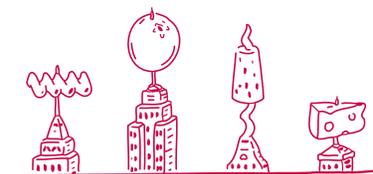


Northwest Arkansas Regional Food Assessment

PREPARED FOR
Northwest Arkansas Council
Northwest Arkansas Regional Food Council
BY
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July 2014



KARP RESOURCES

PROJECT TEAM

Northwest Arkansas Council

The Northwest Arkansas Council is a private, not for profit, community development organization. The council's primary goal is to raise the standards of living for all Northwest Arkansans by working regionally in four areas: economy, education, and physical and social infrastructure.

Northwest Arkansas Regional Food Council

The mission of the Northwest Arkansas Regional Food Council is to promote the development of a strong regional food system through activities that increase production, consumption, and access to local food in Northwest Arkansas. Northwest Arkansas Regional Food Council Steering Committee Members include:

Nicki Dallison, Downtown Bentonville Farmers' Market	Deb King, Just Us Farm
Susan Drouilhet, Northwest Arkansas Local Food Guide	Cheri LaRue, Green Fork Farm
Denise Garner, Feed Communities	Teresa Maurer, Fayetteville Farmers' Market
Patrice Gros, Foundation Farm	Keith Richards, Southern SAWG
Daniel Hintz, Velocity	Charlie Stockton, FORGE

Karp Resources

Founded in 1990, Karp Resources is a food business consultancy with two divisions: Our *Good Food is Good Business* division supports the healthy development, execution, and operations of food businesses and initiatives in the public and private sectors. Our services include strategic sourcing, feasibility analysis, market research, business planning, project management, and evaluation.

Our *Good People are Good Business* division builds leadership and organizational effectiveness in the food sector through talent and performance management, organizational assessment, capacity building, executive coaching, recruiting, and employee engagement services.

Karp Resources' clients include corporations, government agencies, small businesses, non-profits, and educational organizations. For more than 20 years, Karp Resources has spearheaded and has been integral to the development and execution of food businesses, policies, and partnerships in the United States and in the United Kingdom.

Nielsen & The Harris Poll

On February 3, 2014, Nielsen acquired Harris Interactive and The Harris Poll. Nielsen Holdings N.V. (NYSE: NLSN) is a global information and measurement company with leading market positions in marketing and consumer information, television and other media measurement, online intelligence and mobile measurement. Nielsen has a presence in approximately 100 countries, with headquarters in New York, USA and Diemen, the Netherlands. For more information, visit www.nielsen.com.

Mass Economics

Mass Economics is a Cambridge, MA-based research and consulting firm that specializes in urban and regional economic growth and equity. The firm is highly technical with expertise in business and economic data, analytics, modeling, and strategy but is also a socially-driven organization committed to equitable and inclusive economic growth. The Mass Economics team has extensive experience working across the U.S. on economic growth and business development strategies, with particular expertise in local business-to-business, food, industrial, and retail clusters.

The Northwest Arkansas Regional Food Assessment was funded by the Walton Family Foundation and the Endeavor Foundation.

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Northwest Arkansas Regional Food Assessment Executive Summary

Introduction

In the summer of 2012, a group of farmers, entrepreneurs, farmers' market managers, and local food and agriculture supporters and advocates with a shared vision for a robust and equitable regional food system in Northwest Arkansas formed the Northwest Arkansas Regional Food Council. Together with the Northwest Arkansas Council, an early supporter, the Regional Food Council launched its efforts with a regional food assessment to measure and understand the region's food and agriculture assets and challenges to fully realizing the potential of farmers and food businesses to contribute to the region's economy, community health, and well-being.

In November 2013, the Northwest Arkansas Council contracted Karp Resources to design and conduct a food assessment of Benton, Carroll, Madison, and Washington Counties. Karp Resources led the project team, which included Nielsen, which recently acquired Harris Interactive and The Harris Poll, and Mass Economics, a research and consulting firm that specializes in urban and regional economic growth and equity.

Methodology

The Northwest Arkansas regional food assessment weaves together primary source data, including the United States Department of Agriculture (USDA) 2012 Census of Agriculture and a region-wide consumer survey, with economic analysis and first-hand information, observations, and reflections from regional food system stakeholders. Through the course of the project, Karp Resources conducted 84 formal interviews and informal conversations.

Key Findings: Opportunities to Strengthen the Regional Food System

The region has an opportunity to articulate a "food story" that reflects the breadth of the local food system and resonates with longtime Arkansans, new arrivals, and tourists. Northwest Arkansas has strong foundation for a regional food story and agricultural/culinary brand identity, however at this stage there is no region-wide brand or narrative that tells the story of the diverse and evolving farm and food culture and opportunities in the region.

Local agriculture has a reputation for quality. Quality and flavor are the top considerations for both grocery shoppers and commercial buyers in Northwest Arkansas. The majority of grocery shoppers report that locally produced foods are higher quality and more flavorful than foods produced outside the region. Commercial buyers agree that farms are meeting their expectations for quality for all local products purchased—which includes primarily meat, poultry, fruits, vegetables, and herbs—and they believe that local produce is superior in flavor.

Local produce purchases are constrained by acreage and direct market orientation. Fresh fruits and vegetables are the local products most desired by grocery shoppers in Northwest Arkansas as well as many institutional and retail buyers. However, the region's fruit and vegetable production is very small and commercial buyers identify available supply as the primary barrier to local purchasing. Fewer than 2 percent of farms sell vegetables, less than 1 percent of farms have land in orchards, and less than 1 percent of the region's total farmland is planted in vegetables or fruit. It's not surprising that the vast majority of fruit and vegetables growers aim to capture the full retail value of their relatively small production by selling the majority of their product directly to consumers at farmers' markets or farm stands. However, there is evidence that Northwest Arkansas farmers' markets are saturated with their current produce mix: farmers report that they are not selling the full volume of what they bring to market.

Local livestock purchases are constrained by production methods and national supply chain orientation.

Along with fresh produce, local meat and poultry are the local products in highest demand among Northwest Arkansas grocery shoppers and commercial buyers. Chefs, in particular, are seeking locally raised meat and heritage breeds that they believe are particularly flavorful, as well as grass fed beef and pastured poultry. Livestock and poultry production account for nearly 99 percent of the region's total agricultural sales, however the majority poultry, egg, and cattle production is oriented toward supply chains that serve customers well beyond Northwest Arkansas' borders. In this context, commercial buyers struggle to find consistently available supply of locally raised meat and poultry.

Local supply chains require professional and physical infrastructure to grow. Northwest Arkansas farmers sell their products directly to commercial buyers, a transaction referred to as direct wholesale. Direct wholesale transactions in the region largely depend on buyers visiting the farmers' market, or farmers calling restaurants when they have surplus products. However, a wave of farmers, entrepreneurs, non-profit organizations—and the Fayetteville School District—are exploring models to aggregate and distribute local products. These nascent aggregation and distribution efforts are addressing a pressing need for greater information, communication, coordination, and physical aggregation space in the supply chain. At minimum, commercial buyers seek regularly available and accurate information about local supply and pricing, and formalized ordering, invoicing, and payment processes.

Farmland, farmers, and the resources to support them are required to ensure the long-term viability of agriculture in Northwest Arkansas. The continued viability of agriculture in Northwest Arkansas depends significantly on three interdependent factors: farms remaining economically viable, farmland staying in production (and out of development), and new farmers succeeding retirees. Through the Northwest Arkansas Land Trust and the Ozark Regional Land Trust, the region is in the early stages of farmland preservation efforts, though both of the trusts are more focused on watershed protection. While there appears to be an emerging trend toward young people planning for a career in agriculture, there very few local resources for new farmers trying to identify available land, for retiring farmers hoping to find successors, or for either party to explore the financial tools for making agricultural land affordable

With greater outreach and more cohesive marketing, a greater number of Northeast Arkansas residents could take advantage of benefits that increase their food budget. One quarter of eligible Arkansas residents do not receive the Supplemental Nutrition Assistance Program (SNAP) benefits for which they qualify. This is missed opportunity for those consumers as well as for the local retailers that do not receive benefit payments. In addition to SNAP, there are wide array of benefits accepted at farmers' markets, some of which are only available to shoppers using SNAP benefits or WIC or Senior Farmers' Market Nutrition Coupons.

Public schools have the potential to be a one-stop shop for local healthy food. School-based activities offer a way to connect with Northwest Arkansas's diverse population, and to address food with children and families. Bentonville Public School District has hosted parents for nutrition and cooking courses and Fayetteville Public School District's farm-to-school program has established a local food distribution system and educational materials about local produce. Public Schools in Northwest Arkansas have experience working together and adopting best practices from one another, and there is an opportunity for a region wide local food activities—including cooking classes, youth-run markets, community dinners—hosted at public schools.

Developing underrepresented segments of Northwest Arkansas's food industry cluster aligns with opportunities to strengthen the local food system. Small-scale value-added food manufacturing, local distributors, grocers, and specialty food stores are underrepresented in Northwest Arkansas. These businesses are important building blocks for robust local supply chains. While the University of Arkansas Food Innovation Center Pilot Plant currently serves as "incubator" for local value-added food processors, the

facility does not have the capacity to serve as a shared commercial kitchen for growing food manufacturers. This is a missed opportunity. In addition to generating revenue for local retailers and manufacturers, featuring high quality local products would communicate and elevate the region's food brand and identity.

Northwest Arkansas's new generation of local farm and food businesses would benefit from a network of farm and business support services that align with their scale and values. Because large food and agriculture businesses have been the backbone of Northwest Arkansas' economy for over 50 years, private, non-profit, and public sector services, such as trade and marketing associations, lenders, research institutes, and regulatory agencies are oriented toward big business and big agriculture. Smaller-scale farmers—particularly those that grow specialty crops, organics, or pastured livestock—and food entrepreneurs in Northwest Arkansas have repeatedly described a disconnect between their needs and the services currently offered.

There is an opportunity to leverage Northwest Arkansas's large-scale business infrastructure in support of local food entrepreneurs in the region. Northwest Arkansas is a hub for food businesses that serve customers across the U.S. and around the world. These companies bring myriad resources to the region, including expertise in product development, marketing, logistics, and technology, distribution networks, and capital. Angel investor networks and business accelerator programs have leveraged the region's business assets and infrastructure in support of technology startups. Food entrepreneurs in the region would benefit from similar programs that catalyze the growth of local food enterprises with support from food corporations headquartered in the region.

The leaders and decision-makers in Northwest Arkansas's food system do not reflect the diversity of the region's population or food businesses. Northwest Arkansas's population is increasingly culturally diverse, and farm and food business reflect that diversity. Hmong farmers are an important part of local farmers' markets and the region is home to an array of Mexican and Central American owned and operated restaurants. Latinos and Marshallese Islanders make up a significant component of the poultry-processing workforce. However, there is little ethnic or cultural diversity among the leadership of formal and informal organizations working to strengthen the food system. Further, the diversity in the local food systems has not been explicitly incorporated into Northwest Arkansas's food culture, as it is currently expressed.

Recommendations

1. Cultivate a Regional Food Identity

Be Flexible in Defining "Local" - Moving forward with efforts to strengthen the regional food system without one, unified definition of local may appear counterintuitive, or be frustrating for some. However, rather than attempting to align or supersede diverse current definitions of local, we recommend focusing on building the capacity of farmers and buyers to develop supply chains for a diversity of products that showcase the region's strengths.

Establish a Regional Brand - A regional brand would shine a spotlight on Northwest Arkansas as cultural, agricultural, and geographic region. "Arkansas Ozarks", "Ozarkansas" (as coined by Feed Communities' regional *Edible* publication), or a similar brand could capture regional farm, food, and culinary marketing efforts.

Tailor Marketing Campaigns to the Region's Diverse Audience - Consumer education, through carefully tailored marketing campaigns will serve many purposes to build the local farm and food economy. Regional food education for area residents can range from progressive curricula taught throughout public school, to parent and community workshops at school-based events to higher education electives or concentrations. For the general public, farmers' markets, area retailers, sports arenas, and fairs and festivals are ideal venues for creating engagement around the values and availability of local food. A similar campaign targeted to

visitors to the region would focus on the airport, hotels, convention centers, cultural institutions, and outdoor recreation spots.

Honor the Diversity of Local Food Stories – A regional brand strategy and marketing campaign can draw on the wealth of Northwest Arkansas’s stories of food and agriculture. Farmers in the region continue to produce food on land homesteaded by their families in the early 19th century. Central American immigrants have become restaurateurs preparing and serving traditional Salvadoran pupusas. A chef sought sorghum to sweeten his menu. Hmong farmers donate fresh produce to soup kitchens and food pantries that serve families in need across the region. Each of these sketches could, and should, contribute to the larger narrative of Northwest Arkansas’s diverse and evolving food culture.

2. Coordinate and Grow Regional Supply

Create a Local Food Coordinator Position – In addition to a shortage of local products, farmers and buyers are missing key information and communication channels that would allow regional institutions, chefs, and retailers to purchase greater quantities of available local products. A dedicated full-time Local Food Coordinator could greatly accelerate the scope of training, facilitation and communication for farmers and buyers across the region. In order to ensure that the Local Food Coordinator operates in the interest of the larger regional food system, rather than a particular farmer or buyers, it is important that the position is salaried, rather than paid through commissions.

Develop Farm-to-Plate Regional Meat Supply Chains – Meat and poultry supply chains require regional processing facilities, precise scheduling for slaughter, and—for livestock—a marketplace for a wide range of cuts and a large quantities of ground meat. Match-making regional demand and supply for meat—and growing both—will be an important responsibility of a Local Food Coordinator. However, as regional meat supply chains grow, facilitating and growing supply and demand will require additional organization, potentially through a cooperative, non-profit, or private sector enterprise. Identifying poultry slaughter capacity is an immediate priority.

Increase and Diversify Fruit and Vegetable Production in the Region – Many of the region’s fruit and vegetable farmers would be willing to diversify their production and extend their season, using hoop houses, for example, if they were confident that there was a market for their products. Facilitating conversations about demand for particular varieties of produce and early and late season products is an important part of the role of a Local Food Coordinator. Additionally, if only 5 percent of the 48,656 acres of unharvested cropland in Northwest Arkansas was planted in fruit and vegetables, this would more than double the current acreage

Ensure Long-Term Farmland Viability – Northwest Arkansas city and county governments, local planning boards, and the Northwest Arkansas Regional Planning Commission should work in concert with the Northwest Arkansas Land Trust to preserve farmland. To do this they must identify high priority agricultural land, raise funds to purchase conservation easements, advocate to use planning and zoning tools (such as green infrastructure mapping), to protect farmland, and facilitate affordable farmland transition to new farmers and across generations. Additionally, we recommend that the Land Trust, University of Arkansas, and other regional agricultural organizations such as the Southern Sustainable Agriculture Working Group (SSAWG) collaborate to establish a set of resources for new farmers seeking land in Northwest Arkansas and retiring farmers seeking to transition their farm to the next generation. These are include access to capital and business planning resources.

3. Leverage Public Resources to Improve Local Food Access for All Northwest Arkansans Through Diverse Outlets

Prioritize Region-Wide SNAP Enrollment Efforts – Northwest Arkansas municipalities and community organizations should coordinate outreach efforts to ensure that each eligible residents of Northwest Arkansas has an opportunity to enroll. Based on our experience in other regions, enrollment outreach should target seniors and immigrant populations, as well as the eligible population at large, through churches, health fairs, grocery stores, soup kitchens, food pantries, and community organizations.

Utilize Public Schools as Community Food Hubs

In addition to serving as commercial food buyers, public schools districts and Head Start and afterschool programs can anchor community food strategies. In Northwest Arkansas, where there is significant population growth, schools can be an initial point of connection for new residents (at least those with children) and the community. Additionally, public schools provide an opportunity for community organizations to connect with families that are difficult to reach because parents work long hours, have recently immigrated, are not proficient in English, or are part of more insular communities.

Schools and Head Start and afterschool programs can host youth-run “pop up” farmers’ markets—facilitated by the Local Food Coordinator—that provide an opportunity for parents picking up their children to purchase affordable, local foods. Schools can also work with Senior Centers to host pop up farmer’s markets staffed by young people. In addition to farmer’s markets, schools can be a source for information about SNAP and WIC enrollment, local farmers’ markets, and cooking and nutrition information and workshops.

Meet Consumers Where They Are – At Supermarkets

Grocery stores are Northwest Arkansas grocery shoppers’ top source for local foods as well as overall grocery purchases. Nationwide, the majority of SNAP benefits are redeemed at supermarkets and supercenters. Any efforts to increase local produce at retail should include the mainstream supermarket, as these are the primary source of groceries for Northwest Arkansans.

4. Develop and Coordinate Local Food Cluster Technical Assistance and Resources

Establish a Local Food Accelerator Program – Northwest Arkansas is recognized as a worldwide center of excellence in agriculture production, retail, and food. The region can leverage its intellectual capital to support farm and food businesses, based on the successful model in the tech sector. A Local Food Accelerator Program supported by industry, trade associations, philanthropy, local government, and key current supports of local food businesses, including FORGE (Financing Ozarks Rural Growth & Economy) and the Northwest Arkansas Regional Food Council, would culturally align with the strengths of the region’s food business community, and serve to address the noticeable lack of support services for entrepreneurs in the region’s food cluster.

Locally headquartered food, agriculture, manufacturing, retail, and logistics businesses can provide state-of-the-art business advisory and growth services to regional farm and food businesses. The accelerator will serve to balance the dynamic between the export-focused agriculture and food enterprises in the region with those that serve the regional marketplace. The accelerator should include a new fund dedicated to expanding the region’s production of farm and food products. Modeled on the VIC Technology Venture Development, a fund will address start-up and expansion capital that is the most difficult to acquire in any sector, but especially for agriculture and food enterprises.

Invest in a Food System Incubator, or Food Hub – A physical incubator would support and anchor efforts to accelerate local food businesses and strengthen the local food industry cluster. Potentially, but not necessarily defined as a Food Hub, the facilities and infrastructure could address regional needs aggregating

local products and coordinating regional supply chains; incubating food manufacturers with shared manufacturing facilities and equipment; establishing education and networking space for local food cluster businesses; and providing a home for regional brand.

Prioritize Diversity Among Leaders of Food Businesses and Networks - In all efforts to support regional entrepreneurs, grow food businesses, and strengthen the Northwest Arkansas local food cluster, ensure that outreach regarding opportunities for funding, networking, mentorship, and use of facilities is targeted toward Northwest Arkansas communities that are underrepresented in food system leadership, including Latino, Hmong, Marshallese, and African-American farmers, food business owners and consumers.

BACKGROUND

In the summer of 2012, a group of farmers, entrepreneurs, farmers' market managers, and local food and agriculture supporters and advocates came together with a shared vision for a robust and equitable regional food system in Northwest Arkansas.

In September 2012, the newly established Northwest Arkansas Regional Food Council convened over 100 community members to identify common priorities that could guide activities and investments to strengthen the food system. Participants strongly recommended a regional food assessment to measure and understand the region's food and agriculture assets as well as supply chain bottlenecks and other challenges to fully realizing the potential of farmers and food businesses to contribute to the region's economy, community health, and well-being.

The Northwest Arkansas Council was an early champion of the Regional Food Council and efforts to develop and celebrate a vibrant regional food economy and culture in Northwest Arkansas. In November 2013, with grant support from the Walton Family Foundation and the Endeavor Foundation, the Northwest Arkansas Council contracted Karp Resources to design and conduct a food assessment of Benton, Carroll, Madison, and Washington Counties.

This report documents the findings and recommendations that emerged from the assessment.

The food assessment will help us identify strategies to support local farms and food businesses, which will bring more local products to market and make them available to local consumers. This will help strengthen the role of food and agriculture in our region and make Northwest Arkansas an even better place to live and work.

- Cheri LaRue, Chair, Northwest Arkansas Regional Food Council

METHODOLOGY

The Northwest Arkansas regional food assessment weaves together primary source data, including the United States Department of Agriculture (USDA) 2012 Census of Agriculture and a region-wide consumer survey, with economic analysis and first-hand information, observations, and reflections from food system stakeholders across the region.

The project team conducted 84 formal interviews and held numerous informal conversations with farmers, farmers' market managers, food distributors, wholesale and supermarket food buyers, chefs, public health and food system advocates, and staff at local schools, the University of Arkansas, the Northwest Arkansas Land Trust, and the Agriculture Department, over the course of an eight-month engagement, November 2013–June 2014.

The regional food assessment was comprised of six research modules.

1. Assessment of Landscape of Actors

The project team launched the assessment with a series of interviews with Northwest Arkansas food system stakeholders in order to establish a qualitative understanding of the ways in which individuals, organizations, businesses, and partnerships are working to develop regional supply chains and ensure that healthy foods are accessible to all residents of Northwest Arkansas.

2. Consumer Demand Analysis

Nielsen and the Harris Poll conducted an online consumer survey between February 11–25, 2014 of 356 residents of Benton, Carroll, Madison, and Washington Counties. All survey respondents were aged 18 or older and reported having at least shared responsibility for household grocery shopping. Figures for respondents' age, sex, race/ethnicity, education, and household income were weighted where necessary to bring them into line with their actual proportions in the Northwest Arkansas population, and propensity score weighting was used to adjust for respondents' propensity to be online. The online survey was not based on a probability sample, or random selection, and therefore no estimate of theoretical sampling error can be calculated. For complete survey methodology, including weighting variables, please contact Karp Resources.

In order to engage additional consumers throughout the region, Karp Resources modified the consumer survey and made it available on the Northwest Arkansas Regional Food Council's website. The Northwest Arkansas Council, and Northwest Arkansas Regional Food Council conducted survey outreach through a number of channels including local press, farmers' market managers, and Ozark Slow Foods. Because of this opportunity sampling method, online survey results do not represent the population of Northwest Arkansas consumers.

3. Commercial Demand Assessment

Karp Resources conducted structured interviews with commercial food buyers from a variety of categories, including schools, supermarkets, restaurants, hospitals, and tourism-related organizations in order to understand the level of demand and current activity relating to local food procurement. Representatives from schools, supermarkets, and restaurants were the most responsive to interview requests and provided valuable qualitative information about local purchasing practices, preferences, and challenges, as well as limited quantitative information data about purchasing volumes and prices. While one large foodservice provider and one produce distributor participated in the study, institutional foodservice providers and distributors proved difficult to reach and generally required corporate permissions to participate. The project team gained distribution information primarily from interviews with buyers.

The project team gathered additional qualitative and quantitative information about commercial demand for local foods through an online survey on the Northwest Arkansas Regional Food Council's website. Karp Resources, the Northwest Arkansas Council, and Northwest Arkansas Regional Food conducted survey outreach through a number of channels including local press, Chambers of Commerce, Main Street Associations, and farmers' market managers.

4. Quantify Available Supply

The project team utilized land use and production volume and value data reported in the USDA 2012 Census of Agriculture, released in May 2014, to quantify the current supply of agricultural products across the Northwest Arkansas. Karp Resources gathered complementary production and marketing information through interviews with farmers and an online farmer survey. The Northwest Arkansas Regional Food conducted survey outreach through a number of channels including farmers' market managers

5. Assess the Flow of Food Through the Region

Through both structured and informal interviews with farmers, meat, produce and dairy processors, and retailers and distributors, Karp Resources developed an understanding of the relationships, infrastructure, and processes that move food along supply chains from Northwest Arkansas producers to their customers in the region and further afield as well as bottlenecks that prevent more regional products from reaching local consumers.

6. Food Cluster Analysis

Mass Economics utilized industry, occupation, demographic, and proprietary and public firm level data from a variety of sources, including the U.S. Census Bureau, the Bureau of Labor Statistics, the USDA's Census of Agriculture and EMSI Analyst, to describe the size and scope of food and food-related businesses in the region and identify opportunities to strengthen the food industry cluster as a whole.

The Northwest Arkansas four-county region is located on the Ozark Plateau. In order to better understand the region's relative food and agricultural industry strengths and weaknesses, Mass Economics compared it to "peer regions" in the Ozarks, including four metropolitan areas, four "micropolitan" areas, and one individual county.

THE NORTHWEST ARKANSAS REGION

Geography

Benton, Carroll, Madison, and Washington Counties lie in the northwest corner of Arkansas, bordering Oklahoma to the west and Missouri to the north. The four-county region sits on the Ozark Plateau, which stretches from northeastern Oklahoma across northwestern and north central Arkansas and through the southern half of Missouri. The highest elevations on the Ozark Plateau are found in the Boston Mountains, which cut through Washington and Carroll Counties and the southern reaches of Madison County. Northwest Arkansas's geography and landscape link the region more closely with the Ozarks than Southern Arkansas or the Delta to the east.

Population and Income

Northwest Arkansas is home to 470,000 people. The population is concentrated in Benton and Washington Counties in the western half of the region, where 426,000 people, or 91 percent of the population, live. From 2000 to 2012, the region grew 34 percent, adding 120,000 new residents. Over the same time period, the U.S. and the State of Arkansas grew by only 10 percent and 9 percent, respectively. Nearly all of the Northwest Arkansas's growth occurred in 2 counties– Benton County grew by nearly 69,000 people from 153,000 to 222,000, an increase of 45 percent, and Washington County grew by more than 46,000 people from 158,000 to 204,000, an increase of 29 percent. Carroll and Madison Counties grew at a rate comparable to that of the state as a whole.

