Talking about Food in Flint: Using Archetypes to Communicate System Structure

Laura Schmitt Olabisi[1], Emma Mullaney[1], Johnny Musumbu[1], Chelsea Wentworth Fournier[1], Miles McNall[2], Renée V. Wallace[3], Rafael Cavalcanti Lembi[1]

1. Department of Community Sustainability, Michigan State University
2. University Office of Outreach and Engagement, Michigan State University
3. DoersEdge Consulting

Abstract: Urban food systems are dynamic, complex, and contain multiple interlocking subsystems, making system dynamics an important and relevant tool for designing solutions in these systems. Drawing on the concept of the food system as a public commons, system dynamics modelers have been calling for a participatory modeling approach to analyzing food system tradeoffs and tipping points. We propose that archetypes–stories of food system behavior that give insight into system structure–can play a vital role as communicative tools with diverse audiences, and across academic-community boundaries. In this paper, we discuss how we used archetypes to identify key structures for modeling the food system in Flint, Michigan based on community narratives, and how we plan to use archetypes to interpret model results to be useful for informing community action. Archetypes drawn from community focus group sessions were used to build a system dynamics model depicting a 'success to the successful' archetype in which low-income households remain systemically caught in a food insecure state. Providing improved access to affordable foods and food system-related employment, could significantly disrupt this paradigm. We conclude that archetypes are a highly effective tool for summarizing community perspectives and defining model structure.

Problem Statement: Food systems are ideally suited to participatory SD modeling because they are complex, evolve over time, and involve multiple stakeholders with unique perspectives on the system. However, with traditional participatory modeling scripts it may be challenging to include the full number and range of voices with perspectives on the food system. It can also be challenging to communicate modeling concepts to those peripherally involved in the modeling process. Archetypes are a way of breaking down model structure into simple and relatable stories which can facilitate communication between community members and modelers.