Mapping Areas in Need of Immigrant-Focused Crisis Support

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Introduction

- Public Libraries have been seen as vital public institutions in supporting community resilience to crises by providing information services and coordinating cross-public sectors.

- Serving immigrants in crisis is an integral component of inclusive service provision.

- By pinpointing areas in need, public libraries can offer more tailored, efficient, and impactful services to immigrant communities.

Photo courtesy of School Library Journal, and Technology & Information Policy Institute, University of Texas
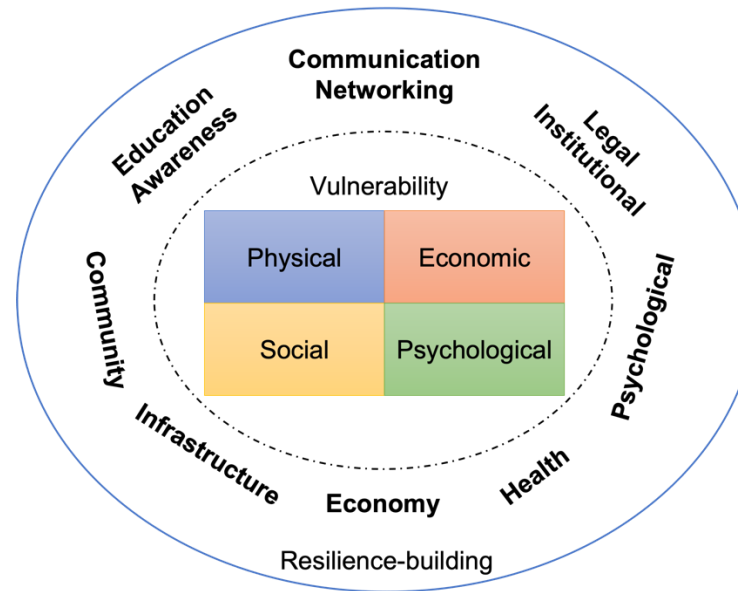
This Study

- Aims to outline a method to identify the critical areas in need of immigrant-inclusive crisis support by integrating the socioeconomic, natural hazard risk, and broadband use information of counties.

- Will serve as a foundational step toward future work to investigate the status of immigrant-inclusive library services.

Related Work

Vulnerability is multi-dimensional, stemming from various sources and intersecting in complex ways for immigrants.

- Studies focus on the vulnerability of immigrants in disasters but not much on the needs of immigrants from under-resourced communities.
- Lack of systematic research on libraries serving immigrants in crisis.

Methods

Data

- Utilize multiple sources of geographical information to identify counties with a relatively high proportion of immigrants, and a lack of resources and facilities.

American Community Survey

National Risk Index

Indicator of Broadband Need

IMLS Public Libraries in the US

Methods

Analysis

- Merge variables for counties.
- Conduct statistical analysis for indicators of immigrants from ACS.

Table 1. Spearman's rank correlation rho for indicators of immigrants.

	Naturalization	Not US Citizen	Spanish Speaking	Other Language
Naturalization	1.00	0.75	0.64	0.53
Not US Citizen		1.00	0.82	0.45
Spanish Speaking			1.00	0.25
Other Language				1.00

Methods

Analysis

- Conduct statistical analysis for indicators of immigrants and risk factors.

Table 2. Spearman's rank correlation rho for indicators of immigrants and broadband use, risks, and poverty.

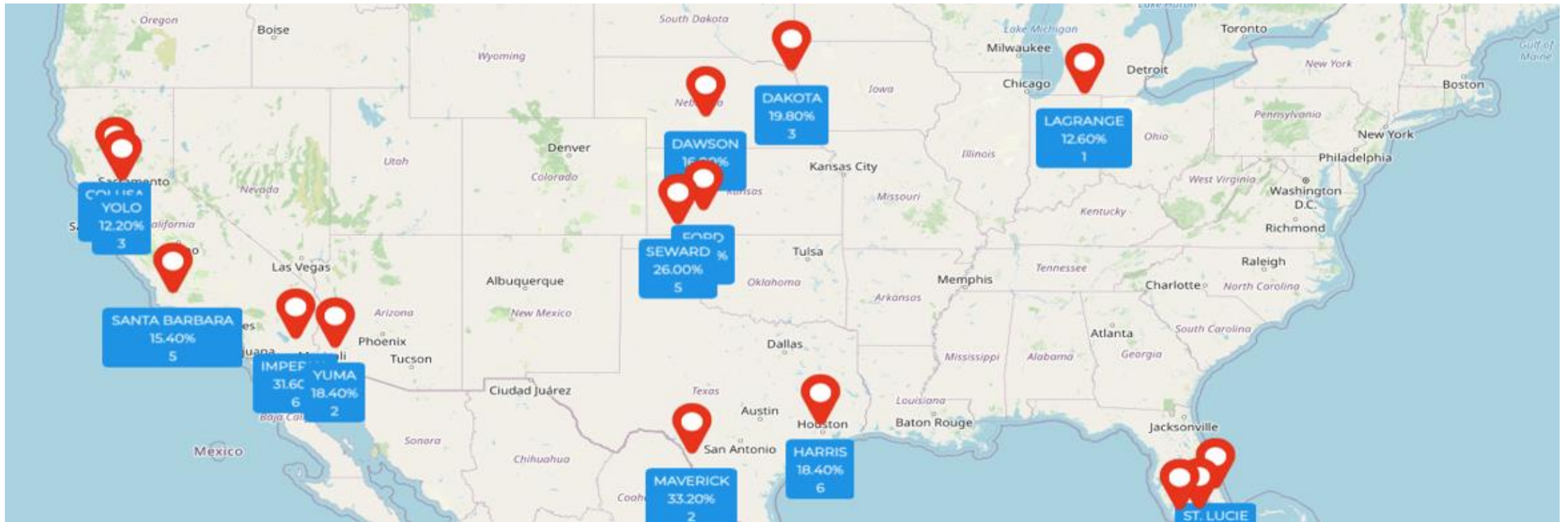|	Naturalization	Not US Citizen	Spanish Speaking	Other Language
No computer	-0.57	-0.44	-0.27	-0.40
Not Internet	-0.52	-0.37	-0.19	-0.42
Broadband use	0.34	0.26	0.17	0.34
Natural hazzard risk	0.49	0.46	0.39	0.41
Resilience	0.16	-0.01	-0.14	0.30
Poverty	-0.27	-0.13	-0.05	-0.16

Methods

Analysis

- Conduct clustering analysis to identify counties share similar patterns.

Table 3. Kmeans cluster centroids for clustering of counties.

Clusters	Households	Broadband	Risk	Naturalization	Spanish	Other	Poverty
1	0.30	0.59	1.00	0.34	-0.04	0.30	-0.43
2	-0.24	0.22	-0.65	-0.38	-0.38	-0.28	-0.58
3	-0.29	-2.05	-0.62	-0.41	-0.23	-0.27	0.72
4	-0.21	0.14	0.12	-0.18	0.23	-0.25	0.77
5	2.40	0.58	1.26	3.33	2.21	2.62	-0.29

Results

Geographic distribution of 15 counties identified, and 48 public libraries in these counties.

Conclusion

- Using a robust investigation of data related to public needs, this study identifies the top 15 US counties where immigrant- focused community resilience services may be needed.

- The next step in our work is to conduct further investigation on the status of the inclusivity of immigrants in crisis-related services by public libraries

Thank you!
Any questions?