

Geospatial mapping of Resources for refugee integration in Concord New Hampshire

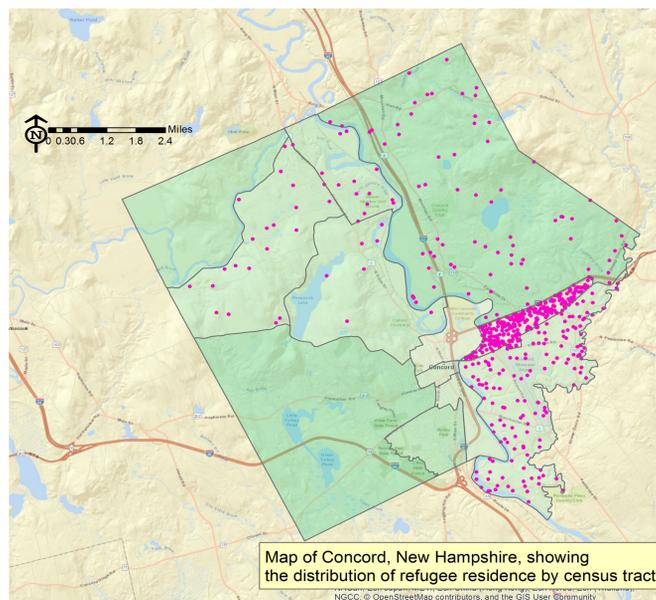
Background

The Refugees in Towns (RIT) project is a Tufts University research project seeking to understand how refugees integrate into host communities around the world¹. It is currently examining challenges associated with migration, co-existence with host communities and integration mechanisms among refugees. Its overall goal is to develop theories on refugee integration to inform policy makers, community leaders and organizations on best practices for integration interventions. This poster contributes to RIT's work in refugee communities in Concord, New Hampshire. Using geospatial techniques, it maps aggregated and anonymized refugee residence and community resources that foster integration according to the Ager and Strang framework (2004)². It also measures geospatial distances between aggregated residence and integration resources in Concord, New Hampshire.

Objective

The goal of this project is two-fold:

1. To show spatial associations between refugee residence and likely uptake of integration resources, namely health, housing, rights & advocacy resources and English learning services; and
2. Serve as a baseline for monitoring the level of integration over time in Concord, New Hampshire.



census tracts by median income

- lowest quintile
- lower quintile
- middle quintile
- higher quintile
- highest quintile

refugee density

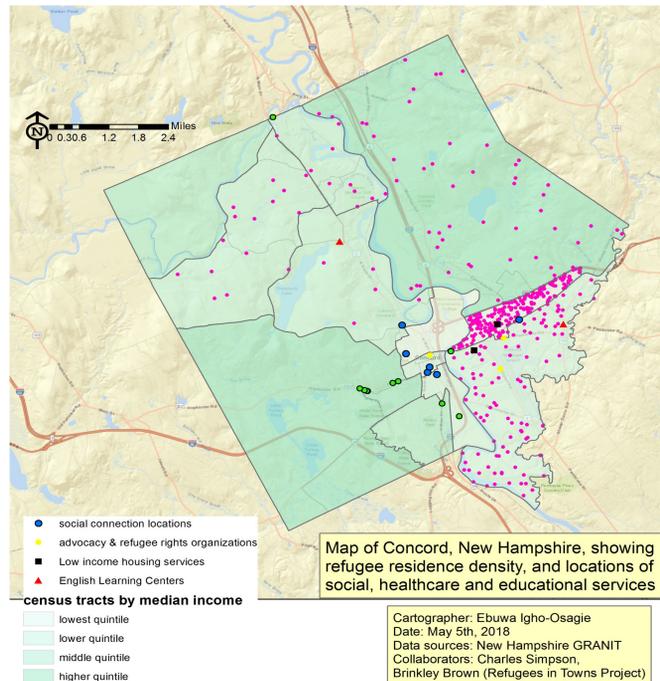
- 1 Dot = 2
- number

Cartographer: Ebuwa Igho-Osagie
Date: May 5th, 2018
Data sources: New Hampshire GRANIT
Collaborators: Charles Simpson, Brinkley Brown (Refugees in Towns Project)

Overall, this project is important because geospatial mapping of resources for refugee integration can reveal areas of need and access challenges to services. Also, refugee dispersal across the city over time and into wealthier areas may be a predictor of successful integration because it suggests that refugees have formed bonds with people outside their initial residences and have become able to afford housing in wealthier parts of the city.

Data Collection

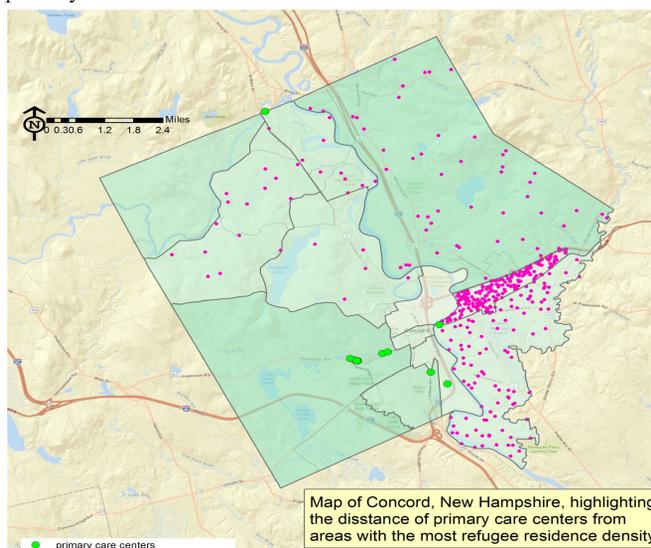
Refugee residence data was received from Brinkley Brown and Charles Simpson, researchers at the RIT project. To ensure anonymity of individuals, residence data was aggregated at the census tract level. The residence data contained information on over 700 refugees residing in the city, almost half of the 1,500 refugees living in Concord. Location information on the following resources for – English learning centers, low income housing organizations, refugee rights and advocacy organizations and cultural centers – were also provided by the case researcher. Other information used in this study included primary care centers, road networks and census tract information and were downloaded through the New Hampshire GIS clearing house NH GRANIT. All information collected from GRANIT were the 2017 editions.



