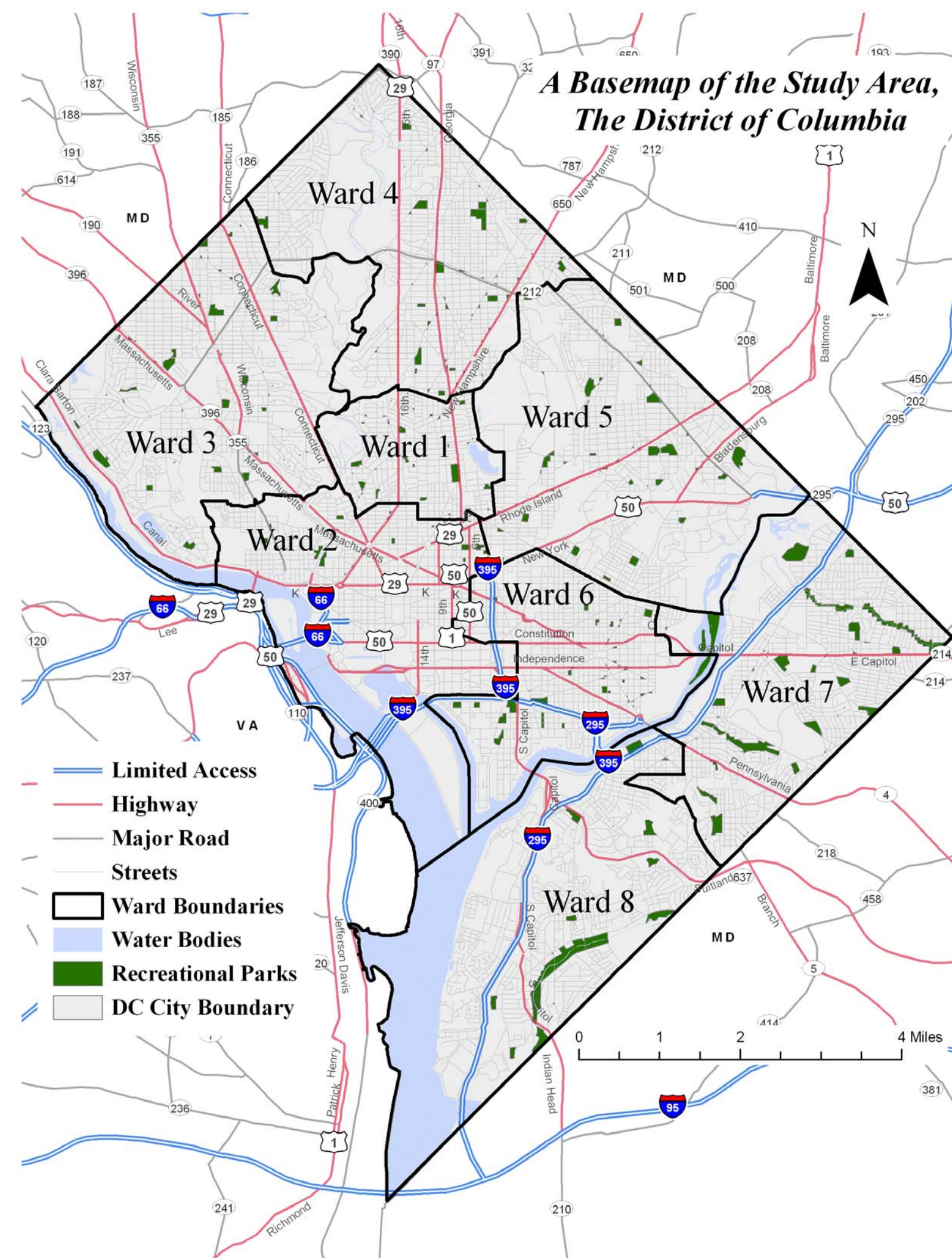


# A Food Security Assessment of the District of Columbia



## Purpose:

The purpose of this project is to assess the level of food security throughout the District of Columbia. This project will evaluate the accessibility of grocery stores, farmers markets, and community gardens in all eight wards of Washington, D.C. The relationship between income status and access to healthy foods in the city of Washington, D.C. will also be examined.

