Worker Cooperatives in New York City

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INTRODUCTION

Worker coops are defined as business entities that are owned and controlled by their members, the people who work in them.
The Democracy at Work Institute, and other advocacy groups state that worker cooperatives are beneficial because they build local wealth, create quality jobs and meaningful change for underserved populations.

The goal of our project is to map NYC worker cooperatives in relation to city wide demographic and socioeconomic data in order to explore claims relevant to whether worker cooperatives are useful models of economic empowerment within economically and socially marginalized communities.

Our hypothesis, given these claims, is that spatial correlations exist between worker cooperative locations and low-income communities in New York City.

RESEARCH OBJECTIVES

• WHAT is the *geographic distribution* of worker coops in NYC?
• What is revealed in mapping worker coop locations relative to spatialized socio-economic data?
• What do these maps show about WHERE and to WHAT EXTENT *local economies* benefit from the development and growth of worker coops?
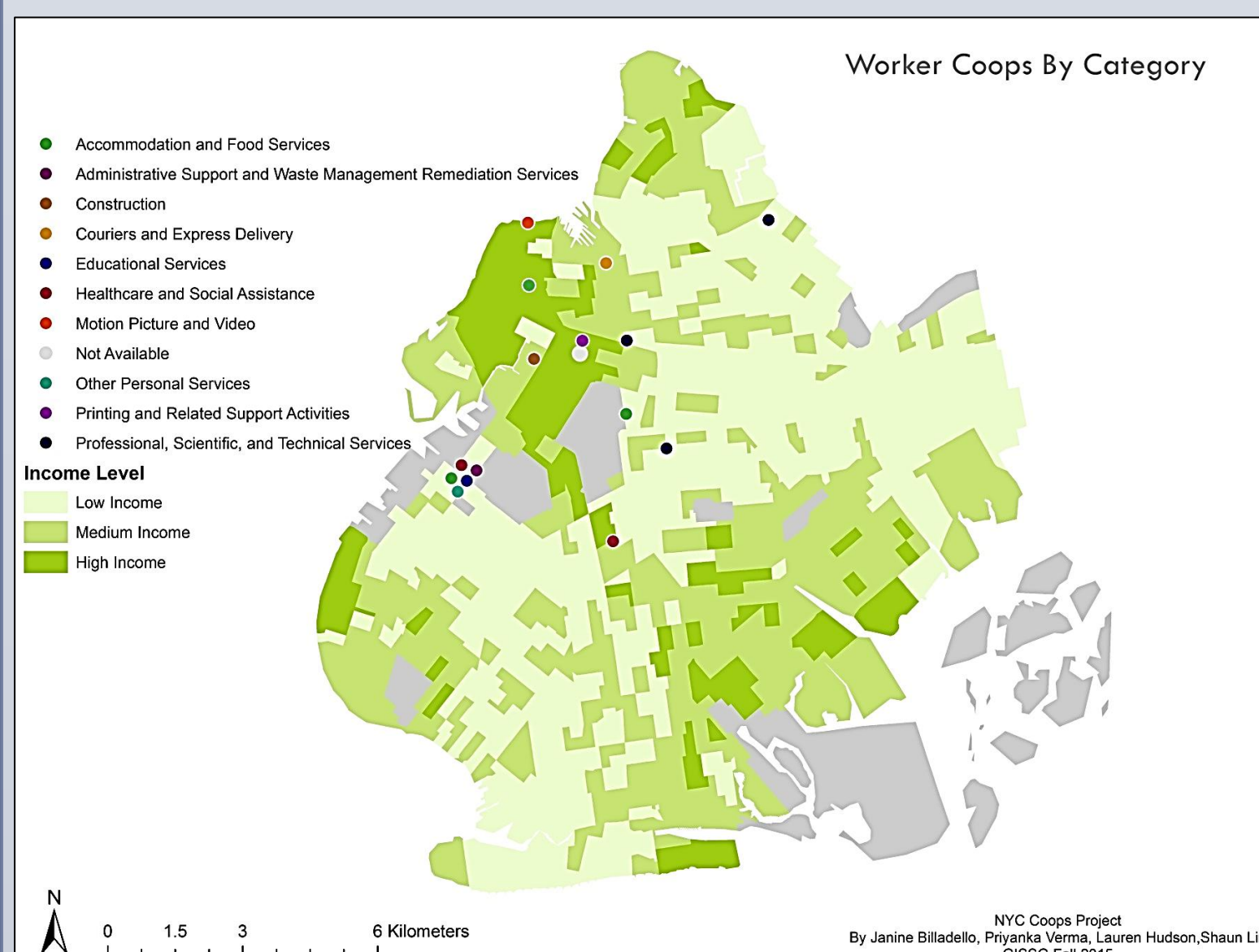
Coop Locations in Brooklyn, Visualized by NAICS code categories

