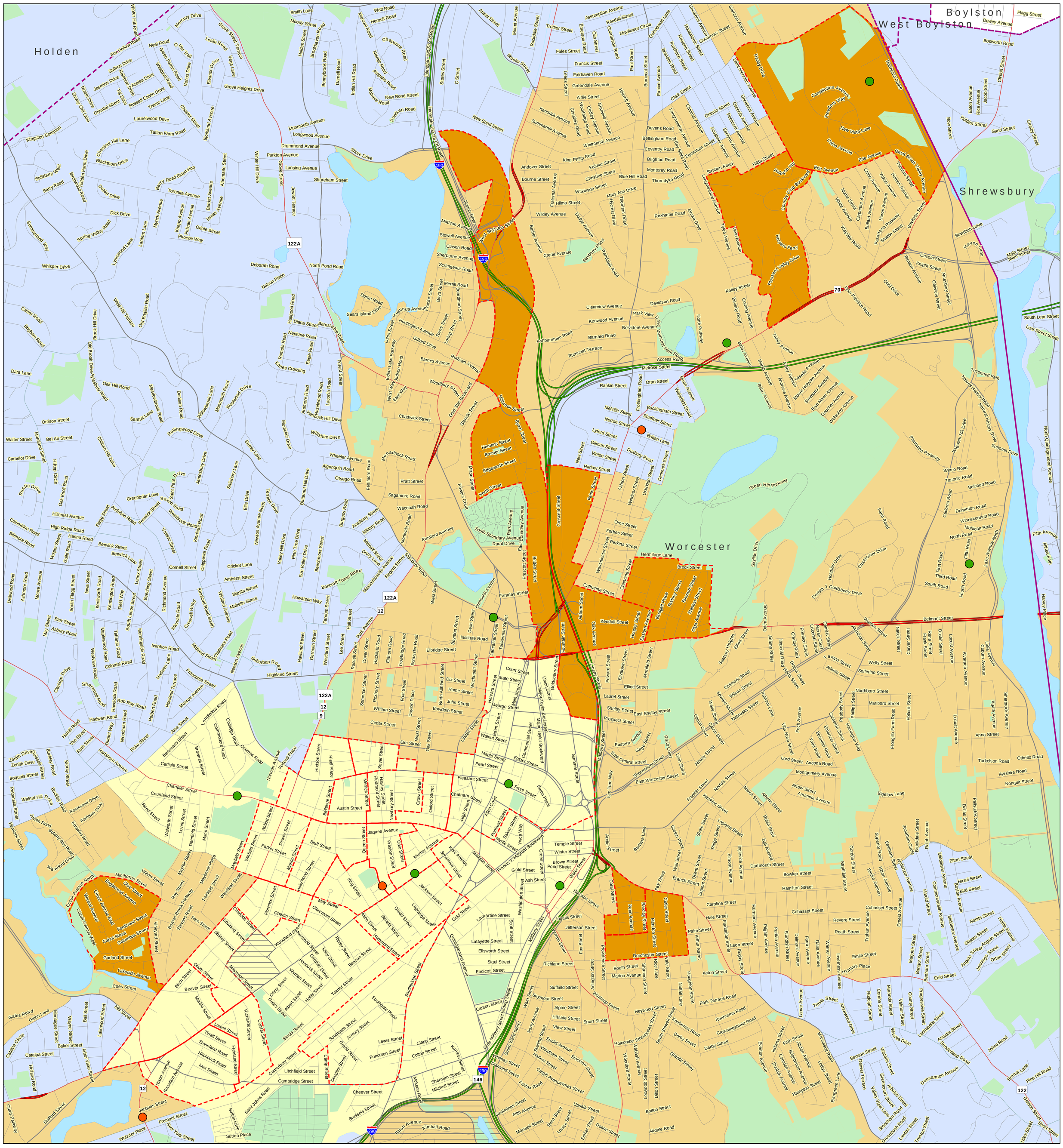
Factors Impacting Access to Healthy Food

Worcester



Discussion:

Urban agriculture (UAg) addresses both public health and environmental problems. Health professionals increasingly recognize the benefits of farm and garden-scale urban agriculture, which often improves nutrition, food security, exercise, and the mental and social health of participants and the general community. UAg also reduces storm water runoff, the heat-island effect, transportation costs and fuel use, and may provide jobs.

Consumer choices about food spending and diet are likely to be influenced by the accessibility and affordability of food retailers--travel time to shopping, availability of healthy foods, and food prices. Some people, especially those with low-income or long travel times, may face greater barriers in accessing healthy and affordable food retailers, which may negatively affect diet and food security.

In this series of maps we identify areas that could most benefit from UAg. This information may be helpful when implementing DAR's Urban Agriculture Program, when trying to identify municipal or state owned parcels that might be used for UAg, or for planners generally.

While all urban low income areas are considered for potential UAg sites, UAg is likely to have the greatest impact in areas with both low household income and low access to healthy food. We also make the assumption that where residents exceed the threshold for all three criteria in the Environmental Justice (EJ) layer, this presents an additional barrier to obtaining healthy food. These thresholds are for block groups where 1) the percent minority >= 25%, 2) income <= 65.49% of the median household income in 2010 (B19013), and 3) where >25% of households are English isolated (an indicator of limited English language). The income threshold for EJ (<=65.49%) is stricter than that used in the main analysis (<=80%).

USDA's Food Access Research Atlas (FARA), where much of this data comes from, provides a number of measures of access and income. http://www.ers.usda.gov/data-products/food-access-research-atlas/about-the-atlas.aspx#definitions We use their most inclusive criteria, where a low access census tract is one where at least 500 people or 33 percent of the population live more than ½ mile (urban areas) from the nearest supermarket, supercenter, or large grocery store. A tract is considered low income if: the tract's poverty rate is greater than 20 percent; or the tract's median family income is less than or equal to 80 percent of the State-wide median family income; or the tract is in a metropolitan area and has a median family income less than or equal to 80 percent of the metropolitan area's median family income.

A group quarters tract is one in which at least 67 percent of the population live in group quarters such as dormitories, military bases, assisted living or skilled nursing facilities, and other large institutions. It is common for these populations to have low income and/or low access when measured by distance to supermarkets, but nonetheless have easy access to healthy food. Planners may wish to exclude these areas from consideration; on the other hand it may be that they abut target populations and also have tillable land.

Data and metadata for farmers' markets can be found at MassGIS. The data is maintained by the MA Dept of Agricultural Resources.

Urban Farms data is presumed to be incomplete.

Note that the values and thresholds for various variables should be carefully evaulated and changed if necessary by anyone using the map for decision-making purposes.

(Portions of this text are taken verbatim from FARA documentation)

Data Sources:

United States Department of Agriculture
Economic Research Service
Food Access Research Atlas

Massachusetts Office of Environmental and Geographic Information (MassGIS)

MDAR
MASSACHUSETTS DEPARTMENT OF AGRICULTURAL RESOURCES

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We will try to accommodate all reasonable requests for digital urban ag maps customized and formatted to your area and needs.

MASS GIS Office of Geographic Information
A Statewide Resource for Geospatial Technology and Data

0 0.5 1 Miles

Legend

- Farmers Market
- UrbanFarm
- Group quarters tract
- EJ meeting 3 criteria
- Protected Open Space
- Low income, low access, and EJ
- Low income and low access
- Low income
- Low access