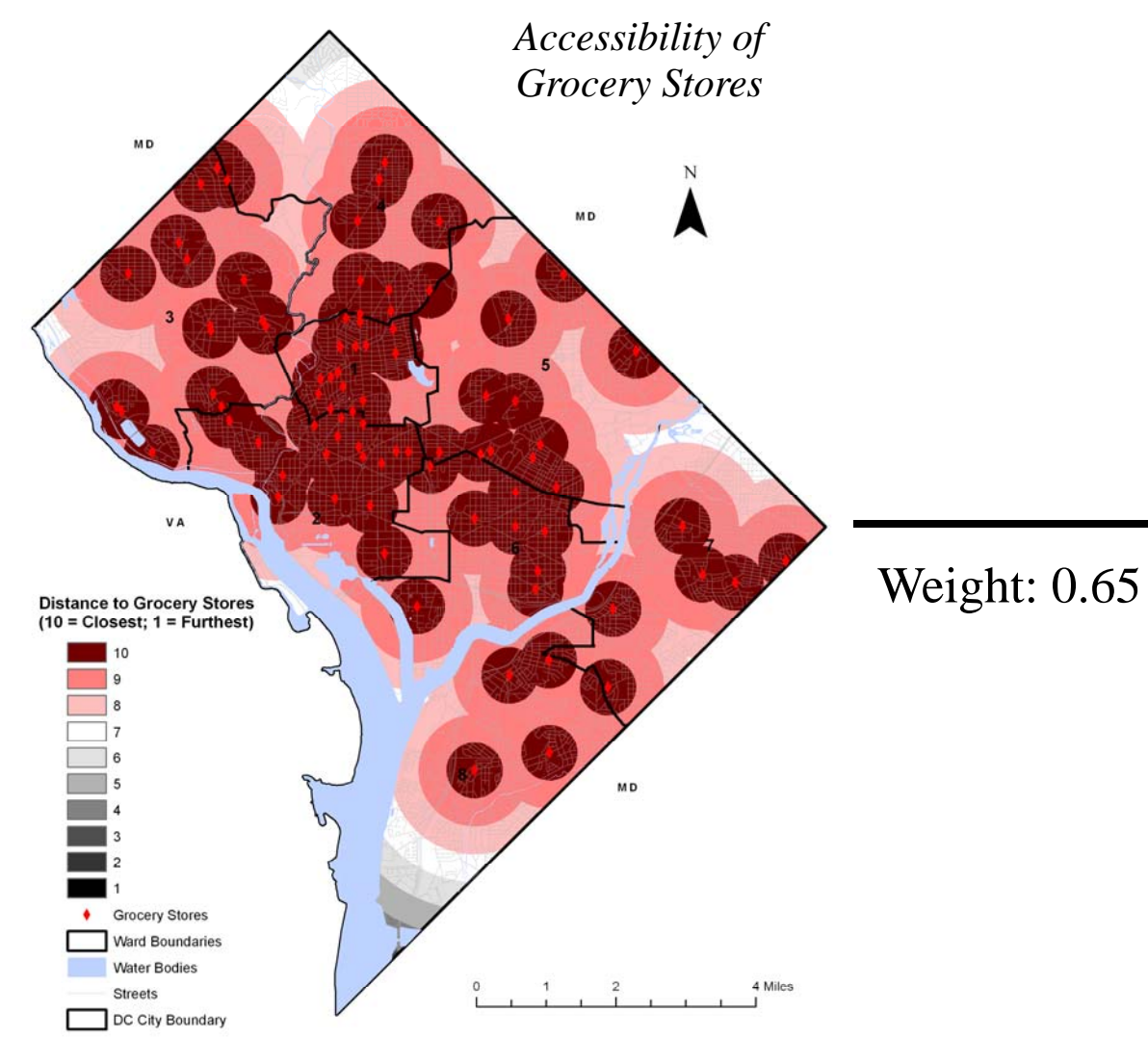


## Background:

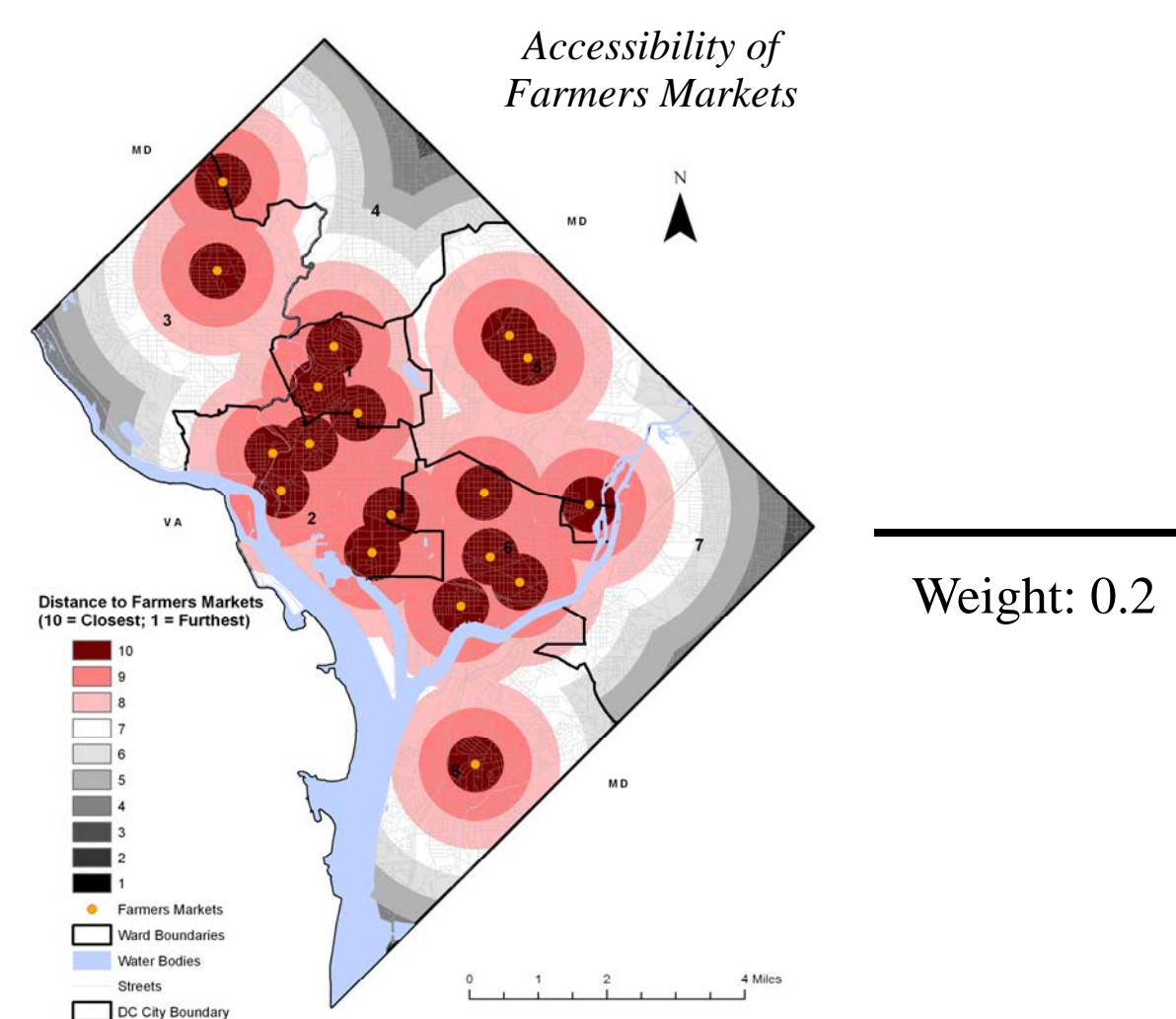
Today in the United States, more than 35 million Americans do not have enough to eat; over 68,000 residents in the District of Columbia are at risk of hunger. Most people who go hungry are in a state of food insecurity, meaning they do not have: "access to enough food to sustain a healthy and active life."

Food insecurity leads to both malnutrition and obesity, which have detrimental effects on the health of the nation. Out of the ten leading causes of death in the United States, four are diet related; heart disease, cancers, and strokes make up the top three killers, closely followed by diabetes mellitus. About one quarter of the Washington, D.C. population is obese, and diet-related illnesses such as diabetes and hypertension are prevalent in higher-than-average numbers. In addition, prior research shows that those living in poverty are at an increased risk for food insecurity. With nearly 17 percent of Washington, D.C. residents living below the poverty line, this is an important topic to examine. It is crucial to continue to work to improve food security in order to reduce malnutrition, obesity, and diet-related illness.

