Making Hoosier Food Deserts Bloom:  
Exercising Food Justice to Build Community and Markets for Fresh Produce,  
Connecting Indiana Farmers with Consumers

CONTACT

Melanie E. Hughes, MLS, MBA  
Associate Librarian, Coordinator of Automation and Technical Services  
Library  
LB122-B, Indiana University Southeast  
mehughes@ius.edu  
(812) 941-2145

ONE SENTENCE SUMMARY

Making Hoosier Deserts Bloom will ignite Indiana communities to come together, share knowledge, and build relationships with farmers to secure access to fresh food, creating a replicable model of Food Justice to increase health, well-being, relationships and self-sustaining local economies.

ABSTRACT

Too many Hoosiers live in food deserts,\(^1\) challenged in accessing fresh produce due to transportation or economic deterioration in their neighborhoods. Disparity in access to fresh fruits and vegetables results in decreased health and increased disease: high blood pressure, heart disease, cancer and diabetes, as well as a thirteen-year difference in lifespan from poor to affluent neighborhoods.\(^2\) Food Justice and food rights are developing research areas and opportunities for IU to work interdisciplinarily to solve this open problem and increase the health of all Hoosiers, creating important and compelling ways for our students and faculty to create new knowledge in this emerging field. Our goals are to create Food Justice undergraduate and Masters-level degree programs housed at IU Southeast, a geographically, strategically located campus that serves urban poor and rural agrarian counties, technologically broadcast and cooperatively taught throughout our state; to support leadership training for Hoosiers to transform the spirit and health of their communities through the creation of Fresh Stop Markets (subsidized pop-up produce stands where higher-income customers help families purchase produce at wholesale prices from local farmers) in a reproducible model; to create a regular market for smaller farmers; to create internship opportunities for our students; to increase the health of Hoosiers and goodwill of IU in our local communities.

\(^1\) Indianapolis ranks 12\textsuperscript{th} among 15 peer cities in health outcomes (GLP, 2013) and ranks worst in the nation food deserts (Wittmeyer, 2014).

\(^2\) Average lifespan of 83 years vs. 70 years in Louisville, KY neighborhoods (GLP, 2013).
THE GRAND CHALLENGE
Making Hoosier Food Deserts Bloom:
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Connecting Indiana Farmers with Consumers

Many citizens of Indiana are suffering from a lack of access to affordable fresh, local produce which can help combat chronic disease, improve day-to-day health and well-being of children and adults. These access problems can occur both in urban and rural\textsuperscript{3} communities, where transportation and markets are difficult to reach and are economically underinvested. Unfortunately, Indiana regularly appears at the bottom of the list in terms of the health of its citizens. Food insecurity also impacts our IU students and is being addressed with campus food pantries.\textsuperscript{4} Food Justice is an emerging interdisciplinary field of research that investigates the systemic factors that create challenges of food scarcity and inequity in communities and explores innovations to solve these problems through on-the-ground experiments and assessment, as well as examining political ecology and food policy.\textsuperscript{5} In addition to feeding bodies, building community also feeds the spirit, and an investigation into the history of neighborhoods and farmers can help capture the stories of underrepresented Hoosiers and bring to light the challenges that have been created with growth and sprawl throughout our state. The creation of Food Justice as an interdisciplinary major at IU will create new research and service-learning opportunities for faculty and students and spur goodwill in the communities we serve. Creating healthier families could cascade into better economic conditions that allow young people to study at our universities and change the future of their communities with knowledge and leadership skills, fulfilling the promise to all of Indiana. Making Hoosier Food Deserts Blooms will address this Grand Challenge for the citizens of our state by coordinating the resources of our faculty, staff, students, and communities to work together to increase the well-being of all the citizens of our state. The broader impact of IU providing these resources to address this Grand Challenge and open problem of food justice and food access is that we will be able to utilize these same resources to research and work to resolve similar open problems that face our state such as single parents trying to return to college, homelessness, domestic human trafficking, and poverty.

GOALS

Goal 1 – To bring fresh produce to urban and rural food deserts in Indiana. Replicating and expanding the Fresh Stop model used by New Roots, Inc. in urban and rural Kentucky, Fresh Stop Markets will be developed in the counties served by Indiana University Southeast, as well as Monroe and Marion counties of Indiana, coordinating with IUB and IUPUI faculty and existing community organizations.

