Diving into the Reality of the Illinois Exodus:

What are the Migration Trends in Major United States Cities and How Do They Compare to One Another?

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Abstract/Executive Summary

I.   Is the Illinois Exodus truly **unique**?

II. **Economic, Political, Social Impact** on Migration Rates in Major Urban Areas

III. **Correlation** Analysis and **Linear Regression** Analysis

IV. Re-evaluation of Illinois analysts' understanding of exodus **motivations**

V.   Limitations in too few variables and inability to account for **interconnectivity** of variables

VI. Basis for further research analyzing **urban impact** on migration trends

Introduction

Inspiration: Illinois Exodus
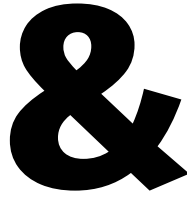
Variables: Housing Costs, Taxes, Job Opportunity

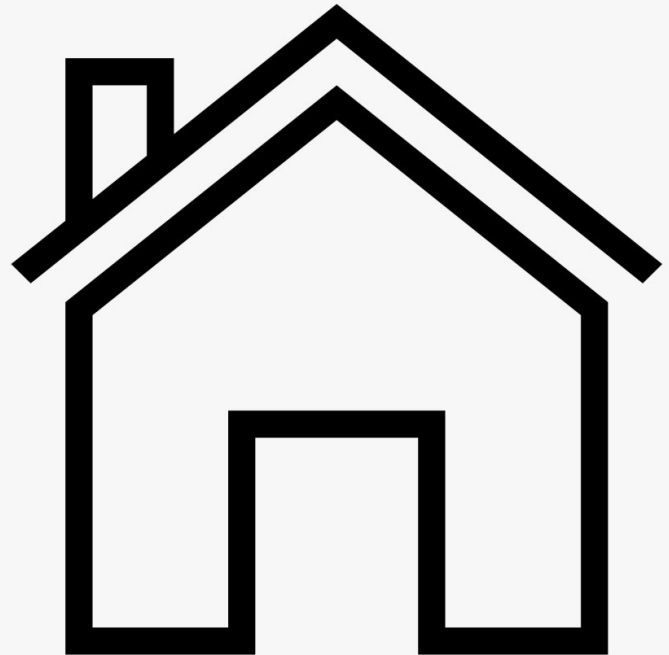*Sample*: New York, Los Angeles, Chicago, Houston

Contribution

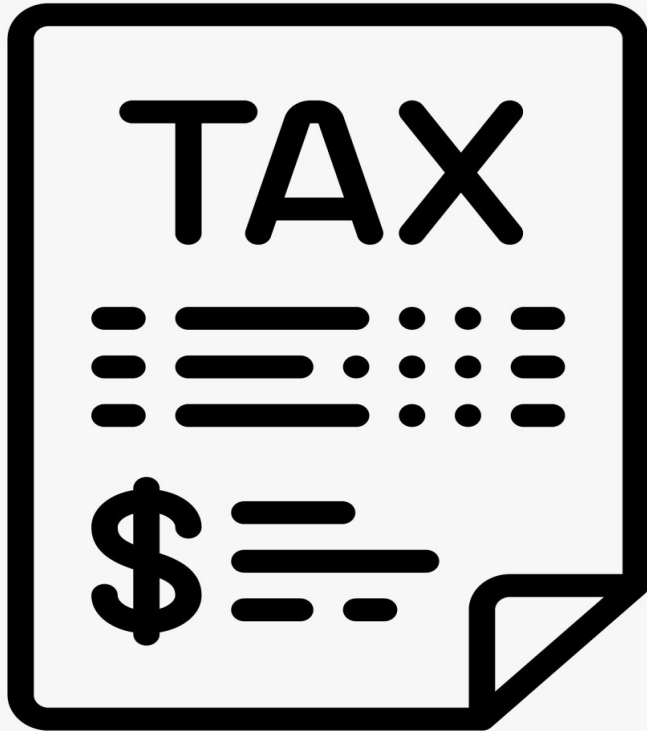
National and global implications

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Personal Implications

Review of Housing Cost Findings

- Established correlation between Cost of Living and Migration Rates

- Locational Preferences (Urban, Suburban, Rural)
 - Transition to suburban lifestyle
  - COVID-19

