

Data Resources for Food Systems Assessment

Data exists in many different forms and can be used in various ways to assess and evaluate food systems. Due to the complex nature of food systems, there are numerous places to start regarding understanding existing conditions and needs within community food systems. Food systems also intertwine with our community. Community assets touch each of our individual lives as well as communities. Overall, these complex systems influence the potential benefits and challenges for food access, sovereignty, business viability and general food supply and consumption.

This resource is meant to support individuals and organizations conducting assessments, creating maps, and aggregating and analyzing data to understand local and regional food systems. The matrix is set up through community assets (built infrastructure, culture and wellness, dignity and involvement, economy and finance, governance and policy, knowledge and wisdom and natural environment) and sectors (cultivation and harvesting, processing and transformation, aggregation and distribution, purchasing and nourishment, and conservation and stewardship), shown in Figure 1. First, there is a review of quantitative data sources at the national, state and county levels and suggests place-based organizations that may be able to support in understanding your community food system. The second section offers ideas for qualitative data sources that can include both quantitative and qualitative methods.

The goal of this resource is to continue to highlight the breadth of data that is available as a starting point to understanding your community context. However, it is suggested that you also understand your community's desires, vision, and mission relating to your specific food system prior to starting. The amount of data available can be overwhelming, and the more this can be homed in, the more strategic data aggregation and analysis will be.



Figure 1: Food Systems Framework, Iowa State University Extension and Outreach.

Data Resources

The tables below identify national, regional and local areas to begin your research. In the resources and indicators column, you can find example reports as well as indicators that may be relevant to that area of research.

The first table indicates secondary data sources. Don't forget to also consider previous reports, literature, and publications that may have been completed, that can testify to the information and facts of the region. These types of reports are helpful to review and indicate in assessments, as well as respecting and highlighting the previous work that has been completed with community resources.

Quantitative Data

Secondary Data Collection

Community Assets

Asset	National	Regional	Local	Resources and Indicators
Built Infrastructure: Buildings, roadways, power, and industrial systems.	<ul style="list-style-type: none"> • Data.gov • Farm Service Agency and Disaster Assistance • USDA ERS: Food Environment Atlas • U.S. Energy Information Administration • Places (Cities and Towns) • MapGeo 	<ul style="list-style-type: none"> • State Department of Housing and Urban Development • State Department of Transportation • State Department of Energy • Department of Public Health tracking 	<ul style="list-style-type: none"> • County Extension • City and County Planning Office • Community Economic Development Offices • Utilities 	<ul style="list-style-type: none"> • Movement and Place • City Futures: Healthy Built Environment Indicators

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Data Resources for Food Systems Assessments

	<ul style="list-style-type: none"> • Open Street Map • Opportunity Zones • U.S. Environmental Protection Agency • American Geosciences Institute • Census Tigerline files • Esri Living Atlas of the World 	<p>programs - Example: Iowa</p> <ul style="list-style-type: none"> • State Open Data Websites Example: Iowa • Metropolitan Planning Organizations • Council of Governments • University Geospatial Data -Example: Iowa State University 		
<p>Culture & Wellness: Individual health, traditional practices, and community health.</p>	<ul style="list-style-type: none"> • Health Data • World Health Organization • Center for Disease Control and Prevention • Choose My Plate • Food and Nutritional Service • USDA Food and Nutrition • USDA Census of Agriculture • USDA ERS • Healthy Food Access Portal • State of Childhood Obesity • USDA ERS: Food Environment Atlas • USDA Food Access Research Atlas • Healthy People Data • Johns Hopkins- Coronavirus Resource Center • World Health Organization: COVID-19 • PLACES: Local Data for Better Health • Track the Recovery 	<ul style="list-style-type: none"> • Research Institutions; County Extension • State Department of Public Health • Department of Public Health tracking programs -Example: Iowa • Johns-Hopkins State Coronavirus • FEMA Disaster Declarations • State Public Health • State Department of Natural Resources • State Institutions and Research Organizations 	<ul style="list-style-type: none"> • Community hospitals/ public health needs assessments • County Extension 	<ul style="list-style-type: none"> • Office of Disease Prevention and Health Promotion: Healthy People and Social Determinants of Health • Center for Disease Control Health Indicators • COVID-19 Economic Impact on Local Food Markets
<p>Dignity & Involvement: Representation in community action, voice in decision making, and respectful dialogue.</p>	<ul style="list-style-type: none"> • Data.gov • American Fact Finder • USDA Food Access Research Atlas • Census • HUD – Housing Market Analysis • World Bank • Bureau of Labor Statistics • Feeding America • Food and Nutritional Service • Opportunity Zones 	<ul style="list-style-type: none"> • Research Institutions • State Department of Housing • State Department of Justice • State Department of Labor • State Department of Health and Human Services • State Department of Cultural Affairs 	<ul style="list-style-type: none"> • Local Municipality Zoning • Local Government Planning • County Extension • Civil Rights Committees 	<ul style="list-style-type: none"> • Farm to School Assessment Tool • Building Movement: Sources of Power