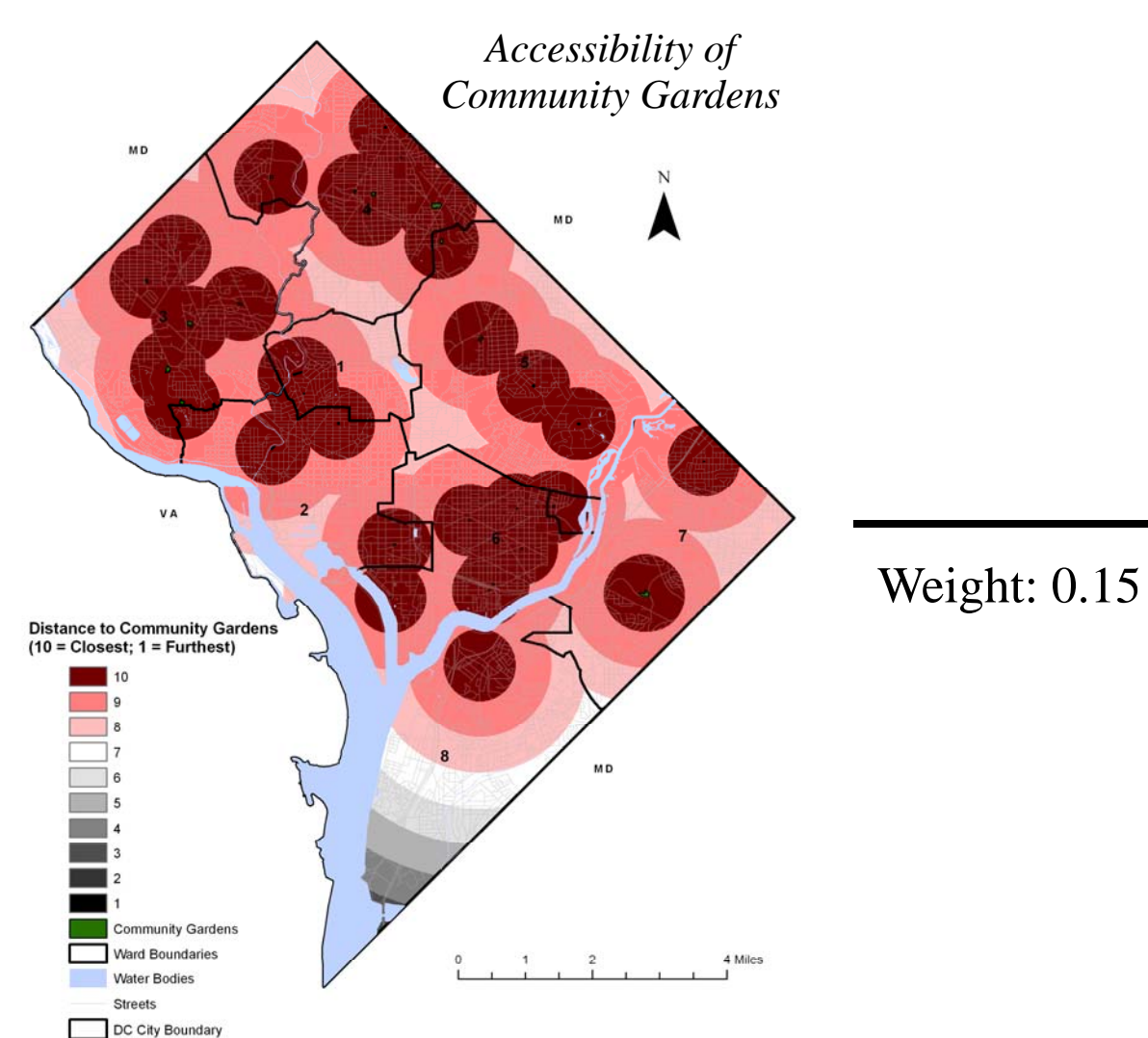
## An Analysis of Grocery Stores, Farmers Markets & Community Gardens



The above map shows that Wards 1, 2, and 6 have the best access to grocery stores, while Ward 8 has the poorest access.