Review of Tax Policy Findings

- Tax revenue for funding public infrastructure and social programs
    - Inadequacy in benefits results in outmigration

- U.S competitive free market
    - Corporate tax rates

Review of Job Opportunity Findings

- Diversity of labor force
  - Choice is a luxury that enables opportunity for job satisfaction

- Job satisfaction results in externalities
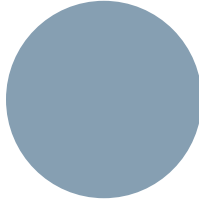 - Societal and economic impact
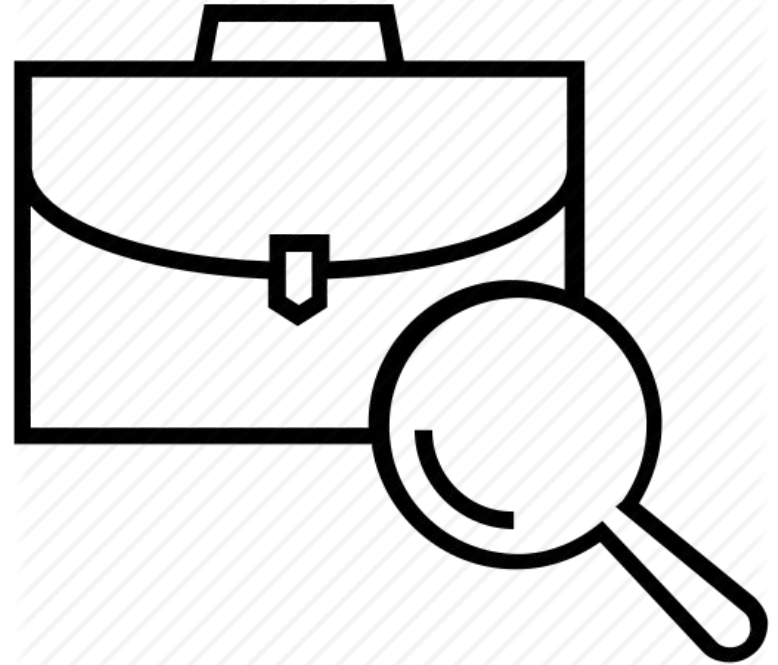
Methods
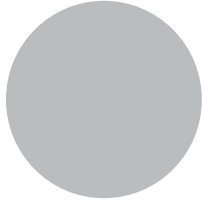
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Participants

New York, NY
Los Angeles, CA
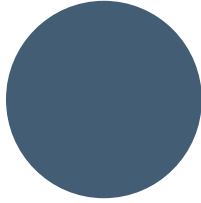Chicago, IL
Houston, TX

02

Variables

Housing Costs: median property value, housing appreciation rates, cost of living index

Tax Rates: income & corporate tax rates

Job Opportunities: unemployment rate, top industry salary

Methods

03

Materials

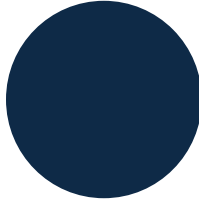DataUSA: Database storing publicly available government data

Accuracy and ethicality of data collection

04

Analysis Techniques

Correlation: calculation of the correlation coefficient to determine the relationship (if any) between variables

Linear Regression: attempts to determine the strength and character of the relationship between the X and Y variables for future prediction

Variable	Year		Chicago	New York	Los Angeles	Houston
Housing Costs						
	2010	Median Property Value	$190,000.00	$383,699.00	$330,500.00	$152,500.00
	2010	Appreciation Rates	2.30%	3.97%	4.54%	4.69%
	2010	Cost of Living Index	85.41	100	90.87	86.97
	2018	Median Property Value	$271,600.00	$645,100.00	$682,400.00	$179,100.00
	2018	Appreciation Rates	2.48%	4.68%	6.69%	2.61%
	2018	Cost of Living Index	77.75	100	78.2	63.62
Taxes						
	2010	Income Tax Rate	3.00%	2.907-3.876%	1-12.3%	0.00%
	2010	Corporate Tax Rate	7.30%	7.10%	8.84%	0.00%
	2018	Income Tax Rate	4.95%	3.078-3.876%	1-13.30%	0.00%
	2018	Corporate Tax Rate	9.50%	6.50%	8.84%	0.00%
Job Opportunity						
	2010	Unemployment Rate	12.20%	9.50%	13.90%	6.20%
	2010	Average Salary	$35,690.27	$35,690.27	$35,690.27	$38,702.53
	2018	Unemployment Rate	4%	4.20%	4.50%	3.90%
	2018	Average Salary	$54,020	$54,020	$54,020	$35,800

*Average salary is for top industry within each city. The 2010 values have accounted for inflation.

