

Geographic Trends in Industry Segmentation

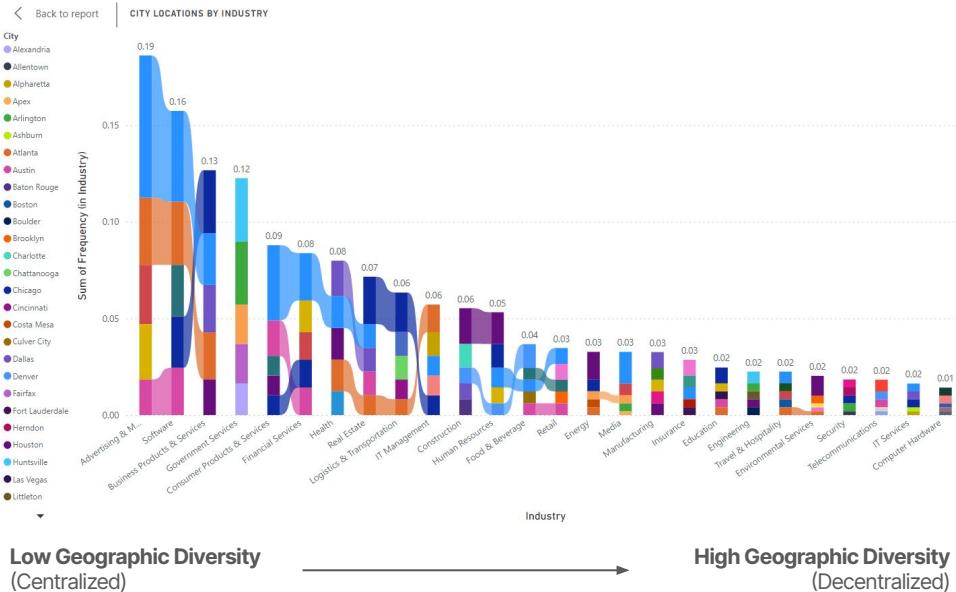


Figure 1: Visualization created from INC 5000 (2019) Dataset, Top 5 Cities in Each Industry Segment
<https://www.kaggle.com/datasets/mysarahmadbhat/inc-5000-companies/data>
<https://www.inc.com/inc5000/2019>

Industry	Frequency	City
Advertising & Marketing	7.36%	New York
Business Products & Services	3.27%	Chicago
Computer Hardware	0.41%	Minneapolis
Construction	1.84%	Houston
Consumer Products & Services	3.89%	New York
Education	0.82%	Chicago
Energy	1.43%	Houston
Engineering	0.61%	Huntsville
Environmental Services	1.02%	Houston
Financial Services	2.45%	New York
Food & Beverage	1.23%	Denver
Government Services	3.27%	Arlington
Health	1.84%	Dallas
Human Resources	1.64%	Houston
Insurance	0.82%	Miami
IT Management	1.43%	Atlanta
IT Services	0.41%	Chicago
Logistics & Transportation	2.04%	Chicago
Manufacturing	0.82%	Dallas
Media	1.64%	New York
Real Estate	2.45%	Chicago
Retail	0.82%	Miami
Security	0.41%	Arlington
Software	4.70%	New York
Telecommunications	0.61%	Portland
Travel & Hospitality	0.61%	New York

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Construct of Interest

LLaMa's assumption of a geographic location based on industry segments may reinforce stereotypes (e.g., associating all software companies with Silicon Valley).

Operationalization

Conditions

Industry Segments (28) + Neutral

US States (24)

Frame Sentences

18 Sentences \Rightarrow 9,222 Total Outputs

(Cleaned from 12,096)

Evaluation Metrics

1. Accuracy to Raw Dataset Per Industry Segment
2. Geographic Diversity/ Centralization

Performance

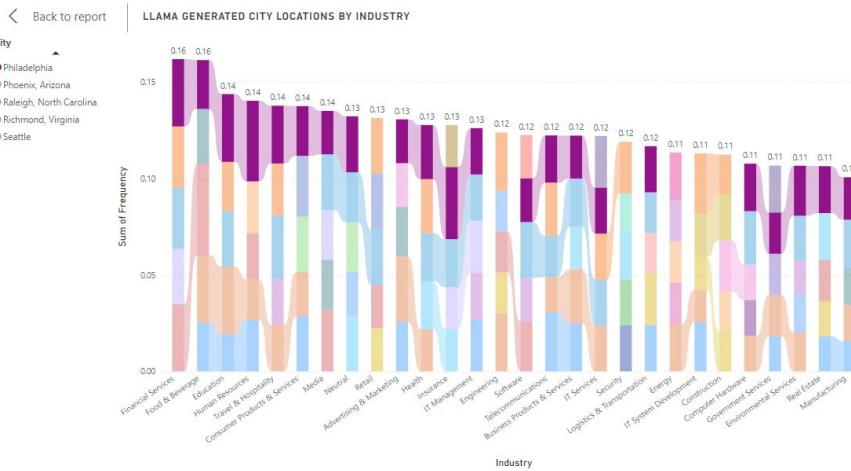


Figure 2: Visualization created from LLaMA Generation Prompts, Top 5 Cities in Each Industry Segment, Philadelphia Spotlighted

Neutral Results

Denver (2.90%)

Philadelphia (2.90%)

Nashville (2.58%)

NYC (2.58%)

Detroit (2.26%)

Best Accuracy

Health (3/5)

Business Products & Services (2/5)

Construction (2/5)

Energy (2/5)

Financial Services (2/5)

Worst Accuracy

Government Services (0/5)

Logistics & Transportation (0/5)

Manufacturing (0/5)

Security (0/5)

Telecommunications (0/5)