Goal 2 – To create reliable markets for local farmers. Farmers that sell to Fresh Stop Markets have a reliable sources of customers for the entire growing season. Selling at wholesale prices saves on the labor for selling at Farmers markets or developing other supply channels. A network of smaller Indiana farmers will be developed, emphasizing smaller, minority-owned farms.

\textsuperscript{3} “In a growing number of communities with a population of a few thousand, the term food desert, sometimes used to describe parts of inner cities, applies in small towns.” (Walworth, 2015).

\textsuperscript{4} Food insecurity on college campuses range from 14 to 59\% in a recent report from the \textit{Chronicle of Higher Education} (Kolowich, 2015). IU Southeast opened a food pantry in 2015 (IUS, 2015).

\textsuperscript{5} State Representative Jason Moed of Indianapolis introduced State Bill 1248 (INGOV, 2015 and Head, 2015).
Goal 3 – To create a Food Justice undergraduate and graduate program housed at IU Southeast, deliverable across IU and Indiana. Through state-of-the-art technology and interactive classroom spaces, and faculty collaborating across the state, the issues surrounding Food Justice will be analyzed, researched, and resolved. The interactive classrooms can also be used for state-wide community building and sharing for Fresh Stop Market sites. These programs will create opportunities for the creation and dissemination of new knowledge, as well as the preservation of the history of the program.

Goal 4 – To create training materials and best practice resources for grassroots and community organizing. Ideas for “growing their own” leadership within food desert neighborhoods and collaborating with other community organizations.

Goal 5 – Incorporation of Fresh Produce into Food Pantries at IU Southeast, Bloomington and IUPUI Campuses. Many of our students suffer from food insecurity as they try to complete their studies. A steady diet of ramen noodles is not a healthy diet. By creating cold storage for food pantries, we can provide students with access to fresh fruits and vegetables to incorporate in their diets to help nourish their bodies and brains.

Goal 6 – To provide resources on how to incorporate fresh vegetables into Hoosier diets. Receiving a share of fresh vegetables and fruits can be overwhelming to some Fresh Stop Market participants. By providing food demonstrations, recipes and menu planning by IU dieticians, and a celebratory atmosphere of consuming vegetables, some of the fear of preparing fresh produce can be alleviated. These ideas will be disseminated through a Fresh Stop Market website.

Goal 7 -- Education of children and teenagers on nutrition with sequential art. Creation of graphic novels of a comic-format, and plays, films, and other works of art will be created of a fun and educational nature on fresh produce consumption for dissemination through Fresh Stop Markets, pediatricians’ offices and clinics.

Goal 8 – To develop Library collections to support the curriculum of the Food Justice program. Including support on grant research and business plan research. http://libguides.ius.edu/foodjustice (in development)

PROPOSED RESEARCH

The overarching research plan is to create replicable models to improve the infrastructure for bringing fresh, local produce to the food deserts of Indiana to improve the health of Hoosiers.

GIS Mapping and Analysis of Food Deserts across Indiana. This research can be completed by applied sociologist and geoscientist faculty and students across IU, and is already underway at IUPUI. The USDA\(^6\) provides food desert data.

\(^6\) USDA, 2015.
Replication and Expansion of Veggie Rx research. The University of Louisville in cooperation with New Roots, Inc. has been measuring the health impact of families who are written a prescription which subsidizes the purchase of a produce share at their neighborhood Fresh Stop Market. This research can be replicated and expanded by IU medical and nursing faculty across the state by taking biometrics at the beginning of a growing season and longitudinally analyzing the results of increased consumption of fresh vegetables and fruits by Hoosier families.

Best Practices for Grassroots and Community Organizing and Support. Motivating, managing, and sustaining community organizations can be challenging. Gathering the best practices for working with at-risk populations, as well as middle and higher-income communities who are supporting the non-profit will help make this model reproducible and enduring.

Agrarian Entrepreneurship and Wholesale Channels Supply Chain Management. How can we create new markets for Hoosier farmers? How can new wholesale channels, such as those created through Fresh Stop Markets be made more efficient?

Systems Theory. What are the forces at work that have created food deserts? What best practices are being leveraged to change food insecurity?

Oral Histories of Farmers and Food Desert Neighbors. The stories of the farming families who have been suffering due to industrial agriculture are important to record. Hoosier native, Jon Mellencamp, recorded their plight in the 1980s with the song “Rain on the Scarecrow.” In addition, the stories of families living in urban areas that have been economically underinvested in are worthy of telling, recording, and analyzing to work towards improving the challenges of food scarcity.