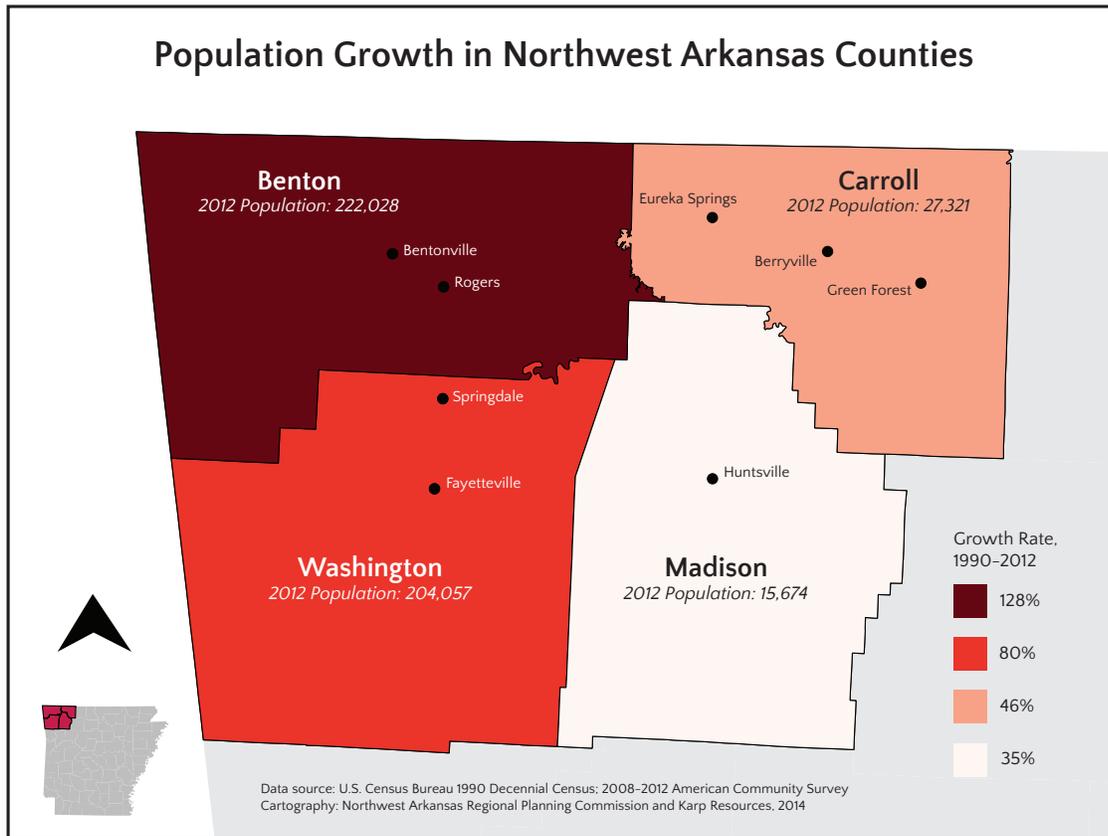
Figure 1: Population Growth, 2000-2012

Geography	Population, 2000	Population, 2008-12	Population Change	Percent Change
Northwest Arkansas	350,721	469,080	118,359	34%
Benton County	153,406	222,028	68,622	45%
Carroll County	25,357	27,321	1,964	8%
Madison County	14,243	15,674	1,431	10%
Washington County	157,715	204,057	46,342	29%
Arkansas	2,673,400	2,916,372	242,972	9%
United States	281,421,906	309,138,711	27,716,805	10%

Source: U.S. Census Bureau 2000; Decennial Census; 2008-2012 American Community Survey

Figure 2 on the following page illustrates the region's growth since 1990. In just over two decades the population of Northwest Arkansas has nearly doubled, increasing by 95 percent.

Figure 2: Population Growth, 1990–2012



The region's growth is expected to continue going forward. Between 2013 and 2020, Northwest Arkansas's population is projected to increase by nearly 30 percent to 652,000, with the greatest projected increases in Benton County, at 34 percent, and Washington County, at 22 percent.¹

International migration to Northwest Arkansas has contributed to region's growth, and increasing cultural diversity. Fifteen percent of Northwest Arkansas' population is Hispanic or Latino, compared with 6 percent of the Arkansas population overall. Northwest Arkansas is also home to communities of Hmong and Marshallese Islanders.

¹ Population Estimates and Projections, Institute for Economic Advancement, University of Arkansas at Little Rock, <http://iea.uarl.edu/population-estimates-a-projections.html#proj>

Between 2008–2012, the median household income in Northwest Arkansas was \$46,400. This is about 13 percent less than the national average of \$53,100 but 14 percent above the state average of \$40,500. There is a wide variation in median income by county, with Benton, at \$53,500, and Washington, at \$41,400, on the high end and Carroll, at \$35,600, and Madison, at \$33,500, on the low end. In real terms, i.e., after accounting for inflation, median household incomes have been declining across the board.² From 2000 to 2008–12, median household incomes in the U.S. and Arkansas declined by 8 percent and 9 percent, respectively. Incomes in Northwest Arkansas declined by 7 percent, but again there was variation by county. Madison and Washington Counties both saw declines of 13 percent, while Carroll County declined 8 percent (similar to the U.S.) and Benton County incomes declined by only 4 percent.³

Figure 3: Median Household Income

Geography	Median HH Inc., 2000 Census, in 2012 \$	Median HH Inc., 08-12 ACS, in 2012 \$	Median HH Inc. Change	Percent Change
Northwest Arkansas	50,064	46,353	(3,711)	-7%
Benton County	55,512	53,515	(1,997)	-4%
Carroll County	38,482	35,558	(2,924)	-8%
Madison County	38,443	33,481	(4,962)	-13%
Washington County	47,808	41,429	(6,379)	-13%
Arkansas	44,351	40,531	(3,820)	-9%
United States	57,873	53,046	(4,827)	-8%

Source: U.S. Census Bureau; 2000 Decennial Census; 2008-12 American Community Survey; BLS CPI Inflation Calculator

Notes: Median Household Income analysis is inflation adjusted to reflect 2012 dollars

The prevalence of poverty in Northwest Arkansas varies by county. Nearly 1 in 5 families in Madison County have incomes below the poverty level. The poverty rates in Carroll and Washington Counties are comparable with that of Arkansas overall. However, poverty is more prevalent in Arkansas than it is in the U.S. Benton County has the lowest percentage of families whose income is below the poverty level.

Figure 4: Family Income Below the Poverty Level

Geography	Percent of Families With Income Below the Poverty Level
Benton County	9%
Carroll County	13%
Madison County	19%
Washington County	13%
Arkansas	14%
United States	11%

Source: U.S. Census Bureau; 2008-12 American Community Survey

² U.S. Census Bureau; 2008–2012 American Community Survey

³ U.S. Census Bureau; 2000 Decennial Census; 2008–12 ACS; BLS CPI Inflation Calculator

Food and Agriculture

Farms and food businesses define Northwest Arkansas's landscape, economy, and to some extent, its population and culture. Over half of the region is farmland, and Benton, Washington, and Carroll Counties rank first, second, and fourth, respectively, among all Arkansas counties in market value of agricultural products sold. Benton, Washington, Carroll, and Madison Counties rank first, second, third, and fourth, respectively, in sales of livestock, poultry, and their products. Since the first half of the 20th century, poultry companies have clustered and grown in Northwest Arkansas. The region is home to a high concentration of poultry farmers, processing plants, warehouses, and corporate headquarters.

Three Fortune 500 companies with significant influence in the global food sector are homegrown and headquartered in Northwest Arkansas: Walmart in Bentonville, Tyson Foods in Springdale, and J.B Hunt in Lowell. The first Walmart store opened in 1962 in Rogers. At 52 years old, Walmart is the youngest of these three anchor companies, which have established the region as a hub for food businesses that serve customers across the U.S. and around the world.

The University of Arkansas, in Fayetteville, is the state's land grant university and the headquarters of the Arkansas Agricultural Experiment Station, the research component of the university's Division of Agriculture. The Fayetteville Downtown Square hosts the 40 year old Fayetteville Farmers' Market, the longest running farmers' market in Arkansas and the flagship enterprise of Fayetteville's robust downtown.

Economic opportunities in food and agriculture businesses have drawn job seekers to Northwest Arkansas, and have significantly contributed to the region's population growth. Now, Northwest Arkansas community and business stakeholders are considering how food and farming can contribute to the well-being of all Northwest Arkansas residents—from multi-generational Ozark families to newcomers—and to a sense of place and shared identity in an evolving region.

FARMS, FARMERS, AND AGRICULTURAL PRODUCTION

Key Findings

There are **7,035 farms** on **1,142,427 acres** in the four counties of Northwest Arkansas. **Farmland comprises 55 percent of all land in Benton, Washington, Carroll, and Madison counties.**

The average age of a Northwest Arkansas farmer is **59 years old.**

Poultry and livestock production dominates the agricultural landscape, with sales accounting for 99 percent of the total market value of agriculture in the region.

With \$1.3 billion in sales, **poultry and eggs account for 88 percent of all livestock sales in the region and 87 percent of total farm sales in the Northwest Arkansas.**

Over 95 percent of broiler farms and over 98 percent of turkey farms—and over 99 percent of the broilers and turkeys they produce—are under production contracts with poultry companies.

Sixty-nine percent of Northwest Arkansas farms raise cattle and calves. At \$159 million, their sales account for 11 percent of the region's livestock receipts.

Over 80 percent of cropland in Northwest Arkansas is used to produce forage crops, which are used as feed for cattle and other livestock and could appropriately be considered part of the meat supply chain

Fruits and vegetables are produced in low quantities on limited land in Northwest Arkansas, and are a very small part of the overall value of agricultural products in the region.

Of Northwest Arkansas' 7,035 total farms, 110 sell vegetables and 72 have land in orchards.

The majority of fruit and vegetable producers are farming on relatively small acreage: 103 of 110 total vegetable farmers grow on fewer than 25 acres and 84 of 110 vegetable grow on fewer than 5 acres; and 65 of 72 fruit farmers have orchards on fewer than 25 acres and 44 of 72 have orchards on fewer than 5 acres.

The farmers that serve Northwest Arkansas farmers' markets produce and market a diversity of products.

Fruit and vegetable farmers in Northwest Arkansas prioritize direct to consumer sales channels like farmers' markets and farm stands.

Northwest Arkansas fruit and vegetable farmers **rely on informal peer networks for support and resources.**

Farms, Farmers, and Agricultural Production

According to the most recent data from the United States Department of Agriculture, the 2012 Census of Agriculture, there are 7,035 farms on 1,142,427 acres in the four counties of Northwest Arkansas. Farmland comprises 55 percent of all land in Benton, Washington, Carroll, and Madison counties.

The average age of the principle operator of a Northwest Arkansas farm is 59 years old.
 46 percent of principle operators report farming as their primary occupation.
 62 percent of farmers have off farm employment, and 45 percent worked off the farm at least 200 days off in 2012.

Figure 5: Farms & Farmland

Geography	Farmland	Percent Farmland
Northwest Arkansas	1,142,427	55%
Benton County	304,845	56%
Carroll County	256,416	64%
Madison County	269,414	51%
Washington County	311,752	52%
Arkansas	13,810,786	42%
NWA as Percent of AR	8%	-

Source: United States Department of Agriculture, 2012 Census of Agriculture

Northwest Arkansas farmers produce nearly \$1.5 billion in farm products per year, 15 percent of Arkansas's farm gate receipts.

Figure 6: Market Value of Agricultural Products

Geography	Value of Livestock, Poultry & Their Products (\$1,000)	Percent Livestock, Poultry & Their Products	Value of Crops (\$1,000)	Percent Crops
Northwest Arkansas	1,470,201	99%	17,121	1.15%
Benton County	524,078	99%	5,050	0.95%
Carroll County	305,122	99%	1,884	0.61%
Madison County	205,018	98%	3,145	1.51%
Washington County	435,983	98%	7,042	1.59%
Arkansas	4,940,880	51%	4,834,879	49%
NWA as Percent of AR	30%	-	0.35%	-

Source: United States Department of Agriculture, 2012 Census of Agriculture

Livestock and Poultry Production

Livestock and poultry production dominate the agricultural landscape in the region, and sales from livestock, poultry, and their products account for nearly 99 percent of the region's total farm sales.

Figure 7: Market Value of Livestock, Poultry & Their Products

Geography	Value of Livestock, Poultry, & Their Products (\$1,000)	Poultry & Eggs (\$1,000)	Cattle & Calves (\$1,000)	Cows Milk (\$1,000)	Sheep & Lambs (\$1,000)	Goats (\$1,000)	Hogs & Pigs (\$1,000)*
Northwest Arkansas	1,470,201	1,293,680	159,056	11,610	388	316	-
Livestock Value	-	88%	11%	0.79%	0.03%	0.02%	-
Benton County	524,078	457,539	57,152	6,544	93	67	(D)
Carroll County	305,122	263,754	40,021	1,006	83	67	15
Madison County	205,018	180,788	21,995	1,547	76	42	15
Washington County	435,983	391,599	39,888	2,513	136	140	(D)
Arkansas	4,940,880	4,011,725	766,476	28,225	1,250	2,149	47,178

Source: United States Department of Agriculture, 2012 Census of Agriculture

* (D) indicates that the USDA withheld data to avoid disclosing data for individual farms

With \$1.3 billion in sales, poultry and eggs account for 88 percent of all livestock sales in the region and 87 percent of total farm sales in the Northwest Arkansas. Nine percent of farms in the region sell broilers or other meat chickens and 8 percent raise layers.

Figure 8: Farms with Poultry Sales

Geography	Farms w/ Broilers & Other Meat Chickens	Farms w/ Layers*	Farms w/ Turkeys	Farms w/ Ducks, Geese & Other Poultry
Northwest Arkansas	558	665	115	164
Percent of NWA Farms	8%	9%	1.6%	2.3%
Benton County	193	202	16	57
Carroll County	126	100	38	14
Madison County	78	113	30	32
Washington County	161	250	31	61
Arkansas	2,109	3,359	278	670

Source: United States Department of Agriculture, 2012 Census of Agriculture

*Farms with layer inventory, rather than sales of layers

In Northwest Arkansas, over 95 percent of broiler farms and over 98 percent of turkey farms– and over 99 percent of the broilers and turkeys they produce– are under production contracts with poultry companies, many of which– like Tyson, Simmons, Georges– are headquartered in the region. The total market value of poultry and eggs is not equivalent to the income earned by contract poultry producers. Under contract arrangements, the value of the birds belongs to the poultry company while producer are paid according to a formula that includes factors such as number of birds, the amount of feed used, the performance of their flock compared to those raised by other contract growers and the weight of the birds delivered to the processing plant. The poultry company generally provides the farmer with birds and feed, as well as technical services.

One hundred fifteen farms, or just under 2 percent, sell turkeys and 164, or just over 2 percent, sell ducks,

geese, and other poultry.

Sixty-nine percent of Northwest Arkansas farms raise cattle and calves. At \$159 million, their sales account for 11 percent of the region's livestock receipts.

Less than 2 percent of farms in the region raise milk cows, and \$11.6 in milk sales account for under 1 percent of the region's total sales of livestock and their products.

Figure 9: Farms with Cattle, Calf & Milk Cow Inventory

Geography	Farms w/ Cattle & Calves	Farms w/ Milk Cows
Northwest Arkansas	4,865	1
Percent of NWA Farms	69%	0.95%
Benton County	1,546	17
Carroll County	837	7
Madison County	921	8
Washington County	1,561	14
Arkansas	25,866	100

Source: United States Department of Agriculture, 2012 Census of Agriculture

Fewer than 2 percent of farms raise hogs and pigs, 2 percent raise sheep and lambs, and 5 percent raise goats. Sales of hogs and pigs, and sheep, lambs, goats, and their products account for less than half of one percent of livestock sales.

Figure 10: Farms with Hog, Pig, Sheep, Lamb & Goat Inventory

Geography	Farms w/ Hogs & Pigs	Farms w/ Sheep & Lambs	Farms w/ Goats
Northwest Arkansas	117	140	357
Percent of NWA Farms	1.7%	2.0%	5.1%
Benton County	25	14	109
Carroll County	14	39	64
Madison County	22	28	60
Washington County	56	59	124
Arkansas	752	778	2,450

Source: United States Department of Agriculture, 2012 Census of Agriculture

According to the 2012 Census of Agriculture, the total number of animals raised for sale by Northwest Arkansas livestock farmers includes:

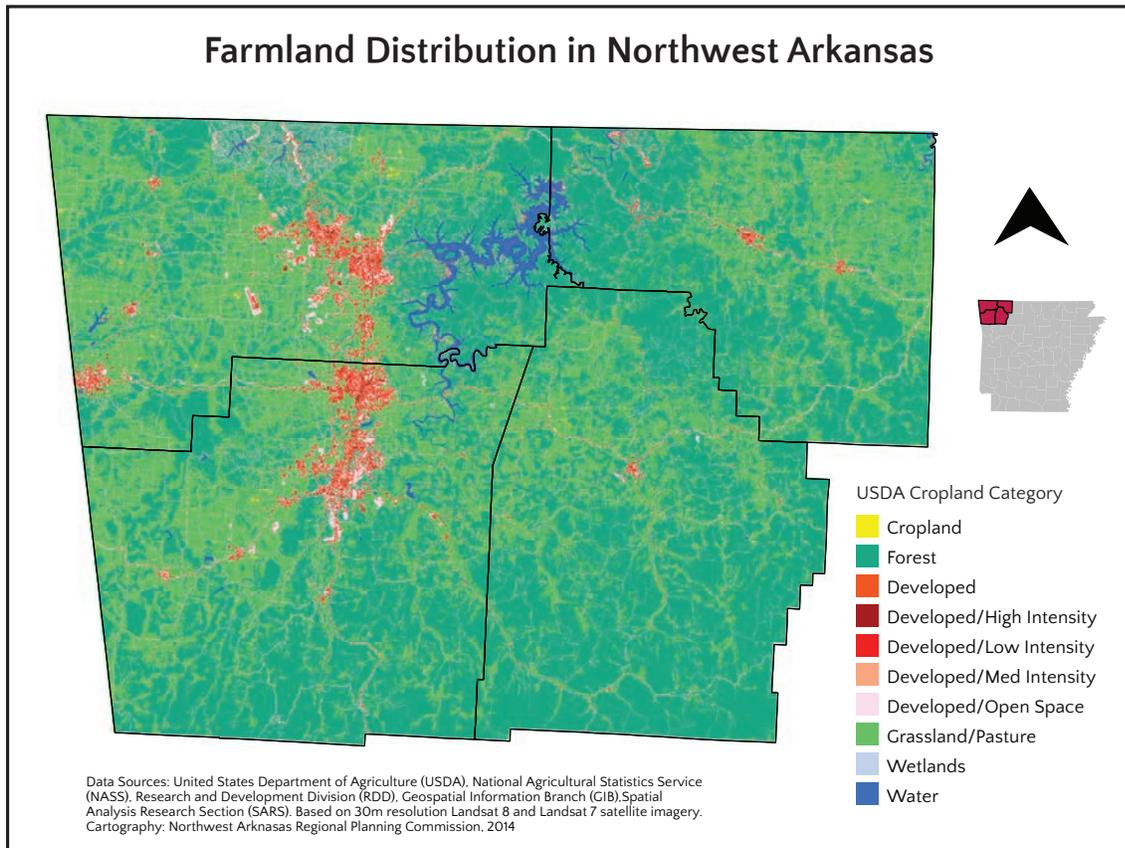
- 294,538,699 broilers & other meat chickens
- 13,237,445 turkeys
- 200,467 cattle and calves
- 2,693 hogs and pigs
- 2,608 goats
- 194 hogs and pigs⁴

⁴ The number of hogs and pigs sold only represents Carroll and Madison Counties. The Census of Agriculture withheld hog and pig sales data for Benton and Washington Counties to avoid disclosing data for individual farms.

Farmland

It is clear in Figure 11 that pasture is a primary agricultural asset in Northwest Arkansas. The region's pasture is the foundation for extensive cattle farming in the region and potential future growth of pasture- and grass-based animal agriculture.

Figure 11: Farmland Distribution



There are 277,243 acres of cropland in Northwest Arkansas, which is equivalent to 24 percent of the region's total farmland. Over 80 percent of cropland is used to produce forage crops, which are used as feed for cattle and other livestock and are appropriately considered part of the livestock supply chain. A very small proportion of this land is utilized for fruit and vegetable production.

According to the 2012 Census of Agriculture, 48,656 acres of cropland, or 18 percent of the cropland in Northwest Arkansas, was not harvested. This land includes pasture and grazing land that could be used for crops without additional improvements, idle cropland, land used for cover crops, soil improvements or cultivated summer fallow, and land on which all crops failed.

Fruit and Vegetable Production

Fruits and vegetables are produced in low quantities on limited land in Northwest Arkansas, and are a very small part of the overall value of agricultural products in the region.

Northwest Arkansas crop sales total \$17.1 million in crops, just over 1 percent of total agricultural sales.

According to the 2012 Census of Agriculture, vegetable sales in Benton, Carroll, and Madison Counties total \$992,000. Sales data for Washington County are withheld to avoid disclosing data for individual farms. Sales of fruits, nuts, and berries in Benton, Carroll, and Washington Counties total \$1.2 million. Sales data for Madison County were withheld.

Figure 12: Market Value of Fruits and Vegetables

Geography	Value of Vegetables (\$1,000)	Value of Fruits, Nuts & Berries (\$1,000)
Northwest Arkansas	-	-
Benton County	475	431
Carroll County	218	72
Madison County	299	(D)
Washington County	(D)	721
Arkansas	36,577	15,600

Of Northwest Arkansas' 7,035 total farms, 110, or 1.6 percent, sell vegetables and 72, or 1 percent, have land in orchards.

Fruit and nut trees are planted on 623 acres in the region and vegetables are harvested from 919 acres. The total, 1,542 acres, is just over half of 1 percent of cropland in the region.

Figure 13: Land in Forage Crops, Vegetables & Orchards

Geography	Land in Forage Crops (acres)	Land in Vegetables Harvested for Sale (acres)*	Land in Orchards (acres)*
Northwest Arkansas	222,147	919	623
Percent of NWA Cropland	80%	0.33%	0.22%
Benton County	70,535	581	158
Carroll County	38,314	19	69
Madison County	42,848	28	132
Washington County	70,450	291	264
Arkansas	1,286,688	11,111	13,681

Source: United States Department of Agriculture, 2012 Census of Agriculture

*Land in Vegetables Harvest for Sale includes land in melons and sweet potatoes. Land in Orchards includes fruit a

The majority of fruit and vegetable producers are farming on relatively small acreage: 103 of 110 total vegetable farmers grow on fewer than 25 acres and 84 of 110 vegetable grow on fewer than 5 acres; and 65 of 72 fruit farmers have orchards on fewer than 25 acres and 44 of 72 have orchards on fewer than 5 acres

Organic Production

According to the 2012 USDA Census of Agriculture, there are 8 Certified Organic farms in Northwest Arkansas.

Fruit and Vegetable Production in the Larger Region

Northwest Arkansas sits at the meeting point of Arkansas, Missouri, and Oklahoma, and not far from the southeast corner of Kansas. This four-state region includes the Ozark Plateau, which shares a similar agricultural landscape and geography with Northwest Arkansas, and reaches into upper Missouri and the Great Plains, where the landscape, geography and agricultural production has less in common with Northwest Arkansas.

Missouri, Oklahoma, and Kansas each have more farms, more acres of farmland, and more acres of cropland than Arkansas. While looking to producers in this four-state region— particularly in Missouri— could expand Northwest Arkansas' potential supply of fruits and vegetables, the larger region does not have the potential to significantly supplement Northwest Arkansas fruit and vegetable production. Missouri has approximately double the number of both vegetable producers and acreage as Arkansas, and more than double the number of fruit farmers and nearly 40 percent more land in orchards.

While Oklahoma has dramatically more land in orchards than its neighbors to the north and east, 104,307 of the 105,725 acres of orchard are planted in pecans.

Figure 14: Farmland in Arkansas, Missouri, Oklahoma, and Kansas

Geography	Total No. of Farms	Farmland (acres)	Cropland (acres)	Percent Cropland
Northwest Arkansas	7,035	1,142,427	277,243	24%
Arkansas	45,071	13,810,786	7,931,111	57%
Missouri	99,171	28,266,137	15,259,319	54%
Oklahoma	80,245	34,356,110	11,279,031	33%
Kansas	61,773	46,137,295	28,503,265	62%

Source: United States Department of Agriculture, 2012 Census of Agriculture

Figure 15: Fruit and Vegetable Farms & Acreage in Arkansas, Missouri, Oklahoma, and Kansas

Geography	No. of Vegetable Farms	Land in Vegetables Harvested for Sale (acres)	No. of Fruit Farms	Land in Orchards (acres)
Northwest Arkansas	110	919	72	623
Arkansas	625	11,111	536	13,681
Missouri	1,215	20,213	1,197	18,769
Oklahoma	492	10,255	2,736	105,728
Kansas	441	7,118	489	7,100

Source: United States Department of Agriculture, 2012 Census of Agriculture

Northwest Arkansas Farmer Snapshot

26 Northwest Arkansas farmers—including 13 in Washington County, 6 in Carroll County, 5 in Benton County, and 2 in Newton County—completed an online questionnaire about their 2013 production and sales. (Some farmers completed a paper version of the survey that was later entered online by a farmers' market manager.) Because of the relatively small number of respondents and informal survey collection methods, the findings are not representative of Northwest Arkansas farmers overall. They do, however, provide a snapshot of the farmers that sell at farmers' markets in the region.

Acreage

Respondents have 795 acres in total. The median acreage is 10. One grower with a comparatively large farm has 400 acres

During 2013, respondents utilized 327 acres for production. The median acreage in production is 3. One respondent is producing in a 2,700 sq. ft. greenhouse

Sales & Marketing

Respondents produce and market a diversity of products. 20 respondents sell vegetables, 14 herbs, 11 sell eggs, 10 sell berries, 8 sell value-added products, 5 sell chicken, 5 sell tree fruits, 3 sell pork and 2 sell beef. Each respondent is marketing products from at least 2 of these categories

Respondents primarily sell their products directly to consumers: 22 sell at farmers' markets, 11 sell at farm stands or directly from their farm, and 5 sell through CSA. 21 respondents report that direct sales are their largest revenue source

9 respondents sell directly to restaurants, 6 sell directly to retailers (including other farmers' farm stands, grocery stores, coops, etc.) and 1 sells directly to institutions. 4 respondents report that direct sales to commercial buyers are their largest revenue source

6 respondents report 2013 gross sales under \$2,500, 2 report gross sales between \$4,000 and \$9,999, 8 report sales between \$10,000 and \$19,999, 5 report sales between \$20,000 and \$49,999, and 4 report sales between \$50,000 and \$249,999.

15 respondents sold exclusively through direct to consumer channels

14 respondents earned over 90 percent of their revenue through direct sales to consumers in Northwest Arkansas

17 respondents did not sell any product to buyers outside Northwest Arkansas

14 respondents reported unsold surplus crops in 2013

Certification

18 respondents have no certifications, 3 are Certified Naturally Grown, 2 are Certified Organic, 1 has GAP (Good Agriculture Practices) certification, 1 is certified by Animal Welfare Approved

1 respondent is interested in becoming Certified Naturally Grown, 3 are interested in Organic certification, 1 is interested in GAP certification 2 are interested in Animal Welfare Approved certification

17 respondents have liability insurance

1 farmer reported that a customer requires GAP certification, 2 respondents' customers require Organic certification, 3 require liability insurance, and 1 requires that suppliers are Certified Naturally Grown

Northwest Arkansas Farmer Snapshot, con't

Looking 5 Years Ahead

14 respondents expect to increase production. 9 plan to utilize more farm labor, 8 plan to put more land into production, and 6 plan to invest in new equipment or infrastructure

15 respondent identify farmers' markets as their highest priority sales channel

24 respondents plan to sell in Northwest Arkansas, 4 plan to sell in other areas of Arkansas, 4 plan to sell throughout the Ozarks

Technical and Financial Resources

21 respondents have found information and resources provided through informal peer networks to be very useful/useful, 14 respondents have found U of A information/resources to be very useful/useful, 12 respondents have found Southern Sustainable Agriculture Working Group (SSAWG) information/resources to be either very useful/useful, and 12 have found National Center for Appropriate Technology (NCAT) information/resources to be very useful/useful.

