ABSTRACT

CREATIVE PROJECT: DRIVING AWAY FOOD INSECURITY: MAPPING MUNCIE, INDIANA MOBILE MARKET LOCATIONS THROUGH GIS AND COMMUNITY ENGAGEMENT

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The recent trends of suburban migration and the expansion of agro-industry around the United States have contributed to the abandonment of retail food outlets in low-income and low-access urban communities across the country. USDA definitions of food deserts are based on distance from food stores to residential tracts. This definition frames the issue as primarily one of food supply, although empirical evidence suggests that other factors may outweigh distance-based relationships. As a response to these challenges, entrepreneurial efforts in many communities have attempted localized solutions to improving the accessibility and affordability of fresh food, such as community supported agriculture and farmers’ markets. In recent years, many mobile operations have attempted to fill this local grocery niche, but in most cases found only moderate and inconsistent success. This research attempts to uncover these challenges to success and provide a framework that will assist in mobile market location planning and implementation. Toward this, I recruited 15 Muncie, Indiana residents to participate in a five-day study to track their daily mobility and maintain a journal of food provisioning activities. A paper survey was used to identify purchasing considerations while journal entries and Participatory GIS group mapping sessions informed real-world behavior. Data was analyzed
using GIS multi-criteria evaluation tools to identify mobile market locations around Muncie, Indiana intended to yield both high community impact and high financial return. I explore how urban food access and purchasing habits may be dependent upon other community features such as neighborhood amenities and access to reliable transportation and advance ideas about the potential use of this framework in other contexts.