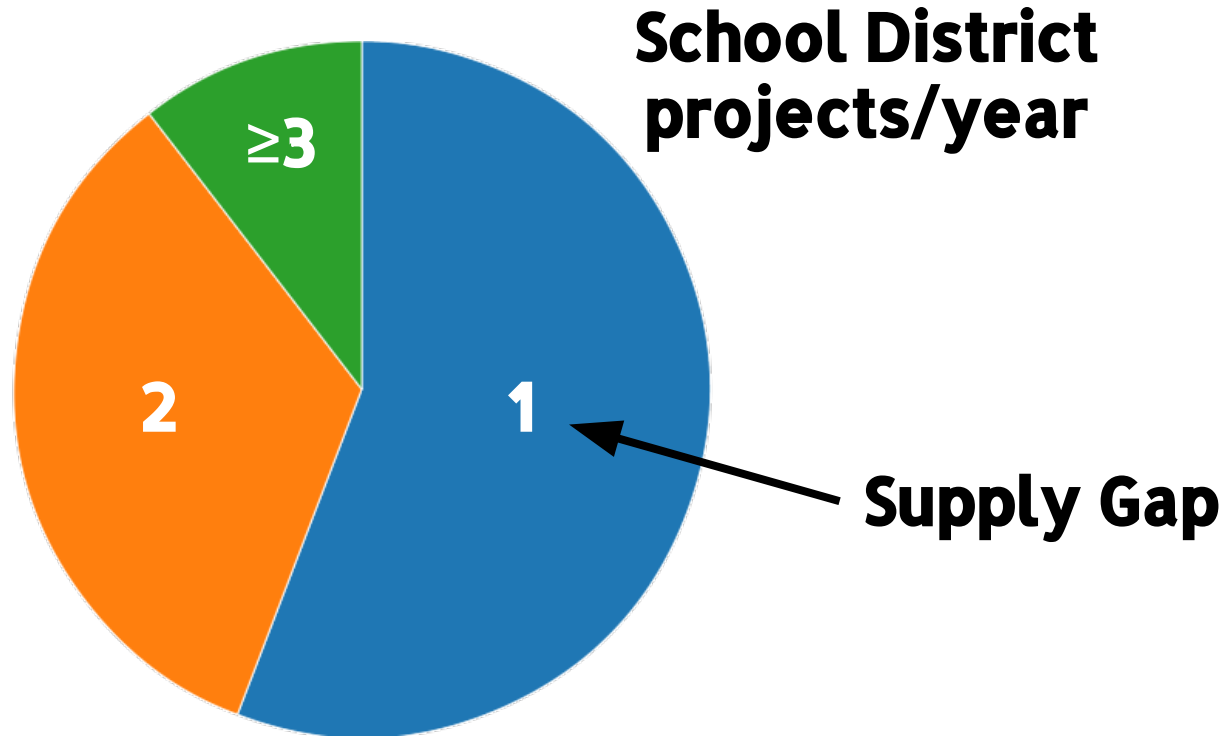
goal

find school districts who would benefit
most from DonorsChoose.org

goal



goal



specifically,

- find defining characteristics of active schools
- leverage demographic and education statistics to discover potentially active school districts
- recommend potential districts to the DonorsChoose team

data

- DonorsChoose.org project data
- National Center for Education Statistics (NCES)
 - school demographics
 - district local, state, and federal revenue
 - district expenditures
- US Census
 - economics and demographics by district

methods

- feature selection
 - feature importance with logistic regression and decision tree classifiers
- cosine-similarity
- district-potential metric
 - rank by RMS of the cosine-similarity
 - normalize


results

Mind The Supply Gap



on Donors Choose.org

finding school districts that
have some serious potential



score	name	ST
99	Napa Valley Unified School District	CA
99	Placentia-Yorba Linda Unified School District	CA
99	Redlands Unified School District	CA
99	Riverside Unified School District	CA
99	Sacramento City Unified School District	CA
99	San Diego City Unified School District	CA
99	San Jose Unified School District	CA
99	San Marcos Unified School District	CA
99	Capistrano Unified School District	CA
99	Ventura Unified School District	CA
99	Clovis Unified School District	CA
99	Conejo Valley Unified School District	CA
99	Simi Valley Unified School District	CA
99	Long Beach Unified School District	CA
98	Lucia Mar Unified School District	CA



next steps

- extend pipeline
 - recommend potential schools
 - recommend projects given similarity
- output statistics for targeted outreach
 - average students reached
 - average donations

thanks!



Donors Choose.org
Teachers ask. You choose.

interactive visualization on:
abshinn.github.io/mind-the-gap

code available on:
github.com/abshinn



Adam Shinn
github.com/abshinn