16 respondents have never used resources from the Arkansas Farm Bureau

Farm Labor

16 respondents have only family members work on the farm

10 respondents have a total of 19 farm workers

COMMERCIAL DEMAND ASSESSMENT

Key Findings

There is no agreement among commercial buyers on a definition of local. Working definitions range from product grown or raised within the same town as the buyer, to products grown within a 60-mile radius, a 150-mile radius, or within the State of Arkansas.

Commercial buyers believe that local produce is superior in flavor because it is bred for taste rather than transportation or processing ease, and picked at peak of ripeness.

There is a **consensus that farmers are doing a good job of meeting expectations for quality** for all local food products purchased.

The **biggest challenge for produce is insufficient supply.** This is particularly true for organically certified local produce, where there is very little supply.

Chefs looking for local sources of the heritage breeds that they believe are particularly flavorful, as well as grass fed beef and pastured poultry, report that there are limited local suppliers. Chefs source heritage breeds from outside the region. While there is a 'natural' poultry operation in the region, these chefs would prefer to purchase pastured poultry.

Single unit restaurant operators are purchasing local products from smaller farmers, often at a farmers' market and **expect to pay no more than a 10 to 20 percent premium for local products.**

Buyers need infrastructure for ordering and delivery. **Most small farmers have no price list and no system in place to let chefs know what products are available.**

Delivery is desired by all purchasers and required for many. Single unit restaurants have the most flexibility to pick up products from the farmers' market or at the farm, though this puts significant pressure on the business that is not considered sustainable.

Commercial Demand

The project team conducted interviews with 84 food system stakeholders over the course of the Northwest Arkansas Local Food Assessment. Targeted commercial demand research included semi-structured interviews with over 15 representatives from a dozen commercial buyers in Northwest Arkansas, ranging from independent restaurants and retailers to a produce distributor, public schools, the University of Arkansas, and a large corporation headquartered in the region.

Current Local Food Purchases

Consumer demand is driving local food purchasing at supermarkets and corporate goals for local food purchases. Demand among restaurants is driven by chefs seeking flavorful ingredients who also wish to support the local economy. New farm-to-table focused restaurants are opening and succeeding across the region, confirming consumer interest in local food. For both large and small buyers, flavor is the primary reason for seeking local food products. In all sectors, there is a widely held belief that local produce is superior in flavor, bred for taste rather than transportation or processing ease, and picked at peak of ripeness.

While there is considerable demand for local products, there is no agreement among commercial buyers on a definition of local. Working definitions range from product grown or raised within the same town as the buyer, to products grow within a 60-mile radius, a 150-mile radius, or within the State of Arkansas.

Demand is seen in both the restaurant sector, where local purchases account for between 25 percent and as much as 75 percent of food purchases in the growing season, and the retail side. Walmart, for example, set a national goal of \$810 million in U.S. sales of local produce by December 15, 2014, doubling the current local produce sales numbers. Walmart defines local products as those grown and sold within the same state.

Regional supermarket chains have local food marketing programs, believing that "local food is important to consumers, the store promotes it and it always sells...There is a following for locally grown and we like to play it up and let people know."

Demand for local food is seen across all food categories except for fish because there is no local commercial lake fishing in the region and no coastline. Sectors of high demand include produce and meat, with particular interest in beef, poultry, and pork. Chefs are looking for locally raised, heritage hog breeds that they believe are particularly flavorful, as well as grass fed beef and pastured poultry. While the region is home to a number of national poultry companies, their processing facilities and their contracted producers, buyers interviewed do not generally consider these to be "local" products. One buyer explained that he could not consider it local because there was no transparency as to where the animal was raised. For all commercial buyers, 'local' comes with high expectations about flavor. For some buyers, 'local' is also a moniker that is used to boost sales. For other buyers, 'local' stands in for a range of other values about the way food is produced, including animal welfare concerns and organic (or at least pesticide free) growing practices. Where commercial buyers have a direct relationship with producers they are less concerned with certification programs because they know the farmer and have asked questions to understand how the food they are buying has been produced.

Retailers report that the top 20 items constitute 80 percent of the volume of overall produce sales. The top sales of all produce for retail grocery are packaged salads, apples, and bananas. Sales vary through the year and there are seasonal peaks for strawberries, citrus, melons and stone fruit. Restaurants spend the most on poultry, followed by beef and pork. Produce purchases at one high-end restaurant amount to one-fifth combined meat purchases.

Large retail operations focus local purchasing on produce due to limited availability and high cost of local meat.

Local Sales and Distribution

Local produce growers, both small and large, are working directly with commercial food buyers. The local foodservice distributors—both broad line and specialty produce—have not yet instituted successful programs for selling local produce. One restaurant manager reported (or, told us) that, some of her produce distributors have expressed an interest in selling local produce and report that they have had meetings about setting up local produce programs, it has yet to become a reality. There is no distribution program in place for local meat.

Kimball & Thompson, a large produce distributor, wanted to sell local produce as a service to its customers to meet their desire for local produce during the growing season and was willing to do so without making a profit on the sales. The program marked up the prices from the farmers only enough to cover the program overhead. Farmers were required to work together to assemble a weekly product list and Kimball & Thompson committed to “sell it all.” Kimball & Thompson agreed to pickup the produce from the farmers’ market and distribute it directly to restaurants. Farmers were unable to put the list together and “could not reliably deliver on agreed volume/week” and the program is not moving forward at this time.

Another local distributor tried to purchase more local produce but ran into problems when farmers would not comply with the company’s farm inspection process.

Purchasing Requirements

The size and scale of food business often determines their purchasing processes and requirements. Owners and chefs at independent restaurants plan menus and make purchasing decisions. Institutional foodservice operators for corporate cafeterias, schools, and hospitals may be responsible for menu development and purchasing, but are frequently constrained by approved vendor policies set at the corporate level. Large retail operations such as supermarkets with multiple sites are also subject to corporate selection of vendors. Exceptions to corporate policies do occur, in both institutional foodservice operator and retail sectors, typically owing to experimentation or long-standing practices. For example, one supermarket chain allows growers to deliver directly to a local store and bypass the distribution center. The individual store decides how much to buy, and reduces orders from the primary warehouse accordingly.

Across all sectors and business sizes, quality is the most important factor in food purchasing decisions. Large retail operations test sugar levels in fruit both in the field and at the warehouse, and require precision and

The **Fayetteville Public Schools’ Farm to School** program employs a sustainability coordinator who works closely with the food services director to bring more local meat and produce into the school lunch program. Working closely with the University of Arkansas, they developed new standards for local farmers to meet the school’s food safety concerns while alleviating some of the burdens on the farmers. Working with a small group of farmers in the first year and a grant-funded farm to school consultant, the farm to school program took on a traditional food distributor role. Each week, the consultant contacts growers to determine product availability, communicates that via email to individual school food services managers and then receives orders. Participating farmers deliver once each week to the school food warehouse and submit an invoice for approval. Warehouse staff distributes the fresh food to schools along with other food products from the warehouse. The business office processes farmer payments. During the first year of the program, with individual vendor purchases under \$10,000 an informal bidding process was used. Now in the second year they have issued a formal RFP for the 2015-2016 school year and have funding for a new position – a dietician who will take on the local procurement activities. They are eager to work with other districts and this summer will work toward a collaborative bid for produce.

consistency in product size (often based on grades established by the USDA); independent restaurant chefs inspect produce when it is delivered for flavor and appearance. After quality, price is a consideration for all purchasers but with some significant differences. Large retail buyers we interviewed believe that local growers do not need to charge more because they are not paying a middleman or distributor. Independent restaurant operators are purchasing local products from smaller farmers, often at a farmers' market, and expect to pay no more than a 10 to 20 percent premium for local products. These chefs are often looking for specific breeds of animals, heirloom varieties of produce and specific growing practices including grass-fed, pastured meats, and pesticide-free or organic produce.

Another difference between corporate buyers and independent grocers and is that corporate buyers enter into contracts that include detailed product specifications related to produce shape, size, and pack size. In contrast, restaurant chefs specifically emphasized that restaurant buyers and consumers need to understand that produce at market may not be 'pristine,' but the flavor will be there.

Selling to large food retail operations is more difficult than working with an individual chef and restaurant. Large retail operations require growers to become authorized vendors through a process in which they meet food safety requirements, obtain significant liability coverage, and agree to farm inspections. In some cases, large buyers require suppliers to agree to extended payment terms and follow ethical sourcing guidelines that include labor requirements.

Working With Farmers

All sectors interviewed had an understanding of challenges faced by growers and the importance of building and maintaining relationships with growers over the long term. For example, one large retail buyer said that he paid more than market price when the grower suffered from unusually poor weather. While paying consistently higher prices would be unsustainable for his business model, the buyer felt that helping the farmer sustain his farm was important.

"There have been years when some local growers have had short crops due to weather conditions, and we have paid them more than they have asked in order to help them thrive. Business is large enough that we can absorb it. . . . when there is a late freeze, and only a 60 percent yield, to ask for standardized pricing is not building a relationship."

Chefs also understand the importance of working directly with farmers and, in some cases, investing time and effort to develop relationships can simplify purchasing. For example, one well known chef explained that "[t]he first season I went to the market, met the farmers, and by the end of season I just answered the phone – they would call and say what they have and then deliver to me." Other chefs have not found it so easy and must make the rounds to a number of different farms on a regular basis to pick up orders. One explanation for the difference may be the farms where the chef is seeking production or the size of the purchases.

Restaurants work directly with farmers' market managers, calling weekly to find out what will be available. In one case, the market manager sends a list of vendors and the products she expect they will have for sale. In other cases, chefs can pre-order produce from farmers but must go to market to pick it up. One well-known restaurant gives the chef "a money bag to do cash transactions at market," because farmers require cash payment at the point of purchase. Another restaurant noted that a few farmers are developing systems for working with chefs and call daily to let the chef know what produce is available. It was noted that one meat producer has a procedure for chefs to place an order and delivers to them.

One institutional foodservice regional manager tried to make direct connections with farmers but noted that "working with farmers can be challenging, there is resistance to meeting company requirements, and even a 'paranoia' by farmers for things like required soil testing."

Challenges to Increasing Local Purchases

Supply

Across all sectors, there was consensus that farmers are doing a good job of meeting expectations for quality for all local food products purchased. The biggest challenge for produce is insufficient supply. This is particularly true for organically certified local produce, where there is very little supply.

There is a very limited supply of local meat as well. Only a few restaurants are making the effort to find local suppliers and they express concerns about limited supply. Chefs report that there are limited suppliers for pork and that they look to heritage breeds raised outside the region. There is little grass fed beef, and little pastured poultry. Chefs cite a single 'natural' poultry operation in the region but would prefer to purchase pastured poultry.

Institutional and retail buyers are not considering purchasing local meat at this time. One national retail operation has decided not to focus on local meat but is instead working with other national buyers to improve sustainability in beef production in general.

Certification and Insurance

Smaller growers are unable or unwilling to meet Good Agricultural Practices (GAP) certification and insurance requirements needed to sell to corporate buyers like supermarkets, retail chains and institutional foodservice operators. Smaller independent purchasers such as independent restaurants do not have the same requirements for farmers. Alternative requirements were instituted by Bentonville's Farm to School initiative, which successfully worked with the University of Arkansas to lower barriers for growers while still addressing food safety concerns.

Lack of Distribution Infrastructure

Buyers need infrastructure for ordering and delivery. Most small farmers have no system in place for letting chefs know what products are available or a price list. This basic requirement was a significant part of the reason that Kimball & Thompson was unable to engage in local produce distribution.

Delivery is desired by all purchasers and required for many. Single unit restaurants have the most flexibility and have made the effort to purchase from farmers at the farmers' market. In some cases restaurants even pick up products at the farm. However, doing so puts significant pressure on the businesses and is not considered sustainable. Restaurants doing sufficient volume arranged for farmers to deliver directly to the restaurant, often on market days. Large operations require significant volumes of fresh food delivered daily and rely on produce distributors, broad line distributors or their own networks of warehouses to manage consistent supply. Some farmers want to be paid in cash and do not want a W-9 at the end of the year, and most purchasers cannot operate on a cash based system.

CONSUMER DEMAND

Key Findings

Northwest Arkansas's 176,452 households spend over \$1 billion on food each year, with \$790 million spent on groceries and \$298 million spent on restaurant and take out meals.

Supermarkets and grocery stores are the anchor food retailers in the region, and grocery shoppers' top source for local foods as well as overall grocery purchases.

Local agriculture has a strong foothold in Northwest Arkansas. Three quarters of grocery shoppers either frequently or sometimes purchase local foods during the growing season. The majority of Northwest Arkansas grocery shoppers that buy local food do so in order to support local farmers and businesses.

Household income is not a strong predictor of frequency of local food purchases. There is not a significant difference between how often Northwest Arkansas grocery shoppers with household incomes at/above and below \$50,000 report purchasing local food.

Parents with children at home are the Northwest Arkansas grocery shopper population subset that is least likely to purchase local food.

Forty percent of grocery shoppers in the region are extremely or very likely to choose a grocery store, market, or restaurant that offers locally grown foods over a competitor that does not, and 79 percent are at least somewhat likely to do so.

Local fresh fruits and vegetables are in highest demand, followed by meat, poultry, and eggs.

Based on a conservative estimate, Northwest Arkansas grocery shoppers are willing to direct \$283.3 million, or approximately 25 percent of total food spending, to local products that are affordable, easy to identify, and available where they shop.

Consumer Demand

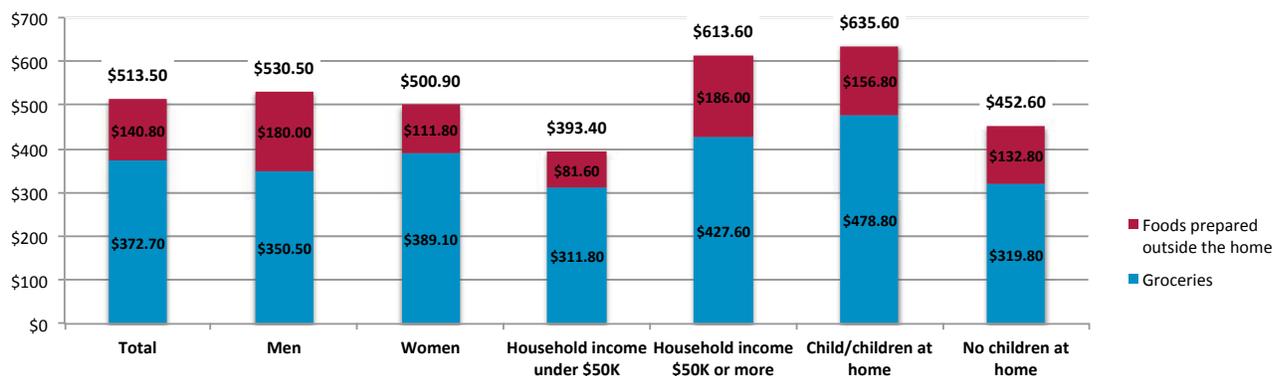
From February 11–25, 2014, Nielson & The Harris Poll conducted an online survey of 356 residents of Benton, Carroll, Madison, and Washington Counties. All survey respondents were age 18 or older and reported having shared or primary responsibility for household grocery shopping.

In a typical month, Northwest Arkansas grocery shopping households spend an average of \$513.50 on food, including \$372.70 on groceries and \$140.80 on restaurant and take out meals.⁵ At \$635.60 per month, families with a child or children living at home have the largest food budgets of any subset of the population included in the study, and spend significantly more on food than families without children at home (\$452.60).⁶

According to the U.S. Census Bureau, between 2008 and 2012, Northwest Arkansas was home to 176,452 households. With an average \$513.50 per household spend on food each month, the estimated **total yearly spending on food in the region is \$1.09 billion**, with \$789.6 million spent on groceries and \$297.6 million spent on restaurant and take out meals.

The average grocery shopper in the region spends three-quarters (74.7 percent) of his or her household food budget on groceries, and the remaining one-quarter (25.3 percent) on restaurant and take out meals. However, Northwest Arkansas men (30.3 percent vs. 21.6 percent for women) and grocery shoppers with a total household income of \$50,000 or over (29.3 percent vs. 19.3 percent for those with HHI of less than \$50,000) spend a significantly larger proportion of their total food budget on meals prepared outside the home.

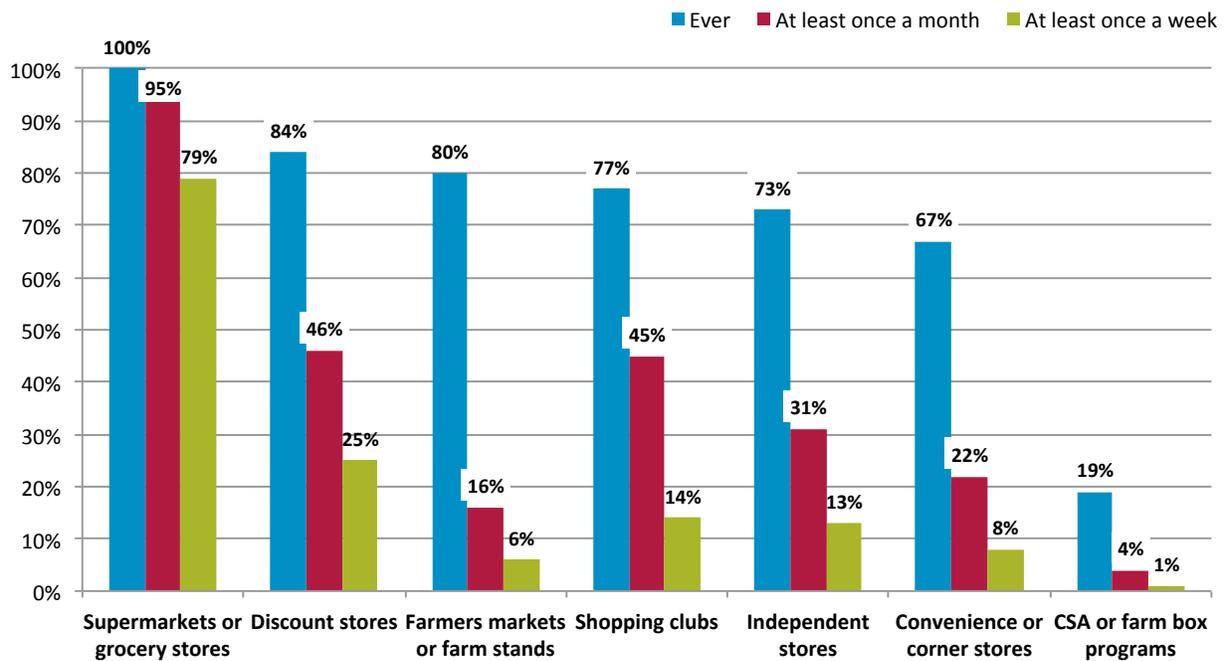
Figure 16: Typical Monthly Food Budget Including Groceries + Foods Prepared Outside the Home



⁵ The median total monthly household food expenditure is \$450, the median spending on groceries is \$300, and the median spending on restaurant meals and take-out is \$100. In each spending category, the average, or mean, is greater than the median. This suggests that a small number of grocery shoppers have food budgets that are considerably higher than the average.

⁶ The average monthly household food budget among grocery shoppers in Northwest Arkansas is relatively low compared to food plan costs published by the United States Department of Agriculture (USDA). On average, Northwest Arkansas grocery shoppers with children at home spend a total of \$635.60 on food each month, while those without children at home spend \$452.60. The USDA's monthly Official Food Plan Costs represent a nutritious diet at four different cost levels including a thrifty plan, a low-cost plan, a moderate-cost plan, and a liberal plan. Average food spending in Northwest Arkansas aligns with the USDA's thrifty food plan cost for households with children at home and low-cost plan for families without children at home.

Figure 17: How often do you, or members of your household, purchase groceries at the following places?

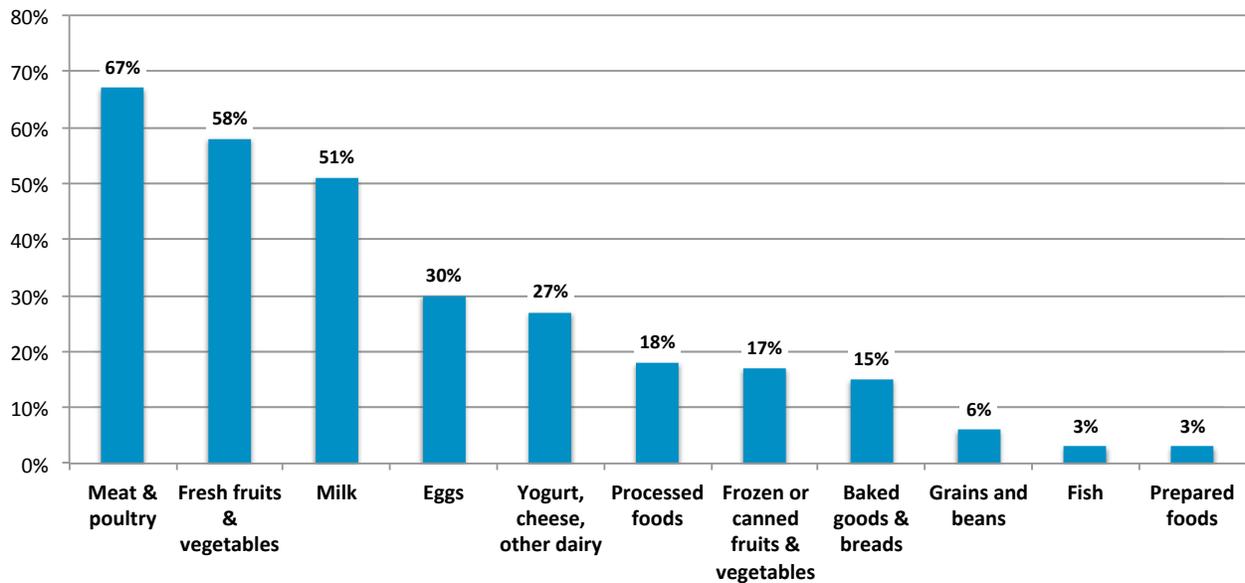


Unsurprisingly, supermarkets and grocery stores are the principle source for groceries among Northwest Arkansas grocery shoppers. Seventy-nine percent of consumers shop at supermarkets or grocery stores at least once each week. During the month, however, Northwest Arkansas grocery shoppers buy groceries at a range of retail outlets. While 95 percent shop at supermarkets and grocery stores at least once each month, 46 percent do monthly grocery shopping at discount stores, 45 percent at shopping clubs, 31 percent at independent stores, 22 percent at convenience stores, 16 percent at farmers' markets and four percent through Community Supported Agriculture (CSA).

In many regions, including Northwest Arkansas, farmers' markets serve as the primary hub for interaction and transactions between local farmers and the community. Northwest Arkansas farmers' markets have achieved an impressive level of connection with grocery shoppers. Eight out of ten (80 percent) Northwest Arkansas grocery shoppers have purchased groceries from a farmers' market. Sixteen percent shop at farmers' markets once a month and six percent purchase from farmers' markets weekly. Only twenty percent of shoppers report never having purchased groceries from a farmers' market.

Meat and poultry, fresh fruits and vegetables, and milk are the most commonly purchased grocery items among Northwest Arkansas grocery shoppers. However, while 58 percent of Northwest Arkansas grocery shoppers count fresh fruits and vegetables among their top three most purchased food categories, fresh produce purchases vary significantly by household income. Only 45 percent of grocery shoppers with a total household income under \$50,000 report fresh fruits and vegetables are one of their top three food purchases, compared with 67 percent of grocery shoppers with a total household income over \$50,000.

Figure 18: When you shop for your household, what kind of foods do you most often buy?



Current Demand for Local Food

Three quarters of Northwest Arkansas grocery shoppers reported either frequently or sometimes purchasing local foods during the 2013 growing season.⁷ Grocery shoppers without children living at home purchase local food more often; 81 percent of grocery shoppers without children at home purchase local foods either frequently or sometimes compared with 63 percent of those with children at home.

Supermarkets and farmers' markets are the top retail outlets for local foods in Northwest Arkansas, with 67 percent of grocery shoppers frequently or sometimes purchasing local food at supermarkets or grocery stores and 58 percent frequently or sometimes purchasing local food at farmers' markets.

Household income alone does not predict how often grocery shoppers purchase local foods, or where they look for local products. Figure 19, on the following page, illustrates that 78 percent of grocery shoppers in households that earn under \$50,000 sometimes or frequently purchase local foods, compared with 76 percent of grocery shoppers in households that earn \$50,000 or more. Seventy percent of grocery shoppers with a total household income under \$50,000 frequently or sometimes buy local food at supermarkets, compared with 66 percent of grocery shoppers with a total household income of \$50,000 or more and 59 percent of grocery shoppers in households that earn less than \$50,000 sometimes or frequently purchase local foods at farmers' markets, compared with 61 percent of grocery shoppers in households that earn \$50,000 or more.

Grocery shoppers with children at home buy local less often than the rest of the Northwest Arkansas grocery shopping population. While only one-quarter of Northwest Arkansas grocery shoppers rarely or never purchase local foods, 37 percent of those with children at home rarely or never purchase local foods.

Local harvesting is well established in Northwest Arkansas. **Forty percent of Northwest Arkansas grocery shoppers obtained food from a garden**—either their own, a friend or neighbor's, or a community garden—and 21 percent hunted or fished or ate food that was hunted or fished by friends or family during the 12 months before the survey.

⁷ For the purposes of the consumer survey, respondents were asked to consider "local foods" to be fresh or prepared items that are grown, raised, or produced in Northwest Arkansas and surrounding counties. The survey instructions noted that local foods can include fresh fruits and vegetables, meats, eggs, or milk that are grown, raised, or produced on local farms as well as processed products like cheeses, jams, sauces, or baked goods that are made by local farms or food businesses. The growing season is defined as April to November.