DATA SOURCES

Tabulated data on active NYC worker coops was provided by Dr. Pavlovskaya as a subset of survey data collected by the Mapping the Solidarity Economy project.

Decennial census (2010) data and census tract shapefiles were downloaded through the Baruch College NYC Geodatabase.

All visualization and analysis was done in an ArcGIS 10.2 environment.

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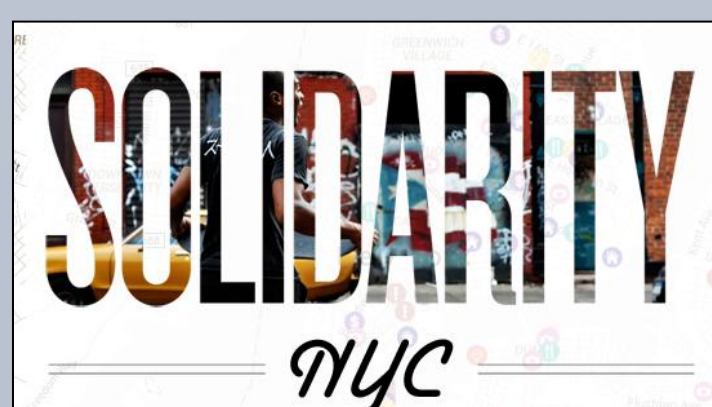
The authors would like to thank Dr. Pavlovskaya and Hunter College for the opportunity to carry out this research.

METHODOLOGY

• Data massaged and point shapefile geocoded with Google Maps Geocoding API(V3) to visualize spatial location of coops over a basemap of NYC boroughs and Census Tracts.

• Python script written in Python's geopy library to facilitate creation of the NYC coops shapefile and output the coordinates.

• Shapefile layers were reprojected into NAD 83 NY State Plane Long Island (feet)

• Five coops in Brooklyn geocoded to the same location and displayed as stacked points—so the points were manually dispersed within their bounding Census Tract.

• Joins performed between tabulated 2010 Census socio-economic data to Census Tracts geographies, and NYC Coops to Census Tracts.

• Field calculator tool used to create new fields from existing fields in survey data, such as "Payroll per worker," based on Annual Total Payroll per coop divided by Total number of workers.

RESULTS

Visualizing the NYC Coops revealed that the majority (16 of 21) of the coops are clustered in the upper and central regions of Brooklyn.

Therefore, we focused our analysis on the borough of Brooklyn in order to understand whether any unique spatial patterns would be revealed by plotting cooperatives against localized (Census Tract level) socio-economic data.