Information Channels for Food Security through K-12 schools. School Counselors can coordinate curriculum on nutrition and health education, as well as share information with families on how to obtain fresh produce.

Improved Psychology of Fresh Stop Market participants. “This has changed my life!” was the proclamation of an African American woman picking up her last share of the growing season at the Parkland Neighborhood Fresh Stop Market in West Louisville. The attitudes and beliefs of Fresh Stop Market participants can be measured from the organizing stages, to the first week of fresh produce, throughout the season, and longitudinally.

Political Ecology in Combatting Food Deserts. Legislation is being proposed at the state to combat food deserts in Indiana. What are the trends nationally for solving this open problem of food security for all citizens?

University Student Food Insecurity. How can IU and other universities meet the needs of college students who are suffering from food insecurity? How can the social stigma of hunger be addressed so that students seek help before health problems occur?

Creative Works and Media. Selling the story of Fresh Stop Markets and combatting food deserts will be important. Videos, graphic novels, and plays can be developed to tell the important angles of the story to the participants, physicians, and public. Research on the effective use of media for promotion of fresh produce consumption can take place through market research.
**Philanthropy.** Fresh Stop Markets are supported by shares purchased, but also by donations to the non-profit. Research can be explored on how to increase awareness and potential donors to support Food Justice.

**RESOURCES**

**Building on IU Strengths and Resources:**
Utilization of existing faculty and courses in sociology, counseling, sustainability, and other areas to support Food Justice Curriculum. Use of data and community relationships from Applied Research and Education Center.

**Additional Resources Requested:**

**NEW FACULTY LINES**

Two Food Justice Full-time Faculty:

- Program Manager to manage and coordinate interdisciplinary and community. May be a release time position for a new Food Justice Faculty position.
- One position will be a social economist who will work with the IU Southeast Applied Research and Education Center.
- The second position will specialize in political ecology and systems theory or other needed area.

Health Informatics Full-time Faculty.

- Health data visualization, health data mining, big data, and health data management.
- Additional knowledge of GIS and medical imaging would be beneficial.

Regional Economic Development Research Center Director Full-Time Position.

- To help develop, grow and support small businesses and farmers in the IU Southeast service region, as well as economic development, social entrepreneurship and women and minority-owned businesses.

Non-profit and Entrepreneurship Full-time Librarian.

- To support research on grant-writing for the university, non-profits and small business development, such as farmers and food-related businesses.

Counseling, School of Education, Full-time Faculty.

- High-risk population experience, academic persistence specialization.
- School, family, and community partnerships.

Sequential Art Full-time Faculty.

- Comics Drawing, Digital Storytelling, Graphic Artist, Digital Folklorist to tell visual stories related to Food Justice and nutrition education for children and teens.

Screenwriter (for film, plays, sequential art, etc.) Full Time Faculty.
• Sharing stories through fiction and non-fiction dialogue to convey Food Justice information.

Nursing Full-time Faculty.

• Nutrition.
• High-risk populations.

FOOD JUSTICE PROGRAMS SUPPORT STAFF:

• Grant Writer—to further sustainability of Food Justice programs and to support local non-profits.
• Administrative Assistant staff position for Food Justice.
• Internship and Volunteer Coordinator to help students find meaningful service-learning experiences.
• Database Administrator—to manage data collected from volunteers, donors, researchers.

LIBRARY RESOURCES:

• Foundation Center Funding Information Network Partner. Annual fee of $1,995 for database subscriptions, Foundation Center books and exclusive training materials.
• Budget for monograph, serials and IU system-wide database subscriptions related to Food Justice.

EQUIPMENT NEEDS:

• Two Eagle-Eye Classrooms equipped with technology for teaching and broadcasting Food Justice Programs across the state.
• Refrigerators and Freezers for all IU Campus Food Pantries to store fresh produce.

OFFICE NEEDS:

• Additional office space to be leased/acquired to house Food Justice Faculty and support staff.