Figure 19: During the 2013 growing season, from April to November, how often did you knowingly purchase local foods?

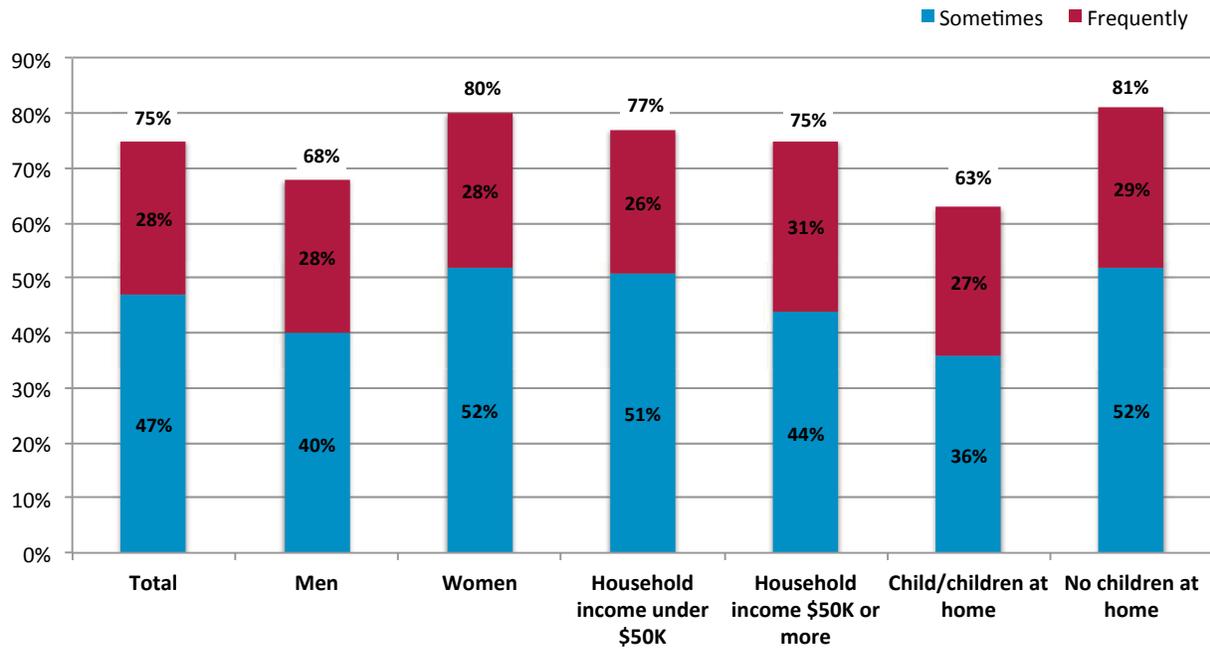
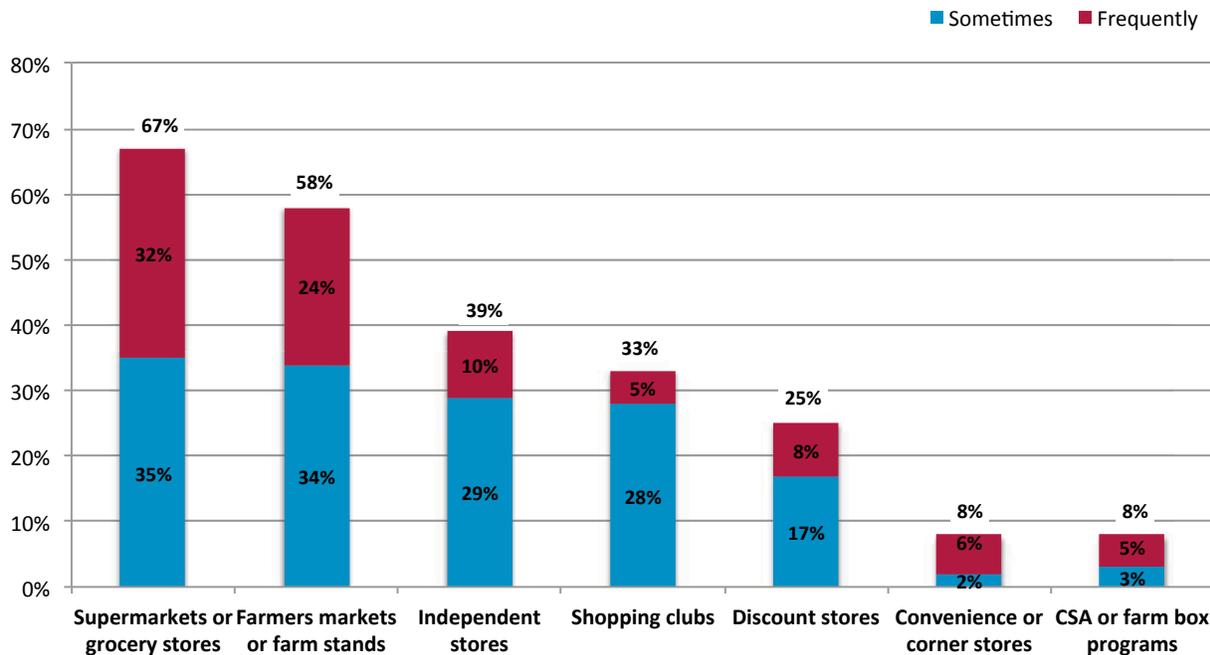
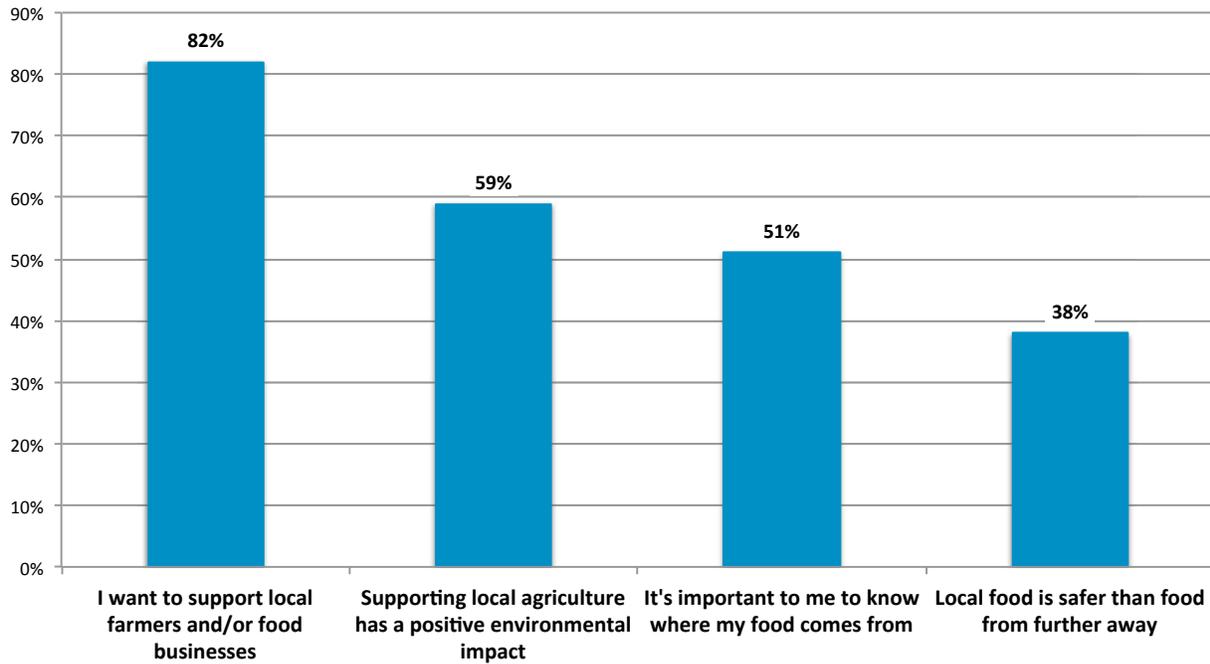


Figure 20: Over the past two years, how often did you knowingly purchase local food for your household at each of the following places?



Eighty-two percent of Northwest Arkansas grocery shoppers that purchase local food do so in order to support local farmers and local businesses. There are significant differences in motivation to purchase local by gender and age. Forty six percent of women report purchasing local food because it is safer than food from further away, compared to 27 percent of men, and 70 percent of grocery shoppers that are 50 or over report purchasing local foods because supporting local agriculture has a positive impact on the environment, compared with 51 percent of grocery shoppers under 50.

Figure 21: Why do you purchase local foods?



When deciding which foods to purchase, grocery shoppers in the region weigh a range of factors, and place particular importance on flavor, quality, nutrition, price, and availability.

Figure 22: How important are each of the following factors when you choose which foods to buy?

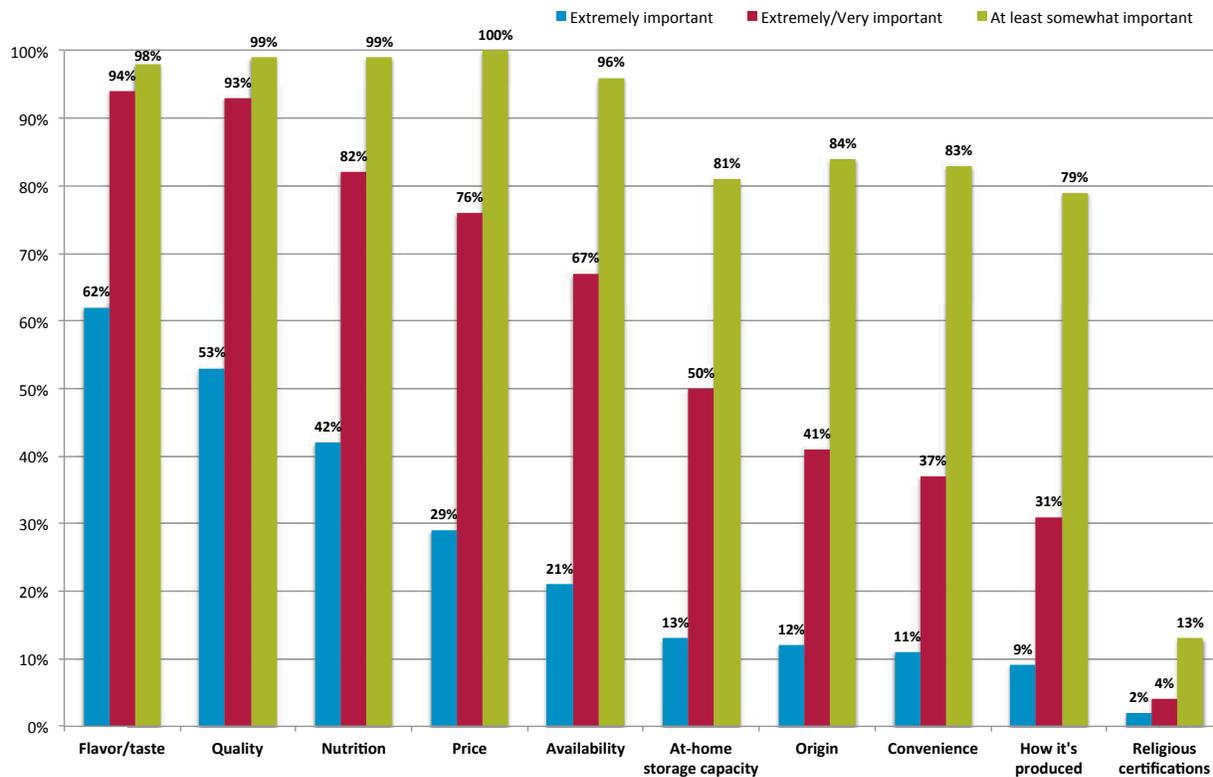


Figure 23, 24, and 25 on the following pages illustrate how Northwest Arkansas grocery shoppers compare local foods to foods produced outside the region along three of the dimensions– flavor/taste, quality, and price– that they indicated are most important when they make purchasing decisions.

The majority of grocery shoppers think that locally grown and produced foods offer better flavor and quality than the same foods produced outside of the region, while opinions on price are more diverse. Ten percent of grocery shoppers find the price of local foods to be much better than foods from outside the region, while 20 percent report that the price is somewhat better. Thirty-one percent of grocery shoppers find the price of local foods to be about the same as foods from outside the region. Twenty-seven percent report that the price for local foods is somewhat worse and 5 percent find the price for local foods to be much worse.

Between five and 10 percent of Northwest Arkansas grocery shoppers reported that they ·don't know· how locally grown food compares with foods outside of Northwest Arkansas along dimensions of price, quality, convenience, flavor/taste, nutrition, and production method. However, between 12 and 20 percent parents with children at home reported not knowing the differences between local and non-local foods along these dimensions.

Figure 23: Do you think the FLAVOR/TASTE of locally grown and produced foods is better, worse, or about the same compared to foods from outside the Northwest Arkansas region?

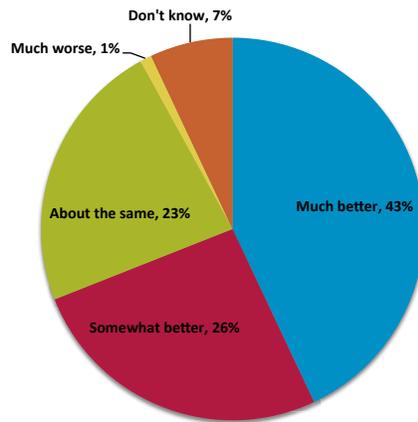


Figure 24: Do you think the QUALITY of locally grown and produced foods is better, worse, or about the same compared to foods from outside the Northwest Arkansas region?

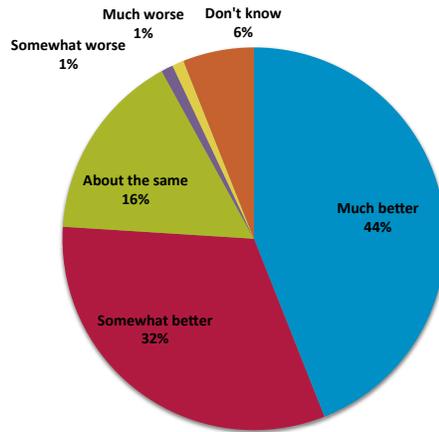
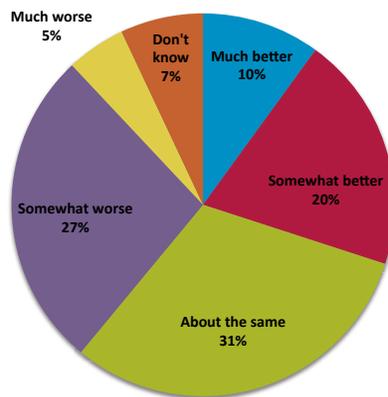


Figure 25: Do you think the PRICE of locally grown and produced foods is better, worse, or about the same compared to foods from outside the Northwest Arkansas region?



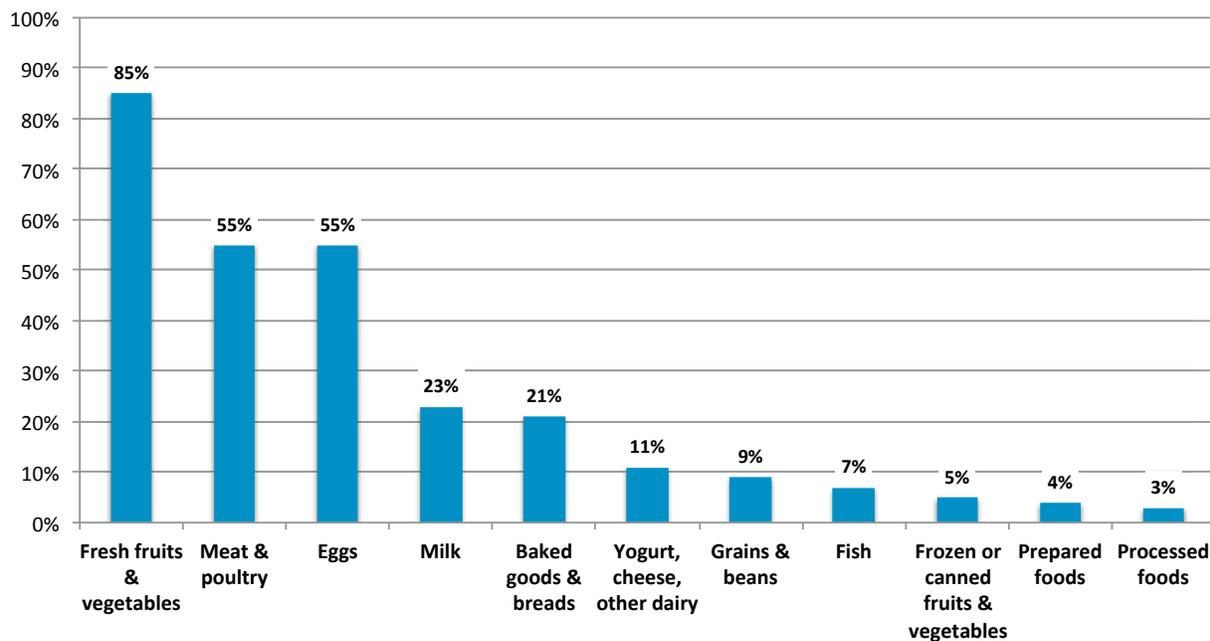
Increasing Local Food Purchases

Forty percent of grocery shoppers in the region are extremely or very likely to choose a grocery store, market, or restaurant that offers locally grown foods over a competitor that does not, and 79 percent are at least somewhat likely to do so.

Only 21 percent of grocery shoppers in the region are not at all likely to select a restaurant or market because it offers locally grown products.

Northwest Arkansas grocery shoppers are most interested in locally produced fresh produce. Over half are interested in meat, poultry, and eggs.

Figure 26: Assuming you could easily identify and access affordable local food where you already shop, what kinds of local foods would you like to buy?



If local food were affordable, easily identifiable, and available where they shopped, 38 percent of Northwest Arkansas grocery shoppers would be willing to spend at least half of their monthly food budget on local foods, while an additional 34 percent of this population would spend between one quarter and one half of their food budget on local products.

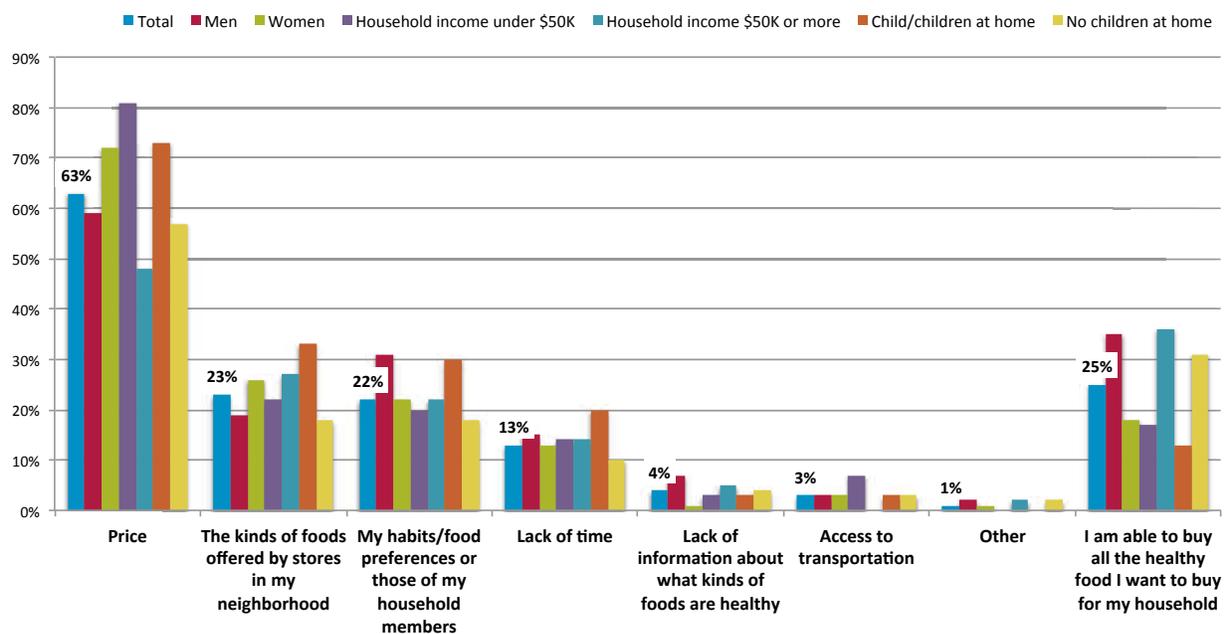
A conservative estimate— in which 38 percent of Northwest Arkansas' 176,452 households spend one-half of an average monthly food budget (\$513.50) on local foods and 34 percent of households spent one-quarter of an average monthly food budget on local foods— would direct \$299 million, or 28 percent of estimated yearly food spending in the region to local products.⁸

⁸ The estimate is based on the following calculations: 38 percent of 176,452 households equals 67,052 households; 67,052 households are willing to spend \$256.75, or one-half of the average monthly food budget (\$513.50) on local products; 67,025 households x \$256.75 per month on local foods x 12 months = \$206,586,453. 34 percent of 175,452 households equals 59,994 households; 59,994 households are willing to spend \$128.38, or one-quarter of the average monthly food budget (\$513.50) on local products; 59,994 households x \$128.38 per month on local foods x 12 months = \$92,420,264. The total (\$206,586,453 + \$92,420,264) is \$299,066,737.

Obstacles and Food Access

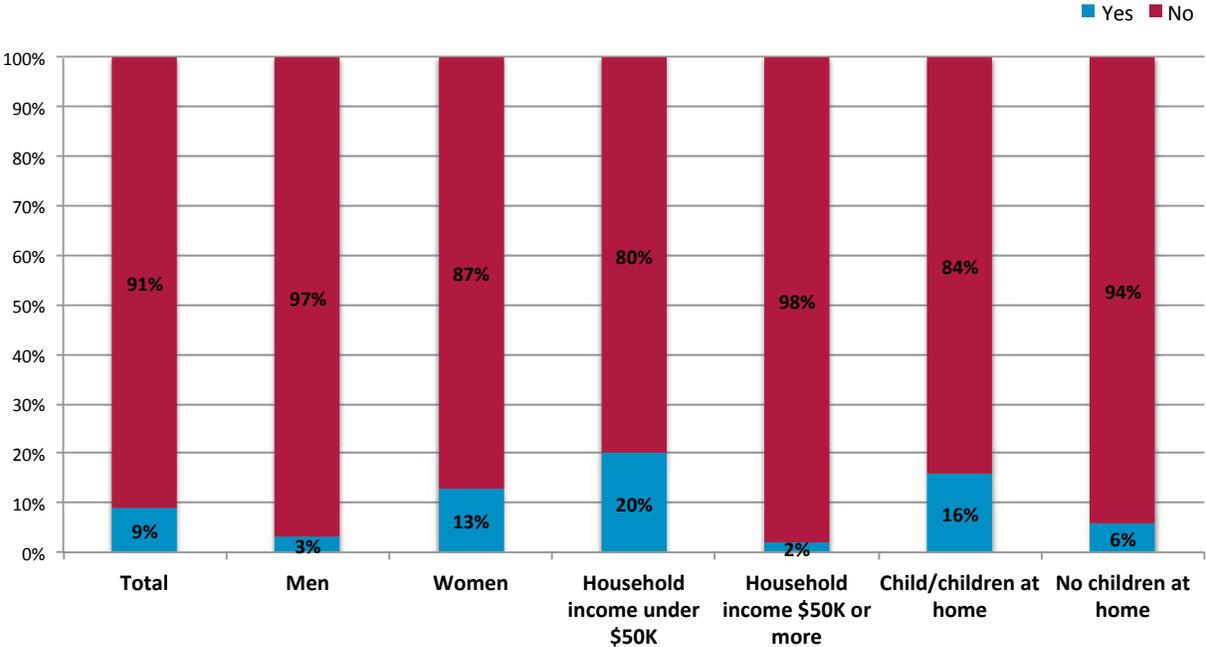
Only one quarter (25 percent) of Northwest Arkansas grocery shoppers report that they are able to purchase all of the healthy food they'd like to provide for their households, and price is by far the most cited obstacle. However, Northwest Arkansas grocery shoppers do not experience barriers to purchasing healthy foods equally. Women (82 percent vs. 65 percent for men), grocery shoppers with a total household income under \$50,000 (88 percent vs. 64 percent with household income of \$50,000 or more), and parents with children at home (87 percent vs. 69 percent with no children) are more likely to report obstacles to purchasing healthy. As a result of price, availability, preferences, or lack of sufficient time, information, or access to transportation, over 80 percent of these population groups cannot purchase their desired quantity or diversity healthy foods.

Figure 27: What obstacles, if any, keep you from buying all the healthy food that you want to buy for your household?



Nine percent of Northwest Arkansas grocery shoppers use federal Supplemental Nutrition Assistance Program (SNAP) or Special Supplemental Program for Women, Infants, and Children (WIC) benefits. Thirteen percent of women, 20 percent of residents in households that earn under \$50,000, and 16 percent of parents with children at home supplement their food budgets with SNAP and WIC benefits.

Figure 28: Does any of your food budget come from the Supplemental Nutrition Assistance Program (SNAP) or WIC program?



SNAP and WIC benefits increase family food budgets used to purchase groceries at supermarkets, discount stores, convenience stores, and farmers' markets. Unfortunately, these benefits are not always sufficient for individuals and families with very limited financial resources. Six percent of Northwest Arkansas grocery shoppers reported visiting a soup kitchen or food pantry in the year prior to the consumer survey. Grocery shoppers with a total household income under \$50,000 are more likely to utilize emergency food services, like soup kitchens and food pantries. Twelve percent of lower income Northwest Arkansans visited a soup kitchen or pantry, compared with three percent of residents with a total household income of \$50,000 or more.