Data Resources for Food Systems Assessments

	<ul style="list-style-type: none"> • Climate and Economic Justice Screening Tool 			
<p>Economy & Finance: Capital resources, individual and community wealth, and commerce.</p>	<ul style="list-style-type: none"> • American Fact Finder • Census • Bureau of Economic Research (Department of Commerce) • Data.gov • World Bank • Bureau of Labor Statistics • USDA ERS: Food Environment Atlas • Food and Agriculture Organization of United Nations 	<ul style="list-style-type: none"> • Research Institutions; County Extension • State Economic Indicators • State Rural Development Program • Department of Commerce • Economic Development Authority • Small Business Administration • Small Business Development Centers 	<ul style="list-style-type: none"> • Local Government Community and Economic Development • County Extension • Previous Economic Studies • Community Foundations • Research Institutions/ Land Grant Colleges - Example: Iowa 	<ul style="list-style-type: none"> • Local Food Economics • Local Food Economics, Metrics • AgMrc Business Development • AgMrc Product Analysis • AgMrc Prices and Profitability Models • U.S. Small Business Administration • USDA Economic and Policy Analysis • North American Industry Classification System (NAICS)
<p>Governance & Policy: Government laws and principles, communities of practice, and collective action.</p>	<ul style="list-style-type: none"> • HUD – Housing Market Analysis • Congress.gov • Farm Bill • Central Intelligence Agency, World Factbook • Healthy Food Access Portal • State of Childhood Obesity- policy • Local Government Food Policy Database • Farm Bill • Food and Agriculture Organization of United Nations • Food and Agriculture Organization of the United Nations Database • U.S. Environmental Protection Agency 	<ul style="list-style-type: none"> • State Legislature Websites • State Policies • State Department of Agriculture and Natural Resources • State Department of Public Health 	<ul style="list-style-type: none"> • Local Municipality Zoning • Local Government • County Extension 	<ul style="list-style-type: none"> • Farmland Trust: Laws by local, state and federal • Food Systems Policy • Municipal Zoning for Local Foods (In Iowa) • USDA Economic and Policy Analysis • APA Policy Guide on Community and Regional Food Planning
<p>Knowledge & Wisdom: Experiences, formal education, storytelling, and historical records.</p>	<ul style="list-style-type: none"> • Data.gov • WorldBank Education Statistics • National Center for Educational Statistics • U.S. Department of Education • Education Data Portal • Common Core of Data: American Public Schools 	<ul style="list-style-type: none"> • Research Institutions; County Extension • State Department of Education 	<ul style="list-style-type: none"> • County Extension • Local Private and Public Schools (K-12)/ community college/ university reports 	<ul style="list-style-type: none"> • Farm to School Census • Educational Indicators from OECD
<p>Natural Environment: Climate, ecosystems, living species,</p>	<ul style="list-style-type: none"> • Data.gov • Farm Service Agency and Disaster Assistance • USDA ERS: Food Environment Atlas 	<ul style="list-style-type: none"> • State Department of Natural Resources • State Department of Agriculture 	<ul style="list-style-type: none"> • Local Government Parks and Recreation; Planning Departments • County Extension 	<ul style="list-style-type: none"> • USDA Disaster Reference Guide- Farmers, Ranchers and Communities

Data Resources for Food Systems Assessments

<p>weather, soil, and water.</p>	<ul style="list-style-type: none"> • U.S. Energy Information Administration • USDA Natural Resources Conservation Service • NOAA Fisheries • Place (cities and towns) • MapGeo • Open Street Map • National Oceanic and Atmospheric Administration • Opportunity Zones • Farmland Protection • U.S. Environmental Protection Agency • Climate and Economic Justice Screening Tool • Esri Living Atlas of the World • National Weather Service • FEMA Flood Plain Map • FEMA Disaster Information • Disaster Resource Center 	<ul style="list-style-type: none"> • State Department of Housing and Urban Development • State Department of Transportation • State Department of Energy • Farm Service Agencies • Department of Public Health tracking programs - Example: Iowa 	<ul style="list-style-type: none"> • County Resource and Conservation 	<ul style="list-style-type: none"> • United States Environmental Protection Agency, Climate Indicators
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Food System Sectors

General Resources:

- [Food Systems Dashboard](#)
- [Food Systems Indicators](#)
- [USDA AMS Local and Regional Foods](#)
 - [Maps](#)
- [Community Commons Maps](#)
- [ATTRA, NCAT Local Food Systems](#)
- [Healthy Foods, Healthy Lives Institute Indicator Maps](#)

