

# Opportunity Distance or Cleveland's Working Sister City

## Motivation

- Jobs influence people's decisions
- Government programs lack coordination
- Similar cities can work together to enact evidence-based policy changes

## Resources

- 15 million job postings from Indeed.com
- 23 variables

## Process

- Cleaned the data
- Aggregated city-level summaries
- Developed adaptable distance measure

## What Is America's Most Important Problem?

SURVEY DATES

Oct. 7-11, 2015

NO. OF RESPONDENTS

1,015

The economy\*

33%

Poorly run  
government

16

Immigration

8

Gun control

7

Health care

6

Education

4

\* Economic issues (e.g., debt ceiling, unemployment) were grouped into one category



SOURCE: GALLUP

$$D_{\text{opp}}(\mathbf{a}, \mathbf{b}) = \alpha_1 |a_1 - b_1| + \alpha_2 |a_2 - b_2| + \dots + \alpha_n |a_n - b_n|$$

Normalized dimensions:

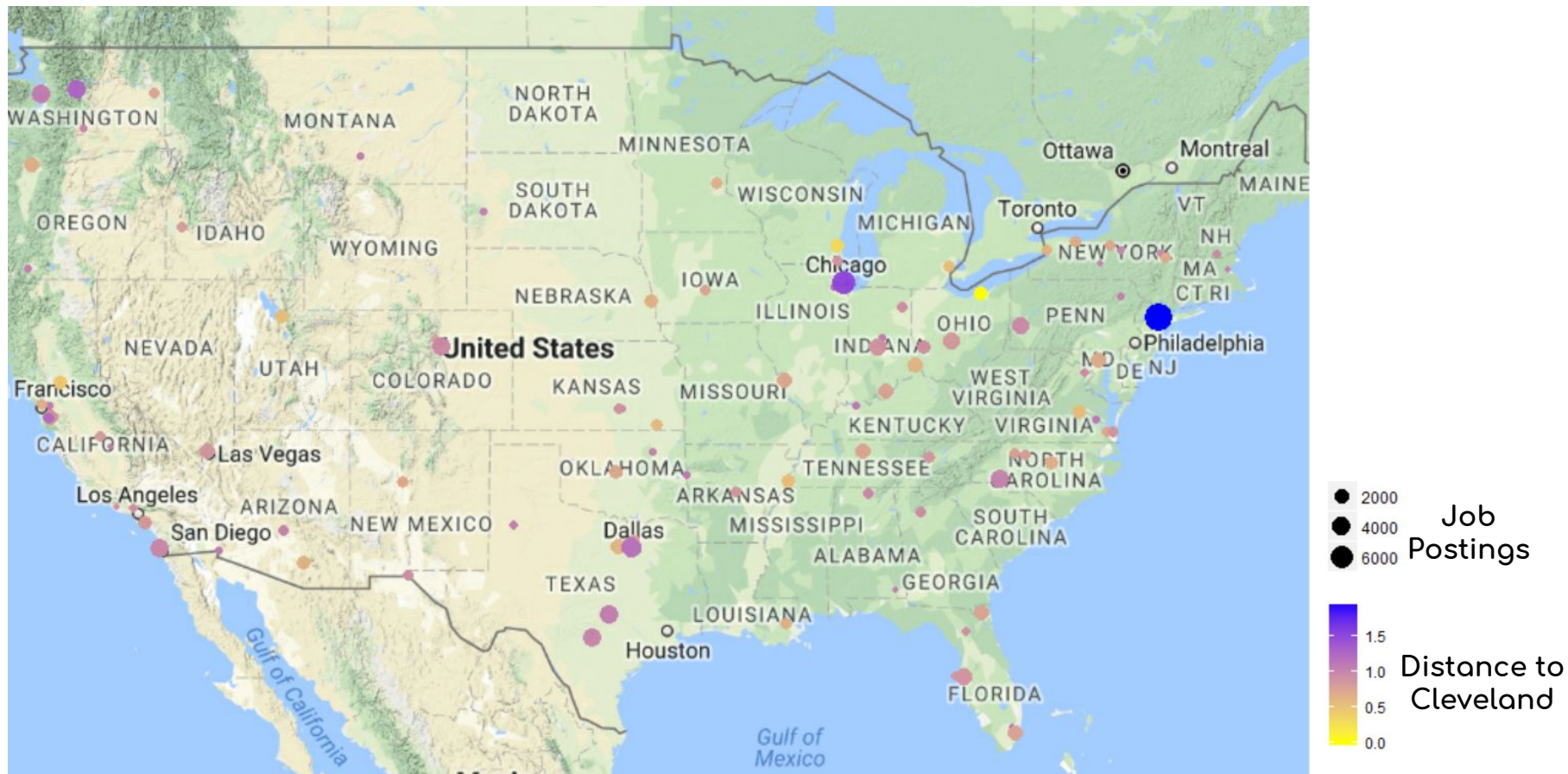
- meanSalary
- stdSalary
- jobCount
- companyCount
- meanRate (employer rating)
- lowExp (< 1 year experience)
- edRatio (higher ed required)
- Sector ratios:
  - Labor
  - Service
  - STEM
  - Public
  - Business
  - Medicine

Cleveland's Siblings:

city	stateProvince	jobCount	companyCount	edRatio	oppDist
Cleveland	OH	1077	678	0.5892857	0.0000000
Milwaukee	WI	1071	666	0.5949153	0.1009129
Sacramento	CA	1104	720	0.5708885	0.2139031
Detroit	MI	906	594	0.6443966	0.2815706
Salt Lake City	UT	1191	757	0.5553772	0.2867492

Distant Relatives:

Fort Bragg	NC	131	40	0.3700000	2.025067
Yuma Proving Ground	AZ	149	1	0.1946309	2.092504
Annapolis Junction	MD	139	74	0.8834951	2.228653
Chicago	IL	4666	2631	0.7604977	2.269040
New York	NY	7485	3870	0.8489703	3.778545



Unsupervised  
Learning