Migration Rates						
	2010-2018	Statewide Population Chan	-0.22	-0.05	2.19	4.79

Data/Results

Variable	Change (2010-2018)	City			
.	..	Chicago	New York	LA	Houston
Cost of Living					
	Median Property Value	$81,600.00	$261,401.00	$351,900.00	$26,600.00
	Housing Appreciation Rate	2.30%	3.97%	4.54%	4.69%
	Cost of Living Index Score	-7.66	0	-12.67	-23.35
Taxes					
	Income Tax Rate	1.95%	0.17%	3.00%	0%
	Corporate Tax Rate	2.20%	-0.60%	0.00%	0.00%
Job Opportunity					
	Unemployment Rate	-8.200%	-5.30%	-9.40%	-2.30%
	Top Industry Salary	$18,329.73	$18,329.73	$18,329.73	($2,902.53)
Migration Rate					
	negative = outmigration	-0.22	-0.05	2.19	4.79
	positive = inmigration				

Correlation Analysis Results

	migration rate
Migration Rates	1
Median Property Value	-0.320465
Housing Appreciation Rat	0.7394426
Cost of Living	-0.937546
Income Tax Rate	-0.2413
Corporate Tax Rate	-0.361383
Unemployment Rate	0.5698821
Industry Salary	-0.883844

CORRELATION ANALYSIS
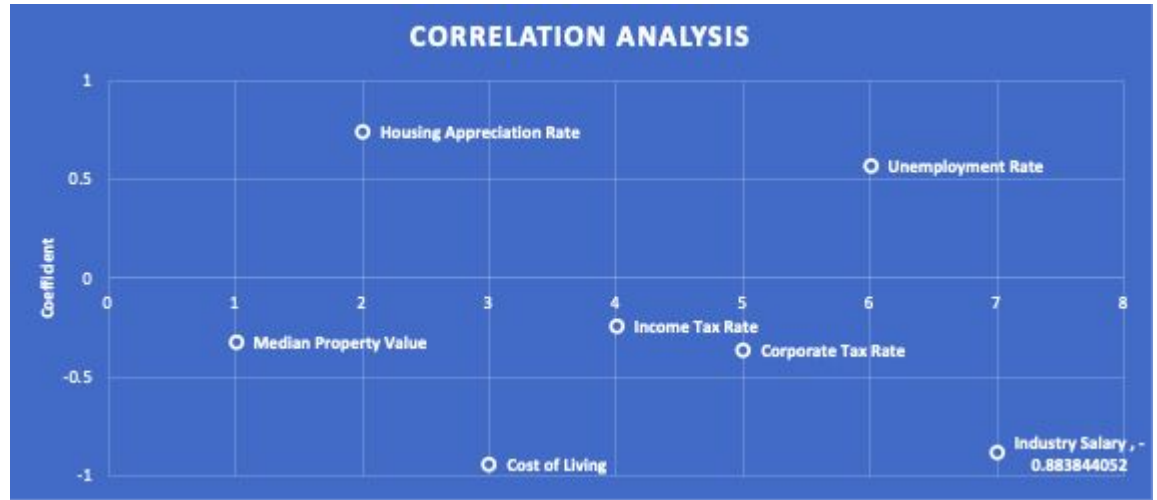
Looked specifically at the migration rate vs. each variable correlation coefficients
- -1 to 1 scale
  - -1: perfect negative correlation
  - 0: no correlation
 - 1: perfect positive correlation

Regression Analysis Results

| Variable	Multiple R	Adjusted R Square	Standard Error	P-Value
Median Property Value	0.72925832	0.063635387	2.343893867	0.3199239
Housing Appreciation	0.93313026	0.741464157	1.231617431	0.2551046
Cost of Living	0.99576345	0.983089697	0.314985922	0.0586212
Income Tax Rate	0.09354797	-0.982497553	3.410529232	0.5040021
Corporate Tax Rate	0.84377604	0.423916008	1.838477631	0.227
Unemployment Rate	0.4593867	-0.577927722	3.042699053	0.4812275
Industry Salary	0.88667991	0.572402509	1.58391919	0.1979543

