Farmers’ Markets, For Whom?
A Comparison Over the Turn of the 21st Century

Farmers’ Markets and Race... Why it Matters

Public Health
- Farmers’ markets, as potential access points to healthy food, could serve to improve equity in the burden of diet-related disease and food insecurity.1

Community
- Farmers markets, as assets that build social networks, have the potential to foster diverse communities.1

System Sustainability
- As Massachusetts becomes increasingly diverse, cultivating diversity is necessary for farmers’ markets and the regional food system they serve to grow and flourish.

Research Questions and Methodology

1. How is access to farmers’ markets in Massachusetts distributed among communities of non-White racial composition?  
2. How has this changed before and after the year 2000?

Methods
- Conducted network analysis to create GIS-based walking radii as farmers’ market service areas.
- Used a combination of field calculator, spatial queries, and descriptive statistics to analyze results.
- Network analysis using street data to calculate a 0.5 mile walking service area around 2013 farmers markets in the Boston Area.

Conclusion
- Comparing time periods before and after the turn of the 21st century:  
  - Walking accessibility of farmers’ markets in Massachusetts increased least in areas of highest non-White racial identity.
  - Massachusetts experienced a significant increase in non-White identifying residents.
  - Affordability of farmers’ markets in Massachusetts may have increased, as signified by an increasing number and percentage of markets accepting SNAP benefits (formerly Food Stamps).
  - As community identity continues to diversify and farmers’ markets trend towards affordability, food systems planners have an important role to play in the equitable locating of farmers markets.

Results

Map 1. Massachusetts Farmers’ Markets and Race, Pre-2000

Map 2. Massachusetts Farmers’ Markets and Race, Post-2000

Figure 1. Network analysis using street data to calculate a 0.5 mile walking service area around 2013 farmers markets in the Boston Area.

Figure 2. Massachusetts Farmers’ Markets

Figure 3. The Distribution of Non-White Identity Among Residents of Farmers’ Market Service Areas

Figure 4. Racial Composition of Massachusetts Block Groups

Figure 5. Massachusetts Farmers Markets Accepting SNAP

Limitations
- This analysis only included farmers’ markets registered with the Massachusetts Department of Agriculture for the time period 1934 - 2013.
- This analysis applied the racial composition of Massachusetts block groups in the year 2000 to the time period of 1934 - 2000. Likewise, racial composition in the year 2010 was used for the time period 2001 - 2013.

Acknowledgments
- Tufts University

References
- Came from: 1. Reference Map 1 and Map 2 for Category ranges.
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Figure 6. Farmers’ Markets, For Whom? A Comparison Over the Turn of the 21st Century

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Projection: NAD 1983 Massachusetts Mainland State Plane (FtUS)
Data Sources: MassGIS, ESRI, Tufts GeoData
Photo Sources: Creative Commons, The Noun Project