

In 2020, 13.8 million people in the United States struggled with food security, meaning they were unable to or uncertain that their food needs would be met. Whether a person struggles with food security can be influenced by where they live. Food deserts are census tracts that experience both high rates of poverty (20 percent or greater) and low access to grocery stores that offer fresh and nutritious foods. Unfortunately, food deserts and insecurity disproportionately affect minority and disadvantaged communities and can lead to serious health issues like diabetes, high blood pressure, and obesity.

Clearly, public policies can be utilized to lessen the impact of food deserts and one way city leads can achieve this is through their public transit system. In this talk we will study the role public transportation plays in combating food deserts with a networks approach. We will analyze these networks by looking at centrality measures, path lengths, and edge densities. Finally, we will offer some suggestions on how city leaders can use these results to help eradicate food deserts.