Geospatial mapping and analysis

ArcMap 10.5.2 geostatistical software was used to perform all mapping and geospatial analysis. Shapefiles on Concord census tracts were joined to excel tables containing information on census tract median incomes and refugee residence. A dot density map was produced and showed the dispersion of refugee residence in Concord by census tract. Each dot represented 2 individuals. Other maps were created showing the location of identified integration resources relative to refugee residence.

Special focus was placed on access to primary care and pediatric services. Thus, a network analysis was performed to determine driving distances to identified primary care and urgent care services in Concord. One and two-mile buffers were selected as cut-offs based on findings by Turrentine et al³, that 10-minute increases in drive times to hospitals predict increases in readmissions after surgery. Because this indicates low access to follow-up care, the one- and two-mile cut-offs were selected as a proxy for access to out-patient primary care services.



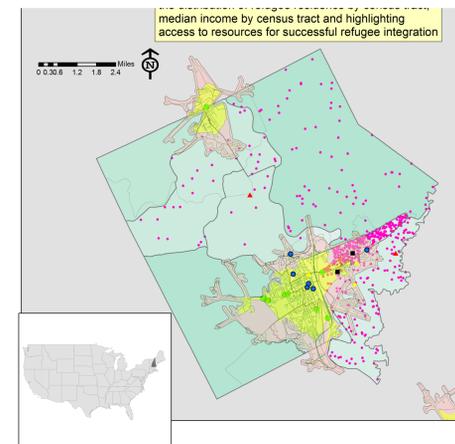
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Results

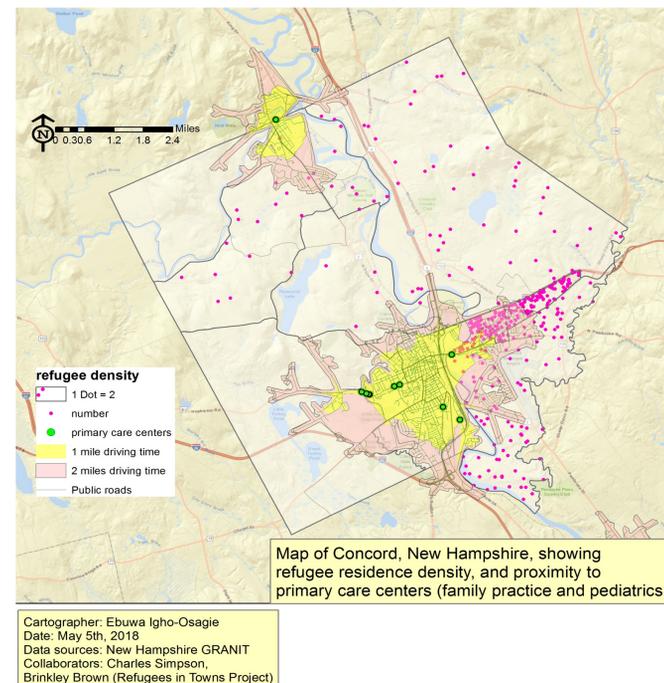
Refugees in Concord tend to be more concentrated in census tracts in low median income quintiles. Some residence was observed in higher quintiles, but no residence was noted in some of the highest quintile census tracts. All integration resources were located close to the areas with the highest refugee residence concentration, except one English language center which, though located far away from high concentration areas, is still located in a census tract with refugees. Primary care and urgent care centers were concentrated in high median income areas, thus far away from areas with high refugee residence concentration. The network analysis showed that most refugees would have to drive much longer than 2-miles to access primary healthcare or utilize urgent care centers.



Discussion

Refugees tend to self-segregate upon arrival in host communities.⁴ Although this is good for social bonding and maintaining a sense of identity and culture, this ethnocentricity creates isolation and prevents full integration with host communities. By failing to associate with host communities, refugees may miss opportunities to learn host languages and norms or laws that govern society. Also, refugees tend to lack employment opportunities in host communities because they lack recognized and/or required employment or academic credentials or due to language barriers. They thus tend to reside in poorer communities with poor access to social amenities. This study has shown that refugees in Concord New Hampshire are spread across the state but restricted to lower income census tracts. It also shows higher concentration in the poorest of these census tracts.

Refugees in Concord may also face access challenges in seeking primary and urgent care services. However, this problem may not be restricted to refugees alone as host community members in those census tracts located far away from primary care facilities will face similar access challenges.



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Conclusion

Subsequent geospatial studies may repeat this mapping exercise as part of a longitudinal study on refugee integration in Concord, New Hampshire. Increase in residence in higher income neighborhoods may be indicative of improved employment opportunities and increased interaction with host members. This study points out primary care access among refugees and may inform state and private healthcare agencies on the location of new healthcare services.

References

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4. Janssen, C. (2017). Refugee integration and self-organisation: Spatial strategies supporting the role of self-organisation in integration policies.