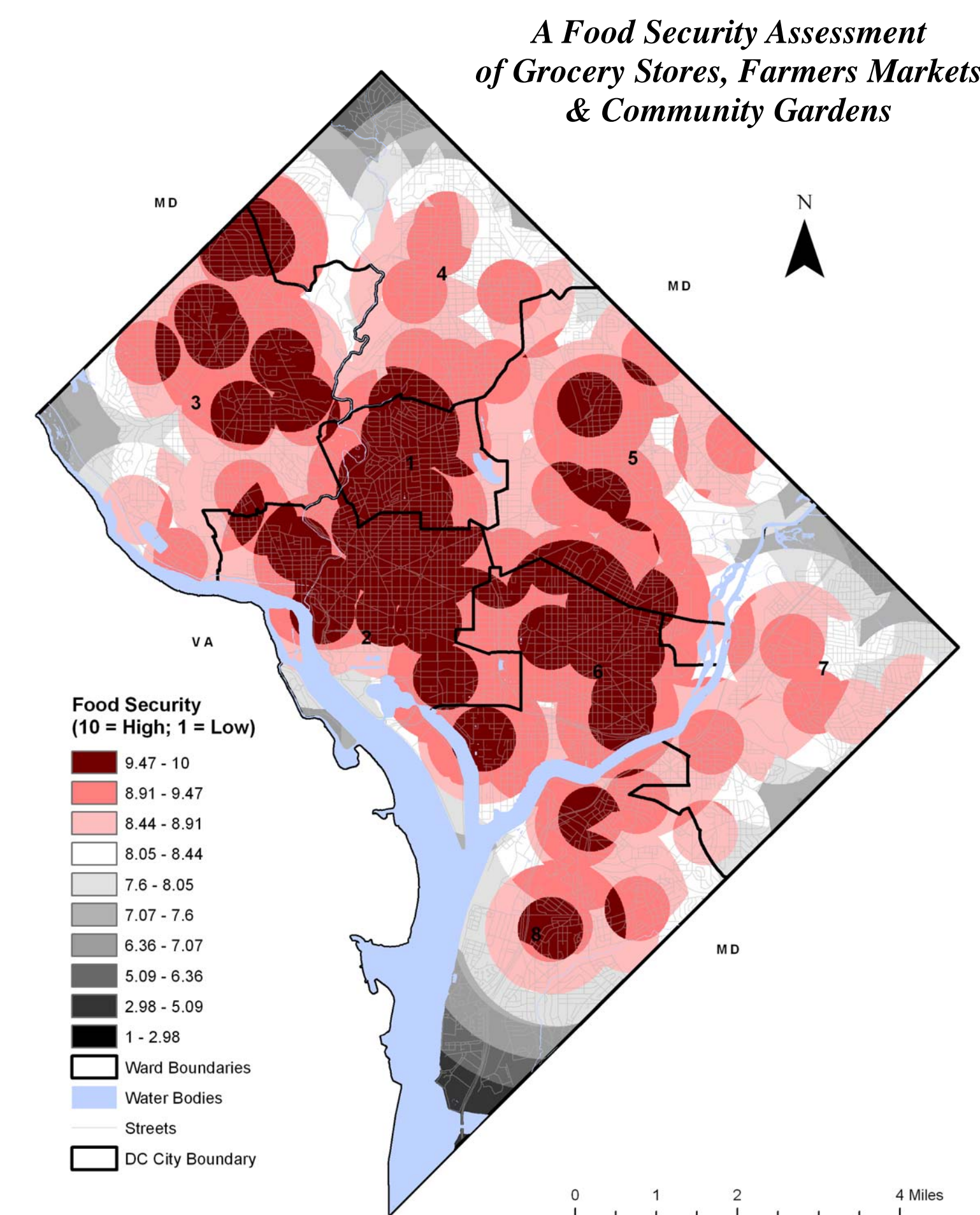


According to the map above, Wards 1, 2, and 6 have the best access to farmers markets, whereas Wards 4 and 7 have the poorest access.



The above map shows that Wards 3, 4, and 6 have the best access to community gardens; Ward 8 has the poorest access.

In order to assess the level of food security in the District of Columbia, a spatial analysis was conducted. The map below displays the areas of greatest and poorest food security in the District of Columbia based on the distance analyses of grocery stores, farmers markets, and community gardens depicted in the three maps to the left.