Mapping the spatial distribution of the coops in relation to Median Household Income reveals that coops located in upper-middle regions of Brooklyn are also located in tracts with the highest income brackets:
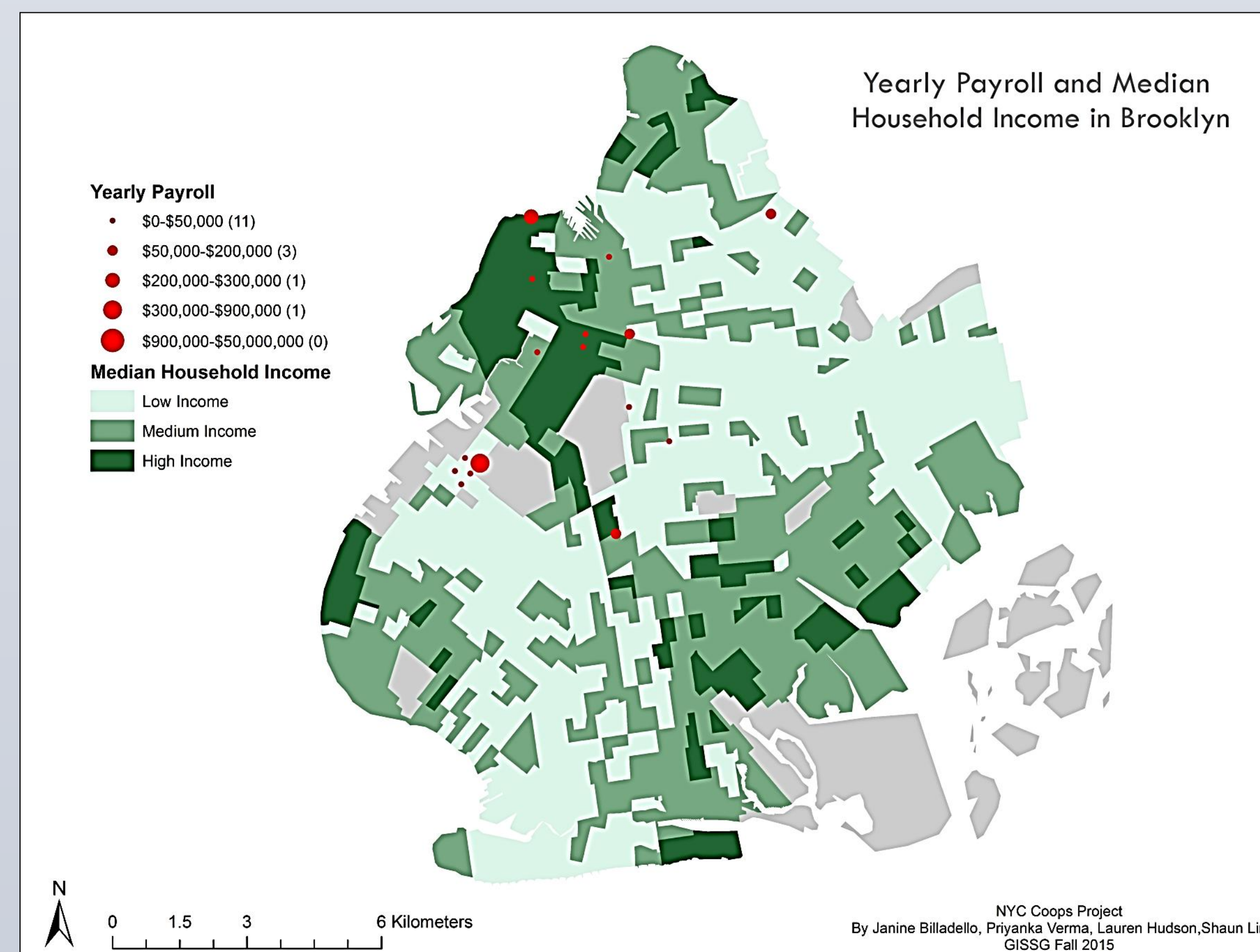
The remaining coops fall within middle income tracts, but interestingly, none are located in the lowest income tracts.
We classified the Median Income attribute using Natural Breaks to highlight sharp differences in income—a different classification could place coops in low-income tracts.