TEAM

Point of Contact:
Melanie E. Hughes, MLS, MBA
Associate Librarian, Coordinator of Automation and Technical Services
Library
LB122-B, Indiana University Southeast
mehughes@ius.edu
(812) 941-2145

Team Leaders:
Courtney Block, MLS
Assistant Librarian

Melissa Fry, PhD
Director of IU Southeast Applied Research Institute
Melanie Hughes, MLS, MBA  
Associate Librarian

Shifa Podikunju-Hussain, PhD  
Associate Professor of School Counseling

Sridhar Ramachandran, PhD  
Associate Professor of Informatics

**Other Team Members:**
Karyn Moskowitz, MBA  
Executive Director of New Roots, Inc., non-profit based in Louisville, Kentucky

IUPUI  
Cynthia Stone, PhD, Associate Professor of Public Health

IU Southeast  
Sara Hare, PhD, Associate Professor of Sociology  
Jean Abshire, PhD, Associate Professor of Political Science  
Marcia Segal, PhD, Emeritus Professor of Sociology  
Michael Jackman, MA, MFA, Senior Lecturer of Creative Writing

**Relevance of Expertise and Past Successes:**
Karyn Moskowitz established New Roots in 2009 to exercise food justice in the Portland neighborhood of West Louisville, KY. New Roots now has nine bi-weekly Fresh Stop Markets and is organizing more for the next growing season. The annual budget for New Roots, Inc. is $237,000. Karyn first became a food access advocate while living in the Hoosier National Forest when she organized the Paoli Farmer’s Market as a result of her quest to find a fresh tomato for sale in her rural community. CEO, Karyn Moskowitz and one of Kentucky’s African-American farmers and suppliers to Fresh Stop Markets, Andre Barbour, recently met Michelle Obama’s Executive Director of *Let’s Move!* and Senior Policy Advisor for Nutrition Policy, Deb Eschmeyer, at the White House to discuss their work on turning the food deserts of Kentucky into food oases. Karyn has strong Monroe and Orange County connections.

Dr. Stone serves on the Indianapolis Food Policy Committee and has extensive knowledge of Indianapolis food deserts. Drs. Fry, Ramachandran, Podikunju-Hussain, Ms. Block and Ms. Hughes all have extensive experience with local community building and research. Dr. Fry recently completed a community needs analysis for Clark and Floyd Counties and worked on a Homelessness coalition. Ms. Block served as a public librarian in Charlestown, Indiana where she regularly served rural patrons who lacked transportation to community resources.

**SUSTAINABILITY**

The Fresh Stop Market model is built to be economically sustainable with shares of middle and higher income off-setting the cost of shares for low-income shares. The equipment (tables and tents) surrounding Fresh Stop Markets and salaries of employees is supplied by grant monies or donation from hosting organizations, mostly churches in Louisville, but possibly public libraries or universities in Indiana.
The Food Justice Programs Grant Writer and Non-Profit & Entrepreneurship Librarian will work together to locate funding opportunities nationally and in the community and work with the IU Southeast Development Office to raise funds to support the programming from individuals, foundations, including Indiana Community Foundations, and corporations.

Grants from companies committed to improving the health of Indiana residents. Veggie Rx which subsidizes Fresh Stop Market shares at $18 when a participant agrees to participate in research is being conducted at the University of Louisville and is funded by a grant from Humana.

Regional Economic Development Research Center will become sustainable through grants, expansion of management development opportunities, and can become a self-sustaining entity within two years.

PARTNERS

New Roots, Inc.  

M and KHEPRW, Indianapolis  
Presbyterian Church, Indianapolis  
Purdue Polytechnic, New Albany, and Purdue County Extension Offices state-wide, 4-H and Master Gardeners  
Indiana Public Libraries and Friends groups  
State Representative Justin Moed from Indianapolis. Introduced House Bill 1248.  
Bloomington Food Policy Council  
Indianapolis Food Policy Council  
Daniel Block, PhD, Geosciences. Chicago State University. Director of Frederick Blum Neighborhood Assistance Center. Author of Chicago: A food biography, 2015. Mapped Chicago food deserts.

METRICS

**Food Deserts.** Food desert metrics will be analyzed annually to see progress towards fostering new food businesses, number of people participating in projects, economic impact of new markets.

**Biometrics of Participants.** Shareholders receiving grant-supported vegetable prescriptions will have biometrics analyzed over the growing season and annually to see the impact of both a social network and fresh produce in the diet.

**Fresh Stop Market Participants.** Surveys and focus groups of attitudes of Fresh Stop Market participants will measure emotional well-being related to participation and fresh vegetable and fruit consumption, as well as becoming part of a community.
REFERENCES