COMMUNITY FOOD SECURITY IN NORTHWEST ARKANSAS

Key Findings

15.5 percent of Northwest Arkansas residents, or 76,610 people, experience food insecurity

17 percent of Arkansas's population receive SNAP benefits during an average month

Only 74 percent of eligible Arkansans participate in the SNAP program. **26 percent of 644,000 eligible Arkansans are not accessing benefits that would increase their food budgets and contribute to the regional economy.**

According to our consumer survey, **price is the primary obstacle keeping Northwest Arkansas grocery shoppers from purchasing all of the healthy foods they'd like to buy for their households.**

11 of 20 Northwest Arkansas farmers' markets accept SNAP, 11 of 20 farmers' markets accept farmers' market coupons for low-income seniors, and 8 accept farmers' market coupons for WIC recipients

In 2013, **\$45,000** was allocated to match farmers' market purchases made with SNAP and Senior and WIC farmers' market coupons. **The entire value of the match was utilized by low-income consumers at Northwest Arkansas farmers' markets.**

Through their farmers' market gleaning efforts, Feed Communities with Seeds That Feed and the farmers they work with have identified **opportunities to increase fresh produce sales by diversifying sales channels to include a broader range of customers, including those with lower access to fresh produce, while maintaining gleaning efforts.**

Community Food Security in Northwest Arkansas

Community food security can be broadly defined as a prevention-oriented concept that supports the development and enhancement of community-based strategies to improve access of all households—particularly those with low household incomes—to healthful nutritious foods, to increase the self-reliance of communities in providing for their own food needs, and to promote comprehensive responses to local food, agriculture, and community health issues. Community food security is a crucial lens through which to examine the Northwest Arkansas regional food system as it draws attention to regional interdependence and the links between the health and well being of Northwest Arkansas’s agricultural producers and consumers.

Household Food Security

Household food security is one dimension of community food security, and a key indicator of household food access. According to the U.S. Department of Agriculture, a food secure household has consistent, dependable access to enough food for active, healthy living. Households with food insecurity experience limited access to adequate food because of a lack of money or other resources. The U.S. Census Bureau conducts an annual food security survey that asks about experiences and behaviors of household members that indicate food insecurity, such as being unable to afford balanced meals, cutting the size of meals because of too little money for food, or being hungry because of too little money for food.

In 2012, 15.5 percent of Northwest Arkansas residents, or 76,610 people, experienced food insecurity.⁹

Between 2010 and 2012, an average of 19.7 percent of Arkansas households experienced food insecurity, compared with 14.7 percent of households across the U.S. Just over 8 percent of Arkansas households experienced very low food security—a condition in which the food intake of one or more members was reduced and eating patterns disrupted—compared with 5.6 percent of the U.S. population.¹⁰

Increasing Household Food Budgets

There are two primary federal benefit programs that supplement household food budget, and thereby aim to reduce household food insecurity.

The Supplemental Nutrition Assistance Program, or SNAP (formerly called the Food Stamp Program) provides food benefits to eligible low-income families and individuals. SNAP benefits can be redeemed at authorized retailers including supermarkets, grocery stores, discount stores, convenience stores, specialty stores, farmers’ markets, and farm stands.

In 2012, 17 percent of Arkansas’s population received SNAP benefits during an average month.¹¹

However, according to the recent data, from 2011, only 74 percent of eligible Arkansans participate in the SNAP program. Twenty-six percent of 644,000 eligible Arkansans, or 167,440 people are not accessing SNAP benefits that would increase their food budgets. The good news is that the participation rate has

⁹ The U.S. Department of Agriculture does not provide county-level food security data. The food insecurity rate in Northwest Arkansas was calculated by the Northwest Arkansas Food Bank, which serves Benton, Carroll, Madison, and Washington Counties, based on state-level data from the USDA.

¹⁰ Household Food Insecurity in the United States in 2012, United States Department of Agriculture, <http://www.ers.usda.gov/publications/err-economic-research-report/err155.aspx#.U7qG4KgkNEM>

¹¹ U.S. Department of Agriculture Food Environment Atlas, <http://www.ers.usda.gov/data-products/food-environment-atlas.aspx#.U7qWOKgkNEM> SNAP enrollment data is not available at the county level.

increased from 65 percent in 2009. Arkansas remains below the national average of 79 percent participation.¹²

Full SNAP participation would not only increase household food budgets in Northwest Arkansas and potentially improve household food security, but would also grow overall spending on food in the region, contributing to the regional food economy. SNAP purchases are a meaningful contribution to the region's authorized retailers. In 2012, the average yearly SNAP redemption per store ranged from \$212,866 in Carroll County to \$302,718 in Washington County.¹³

Nationwide, households most often redeemed SNAP benefits at supermarkets and supercenters. SNAP transactions at supermarkets and supercenters accounted for almost two-thirds of all transactions and had the highest per-transaction average. As a result, 84 percent of benefits were redeemed at supermarkets and supercenters.¹⁴

The Special Supplemental Nutrition Program for Women, Infants and Children (WIC) provides nutritious food benefits, nutrition education, and breastfeeding support to eligible pregnant, postpartum and breastfeeding women, infants and children up to age 5. The Arkansas WIC Program is administered by the Arkansas Department of Health. In 2012, 3.2 percent of Arkansas population participated in the WIC program and WIC redemptions and authorized stores in Northwest Arkansas ranged from \$117,176 in Carroll County to \$194,780 in Benton County.¹⁵

Increasing Access to Local Foods

According to our consumer survey, price is the primary obstacle keeping Northwest Arkansas grocery shoppers from purchasing all of the healthy foods they'd like to buy for their households. Sixty three percent of all grocery shoppers report price as an obstacle, and price was cited as an obstacle by 81 percent of households with a total income of \$50,000 or less and 73 percent of households with children at home.

While federal benefits are intended to reduce price obstacles to food purchases generally, programs that increase the value of federal benefits redeemed at farmers' markets serve to lower price barriers for local food purchases while concurrently driving farmers' market sales, keeping dollars circulating in the local economy, and establishing farmers' markets as community hubs for all residents, regardless of income.

Farmers' markets can become authorized SNAP vendors, and 11 of 20 Northwest Arkansas farmers' markets accept SNAP. The USDA funds two Farmers Market Nutrition Programs (FMNP) that provide coupons for exclusive use at farmers' markets. Senior FMNP provides farmers' market coupons to low-income senior citizens and WIC FMNP allocates farmers' market coupons to WIC recipients. Eleven Northwest Arkansas farmers' markets accept Senior FMNP coupons and 8 accept WIC FMNP coupons.

In 2012, the Walmart Foundation began funding a Double Your Dollar project that matches up to \$20 in SNAP and Senior FMNP purchases at farmers' markets in Benton and Washington County. In 2013, \$45,000 was allocated for matching benefits at 8 markets. The markets used the total value of the matching funds.

¹² Reaching Those in Need: State Supplemental Nutrition Assistance Program Participation Rates in 2011, USDA Food and Nutrition Service, <http://www.fns.usda.gov/reaching-those-need-state-supplemental-nutrition-assistance-program-participation-rates-2011>

¹³ U.S. Department of Agriculture Food Environment Atlas

¹⁴ Benefit Redemption Patterns in the Supplemental Nutrition Assistance Program, USDA Food and Nutrition Service, February 2011, <http://www.fns.usda.gov/sites/default/files/ARRASpendingPatterns.pdf>

¹⁵ U.S. Department of Agriculture Food Environment Atlas

Farmers' Market		County		Benefits' Accepted	
		SNAP	Senior FMNP	WIC FMNP	Double Your Dollar
Downtown Bentonville	Benton	X	X	X	X
Berryville	Carroll	X		X	
Centerton	Benton				
Eureka Springs	Carroll	X	X	X	
Fayetteville	Washington	X	X	X	X
Gentry	Benton				
Gravette	Benton		X	X	X
Green Forest	Carroll	X	X		
Green Fork	Washington	X	X		X
Holiday Island	Carroll				
Madison County	Madison	X	X		
Pea Ridge	Benton				
The Potting Shed	Benton				
Rogers	Benton	X	X	X	X
Siloam Springs	Benton	X	X	X	X
Springdale	Washington	X	X	X	X
West Fork	Washington				
White Street	Carroll				
Winslow	Washington				
Wren Thicket	Washington	X	X		X

Emergency Food Providers

Twelve percent of Northwest Arkansas grocery shoppers with a household income under \$50,000 reported visiting a soup kitchen or food pantry in the year prior to the consumer survey. The Northwest Arkansas Food Bank partners with over 180 community agencies that provide emergency meals—via either soup kitchen or food pantries—in Benton, Carroll, Madison, and Washington Counties.

While emergency food providers have historically focused on distributing non-perishables, food banks across the U.S. are beginning to source and distribute fresh produce in an effort to increase the diversity, nutrition, and quality of food offered through partner agencies.

In a recent study conducted by the Clinton School of Public Service and Feed Communities, 67 percent of surveyed food pantries and community meal providers in Benton and Washington Counties (30 of 45 survey respondents) indicated that they would like to increase the amount of fresh produce that they serve or distribute.

The Northwest Arkansas Food Banks receives the bulk of its donations directly from retail stores in the region. Twenty-seven Walmart locations donate products directly to the food bank. In an average week, 24 percent of Walmart stores' total donation, by weight, is fresh produce.

Two Northwest Arkansas non-profits are coordinating gleaning efforts directly with individual soup kitchens and food pantries. Feed Communities is currently piloting a fresh produce recovery initiative with Harps

Food Stores, a regional grocer with 72 retail outlets. Unsold fresh produce is collected at the pilot store three days per week and redistributed to community meal providers in the Fayetteville area. Replication of the pilot program will begin August 2014, in Springdale. The University of Arkansas Food Law program is assisting Feed Communities' gleaning efforts. Seeds That Feed collects unsold fruits and vegetables from the Fayetteville farmers' market and distributes fresh produce in good condition to local community meals programs and food pantries. Through their gleaning efforts, Seeds That Feed and the farmers they work with at the Fayetteville farmers' market have identified opportunities to increase fresh produce sales by diverting some product from the Fayetteville farmers' market to a mobile market that serves a local senior center. Seeds That Feed aims to continue working with growers to diversify their sales channels to include a broader range of customers, including those with lower access to fresh produce, while maintaining their gleaning efforts.

FOOD INDUSTRY CLUSTER

Key Findings

There are more than 46,000 food and hospitality jobs in Northwest Arkansas. Approximately 89 percent of these jobs are in food and the remaining 11 percent are in hospitality. **Food and hospitality combined account for 23 percent of all jobs in the region, compared to only 17 percent of all jobs in the U.S.**

Despite the region's strength in food production and manufacturing, there are some concerns regarding its reliance on poultry. From 2002 to 2012, employment in the Poultry and Egg Production and Animal Slaughtering and Processing industries declined in the region by 11 percent and 4 percent, respectively. In the Fayetteville–Springdale–Rogers metropolitan area, which overlaps with much of the NWA region, the number of Meat, Poultry, and Fish cutters and Trimmers declined by 27 percent from 2005 to 2012. Projected growth rates going forward are either declining or growing slowly.

Northwest Arkansas has a much greater share of large manufacturing establishments and a much lesser share of small ones than peer regions within the Ozarks and the U.S. overall.

There may be opportunities to grow food manufacturing in the region by creating and building on opportunities in prepared foods and other value-added production, particularly given the region's large base of workers with food processing skills, and supporting the development of smaller food manufacturers

The region's grocery stores tend to be larger in terms of employment than those in peer regions in the Ozarks, the states of Arkansas, Missouri, and Oklahoma. However, **Northwest Arkansas has fewer food retailer establishments per capita, including grocery stores and specialty food stores, than its peers.**

Food cluster growth over the past decade slightly lagged national growth; hospitality, albeit from a much smaller base, has grown faster than the national rate. Growth varies by sub-cluster: the NWA region grew at a slower rate than the U.S. from 2002 to 2012 in production, food manufacturing, food and other retail, and other distribution, while it grew faster than the U.S. in packaging, food distribution, services, and hospitality.

Food and hospitality occupations in the Fayetteville–Springdale–Rogers metropolitan statistical area (MSA) increased by 17 percent from 24,600 jobs in 2005 to 28,800 jobs in 2012. These occupations are expected to grow by 10 percent over the next decade, an increase of approximately 2,800 jobs

Occupations with the largest numbers of projected job openings in the MSA represent mostly lower-level service workers—fast food workers, waiters and waitresses, janitors, and maids. However, restaurant cooks and first-line supervisors are also expected to see significant gains.

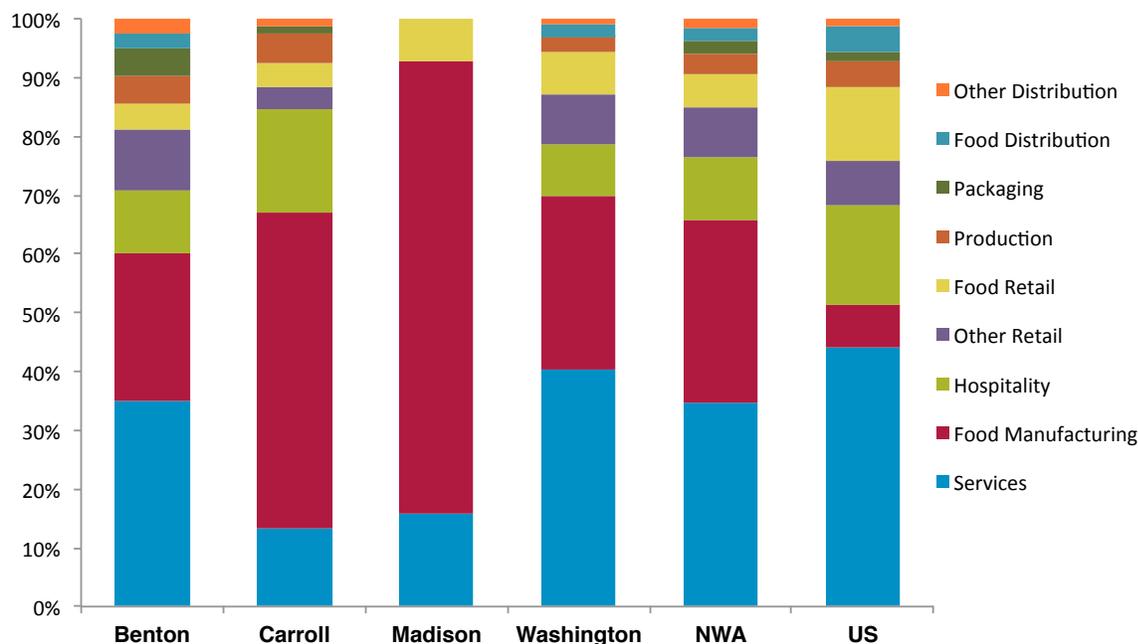
Food Industry Cluster

For the food industry cluster analysis, the project team utilized industry, occupation, demographic, and both proprietary and public firm level data from a variety of sources including the U.S. Census Bureau, the Bureau of Labor Statistics, and, in this case, the USDA's Census of Agriculture and EMSI Analyst. Northwest Arkansas is situated on the Ozark Plateau. In order to better understand the region's relative food cluster strengths and weaknesses, we compared it with peer metropolitan areas in Ozarks region, which for the purposes of this study includes Northwest Arkansas, northeastern Oklahoma, and southwest Missouri.

There are more than 46,000 food and hospitality jobs in Northwest Arkansas. Approximately 89 percent, or 41,000, of these jobs are in food and the remaining 11 percent, or 5,000 jobs, are in hospitality. Food and hospitality combined account for 23 percent of all jobs in the region, compared to only 17 percent of all jobs in the U.S. This is due to the region's historic strength in food, rather than hospitality, which is now growing at a rapid pace. In Northwest Arkansas, food jobs account for 21 percent of all employment compared to 15 percent for the U.S. Hospitality jobs account for only 2 percent of the region's total employment compared to 3 percent for the U.S. As a result, food has an above-average location quotient (LQ) in the region (1.4) while hospitality is below average (0.8).¹⁶ This indicates that food jobs are 1.4 times more concentrated in Northwest Arkansas than they are in the U.S. as a whole, and hospitality jobs are 20 percent less concentrated. Nearly all food and hospitality employment is located in Benton and Washington Counties. This is not surprising given that these counties have much greater populations than Carroll and Madison Counties. Total employment in Benton and Washington Counties is 97,000 and 92,000, respectively, compared to 10,000 in Carroll County and only 3,000 in Madison County.

Northwest Arkansas's strength in food is due mainly to its higher-than-average share of employment in several food sub-clusters, most notably in production, food manufacturing, packaging, and food services.

Figure 29: Food and Hospitality Employment in Northwest Arkansas (2002 – 2012)



The region's strength in and

¹⁶ Location quotients (LQ) are calculated by comparing an industry's share of regional employment with its share of national employment. The LQ quantifies the concentration of the industry, as compared with the nation. A location quotient of 1.0 would indicate that an industry's share of employment in a region is equal to its share of employment in the nation.

reliance on animal production, and poultry specifically, is evident across the first part of the food supply chain, from production through to processing and distribution. The region's higher-than-average share of employment in food production, manufacturing, and packaging, and nearly all production employment and the majority of its food manufacturing employment are based on poultry production and related activities. Its farms are smaller in terms of acreage but larger in terms of overall sales volume when compared to peers, driven by a higher percentage of farms raising chickens for meat. According to the 2012 USDA Census of Agriculture, over 95 percent of farms that raise chicken have production contracts.

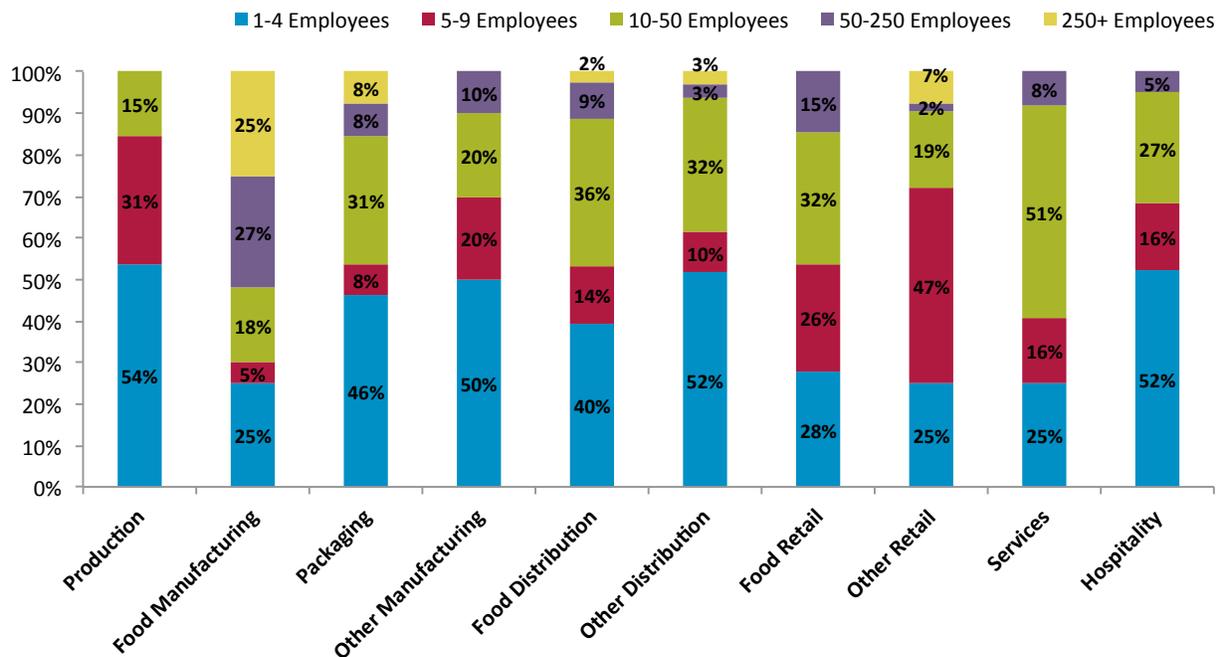
The region's food manufacturing establishments also appear to be structured somewhat differently than its peers. For example, the NWA region has a much higher percentage of large food manufacturers and a much lower percentage of small ones.

Despite the region's strength in food production and manufacturing, there are some concerns regarding its reliance on poultry. From 2002 to 2012, employment in the Poultry and Egg Production and Animal Slaughtering and Processing industries declined in the region by 11 percent and 4 percent, respectively. In the Fayetteville–Springdale–Rogers metropolitan area (MSA), which overlaps with much of the NWA region, the most relevant occupation (Meat, Poultry, and Fish Cutters and Trimmers) declined by 27 percent from 2005 to 2012. Projected growth rates going forward are either declining or growing slowly. Poultry and Egg Production employment is expected to decline nationally by 2 percent, Animal Slaughtering and Processing employment is expected to grow by 7 percent, and Meat, Poultry, and Fish Cutters and Trimmers jobs are expected to grow 5 percent. While Tyson Foods expects to grow, most of this growth is projected to come from certain value-added activities in the U.S. (e.g., "no antibiotics" chicken), prepared foods, and international sales¹⁷, which may not translate into significant production and processing growth in Northwest Arkansas region going forward.

Notably there is a much higher percentage of large establishments and a much lower percentage of small ones in food manufacturing as well as a handful of large establishments in other industries, including packaging, food and other distribution (e.g., Warehousing and Storage), and other retail (e.g., Warehouse Clubs and Supercenters).

¹⁷ Tyson Food, 2013 10K Annual Report

Figure 30: Food and Hospitality Establishment Sizes (2011, by Sub-Cluster)



There may be opportunities to grow food manufacturing in the region by creating and building on opportunities in prepared foods and other value-added production, particularly given the region's large base of workers with food processing skills, and supporting the development of smaller food manufacturers (e.g., through capital and technical assistance programs). There may also be opportunities within food distribution that could focus on strengthening distribution networks that connect farms and food businesses within the region.

Looking at the second part of the food supply chain, retail appears to be both a significant gap as well as an opportunity. The region underperforms in many aspects of food retail. It has a lower-than-average share of employment in the food retail sub-cluster and specifically in grocery stores. Grocery stores in Northwest Arkansas tend to be larger in terms of employment than those in peer, though there are fewer of them on a per-capita basis. In fact, when NWA was ranked against the peer regions with the Ozarks, the three relevant states (Arkansas, Oklahoma, and Missouri) and the U.S. as a whole, it ranked nearly last in establishments per capita in three of the four retail categories that were analyzed, including grocery stores and specialty food stores. However, the region appears to perform well in warehouse clubs and supercenters, which likely reflects a greater reliance on these supercenters for food purchases.

There appears to be less of a gap in food services, where the region overall has an average share of employment (albeit slightly lower in Special Food Services, which includes activities such as catering) and its services establishments are fairly similar to peers in terms of size. However, the region has experienced significant growth in food services over the past decade; from 2002 to 2012, employment in food services overall grew approximately 50 percent, including in Full-Service Restaurants (38 percent), Limited-Service Eating Places (60 percent), and Special Food Services (90 percent). Nearly all of this growth occurred in Benton and Washington Counties. Going forward, food services employment is expected to experience significant growth; in addition, many of the occupations with the highest projected job gains are in services. This trend might even accelerate further given the region's population gains. Population has been growing, particularly in Benton and Washington Counties, and education levels have been rising (median income growth has been more mixed). As more people move into the region and the population becomes more

educated and wealthier, the demand for restaurants and other food services (and food retail options as well) is likely to rise. Population growth is likely one major factor driving the recent increase in food services in Benton and Washington Counties. Finally, while the region's hospitality sub-cluster is small, it grew by 27 percent from 2002 to 2012. Like services, many of the occupations that are expected to grow going forward are hospitality-related.

There appear to be several opportunities to grow both the retail and services sectors in the NWA region. In retail, the opportunity is related to addressing the gap that exists today by attracting more grocery stores and growing food retail along with population growth. In services, the opportunity appears to be more about encouraging growth that is already occurring, by providing loans to people who want open up restaurants, helping caterers to grow their businesses, for example. As mentioned above, growing regionally-focused food distribution systems could benefit restaurants by allowing them to serve more locally-grown foods, potentially cutting down on distribution costs, etc.

Food Occupations

Defined narrowly, food and hospitality occupations in the Fayetteville–Springdale–Rogers MSA totaled approximately 28,800 jobs in 2012, up 17 percent from 24,600 in 2005.¹⁸ Based on the current occupational mix and national growth rates, these occupations are expected to grow by 10 percent over the next decade, an increase of approximately 2,800 jobs.¹⁹

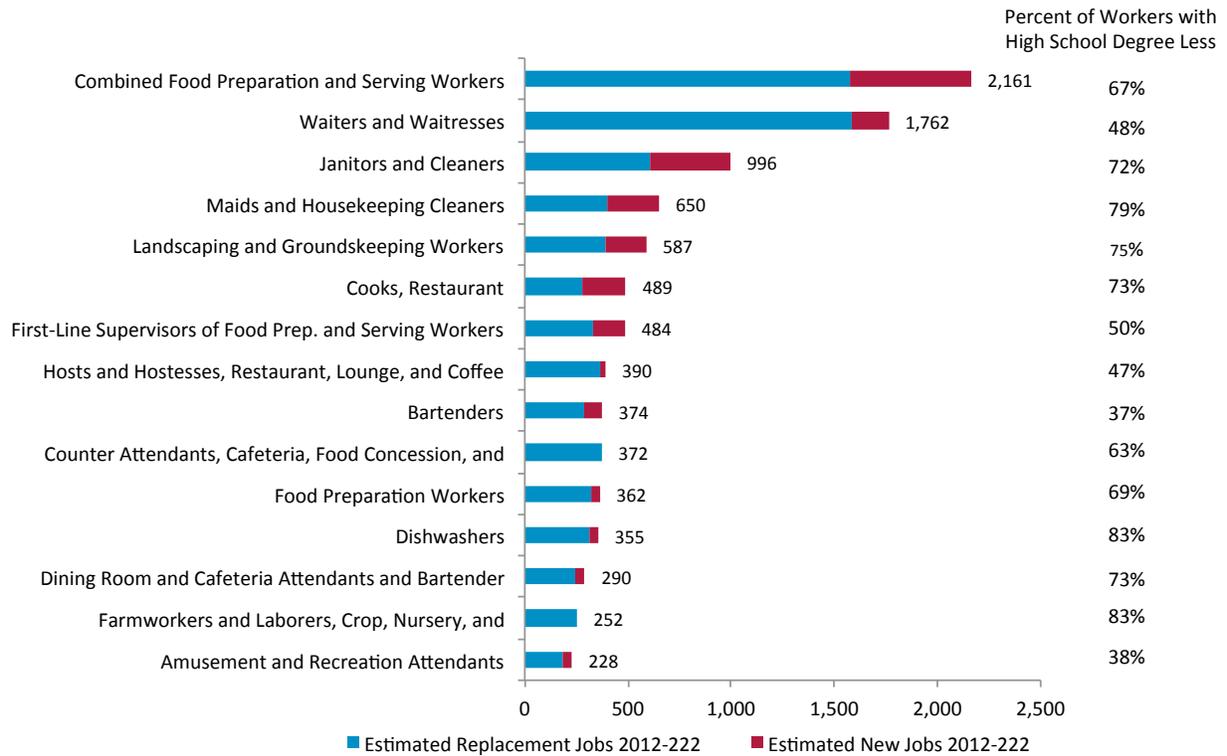
In terms of job characteristics, wages range from \$17,000 for serving occupations and dishwashers up to \$30,000 for first-line supervisors of food preparation and serving workers. Cooks earn between \$18,000 and \$22,000. Except for serving and supervisor positions, the majority of jobs in each of the occupations can be filled by people with a high school degree or less. In some cases (e.g., cooks, meat cutters/trimmers), approximately three out of every four workers has a high school degree or less. For all of these occupations (with supervisors being the only exception), a high school degree is not a requirement for entry into the occupation, and most occupations require no work experience in a related occupation prior to entry. Restaurant cooks and first-line supervisors require less than five years in a related occupation. Finally, most of these occupations provide short-term on-the-job training. The restaurant cook occupation provides moderate on-the-job training, while supervisors receive none (presumably because they have received required training in a related occupation or in a higher education program offering hospitality or general management courses).