To better understand the local economic impacts of coops, we visualized the Approximate Yearly Income of Worker-owners:
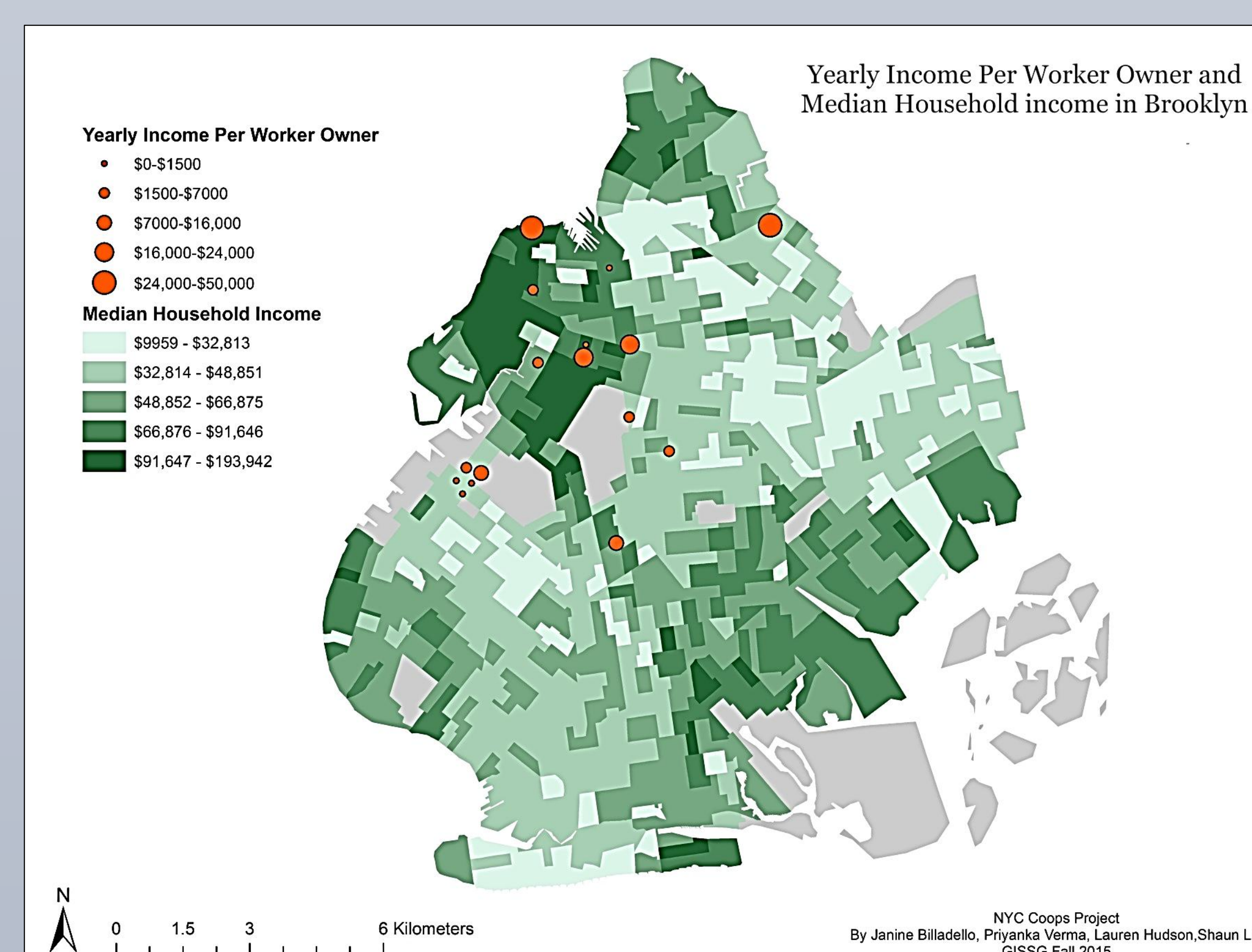

CONCLUSIONS

By visualizing the estimated annual income of worker-owners, we learn that the majority in Brooklyn earn less than $16,000 annually. This could indicate that participation in the coop may not be a worker-owners primary source of income—running counter to the narrative that cooperatives alone can sustain workers.

While workers who own their business cooperatively may earn more than they would doing comparable work in a non-cooperative business, most worker cooperatives in Brooklyn are not able to offer a living wage. However, the wealth generated by coops does appear to remain in the local (neighborhood to city-wide) economy.