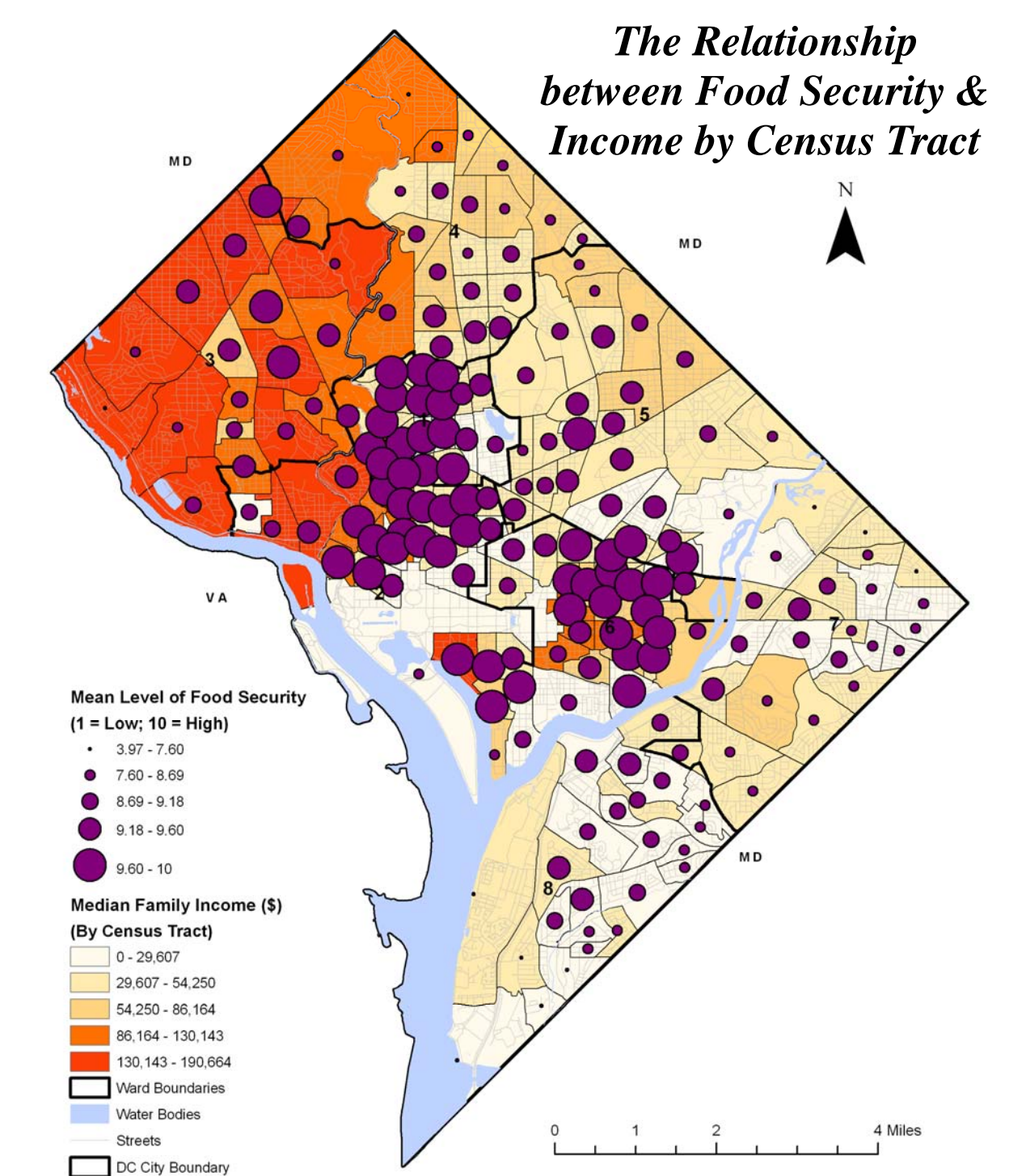
In July of 2006, *D.C. Hunger Solutions* published a report including a "Scorecard of Community Food Security in the District of Columbia." Now, four years later, this project offers an updated scorecard below, with A+ signifying the highest possible level of food security and F signifying the lowest. The results of the analyses suggest that Wards 1 and 6 are most food secure, and Wards 7 and 8 are least food secure.