Sector	National	Regional	Local	Resources and Indicators
<p>Cultivation & Harvesting: Producing agricultural products of food, fiber, and fuel through farming, hunting, foraging, fishing, and other maritime practices.</p>	<ul style="list-style-type: none"> • Data.gov • USDA Census of Agriculture • AgMrc Food Searcher Tool • Food Safety.gov • Farm Service Agency • USDA • USDA Open Data Catalog • USDA AMS Farmers and Ranchers • Market Maker • USDA Food Directories • Cooperative Statistics • USDA ERS 	<ul style="list-style-type: none"> • Research Institutions; County Extension • State Department of Agriculture • State Food Safety guidelines • Department of Natural Resources • State Market Maker • Farm Service Agencies 	<ul style="list-style-type: none"> • Local food directories • Local city and county planning offices • Master Gardener programs 	<ul style="list-style-type: none"> • Cooperative Feasibility Study Guide • Farmland Trust: Laws by local, state and federal • Food Safety Modernization Act • North Central Region Center for FSMA Training, Extension and Technical Assistance • AgMrc Product Analysis • ATTRA, NCAT Sustainable Agriculture Podcasts

Data Resources for Food Systems Assessments

	<ul style="list-style-type: none"> • USDA ERS: Food Environment Atlas • Farmland Protection • Food and Agriculture Organization of United Nations • NOAA Fisheries 			
<p>Transformation & Processing: Changing raw ingredients into new products through physical alteration or marketing practices.</p>	<ul style="list-style-type: none"> • USDA • USDA Open Data Catalog • Market Maker • USDA ERS: Food Environment Atlas 	<ul style="list-style-type: none"> • Research Institutions; County Extension • State Department of Agriculture • State Food Safety Guidelines • Department of Natural Resources • State Market Maker • Farm Service Agencies 	<ul style="list-style-type: none"> • Local processing businesses (specialty crops/ dairy/ meat) 	<ul style="list-style-type: none"> • USDA Community Food Systems • Farm to School Network
<p>Aggregation & Distribution: Moving products to markets and buyers through gathering, storing, and delivering practices.</p>	<ul style="list-style-type: none"> • MarketMaker • Farm to School Census • USDA AMS Aggregating and Distribution: • USDA ERS • USDA AMS Directories • USDA ERS: Food Environment Atlas 	<ul style="list-style-type: none"> • Research Institutions; County Extension • State Department of Agriculture • State Food Safety Guidelines • Department of Natural Resources • State Market Maker • Farm Service Agencies 	<ul style="list-style-type: none"> • Local food hub/ CSA/ and other directories • Regional distributors 	<ul style="list-style-type: none"> • Food Safety Modernization Act • North Central Region Center for FSMA • New England Farm to Institution Metrics Dashboard
<p>Purchasing & Nourishment: Consuming food for personal and community sustenance through procurement and culinary practices.</p>	<ul style="list-style-type: none"> • Food and Nutritional Service • USDA Community Tools • Farm to School Census • USDA ERS • USDA ERS: Food Environment Atlas • USDA Food Access Research Atlas 	<ul style="list-style-type: none"> • Research Institutions; County Extension • State Department of Public Health • State WIC/ SNAP/ and food assistance programs 	<ul style="list-style-type: none"> • Local restaurant/ business directories 	<ul style="list-style-type: none"> • USDA Community Food Systems • National Farm to School Network
<p>Conservation & Stewardship: Caring for natural resources through responsible planning, management and preservation practices.</p>	<ul style="list-style-type: none"> • Data.gov • Feeding America • Farmland Protection • NOAA Fisheries 	<ul style="list-style-type: none"> • State Waste Management Authorities • State Energy Agencies • State Conservation Programs and Department of Natural Resources 	<ul style="list-style-type: none"> • Landfills • Waste Management and compost programs • Energy Businesses • County Resource and Conservation • Food Donation businesses 	<ul style="list-style-type: none"> • Food Waste Reduction Alliance

Qualitative Data

Primary Data Collection

- Coalition notes/ feedback
- Network analysis
 - [Department of Health: Force Field Analysis](#)

Contact Matrix

Suggestion: Create a table and make a matrix of community contacts to reach out to.

Community Assets

Asset	Business Name	Contact Name	Email	Phone	Address	Notes
Built Infrastructure						
Culture & Wellness						
Dignity & Involvement						
Economy & Finance						
Governance & Policy						
Knowledge & Wisdom						
Natural Environment						

Food System Sectors

Sector	Business Name	Contact Name	Email	Phone	Address	Notes
Cultivation & Harvesting						
Transformation & Processing						
Aggregation & Distribution						
Purchasing & Nourishment						
Conservation & Stewardship						

Further Research

For additional information on the Food Systems Framework, visit our [Food Systems webpage](#) to view all our food systems assessment resources.

If you have suggestions for additional resources, or questions regarding the tools shared in this resource, please reach out to:

- Courtney Long, Food Systems Program Manager: court7@iastate.edu
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