Occupations with the largest numbers of projected job openings in the MSA are shown in Figure 28. These represent occupations that have a fairly sizeable presence in the region and are also expected to grow over the next decade at the national level. The largest of these occupations represent lower-level service workers across food and hospitality occupations – fast food workers, waiters and waitresses, janitors, and maids. However, restaurant cooks and first-line supervisors are also expected to grow. Nearly all of these occupations have a high percentage of jobs filled by workers with a high school degree or less. Note also that high-turnover occupations, such as waiters and waitresses, have a higher percentage of job openings that are replacement jobs rather than new jobs.

¹⁸ Note that occupational data were only available at the MSA (and not the county) level. Here the MSA is used as a proxy for the NWA region

¹⁹ Note that many food and hospitality occupations overlap (e.g., waiters and waitresses).

Figure 28: Job Openings (2012 -2022)



Peer Analysis

While overall food cluster establishment sizes are not noticeably different in the NWA region compared to its peers, there are significant differences within certain sub-clusters. Food manufacturing in particular has a different firm size makeup in the NWA region than its peers. Specifically, the region has a much higher percentage of large firms and a much lower percentage of smaller firms as compared to peer regions. Of 100 food manufacturing firms in Northwest Arkansas, 25 percent have over 250 employees (considered large) and 30 percent have fewer than 10 employees (considered small). Compare this with 11 percent large firms and 52 percent small firms in the Ozark region and 9 percent large and 38 percent small in the State of Arkansas.

Food distribution establishments also trend larger in the NWA region, but only slightly so; however, the NWA region has many more food distribution establishments compared to peers on a per capita basis, which appears to be driven by the poultry and livestock industries. The NWA region also appears to have larger warehousing and storage industry establishments.

While food services establishments are not noticeably different in the NWA region, food retail establishments are. The region's grocery stores tend to be larger than in peer regions. In addition, on a per capita basis, the region ranks nearly last in three of four food retail categories that were analyzed, meaning that it has fewer food retail outlets than would be expected given the size of its population. The region ranks higher, however, in warehouse clubs and supercenters, which could reflect the presence of Walmart and/or a greater dependence on these stores for food purchases.

PUTTING IT ALL TOGETHER: OPPORTUNITIES TO STRENGTHEN THE REGIONAL FOOD SYSTEM

The region has an opportunity to articulate a “food story” that reflects the breadth of the local food system and resonates with longtime Arkansans, new arrivals, and tourists

Northwest Arkansas has strong foundation for a regional food story and agricultural/culinary brand identity; city tourism and downtown organizations are eager to develop a coordinated regional campaign; chefs in the region have earned national recognition; NWACC aims to broaden the offerings and elevate the status of its culinary program; the Arkansas Agriculture Department is enhancing its Arkansas Grown and local marketing efforts; and Feed Communities’ regional publication *Edible Ozarkansas* is already describing and celebrating the region’s food and agriculture. At this stage, however, there is no region-wide brand or narrative that tells the story of the diverse and evolving farm and food culture and opportunities in the region.

Local agriculture has a reputation for quality

Quality and flavor are the top considerations for both grocery shoppers and commercial buyers in Northwest Arkansas. The majority of grocery shoppers report that locally produced foods are higher quality and more flavorful than foods produced outside the region. Commercial buyers agree that farms are meeting their expectations for quality for all local products purchased—which includes primarily meat, poultry, fruits, vegetables, and herbs—and they believe that local produce is superior in flavor.

Local produce purchases are constrained by acreage and direct market orientation

While fresh fruits and vegetables are the local products most desired by grocery shoppers in Northwest Arkansas as well as many institutional and retail buyers, the region’s fruit and vegetable production is very small. Fewer than 2 percent of farms sell vegetables, less than one percent of farms have land in orchards, and less than one percent of the region’s total farmland is planted in vegetables or fruit. Produce sales account for just over one percent of total agricultural receipts. In addition to being small overall, the local produce sector itself is comprised of small farmers. Seventy-six percent of vegetable growers have fewer than 5 acres and 93 percent have fewer than 25 acres, while 61 percent of fruit growers have fewer than 5 acres and 90 percent have fewer than 25 acres. Only a handful of Northwest Arkansas farmers are growing fruits and vegetables on 30 or more acres.

It’s not surprising that the vast majority of fruit and vegetables growers aim to capture the full retail value of their relatively small production by selling the majority of their product directly to consumers at farmers’ markets or farm stands. However, there is evidence that Northwest Arkansas farmers’ markets are saturated with their current produce mix: farmers’ report that they are not selling the full volume of what they bring to market. At the same time, commercial buyers identify supply as the key constraint to more local purchasing. There is an opportunity here to identify direct wholesale opportunities to align local produce supply with commercial demand.

Local livestock purchases are constrained by production methods and national supply chain orientation

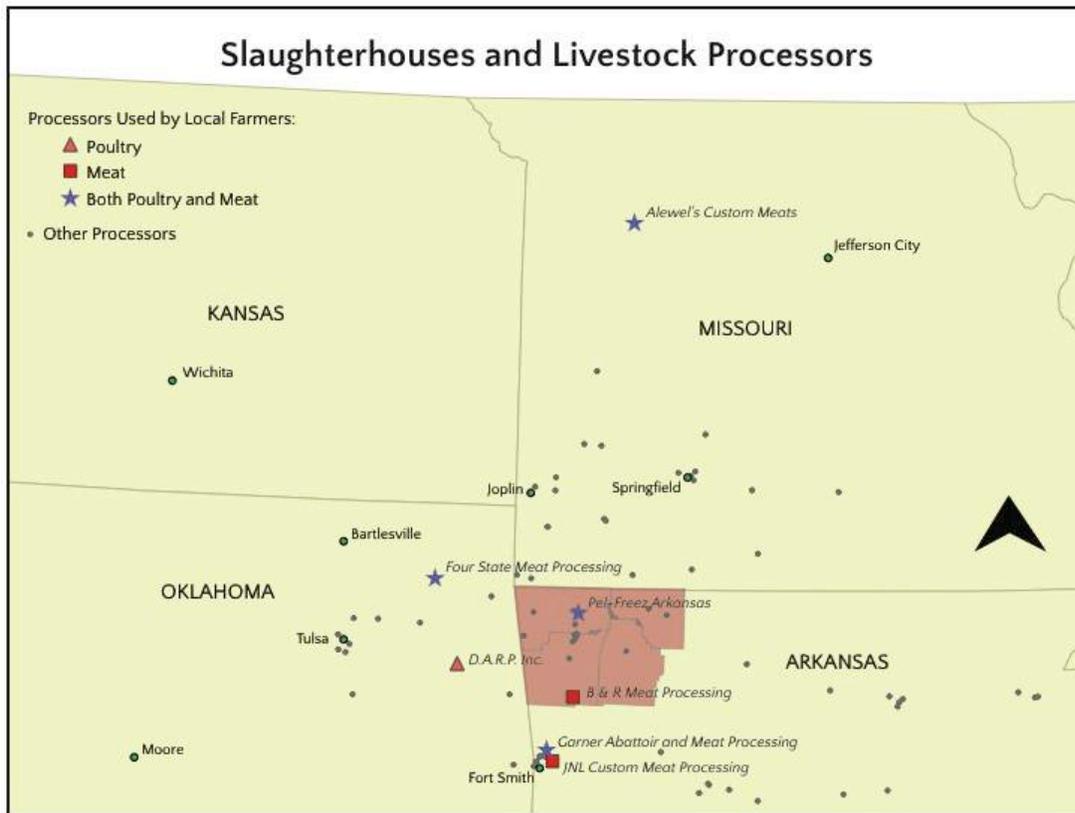
Along with fresh produce, local meat and poultry are the local products in highest demand among Northwest Arkansas grocery shoppers and commercial buyers. Chefs, in particular, are seeking locally raised meat and heritage breeds that they believe are particularly flavorful, as well as grass fed beef and pastured poultry. Livestock and poultry production account for nearly 99 percent of the region’s total agricultural sales, however the majority poultry, egg, and cattle production is oriented toward supply chains that serve customers well beyond Northwest Arkansas’ borders. In this context, commercial buyers struggle to find consistently available supply of locally raised meat and poultry.

Northwest Arkansas is a national hub of chicken production. Over 95 percent of broiler farms, and over 99 percent of all broilers sold, are under production contracts with poultry companies, many of which are headquartered in the region. While these chickens are raised, slaughtered, and processed in Northwest Arkansas, the end product is incorporated into national and global supply chains that are designed to deliver a consistent and affordable protein source to customers around the world. The vast majority of chickens produced in this vertically integrated system do not match regional chefs' desire for specific breeds, Certified Organic or birds fed non-GMO feed, humane certifications, pasture-based production, antibiotic use and origin information.

Figure 29 illustrates the locations of the 104 USDA certified livestock and poultry slaughter and processing facilities in northern Arkansas, eastern Oklahoma, and southern Missouri. Pel-Freeze has recently stopped offering slaughter services to independent chicken farmers, leaving independent farmers in Northwest Arkansas without any certified poultry slaughter facilities. There are three slaughterhouses relatively close to the region—Garner Abattoir in Van Buren and D.A.R.P. and Four State Meat Processing in Oklahoma.

Northwest Arkansas is rich with pasture, and 69 percent of farms raise cattle. While cattle producers are not under production contracts, this supply chain is also oriented toward customers outside of the region. Northwest Arkansas cattle farms are primarily cow-calf operations that sell calves at auction well before they reach slaughter weight. According to the Arkansas Cattleman's Association, the region has "all of the essential resources" to raise and finish cattle. The missing link, and missed opportunity, is coordination between farmers, slaughter facilities, and commercial buyers that are interested in locally raised beef. As of April 2014, there is one USDA certified slaughterhouse, B&R Meat Processing, in Northwest Arkansas that serves local livestock producers. Two additional certified facilities, Garner Abattoir and JNL Custom Meat Processing, are relatively close. B&R and JNL recently completed USDA certification and are growing their businesses. One pork producer in the region reported traveling six hours to Alewel's Custom Meats in Missouri.

Figure 29: Slaughterhouses and Livestock Processors in Northwest Arkansas



Local supply chains require professional and physical infrastructure to grow

Northwest Arkansas farmers sell their products directly to commercial buyers, a transaction referred to as direct wholesale. Direct wholesale transactions in the region largely depend on buyers visiting the farmers' market, or farmers calling restaurants when they have surplus products. However, a number of farmers have long standing relationships with store managers or produce buyers at local retail stores like Ozark Natural Foods and Harp's and a wave of farmers, entrepreneurs, non-profit organizations—and the Fayetteville School District—are exploring models to aggregate and distribute local products. These aggregation and distribution efforts are addressing a pressing need for greater information, communication, coordination, and physical aggregation space in the supply chain. At minimum, commercial buyers seek regularly available and accurate information about local supply and pricing, and formalized ordering, invoicing, and payment processes. In addition, many commercial buyers require that farmers have liability insurance and meet food safety standards. Very few farmers have equipment to cool their produce, or "take out the field heat" before delivering them to market or to restaurant or retailer. An aggregation facility with sufficient space to cool and aggregate local products—and potentially staff members that print availability lists, take orders, stage product, and manage purchase orders and invoices—could allow local farmers to connect with buyers that are seeking to expand their local purchases.

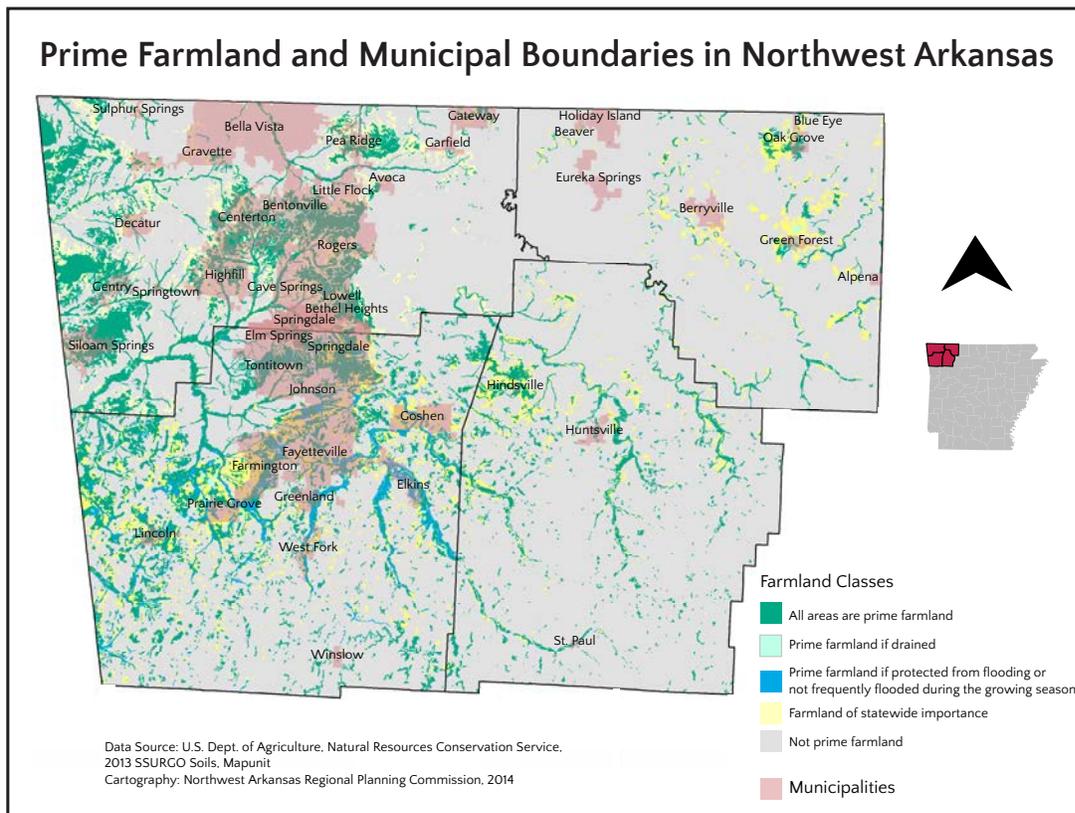
Farmland, farmers, and the resources to support them are required to ensure the long-term viability of agriculture in Northwest Arkansas

The continued viability of agriculture in Northwest Arkansas depends significantly on three interdependent factors: farms remaining economically viable, farmland staying in production (and out of development), and new farmers succeeding retirees. Figure 30 below shows the substantial current overlap between municipal

boundaries in Northwest Arkansas and prime agricultural land and illustrates the potential for future pressure to convert farmland for commercial and residential use and the region's population continues to grow.

Through the Northwest Arkansas Land Trust and the Ozark Regional Land Trust, the region is in the early stages of farmland preservation efforts, though both of the trusts are more focused on watershed protection. While there appears to be an emerging trend toward young people planning for a career in agriculture, (many of whom are students at U of A) there very few local resources for new farmers trying to identify available land, for retiring farmers hoping to find successors, or for either party to explore the financial tools for making agricultural land affordable. As the Northwest Arkansas population grows and land development pressures continue, effort to keep land protected and in agricultural production will become more urgent.

Figure 30: Prime Farmland and Municipal Boundaries in Northwest Arkansas



With greater outreach and more cohesive marketing, a greater number of Northeast Arkansas residents could take advantage of benefits that increase their food budget

One quarter of eligible Arkansas residents are qualified yet do not receive the Supplemental Nutrition Assistance Program (SNAP) benefits. This is missed opportunity for those consumers as well as for the local retailers that do not receive benefit payments. In addition to SNAP, there are wide array of benefits accepted at farmers' markets, some of which are only available to shoppers using SNAP benefits or WIC or Senior Farmers' Market Nutrition Coupons. Ensuring that as many eligible residents as possible take advantage of SNAP benefits supports Northwest Arkansas consumers and food businesses.

Public schools have the potential to be a one-stop shop for local healthy food

School-based activities offer a way to connect with Northwest Arkansas's diverse population, and to address food with children and families. According to the customer survey, parents with children at home are significantly more likely than their counterparts to report obstacles to purchasing healthy foods and more likely to report that they "don't know" how locally grown food compares with foods produced outside of Northwest Arkansas along dimensions of price, quality, convenience, flavor/taste, nutrition, and production method. Bentonville Public School District has hosted parents for nutrition and cooking courses and Fayetteville Public School District's farm-to-school program has established a local food distribution system and educational materials about local produce. Public Schools in Northwest Arkansas have experience working together and adopting best practices from one another, and there is an opportunity for a region wide local food activities—including cooking classes, youth-run markets, community dinners—hosted at public schools.

Developing underrepresented segments of Northwest Arkansas's food industry cluster aligns with opportunities to strengthen the local food system

Compared with peer regions, Northwest Arkansas has a much greater share of large manufacturing establishments and a lesser share of small ones. The region's grocery stores tend to be larger in terms of employment than those in peer regions in the Ozarks. However, Northwest Arkansas has fewer food retailer establishments per capita, including grocery stores and specialty food stores, than its peers. The small-scale value-added food manufacturing, local distributors, grocers, and specialty food stores that are underrepresented in Northwest Arkansas are important building blocks for robust local supply chains. The University of Arkansas Food Innovation Center Pilot Plant currently serves as "incubator" for local value-added food processors. However, the Pilot Plant's goals are linked to research and development—most recently in support of local entrepreneurs—and the facility does not have the capacity to serve as a shared commercial kitchen for growing food manufacturers. On the retail side, outside of farmers' markets and farm stands, there are very few retailers that carry local value-added products. This is a missed opportunity. In addition to generating revenue for local retailers and manufacturers, featuring high quality local products (in specialty retail stores, at festivals, and in gift shops at the region's many cultural institutions, for example) would communicate and elevate the region's food brand and identity.

Northwest Arkansas's new generation of local farm and food businesses would benefit from a network of farm and business support services that align with their scale and values

Large businesses have been the backbone of Northwest Arkansas' economy for over 50 years, and large-scale livestock, soy, rice, and cotton farms have led agricultural returns for the State of Arkansas. Unsurprisingly, the private, non-profit, and public sector services, such as trade and marketing associations, lenders, research institutes, and regulatory agencies are oriented toward big business and big agriculture. Smaller-scale farmers—particularly those that grow specialty crops, organics, or pastured livestock—and food entrepreneurs in Northwest Arkansas have repeatedly described the disconnect between their needs

and the services offered by the University of Arkansas's Extension Service, Farm Bureau, and commercial lenders—and the lack of support for growing food businesses. The U of A Pilot Plant, Southern Sustainable Agriculture Working Group (SSAWG), and the National Center for Appropriate Technology (NCAT) have emerged as key resources for product development and production, networking, and information for farmers and food entrepreneurs in Northwest Arkansas, but the need remains for web of local food business support services to meet the specific needs of smaller-scale businesses.

There is an opportunity to leverage Northwest Arkansas's large-scale business infrastructure in support of local food entrepreneurs in the region

Northwest Arkansas is a hub for food businesses that serve customers across the U.S. and around the world. These companies bring myriad resources to the region, including expertise in product development, marketing, logistics, and technology, distribution networks, and capital. Angel investor networks and business accelerator programs have leveraged the region's business assets and infrastructure in support of technology startups. Food entrepreneurs in the region would benefit from similar programs that catalyze the growth of local food enterprises with support from food corporations headquartered in the region.

The leaders and decision-makers in Northwest Arkansas's food system do not reflect the diversity of the region's population or food businesses

Northwest Arkansas's population is increasingly culturally diverse, and farm and food business reflect that diversity. Hmong farmers are an important part of local farmers' markets and the region is home to an array of Mexican and Central American owned and operated restaurants. Latinos and Marshallese Islanders make up a significant component of the poultry-processing workforce. However, there is little ethnic or cultural diversity among the leadership of formal and informal organizations working to strengthen the food system. Further, the diversity in the local food systems has not been explicitly incorporated into Northwest Arkansas's food culture, as it is currently expressed. This is a missed opportunity.

RECOMMENDATIONS

Based on our research findings and understanding of Northwest Arkansas' assets, challenges, and opportunities, we recommend four target areas to build a robust regional food economy and increase access, opportunity, and well-being for all residents and visitors to Northwest Arkansas.

1. Cultivate a Regional Food Identity

Our initial recommendation may sound contrary to the purpose of this study: **Adopt Flexible Definitions of Local.**

There is little consensus in Northwest Arkansas or elsewhere in the U.S. on how to determine the boundaries that define the boundaries of "local" foods production. The definitions currently employed by Northwest Arkansas commercial buyers, farmers' markets, and consumers range from "in town" to "in this county" to "Benton, Carroll, Madison, and Washington Counties and adjacent counties in Missouri and Oklahoma" to a 60-mile or 150-mile radius, to "within Arkansas." Moving forward with efforts to strengthen the regional food system without one, unified definition of local may appear counterintuitive, or be frustrating for some. However, we believe it is a particularly sensible approach in Northwest Arkansas.

Many commercial and institutional food buyers have already defined boundaries for local purchasing, and in the case of food service buyers and large retailers, these definitions are often set at the corporate rather than regional level. Further, commercial buyers, particularly chefs, weigh their desire to purchase locally grown and raised products against additional criteria, including animal breeds and production methods. In short, buyers might choose pasture-based poultry or an heirloom hog raised further afield over conventionally raised meat that is produced locally.

It is clear that current local supply and supply chains do not meet existing demand for local food in the region, nor does local supply approach the volume and diversity required to satisfy the region's food needs. By looking to the broader region, including Arkansas as a whole, Missouri, Kansas, and Oklahoma, Northwest Arkansas commercial buyers could increase and diversify their potential supply of agricultural products—and we recommend that they do so. However, because of its geography and soil quality, agriculture across this large four-state region is focused on livestock, forage, and grain, rather than fruits and vegetables.

Rather than attempting to align or supersede current definitions of local—and the values that underlie them—or attempting to source a complete market basket of foods produced in the region, we recommend focusing on building the capacity of farmers and buyers to develop supply chains for a diversity of products that showcase the region's strengths.

A thoughtful and practical understanding of the region and its potential, combined with aligned coordination of supply, branding, education, and marketing efforts will dramatically increase the power of the region's farm and food economy.

Establish a Regional Brand

The "Arkansas Grown" program, recently initiated by the Arkansas Agriculture Department, can work at the state level to promote agriculture and food products from the entire state—and should be promoted among Northwest Arkansas growers and retailers; a **regional brand would shine a spotlight on Northwest Arkansas as cultural, agricultural, and geographic region.** "Arkansas Ozarks", "Ozarkansas" (as coined by Feed Communities' regional *Edible* publication), or a similar brand could capture regional farm, food, and culinary marketing efforts.

Tailor Marketing Campaigns to the Region’s Diverse Audience

Consumer education, through carefully tailored marketing campaigns will serve many purposes to build the local farm and food economy. Regional food education for area residents can range from progressive curricula taught throughout public school grades (which can also fulfill math, science, and social studies requirements), to parent and community workshops at school-based events to higher education electives or concentrations. Local farming and food courses are in development for Northwest Arkansas Community College, and University of Arkansas, which already employs a number of professors who are teaching elements of “values-based” agriculture and food systems.

Berkshire Farm & Table, a non-profit that promotes regional food culture in the Berkshire Mountains Western Massachusetts, recently partnered with Tastes on the Fly, a restaurant group that specializes in bringing regional food to airports, to curate a selection of Berkshire-based products for a new retail outlet—Berkshires Farm Market—in Boston’s Logan airport. Berkshire Farm & Table also designs virtual “Taste Trails” to educate consumers about the Berkshire’s beer, cider, cheese, and charcuterie offerings, and organizes local food events.

For the general public, farmers’ markets, area retailers, sports arenas, and fairs and festivals are ideal venues for creating engagement around the values and availability of local food. Product sales, promotions, tastings, incentives, and other campaign strategies, built on the regional brand, can grow awareness and excitement about local products.

A similar campaign targeted to visitors to the region would focus on the airport, hotels, convention centers, cultural institutions, and outdoor recreation spots. Convention and visitors bureaus, chambers of commerce, and trade groups can develop regional gift baskets or product-of-the-month gift subscriptions for sales at local retail kiosks.

Honor the Diversity of Local Food Stories

A regional brand strategy and marketing campaign can draw on the wealth of Northwest Arkansas’s stories of food and agriculture. Farmers in the region continue to produce food on land homesteaded by their families in the early 19th century. Central American immigrants have become restaurateurs preparing and serving traditional Salvadoran pupusas. A chef sought sorghum to sweeten his menu. Hmong farmers donate fresh produce to soup kitchens and food pantries that serve families in need across the region. Each of these sketches could, and should, contribute to the larger narrative of Northwest Arkansas’s diverse and evolving food culture. Feed Communities’ regional publication, *Edible Ozarkansas*, is sharing regional food and agriculture stories from the region. Yet, there is a necessity for greater representation of the diversity of food and agricultural activities in the region as well as the ethnic and cultural diversity in Northwest Arkansas.

2. Coordinate and Grow Regional Supply

Create a Local Food Coordinator Position

In addition to a shortage of local products, farmers and buyers are missing key information and communication channels that would allow regional institutions, chefs, and retailers to purchase greater quantities of available local products.

Both farmers and buyers would benefit from training in the nuts and bolts of local purchasing. Farmers that have sold primarily through farmers’ markets or informally to restaurants—and wish to diversify to additional direct wholesale markets—need to better understand commercial buyers’ needs and requirements related

to ordering and payment processing, fulfilling orders, food safety, and delivery. Commercial buyers that seek to purchase local product would benefit from training in whole animal cuisine, including culinary techniques, recipes, and menu design to utilize all cuts of an animal, as well as important dimensions of buying directly from producers, such as understanding the regional growing season and sharing product needs with growers during the planting season.