Additional survey data shows that 60% of NYC-based coop worker-owners live in the same neighborhood where they work, which supports the assertion made by coops and their advocates that the capital coops generate is likely to stay within the local economy where these cooperatives are located.
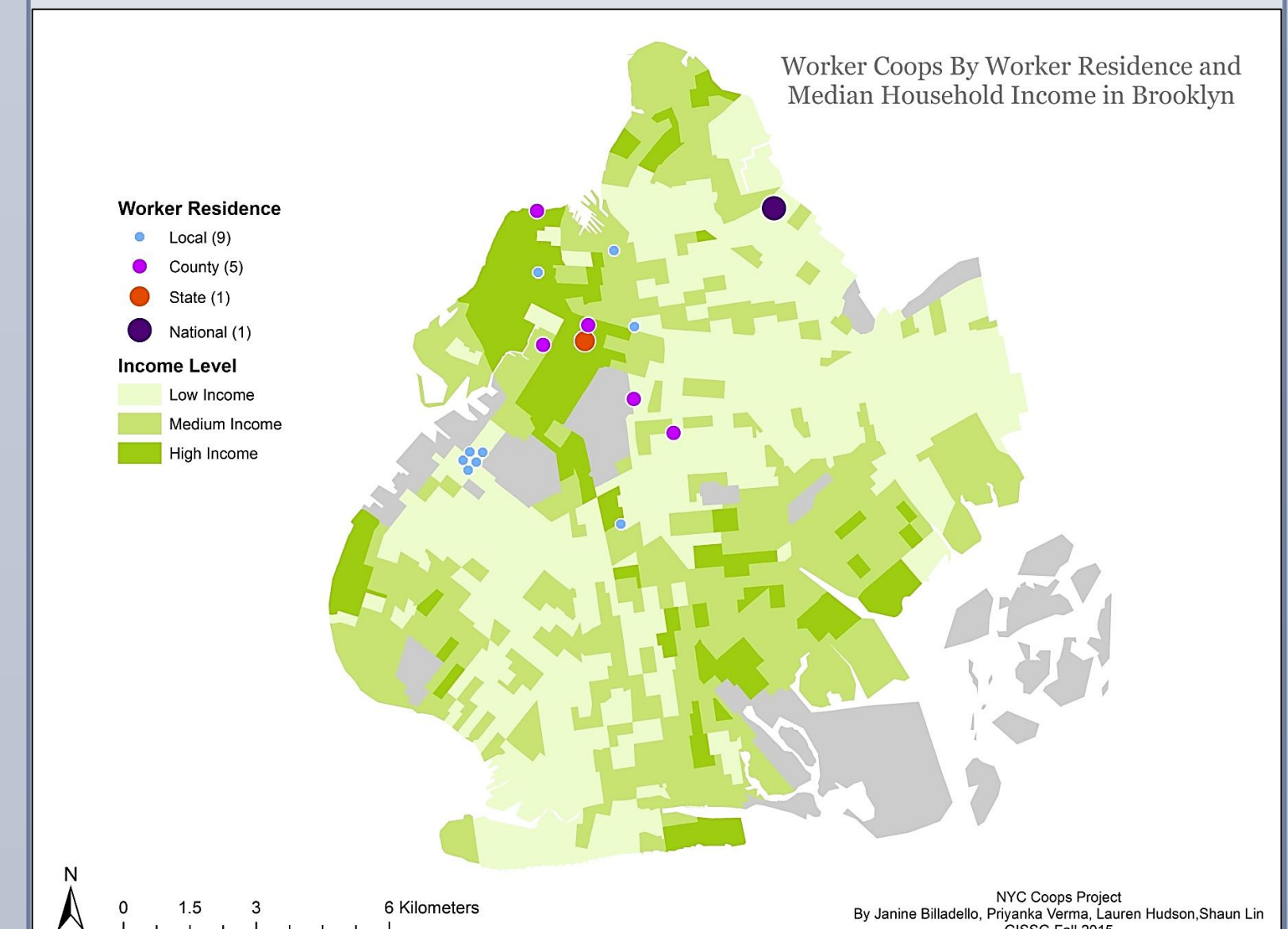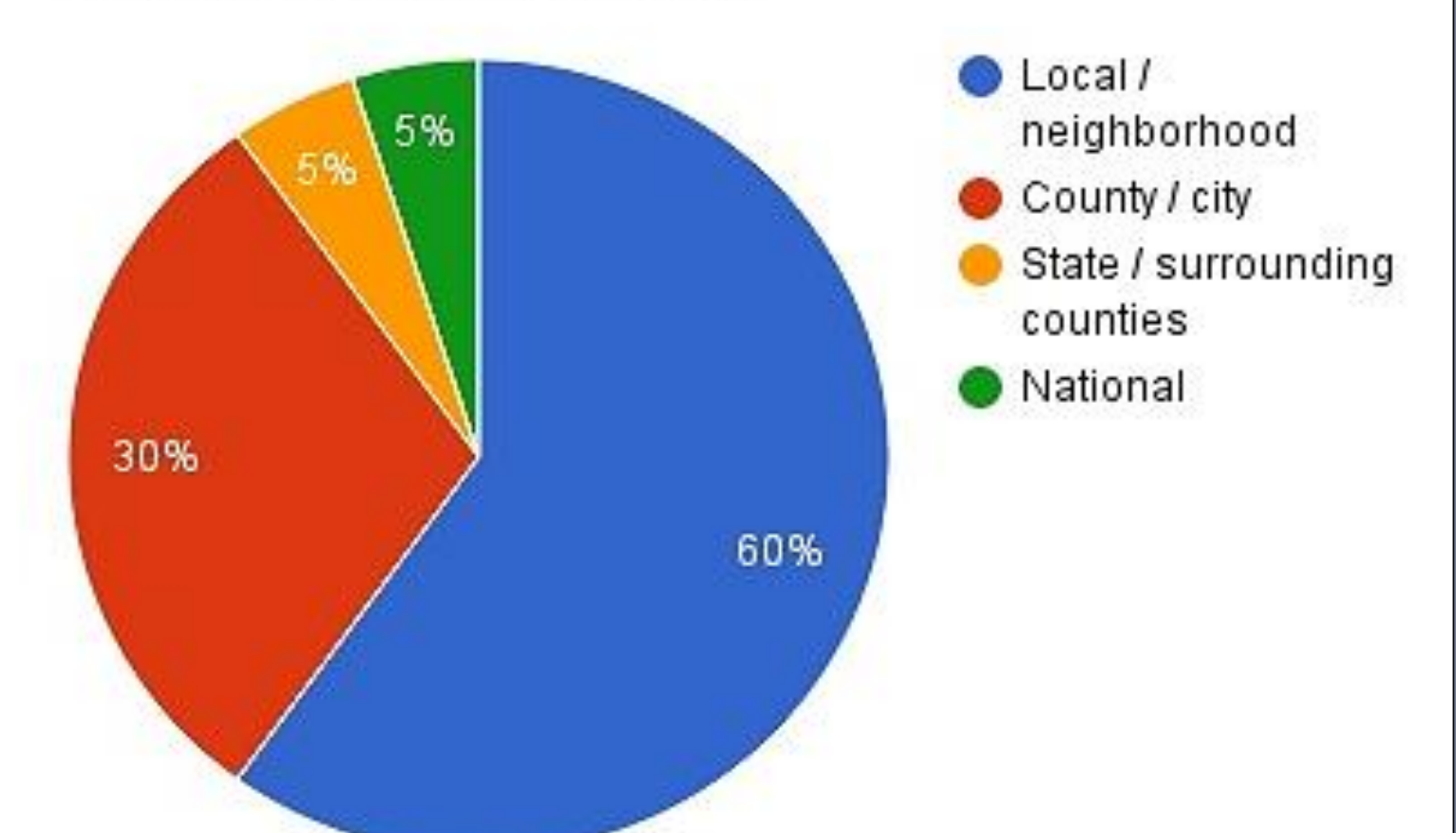
REFERENCES

"Creating Better Jobs and a Fairer Economy with Worker Cooperatives" (2014, December 3).

England, Kim V.L. 1993. Suburban pink collar ghettos: the spatial entrapment of women? Annals of the Association of American Geographers (83), 2 225–242.

Gilbert, Melissa R 1998. Race, space, and power: the survival strategies of working poor women. Annals of the Association of American Geographers 88(4), 595-621

Ji, Minsun and Tony Robinson 2012. Immigrant Worker Owned Cooperatives: A User's Manual.

"Worker Cooperative Coalition One-Pager: Invest in Programs and Initiatives to Promote Worker Cooperatives and Cooperative Economy in New York City" (n.d.).