- Multiple R: correlation coefficient
- Adjusted R Squared: goodness-of-fit for regression model variables
- Standard Error: average distance the observed values fall from the regression line
- P-Value: reject the null hypothesis if p<0.05

Discussion

- Taxes results show smaller impact than expected
- Disconnect between residents and government on job opportunity
  - Industry salary
- Cost of living and housing appreciation rates presented the strongest correlations
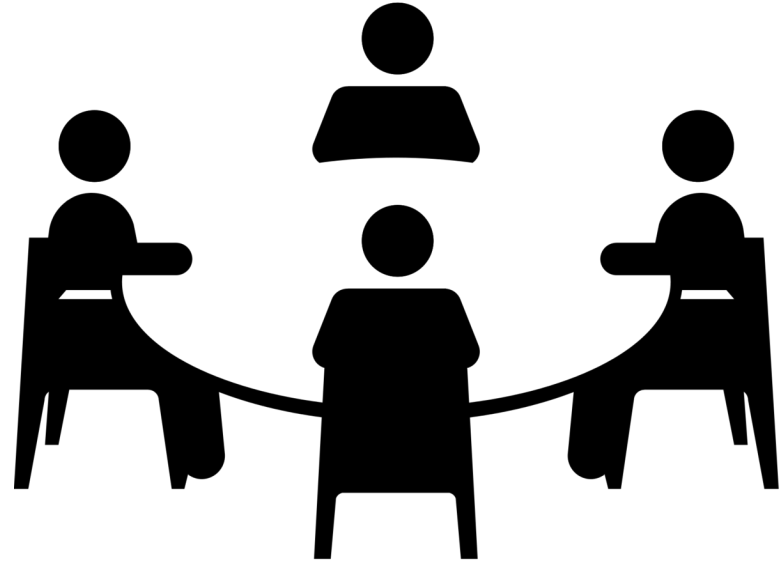
Interpretations
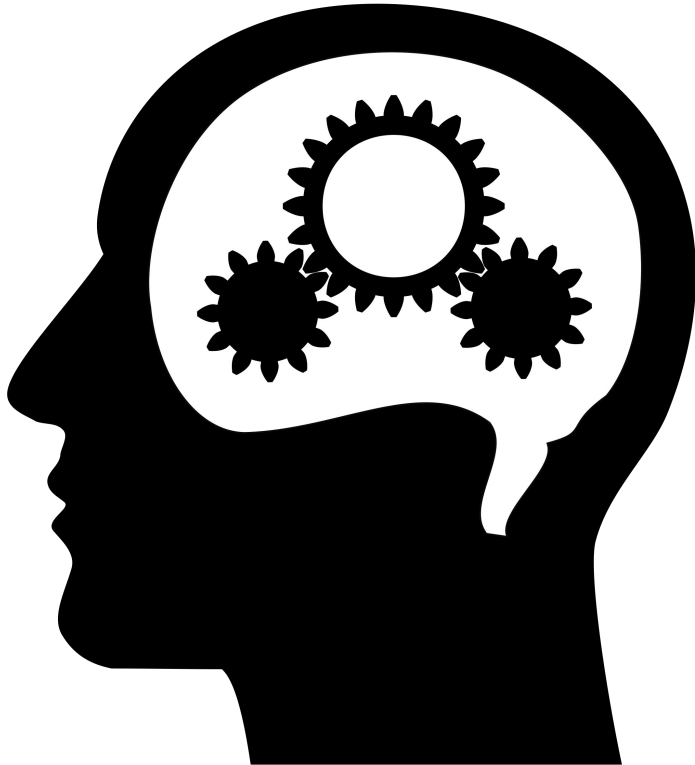
- Insignificance in data shows complexity of migration
  - One size does not fit all

- Cost of living
  - Combination of all three variables

Limitations

- Statewide data

- COVID-19 Changes
  - Economy, worklife, social implications

- Personal preferences
  - culture

Recommendations

- City Culture

- Government Involvement and transparency