Institutional foodservice providers look to approved produce distributors to meet their desire for more local food, and there are a handful of nascent relationships between regional producers and distribution companies.

A **dedicated full-time Local Food Coordinator** could greatly accelerate the scope of training, facilitation and communication for farmers and buyers across the region. This “Local Food Coordinator” position sits either within government or a regional group or association. In order to ensure that the Coordinator operates in the interest of the larger regional food system, rather than a particular farmer or buyers, it is important that the position is salaried rather than paid through commissions.

The job requirements and responsibilities are outlined in detail in Appendix C. In essence, the Coordinator serves as a liaison between farmers and buyers, including restaurants, retailers, distributors, schools, hospitals, and other commercial and institutional purchasers. The position requires understanding the nitty-gritty issues of procurement policies (government or institutional), product specifications (nutrition and packaging, for packaged items), and purchasing and payment processing, as well as being sensitive to farmers’ and buyers’ professional expectations and behavior. A successful Local Food Coordinator will leverage support services, such as Extension, Farm Credit, FORGE, the Agriculture Department, and local banks, to increase both supply and demand.

Develop Farm-to-Plate Regional Meat Supply Chains. Northwest Arkansas commercial buyers cannot find consistent sources or sufficient volumes of grass-fed beef, pastured poultry, or heritage hog breeds. Northwest Arkansas is rich with assets to support regional livestock and poultry supply chains, including pasture, unused poultry houses, support services, and experienced growers. Because the region’s livestock production has focused on serving national and international supply chains, until recently there has been fairly little attention paid to meeting regional demand for meat. Meat and poultry supply chains are particularly complex, requiring **regional processing facilities, precise scheduling for slaughter, and—for livestock—a marketplace for a wide range of cuts and a large quantities of ground meat.** Match-making regional demand and supply for meat—and growing both—will be an important responsibility of a Local Food Coordinator. However, as regional meat supply chains grow, facilitating and growing supply and demand will require additional organization. While it is imperative this the organizing entity work closely with producers, processors, and buyers, the entity could be a cooperative, non-profit, or private sector enterprise. Identifying poultry slaughter capacity at existing poultry slaughterhouses, slaughterhouses that do not currently process poultry, or through a new facility will be an initial focus area for efforts to regionalize meat supply chains.

Founded in 2010, **Marksbury Farm Market** is a small-scale, privately owned, processor and butcher shop in Garrard County, Kentucky. Marksbury has a 12,000 sq. ft. USDA-inspected, Animal Welfare Approved slaughterhouse and packaging facility. Sixty percent of their through-put is branded product sold under the Marksbury Farms label and the remainder is processed for farmers selling through direct markets. Marksbury Farms sells grass-fed beef, pastured pork, poultry, and lamb produced with strict standards, including a grass-based feeding system and no use of antibiotics or steroids. One staff person manages producer relationships and animals procurement and 3 work in sales and marketing: 1 focused on institutions grocery accounts, and 2 focused on restaurants. Currently, Marksbury Farms' distributes their products (with their own small fleet) to 70 restaurants, 4 Whole Foods, and institutional markets like the University of Louisville.

Adirondack Grazers Cooperative, launched in 2012, is a farmer-owned cooperative in rural New York State. The coop is comprised of 30 farmer members. The Coop staff is responsible for establishing and ensuring common production protocols, scheduling slaughter and processing, marketing and selling the coops' products, and organizing distribution logistics. Currently Adirondack Grazers sells to a number of New York City restaurants and Fresh Direct, a grocery delivery service.

Increase and Diversify Fruit and Vegetable Production in the Region

Even with less than one-half of 1 percent of the region's farmland is used for fruit and vegetable production, there are opportunities to increase the supply of regionally grown produce. The region's fruit and vegetable farmers fall into two broad categories: a larger number of highly productive growers with diverse production on 5 acres or less and a handful of mid-sized producers focusing on 5 or 6 crops on 45-60 acres. Many of these growers—particularly those with smaller acreage—would be willing to diversify their production and extend their season, using hoop houses, for example, if they were confident that there was a market for their products. **Facilitating conversations about demand for particular varieties of produce and early and late season products is an important part of the role of a Local Food Coordinator.**

According to the 2012 Census of Agriculture, 48,656 acres of cropland, or 18 percent of the cropland in Northwest Arkansas, was not harvested, and includes pasture and grazing land that could be used for crops without additional improvements, idle cropland, land used for cover crops, soil improvements, or cultivated summer fallow, and land on which all crops failed. While it is likely that only a portion of this land is suited for vegetable or fruit production, **if only 5 percent of the unharvested cropland was planted in fruit and vegetables, this would more than double the current acreage.**

The 2014 Farm Bill consolidated the Wetlands Reserve Program, Grassland Reserve Program and Farm and Ranch Land Protection Program to create the **Agriculture Conservation Easement Program**. The ACEP provides financial assistance to Indian tribes, state and local governments and non-governmental organizations with have farmland or grassland protection programs that are working for purchasing Agricultural Land Easements that protect the agricultural use and conservation values of eligible land.

Ensure Long-Term Farmland Viability

Washington and Benton Counties are home to the bulk of the region's population—91 percent—as well as projected population growth. These two counties also sit on the majority of prime farmland in the region, much of which is located inside city limits. Protecting farmland is key to maintaining food production capacity in addition to preserving Northwest Arkansas's rural character and working landscape. protecting

soil and water quality, and ensuring that farmland continues to provide important habitat for native plant and animals.

Northwest Arkansas city and county governments, local planning boards, and the Northwest Arkansas Regional Planning Commission should **work in concert with the Northwest Arkansas Land Trust to preserve farmland.**

To do this they must identify high priority agricultural land, raise funds to purchase conservation easements, advocate to use planning and zoning tools (such as green infrastructure mapping), to protect farmland, and facilitate affordable farmland transition to new farmers and across generations. Furthermore, the Land Trust, University of Arkansas, and other regional agricultural organizations such as the Southern Sustainable Agriculture Working Group (SSAWG) should **collaborate to establish a set of resources for new farmers seeking land in Northwest Arkansas and retiring farmers seeking to transition their farm to the next generation.**

3. Leverage Public Resources to Improve Local Food Access for All Northwest Arkansans Through Diverse Outlets

Prioritize Region-Wide SNAP Enrollment Efforts

As of 2011, 26 percent of Arkansas residents that qualify for Supplemental Nutrition Assistance Program (SNAP) benefits have not enrolled in SNAP. County-level eligibility and enrollment data is not available. Northwest Arkansas municipalities and community organizations should **coordinate outreach efforts to ensure that each eligible residents of Northwest Arkansas has an opportunity to enroll.** Based on our experience in other regions, enrollment outreach should target seniors and immigrant populations, as well as the eligible population at large, through churches, health fairs, grocery stores, soup kitchens, food pantries, and community organizations. Eligible residents that do not receive SNAP benefits lose both the monthly food budget supplements as well as opportunity to increase the value of SNAP benefits through Double Dollar programs at farmers' markets in the region. Notably, retailers and farmers' markets also lose revenue when benefits aren't redeemed.

Utilize Public Schools as Community Food Hubs

In addition to serving as commercial food buyers, public schools districts and Head Start and afterschool programs can anchor community food strategies. In Northwest Arkansas, where there is significant population growth, schools can be an initial point of connection for new residents (at least those with children) and the community. Additionally, public schools provide an opportunity for community organizations to connect with families that are difficult to reach because parents work long hours, have recently immigrated, are not proficient in English, or are part of more insular communities.

Schools and Head Start and afterschool programs can host youth-run "pop up" farmers' markets—facilitated by the Local Food Coordinator—that provide an opportunity for parents picking up their children to purchase affordable, local foods. Schools can also work with Senior Centers to host pop up farmer's markets staffed by young people.

New York City youth run 14 Youthmarkets in schools, churches, and other community organizations across the city. GrowNYC, a NYC non-profit, provides planning, development, and management oversight, purchases locally grown produce from regional farmers, and trains young people from under-served areas of the city to operate a farm stand in their neighborhood as their own small business. The community-based partner hires and employs young people and provides market locations and publicity, and serves as the crucial link between the Youthmarket program and the community.

In addition to farmer's markets, schools can be a source for information about SNAP and WIC enrollment, local farmers' markets, and cooking and nutrition information and workshops.

Meet Consumers Where They Are – At Supermarkets

Grocery stores are Northwest Arkansas grocery shoppers' top source for local foods as well as overall grocery purchases. Nationwide, the majority of SNAP benefits are redeemed at supermarkets and supercenters. **Any efforts to increase local produce at retail should include the mainstream supermarket**, as these are the primary source of groceries for Northwest Arkansans.

4. Develop and Coordinate Local Food Cluster Technical Assistance and Resources

Establish a Local Food Accelerator Program

Northwest Arkansas is recognized as a worldwide center of excellence in agriculture production, retail, and food. The region can leverage its intellectual capital to support farm and food businesses, based on the successful model in the tech sector. A **Local Food Accelerator Program** supported by industry, trade associations, philanthropy, local government, and key current supports of local food businesses, including FORGE (Financing Ozarks Rural Growth & Economy) and the Northwest Arkansas Regional Food Council, would culturally align with the strengths of the region's food business community, and serve to address the noticeable lack of support services for entrepreneurs in the region's food cluster.

Locally headquartered food, agriculture, manufacturing, retail, and logistics businesses can provide state-of-the-art business advisory and growth services to regional farm and food businesses. The accelerator will serve to balance the dynamic between the export-focused agriculture and food enterprises in the region with those that serve the regional marketplace. The accelerator should include a new fund dedicated to expanding the region's production of farm and food products. Modeled on the VIC Technology Venture Development, a fund will address start-up and expansion capital that is the most difficult to acquire in any sector, but especially for agriculture and food enterprises.

Invest in a Food System Incubator, or Food Hub

A physical incubator would support and anchor efforts to accelerate local food businesses and strengthen the local food industry cluster. Potentially, but not necessarily defined as a **Food Hub**, the facilities and infrastructure could address regional needs for: aggregating local products and coordinating regional supply chains; incubating food manufacturers with shared manufacturing facilities and equipment; establishing education and networking space for local food cluster businesses; and providing a home for regional brand. Eventually, an aggregation facility with could house the efforts of the Local Food Coordinator, or local food coordination and distribution staff that print availability lists, take orders, stage product, and manage purchase orders and invoices. An existing institution such as the University of Arkansas, Fayetteville, or the Northwest Arkansas Community College, could potentially be tapped to house the accelerator and Food Hub.

Prioritize Diversity Among Leaders of Food Businesses and Networks

In all efforts to support regional entrepreneurs, grow food businesses, and strengthen the Northwest Arkansas local food cluster, **ensure that outreach regarding opportunities for funding, networking, mentorship, and use of facilities is targeted toward Northwest Arkansas communities that are**

The 2014 Farm Bill established the **Food Insecurity Nutrition Incentive competitive grant program**, which will award \$100 million in matching grants over fiscal years 2014 through 2018 to support programs to increase fresh fruit and vegetables purchases among SNAP participants by providing incentives at the point of purchase. Eligible applicant organizations include governmental agencies, authorized retailers, non-profits, and other entities.

underrepresented in food system leadership, including Latino, Hmong, Marshallese, and African-American farmers, food business owners and consumers.

APPENDICES

- A. Interview List
- B. Mass Economics Summary of Food Industry Cluster Analysis
- C. Implementation Resources
- D. Local Food Coordinator Job Description
- E. September 2012 Food System Community Meeting Summary
- F. Glossary of Terms

NORTHWEST ARKANSAS REGIONAL FOOD ASSESSMENT

APPENDIX A: INTERVIEW LIST

Interview Respondent	Organization
Ryan Craig	Adam's Acres
Jessy and Michael Anderson	Anderson Animal Farm
Adam McClung	Arkansas Cattlemen's Association
Zach Taylor	Arkansas Department of Agriculture
Patty Barker	Arkansas Hunger Relief Alliance
Guy Ames	Ames Orchard & Nursery, ATTRA/NCAT
Darrin Burnett, Jack Leach, Scott Ridenoure	B and R Meat Processing
Kalene Griffith	Bentonville Convention and Visitors Bureau
Mary Ley	Bentonville Public School District
Bill Zemke	Chartwells, University of Arkansas
Peter Nierengarten	City of Fayetteville, Sustainability and Strategic Planning
Orien Bedwell, Blake Evans	Crystal Lake Farms
Nicki Dallison	Downtown Bentonville
Case Dighero	Eleven Restaurant at Crystal Bridges
Jill Kaplan	Endeavor Foundation
Shawn Keller	Eurest
Zach Brown	Farm Box Delivers
Teresa Maurer	Fayetteville Farmers Market
Dana Smith, Morgan Stout	Fayetteville Public School District
Mike Thelin	Feast Portland
Denise Garner, Melissa Terry	Feed Communities
Angie Albright, Amy Robinson, Adrienne Shaunfield	Feed Fayetteville
Stephen Vallus	Figgieville
Charlie Stockton	Financing Ozarks Rural Growth and Economy (FORGE)
Patrice Gros	Foundation Farm
Ken Ketelson	FRESH Farm to Table
Roger Key	Garner Abattoir, Van Buren Butchershop
Evelyn McGraw, Allyson Ransom	Gravette Farmers Market
Dennis Baker	Harps Food
Brant Croxdale	Hiland Dairy
Margarita Solorzano	Hispanic Women's Organization
John Tombs	Homestead Farms
Will West	House of Webster
Ed Clifford	Jones Center of Families
Ken Rubin	Rouxbe Cooking School
Chris Thompson	Kimball & Thompson Produce
Hannah Withers	Little Bread Company
John-Mark Hack	Marksbury Farms
David McGarrah	McGarrah Farm Stand

Terri Lane	Northwest Arkansas Land Trust
Gerald Demory, Robert Gearhart	Northwest Arkansas Food Bank
Fran Free	Oh Baby Foods
Melinda Acoach, Cole Everett	Ozark Mountain Poultry
Pauline Thiessen, Amber Secrest, Matt Smith	Ozark Natural Foods
David Mervis	Ozark Slow Food
Charlie Presley	Presley Farms
Steve Cox	Rogers Convention and Visitors Bureau
Debbie Rambo	Samaritan Community Center
Dave Sargent	Sargent Farms
Aron Shelton, Alyssa Snyder, Margaret Thomas	Seeds that Feed
Meredith Bergstrom	Siloam Springs Farmers Market
Paula Boles	Springdale Farmers Market
Andrew Schwerin	Sycamore Bend Farm
Matt McClure	The Hive at 21c Museum Hotel
Don Bennett	Tricycle Farms
Chrissy Sanderson	Tusk & Trotter Restaurant
Jeff Huber, Steve Luoni	University of Arkansas Community Design Center
Jean Muellenet	University of Arkansas Division of Agriculture Institute of Food Science
Eleanor Hughes	University of Arkansas for Medical Sciences
Luke Freeman, Curt Rom	University of Arkansas Horticulture Department
Heather Friedrich	University of Arkansas Horticulture Department/ Northwest Arkansas Farmers Market Association
David Dickey	University of Arkansas Horticulture Department/Dickey Farms
Eugene Young	USDA NASS Arkansas Field Office
Steve Vanzant	Vanzant Fruit Farm
Allyson Twiggs Dyer	Visit Rogers
Lea Jepson, Ron McCormick	Walmart
Debra Elam	Wren Thicket Market

NWA Council: Summary of Data Analysis Findings

March 19th, 2014

Summary

The Northwest Arkansas (NWA) region's food economy has been and continues to be defined by the poultry industry; however, food in the region appears to be changing along with the region's population, creating both gaps as well as growth opportunities.

The region's strength in and reliance on animal production, and poultry specifically, is evident across the first part of the food supply chain, from production through to processing and distribution. The region has a higher-than-average share of employment in food production, manufacturing, and packaging, and nearly all production employment and the majority of its food manufacturing employment are based on poultry production and related activities. Its farms are smaller in terms of acreage but larger in terms of overall sales volume when compared to its peers, driven by a higher percentage of farms raising chickens for meat. Most such farms appear to be contracted out to Tyson and likely to other large poultry firms, making the economy heavily reliant on these firms. The region's food manufacturing and distribution establishments also appear to be structured somewhat differently than its peers. For example, the NWA region has a much higher percentage of large food manufacturers and a much lower percentage of small ones. In food distribution, the region has a lower-than-average share of employment but a higher number of establishments on a per-capita basis. This, along with a smaller-than-average food retail sector, suggests that establishments may be more highly automated, geared toward the poultry industry, and focused on shipping product out rather than bringing it in and distributing it throughout the region.

Despite the region's strength in food production and manufacturing, there are some concerns regarding its reliance on poultry. From 2002 to 2012, employment in the Poultry and Egg Production and Animal Slaughtering and Processing industries declined in the region by 11% and 4%, respectively. In the Fayetteville–Springdale–Rogers metropolitan area (MSA), which overlaps with much of the NWA region, the most relevant occupation (Meat, poultry, and Fish Cutters and Trimmers) declined by 27% from 2005 to 2012. Projected growth rates going forward are either declining or growing slowly. Poultry and Egg Production employment is expected to decline nationally by 2%, Animal Slaughtering and Processing employment is expected to grow by 7%, and Meat, Poultry, and Fish Cutters and Trimmers jobs are expected to grow 5%. While Tyson Foods expects to grow, most of this growth is projected to come from certain value-added activities in the U.S. (e.g., “no antibiotics” chicken), prepared foods, and international sales,¹ which may not translate into significant production and processing growth in the NWA region going forward.

¹ Tyson Food, 2013 10K Annual Report

There may be opportunities to grow food manufacturing in the region by creating and building on opportunities in prepared foods and other value-added production, particularly given the region's large base of workers with food processing skills, and supporting the development of smaller food manufacturers (e.g., through capital and technical assistance programs). There may also be opportunities within food distribution that could focus on strengthening internally-focused distribution (e.g., providing regionally-grown food to restaurants). [Note that this would need to be tested with on-the-ground findings.]

Looking at the second part of the food supply chain, retail appears to be both a significant gap as well as an opportunity. The region underperforms in many aspects of food retail. It has a lower-than-average share of employment in the food retail sub-cluster and specifically in grocery stores. While its grocery stores trend larger than its peers, there are fewer of them on a per-capita basis. In fact, when NWA was ranked against the BioRegion, its sub-geographies, the three relevant states (Arkansas, Oklahoma, and Missouri) and the U.S. as a whole, it ranked nearly last in three of the four retail categories that were analyzed, including grocery stores. However, the region appears to perform well in warehouse clubs and supercenters, which could reflect either the presence of Walmart in the region and/or a greater reliance on these supercenters for food purchases.

There appears to be less of a gap in food services, where the region overall has an average share of employment (albeit slightly lower in Special Food Services, which includes activities such as catering) and its services establishments are fairly similar to peers in terms of size. However, the region has experienced significant growth in food services over the past decade; from 2002 to 2012, employment in food services overall grew ~50%, including in Full-Service Restaurants (38%), Limited-Service Eating Places (60%), and Special Food Services (90%). Nearly all of this growth occurred in Benton and Washington Counties. Going forward, food services employment is expected to experience significant growth; in addition, many of the occupations with the highest projected job gains are in services. This trend might even accelerate further given the region's population gains. Population has been growing, particularly in Benton and Washington Counties, and education levels have been rising (median income growth has been more mixed). As more people move into the region and the population becomes more educated and wealthier, the demand for restaurants and other food services (and food retail options as well) is likely to rise. Population growth is likely one major factor driving the recent increase in food services in Benton and Washington Counties. Finally, while the region's hospitality sub-cluster is small, it grew by 27% from 2002 to 2012. Like services, many of the occupations that are expected to grow going forward are hospitality-related.

There appear to be several opportunities to grow both the retail and services sectors in the NWA region. In retail, the opportunity is related to addressing the gap that exists today - e.g., attracting more grocery stores and possibly smaller/specialty food retail outlets – and growing food retail

along with population growth. In services, the opportunity appears to be more about encouraging growth that is already occurring – e.g., providing loans to people who want open up restaurants, helping caterers to grow their businesses. As mentioned above, growing regionally-focused food distribution systems could benefit restaurants by allowing them to serve more locally-grown foods, potentially cutting down on distribution costs, etc.

Data Highlights

Cluster/Sub-Cluster/Industries

- The NWA region – encompassing Benton, Carroll, Madison, and Washington Counties - has a higher-than-average share of food employment and a lower-than-average (but growing) share in hospitality. Most cluster activity is based in Benton and Washington Counties, which is not surprising given population numbers
- Sub-cluster strengths vary by county but are strongest in food manufacturing (mainly Animal Slaughtering and Processing), related sub-clusters (e.g., production, mainly Poultry and Egg Production), and other retail (e.g., Warehouse Clubs & Supercenters)
- Food retail (grocery stores in particular) and food distribution appear to be gaps in the region. Food retail has an LQ of less than one in all counties except Carroll County. Food distribution has a low LQ in all counties.
- Food cluster growth over the past decade slightly lagged national growth; hospitality, albeit from a much smaller base, has grown faster than the national rate. Growth varies by sub-cluster – the NWA region grew at a slower rate than the U.S. from 2002 to 2012 in production, food manufacturing, food and other retail, and other distribution; it grew faster than the U.S. in packaging, food distribution, services, and hospitality
- Employment has likely been impacted by a slight decline in very large establishments, which offsets gains in employment from the increase in small- and medium-sized establishments

Occupations

- Food and hospitality occupations in the Fayetteville–Springdale–Rogers metropolitan statistical area (MSA) increased by 17% from 24.6K in 2005 to 28.8K in 2012. These occupations are expected to grow by 10% over the next decade, an increase in ~2.8K jobs
- Occupations with the largest numbers of projected job openings in the MSA represent mostly lower-level service workers – fast food workers, waiters and waitresses, janitors, and maids. However, restaurant cooks and first-line supervisors are also expected to see significant gains
- Going forward, the sub-clusters with the largest amount of growth in the cluster will be in services, hospitality, other retail, and food manufacturing. Several occupations within specific food and hospitality industries have been identified as potential opportunities

Demographic

- The NWA region is growing faster than the U.S. (34% v. 10%), adding ~120K people between 2000 and 2008-12. Nearly all growth occurred in Benton and Washington Counties.

Additionally, the region's population is projected to grow by nearly 30% between 2013 and 2020.

- Median household incomes and educational attainment levels vary significantly by county. Benton and Washington Counties have higher incomes as well as higher educational attainment levels. However, there have been some impressive gains in the other counties – e.g., the percentage of people in Carroll County with less than a high school degree declined by 33% from 2000 to 2008-12, compared to a decline of only 27% at the national level

Peer Analysis

- While overall food cluster establishment sizes are not noticeably different in the NWA region compared to peers, there are significant differences within certain sub-clusters. Food manufacturing in particular has a different firm size makeup in the NWA region than its peers. Specifically, the region has a much higher percentage of large firms and a much lower percentage of smaller firms as compared to peers. Food distribution establishments also trend larger in the NWA region, but only slightly so; however, the NWA region has many more food distribution establishments compared to peers on a per capita basis, which appears to be driven by the poultry and livestock industries. The NWA region also appears to trend larger in the warehousing and storage industry.
- While food services establishments are not noticeably different in the NWA region, its food retail establishments are. The region's grocery stores trend larger than peers. In addition, on a per capita basis, the region ranks nearly last in three of four food retail categories that were analyzed, meaning that it has fewer food retail outlets than would be expected given the size of its population. The region ranks higher, however, in warehouse clubs and supercenters, which could reflect the presence of Walmart and/or a greater dependence on these stores for food purchases.
- The NWA region's farms have a much different profile than peer regions driven mainly by the poultry industry. Farms in the NWA region tend to be smaller in terms of acreage, larger in terms of sales volume, and have higher value of product per acre when compared to peers. These differences can be explained by the higher percentages of farms with cattle/calves and poultry production, which tend to have lower acreage requirements and higher value product than others.

Food and Hospitality Overview

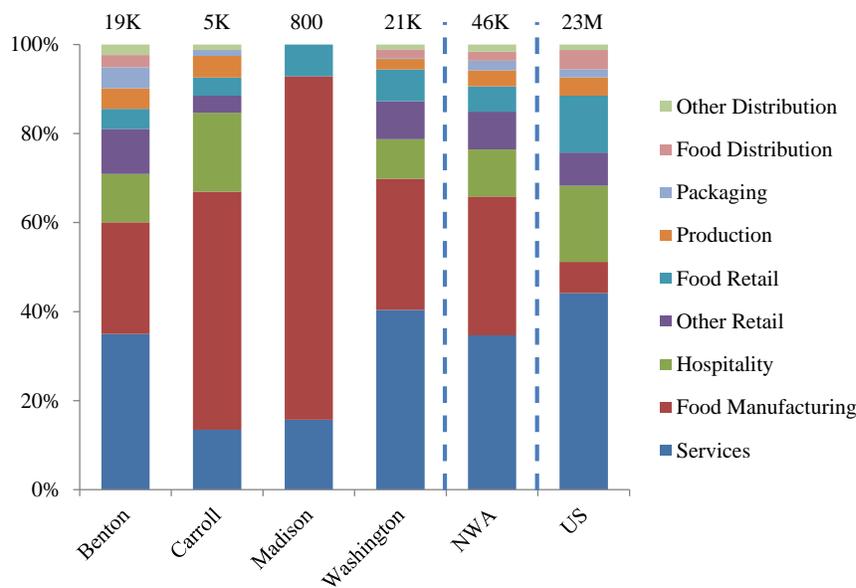
There are more than 46K food and hospitality jobs in Northwest Arkansas, approximately 89% of which (41K) is in food and 11% (5K) is in hospitality. Food and hospitality combined account for 23% of all jobs, compared to only 17% of all jobs in the U.S. This is due to the region's strength in food, rather than hospitality. In NWA, food jobs account for 21% of all employment compared to 15% for the U.S. Hospitality jobs account for only 2% of NWA's total

employment compared to 3% for the U.S. Similarly, food has an above-average LQ in the region (1.4) while hospitality is below average (0.8). Nearly all food and hospitality employment is located in Benton and Washington Counties. This is not surprising given that these counties are much larger than the others. Total employment in Benton and Washington Counties is 97K and 92K, respectively, compared to 10K in Carroll County and only 3K in Madison County.

NWA Sub-Cluster Strengths and Gaps

The NWA region’s strength in food is due mainly to its employment in food manufacturing. As can be seen in Figure 1 below, food manufacturing in the region as well as its respective counties makes up a much larger percentage of total cluster employment than it does at the national level.