### A Scorecard of Food Security by Ward

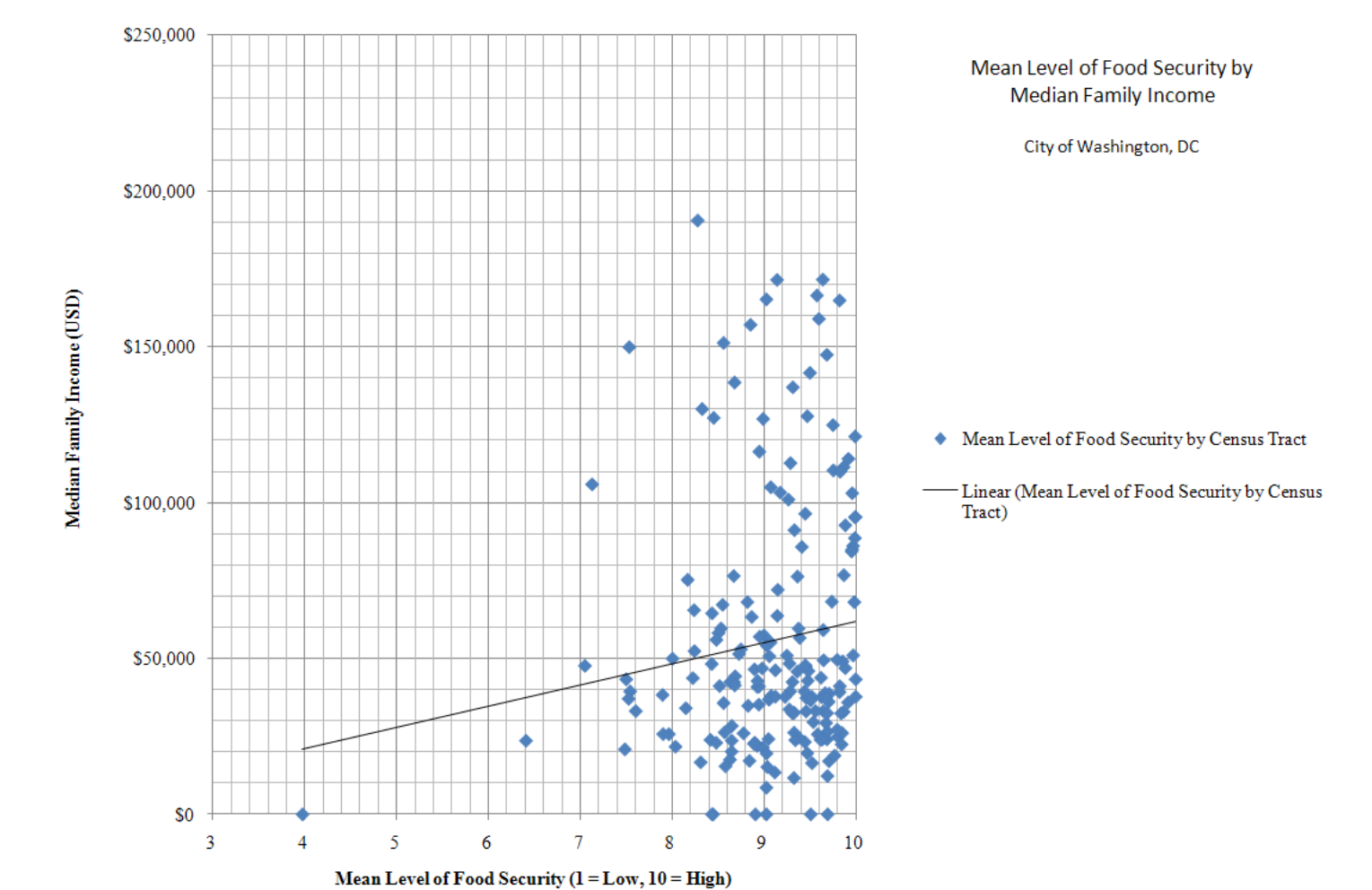
| Ward 1 | Ward 2 | Ward 3 | Ward 4 | Ward 5 | Ward 6 | Ward 7 | Ward 8 |
|--------|--------|--------|--------|--------|--------|--------|--------|
| A+     | B+     | C+     | D      | C      | A      | D+     | D      |

## The Relationship Between Food Security & Income

The map and scatter plot below demonstrate that there is a relationship between median family income and level of food security; the mean level of food security slightly increases as family income increases.



The above map demonstrates that food security is poor in low-income areas, such as Wards 7 and 8, and much better in middle and high-income areas such as Wards 1, 2 and 6. The wealthiest ward, Ward 3, however, does not have the highest level of food security.



The scatter plot above more clearly shows the relationship between mean level of food security and median family income. Although the incline is small, the linear analysis shows an increase in income with an increase in food security.