Figure 1: Food Employment, Percentage of Total – NWA v. U.S.



Source: QWI / QCEW / CBP

The NWA region has a higher-than-average share of employment in several food sub-clusters, most notably in production, food manufacturing, packaging, and food services. An overview of the regional and county strengths can be found in Figure 2 below.

Figure 2: NWA and County Location Quotients

Sub-Cluster	NWA	Benton County	Carroll County	Madison County	Washington County
Production	1.2	1.3	3.7	-	0.8
Food Manufacturing	5.9	4.1	23.9	17.1	5.6
Packaging	1.6	3.0	2.3	-	0.1
Other Manufacturing	-	-	-	-	-
Food Distribution	0.6	0.7	-	-	0.6
Other Distribution	1.7	2.2	3.0	-	1.1
Food Retail	0.6	0.4	1.0	0.9	0.7
Other Retail	1.5	1.6	1.6	-	1.5
Services	1.1	0.9	1.0	0.6	1.2
Hospitality	0.8	0.7	3.3	-	0.7
Total Food	1.4	1.2	3.0	1.8	1.4
Total Hospitality	0.8	0.7	3.3	-	0.7
Total Food + Hospitality	1.3	1.1	3.1	1.5	1.3

Source: QWI / QCEW / CBP

The region’s food production employment is based in Benton County (880 employees), Carroll County (260) and Washington County (500), with Benton and Carroll Counties having a higher-than-average share of employment in this sub-cluster. Production employment in all three counties is nearly all related to the Poultry and Egg Production industry as well as supporting industries (Support Activities for Animal Production and Water, Sewage, and Other Systems). While there are some smaller poultry and egg firms, most employment is concentrated in a handful of large corporations located in the region (mainly Tyson Foods and its contract farms).²

The region and each of the counties have higher-than-average shares of food manufacturing employment. Overall, there are approximately 14K employees working in food manufacturing, with 6K located in Washington County, 5K in Benton County, 3K in Carroll County, and 600 in Madison County. Key industries in the region include Animal Slaughtering and Processing (6.8K employees), Bakeries and Tortilla Manufacturing (2.4K), and Fruit and Vegetable Preserving and Specialty Food Manufacturing (960). Note that these numbers are likely lower than the actuals. Food manufacturing data for Carroll and Madison Counties are not broken out by industry; there are an additional (unallocated) 4.2K employees in the NWA region, many of which are likely working in the industries mentioned above. The region – as well as Benton and Washington Counties, and likely Carroll and Madison as well – have above-average shares of employment in the three industries listed above. Again, much of the Animal Slaughtering and Processing employment is based on Tyson and others (e.g., Butterball, George’s Inc.). Allen Canning Company appears to be the region’s large firm in Fruit and Vegetable Preserving and Specialty Food Manufacturing. There are ~35 retail and commercial bakeries in the NWA

² Based on EMSI / Equifax Business-Level Data, Pulled 2/2014

region; Ozark Empire Distributors appears to be the largest, with 345 employees listed in EMSI. Hostess was also established in the region but it is unclear if they remain in business.³

Food packaging is also a strength in the region. Specifically, the Plastics Bag and Pouch Manufacturing industry employs ~800 people in the region and has an LQ of 20.4. Nearly all of this employment is in Benton County. Large packaging firms include R&R Solutions, Packaging Specialties, and Rockline Industries.⁴

Food retail and food distribution appear to be gaps in the region. Food retail has an LQ of less than one in all counties except Carroll County. Food distribution has a low LQ in all counties.

Sub-Cluster Growth

From 2002 to 2012, the NWA region's food and hospitality cluster grew slightly less than the national rate (8% v. 9%). However, the region's food cluster underperformed more significantly, growing only 6% compared to 11% for the U.S. Hospitality employment, while much smaller than food, grew by more than 27% in the region compared to even growth in the U.S.

Percent growth as well as relative performance from 2002 to 2012 varies widely by sub-cluster. On a percentage basis, the region underperformed the U.S. in other retail (nearly all of it in the Other General Merchandise Stores, i.e., Warehouse Clubs & Supercenters), other distribution (mainly the Farm Supplies Merchant Wholesalers and Refrigerated Warehousing and Storage industries), production (Poultry and Egg Production), food retail (Grocery Stores), and food manufacturing (mainly in Fruit and Vegetable Preserving and Specialty Food Manufacturing) but outperformed the U.S. in services (by nearly 2x with gains in Full- and Limited-service Restaurants and Other Food Services), food distribution (Grocery and Related Product Merchant Wholesalers), hospitality (Traveler Accommodation, Other Amusement and Recreation Industries, and Museums, Historical Sites, and Similar Institutions), and Packaging (Converted Paper Product Manufacturing and Plastics Bag and Pouch Manufacturing). Refer to Figure 3 below.

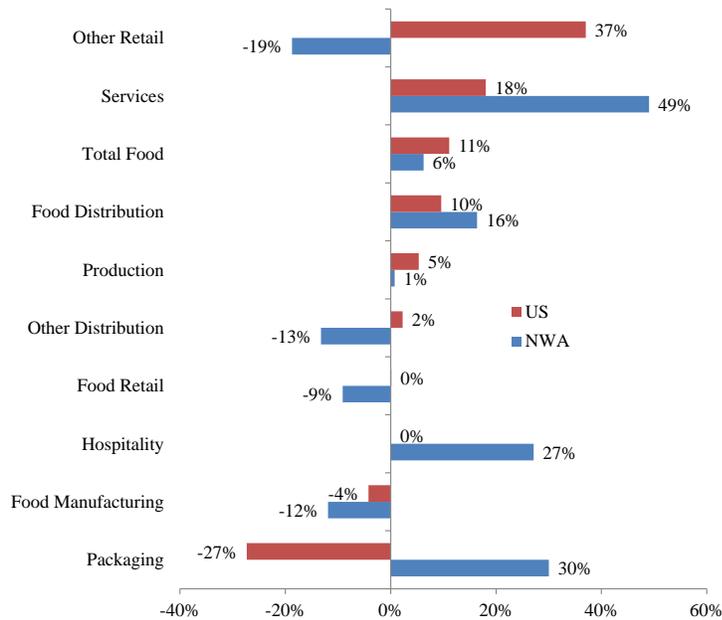
On an absolute basis, the largest gains in the NWA region were in services (5.3K) and hospitality (1.0K); the largest declines were in food manufacturing (1.9K) and other retail (910). Given that most services and hospitality establishments are small, it appears to be an influx of several new firms, rather than one or a handful of large firms, that is driving growth in these two sub-clusters. In addition, although overall food manufacturing employment has declined, there have been a handful of large establishments that have recently been founded in the region. In at least one case, however, the new firm replaced an existing one, explaining why there may not have been a

³ Ibid.

⁴ Ibid.

resultant jump in employment.⁵ Establishment trends noted below also indicate the loss of some large food manufacturing establishments over the past decade.

Figure 3: Employment Growth, 2002-12 – NWA v. U.S.



Source: QWI / QCEW / CBP

Establishment Trends

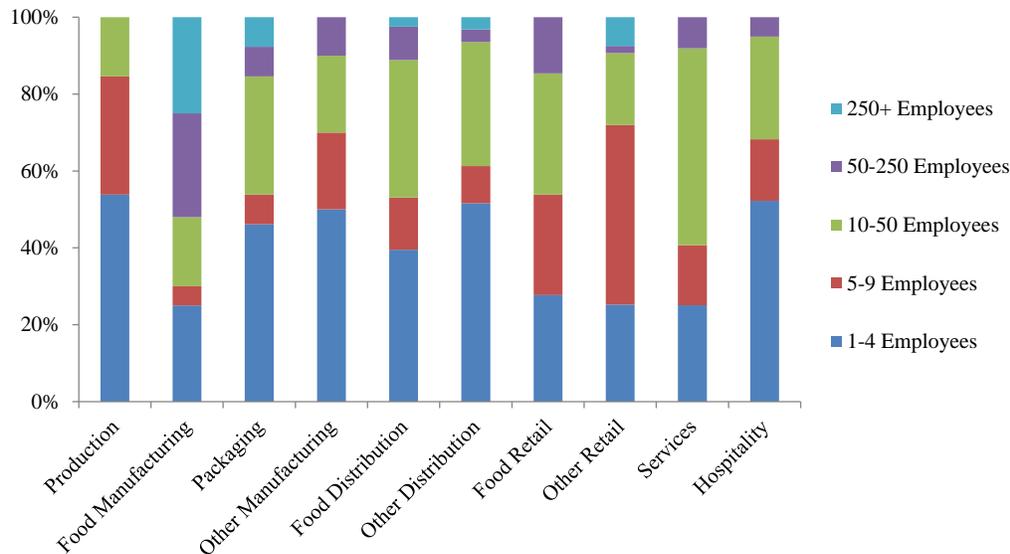
In 2011, there were nearly 1,700 food and hospitality establishments in the NWA region, up from 1,350 in 2002, an increase of 25%. Most of this growth has occurred in Benton County (which increased by ~50%, or 225 new establishments) and Washington County (which increased by ~20%, or 138 new establishments). Madison County had virtually no change in establishments, while Carroll County saw a decline of 25 establishments.

Gains occurred in the small- and medium-sized establishment size categories. For example, establishments with 10-19 employees increased by 50%, or 115 new establishments, and establishments with 100-249 employees increased by over 100%, or 18 new establishments. Meanwhile, there was a decline in large establishments, with establishments with 500-999 employees declining by 11% (or 2 establishments lost) and firms with 1K+ employees declining by 8% (1 establishment lost). (Note that these firms may also have downsized and may be reflected in the medium-sized establishment categories.)

⁵ Butterball took over a Cargill Plant in 2006. See http://www.nytimes.com/2011/11/24/us/ozark-ark-a-town-that-runs-on-turkey.html?pagewanted=all&_r=0

As can be seen in Figure 4 below, size categories vary depending on the sub-cluster. Notably there is a much higher percentage of large establishments in food manufacturing as well as a handful of large establishments in other industries, including packaging, food and other distribution (e.g., Warehousing and Storage), and other retail (e.g., Warehouse Clubs and Supercenters).

Figure 4: Establishment Size Categories – NWA Region (2011)



Source: CBP

Large establishments (500 employees or more) can be found in Benton, Carroll, and Washington Counties. Benton County has six establishments in the 500-999 range and two in the 1K+ range; Carroll County has four establishments in the 1K+ range; and Washington County has eight establishments in the 500-999 range and five in the 1K+ range. These establishments are all in either the Animal Slaughtering and Processing and Warehouse Clubs and Supercenters industries.

Food and Hospitality Occupations

Overall

Defined narrowly, food and hospitality occupations in the Fayetteville–Springdale–Rogers MSA totaled ~28.8K jobs in 2012, up 17% from 24.6K in 2005.⁶ These occupations (based on the

⁶ Note that occupational data were only available at the MSA (and not the county) level. Here the MSA is used as a proxy for the NWA region.

MSA's current occupational mix and national growth rates) are expected to grow by 10% over the next decade, an increase in ~2.8K jobs. Most food and hospitality occupations are related to food; the MSA's food occupations totaled ~21.1K jobs in 2012, up 19% from 17.8K in 2005. These occupations are expected to grow by 8% over the next decade, an increase in ~1.8K jobs. Non-food related hospitality occupations totaled 7.7K in 2012, up 33% from 5.8K in 2005. These occupations are expected to grow by 13% over the next decade, an increase in ~1.0K jobs.⁷

Largest Food and Hospitality Occupations

In the MSA, there are ten food occupations (narrowly defined) with at least 500 employees. As can be seen in Figure 5 below, these include mostly food-preparation occupations along with servers (e.g., waiters/waitresses and hosts/hostesses). Most occupations grew from 2002 to 2012, with large percentage increases in cook and server occupations. Going forward, most of these occupations are expected to grow between 5% and 15%. The only exception is fast food cooks, which are expected to decline slightly (-1%).

In terms of job characteristics, wages range from \$17K for serving occupations and dishwashers up to \$30K for first-line supervisors of food preparation and serving workers. Cook occupations earn between \$18K and \$22K. Except for serving and supervisor positions, a majority of jobs in each of the occupations is filled by people with a high school degree or less. In some cases (e.g., cooks, meat cutters/trimmers), approximately three out of every four workers has a high school degree or less. For all of these occupations (with supervisors being the only exception), a high school degree is not a requirement for entry into the occupation, and most occupations require no work experience in a related occupation prior to entry; restaurant cooks and first-line supervisors require less than five years in a related occupation. Finally, most of these occupations provide short-term on the job training. The restaurant cook occupation provides moderate on-the-job training, while supervisors receive none (presumably because they have received required training in a related occupation).

Non-food related hospitality occupations with at least 500 employees in the MSA include Janitors and Cleaners, Maids and Housekeepers, Landscaping and Groundskeeping Workers, and Hotel, Motel, and Resort Desk Clerks. These occupations all increased in the region from 2005 to 2012 and are projected to grow by 12% to 14% over the coming decade. Wages ranges from \$17.8K for maids and housekeepers up to \$23.1K for Landscaping and Groundskeeping Workers. Most workers have a high school degree or less, and these jobs offer Short-term on-the-job training.

⁷ Note that many food and hospitality occupations overlap (e.g., waiters and waitresses).

Figure 5: Fayetteville–Springdale–Rogers MSA – Top Food Occupations

OCC Description	Employment and Growth				Job Characteristics & Requirements							
	EMP 2012	EMP 2022 Proj.	Growth 2005-12	Growth Proj. 2012-22	Average Wage 2012	Less than High School	High School	Some College or Associates Degree	Bachelors Degree or Above	Typical education needed for entry	Work experience in a related occupation	Typical on-the-job training needed to attain competency in the occupation
Waiters and Waitresses	4,490	4,741	65%	6%	\$ 17,930	15%	33%	37%	15%	Less than high school	None	Short-term on-the-job training
Combined Food Preparation and Serving Workers, Including Fast Food	3,690	4,214	30%	14%	\$ 17,140	22%	45%	27%	6%	Less than high school	None	Short-term on-the-job training
Meat, Poultry, and Fish Cutters and Trimmers	2,440	2,569	-27%	5%	\$ 23,260	35%	43%	18%	4%	Less than high school	None	Short-term on-the-job training
Cooks, Restaurant	1,910	2,191	82%	15%	\$ 18,380	32%	41%	22%	5%	Less than high school	Less than 5 years	Moderate-term on-the-job training
Cooks, Fast Food	1,370	1,363	2%	-1%	\$ 18,050	32%	41%	22%	5%	Less than high school	None	Short-term on-the-job training
First-Line Supervisors of Food Preparation and Serving Workers	1,190	1,344	0%	13%	\$ 29,080	13%	37%	36%	14%	High school diploma or equivalent	Less than 5 years	None
Cooks, Institution and Cafeteria	960	1,087	25%	13%	\$ 22,370	32%	41%	22%	5%	Less than high school	None	Short-term on-the-job training
Food Preparation Workers	760	787	-18%	4%	\$ 18,220	31%	38%	23%	8%	Less than high school	None	Short-term on-the-job training
Dishwashers	560	595	-28%	6%	\$ 17,390	46%	38%	14%	3%	Less than high school	None	Short-term on-the-job training
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	530	559	51%	6%	\$ 17,590	15%	33%	34%	18%	Less than high school	None	None

Source: BLS, Project Team Analysis

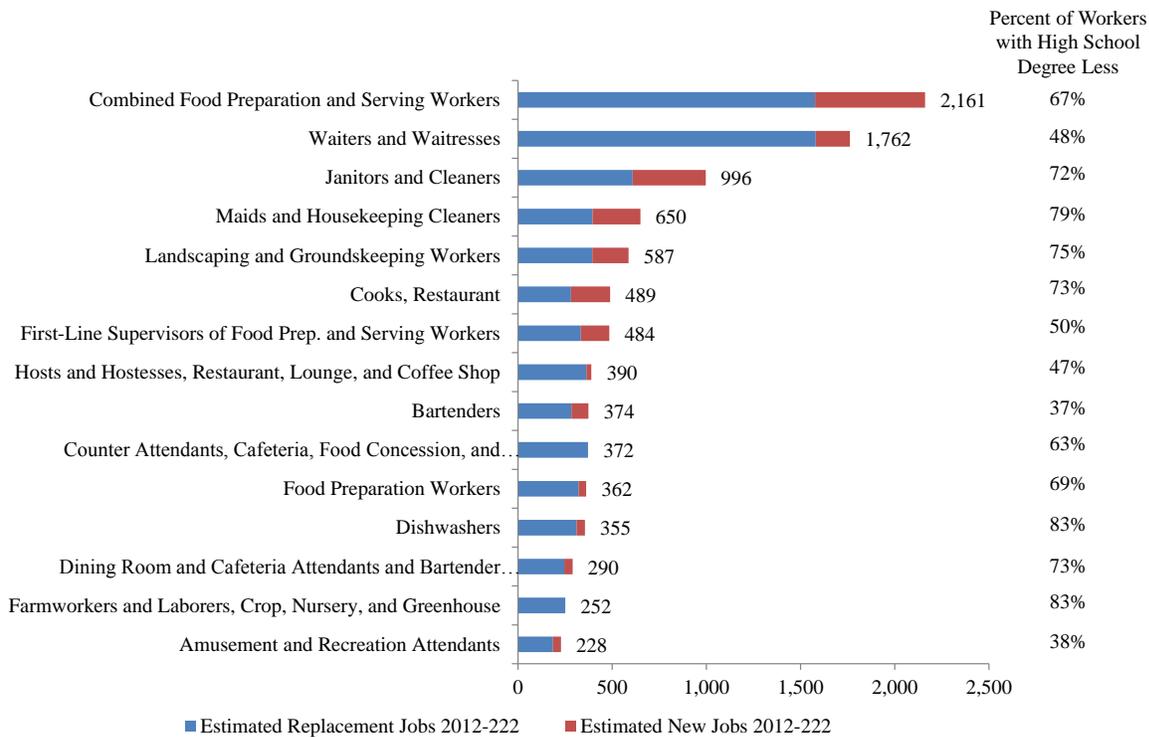
Largest Opportunities by Occupation

Occupations with the largest numbers of projected job openings in the MSA are shown in

Figure 6. These represent occupations that have a fairly sizeable presence in the region that are also expected to grow over the next decade at the national level. The largest of these occupations represent lower-level service workers across food and hospitality occupations – fast food workers, waiters and waitresses, janitors, and maids. However, restaurant cooks and first-line supervisors are also expected to grow. Nearly all of these occupations have a high percentage of jobs filled by workers with a high school degree or less. Note also that high-turnover occupations, such as waiters and waitresses, have a higher percentage of job openings that are replacement jobs rather than new jobs.

Other notable occupations that are projected to have new (rather than replacement) job openings include Institution and Cafeteria Cooks (75 new jobs), Nonrestaurant Food Servers (67), First-Line Supervisors of Housekeeping and Janitors (44), First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers (36), Meeting, Convention, and Event Planners (43), and Dieticians and Nutritionists (20).

Figure 6: NWA Region Projected Job Openings (2012-22)



Source: BLS, Project Team Analysis

Occupations by Industry

An occupation-by-industry analysis was conducted to understand the occupational trends occurring across the region’s food and hospitality industries. This analysis was done for the NWA region by applying U.S. occupation splits to NWA total jobs numbers. These numbers differ slightly from the overall numbers provided above given the different sources, methodologies, and geographies (i.e., MSA v. NWA). According to this analysis, the food cluster and its related occupations in the NWA region are expected to grow between 6.7% and 8.5% over the next decade, as per the table in Figure 7 below. Similarly, the hospitality cluster and its related occupations are expected to grow at a slightly higher rate between 10.4% and 11.4%. In comparison, all occupations in the total economy are projected to grow by 10.7%, indicating that food cluster growth will be slightly below average, and hospitality growth will be slightly above it.

Figure 7: Employment by Occupation Type and Cluster (2012-22) – NWA Region

Occupation Type / Metric	Food Cluster				Hospitality Cluster			
	Emp, 2012	Emp, 2022	Absolute Change, 2012-22	Emp Growth	Emp, 2012	Emp, 2022	Absolute Change, 2012-22	Emp Growth
All Occupations	41,417	44,185	2,768	6.7%	4,889	5,421	532	10.9%
Food Occupations - Broad	23,089	24,741	1,653	7.2%	1,178	1,309	130	11.0%
Food Occupations - Narrow	21,077	22,616	1,540	7.3%	988	1,090	102	10.4%
Hospitality Occupations - Broad	20,825	22,533	1,708	8.2%	3,356	3,740	384	11.4%
Hospitality Occupations - Narrow	18,825	20,421	1,596	8.5%	2,738	3,047	309	11.3%
Food & Hospitality Occupations - Broad	23,577	25,268	1,691	7.2%	3,361	3,745	384	11.4%
Food & Hospitality Occupations - Narrow	21,557	23,135	1,578	7.3%	2,743	3,053	310	11.3%

Source: BLS, Project Team Analysis

Going forward, the sub-clusters with the largest amount of growth in food and hospitality occupations will be in services, hospitality, other retail, and food manufacturing. Figure 8 provides an overview of the absolute change in employment by occupation type and sub-cluster, while Figure 9 provides some specific industry/occupation opportunities.

Figure 8: Absolute Change in Employment by Occupation Type and Sub-Cluster (2012-22) – NWA Region

Occupation Type / Metric	Production	Food Mfg.	Packaging	Food Dist.	Other Dist.	Food Retail	Other Retail	Services	Hospitality
All Occupations	56	172	(71)	107	105	67	884	1,447	532
Food Occupations - Broad	(20)	104	(4)	17	10	12	146	1,387	130
Food Occupations - Narrow	(24)	112	-	5	0	23	43	1,379	102
Hospitality Occupations - Broad	4	112	(4)	15	10	13	165	1,392	384
Hospitality Occupations - Narrow	(0)	120	(1)	3	2	24	62	1,386	309
Food & Hospitality Occupations - Broad	(20)	107	(4)	18	12	14	172	1,393	384
Food & Hospitality Occupations - Narrow	(24)	115	(1)	6	2	25	69	1,386	310

Source: BLS, Project Team Analysis

Figure 9: Industry/Occupation Combinations

OCC Description	Industry	Estimated Job Openings, 2012-22	New Jobs, 2012-22	Replacement Jobs, 2012-22	Average Wage 2012	Percent of Workers with a High School Degree or Less	Typical education needed for entry	Work experience in a related occupation	Typical on-the-job training needed to attain competency in the occupation
Industry/Occupations Combinations with Highest Number of Job Openings and At Least 10 New Jobs									
Combined food preparation and serving workers, including fast food	Restaurants and Other Eating Places	2,091	613	1,478	\$ 17,140	67%	Less than high school	None	Short-term on-the-job training
Waiters and waitresses	Restaurants and Other Eating Places	1,737	166	1,571	\$ 17,930	48%	Less than high school	None	Short-term on-the-job training
Cooks, restaurant	Restaurants and Other Eating Places	498	236	262	\$ 18,380	73%	Less than high school	Less than 5 years	Moderate-term on-the-job training
Meat, poultry, and fish cutters and trimmers	Animal Slaughtering and Processing	467	124	343	\$ 23,260	78%	Less than high school	None	Short-term on-the-job training
Hosts and hostesses, restaurant, lounge, and coffee shop	Restaurants and Other Eating Places	409	31	378	\$ 17,590	47%	Less than high school	None	None
Cashiers	Other General Merchandise Stores	406	164	242	\$ 18,520	56%	Less than high school	None	Short-term on-the-job training
First-line supervisors of food preparation and serving workers	Restaurants and Other Eating Places	401	145	256	\$ 29,080	50%	High school diploma or	Less than 5 years	None
Retail salespersons	Other General Merchandise Stores	386	243	143	\$ 23,870	37%	Less than high school	None	Short-term on-the-job training
Meat, poultry, and fish cutters and trimmers	Food Manufacturing	374	111	263	\$ 23,260	78%	Less than high school	None	Short-term on-the-job training
Dishwashers	Restaurants and Other Eating Places	315	31	283	\$ 17,390	83%	Less than high school	None	Short-term on-the-job training
Additional Industry/Occupation Combinations with Job Openings and Higher-than-Average Wages and/or Moderate-Term On-the-Job Training or Above*									
Industrial machinery mechanics	Food Manufacturing	139	56	83	\$ 41,190	54%	High school diploma or	None	Long-term on-the-job training
First-line supervisors of retail sales workers	Other General Merchandise Stores	97	103	N/A	\$ 36,970	37%	High school diploma or	Less than 5 years	None
Production workers, all other	Food Manufacturing	91	12	78	\$ 22,850	69%	High school diploma or	None	Moderate-term on-the-job training
Inspectors, testers, sorters, samplers, and weighers	Food Manufacturing	79	41	37	\$ 27,150	49%	High school diploma or	None	Moderate-term on-the-job training
Packaging and filling machine operators and tenders	Animal Slaughtering and Processing	61	20	41	\$ 25,770	78%	High school diploma or	None	Moderate-term on-the-job training
Water and wastewater treatment plant and system operators	Water, Sewage and Other Systems	60	22	37	\$ 33,570	43%	High school diploma or	None	Long-term on-the-job training
Production workers, all other	Animal Slaughtering and Processing	57	14	43	\$ 22,850	69%	High school diploma or	None	Moderate-term on-the-job training
Driver/sales workers	Restaurants and Other Eating Places	57	25	32	\$ 29,800	68%	High school diploma or	None	Short-term on-the-job training
Maintenance and repair workers, general	Animal Slaughtering and Processing	50	14	36	\$ 34,190	58%	High school diploma or	None	Long-term on-the-job training
Inspectors, testers, sorters, samplers, and weighers	Animal Slaughtering and Processing	46	47	N/A	\$ 27,150	49%	High school diploma or	None	Moderate-term on-the-job training
Industrial machinery mechanics	Animal Slaughtering and Processing	46	28	18	\$ 41,190	54%	High school diploma or	None	Long-term on-the-job training

* Note: Average wages here refers to the weighted average wage of all (narrowly-defined) food and hospitality industry/occupation combinations. These wages are highlighted in green.

Source: BLS, Project Team Analysis

Population Trends

The NWA region has been growing faster than the U.S. as a whole. From 2000 to 2012, the region saw its population grow by ~120K people from 350K to 470K, an increase of 34%. Over the same time period, the U.S. and the State of Arkansas grew by only 10% and 9%, respectively. Nearly all of the growth occurred in two counties – Benton County grew by nearly 69K people from 153K to 222K, an increase of 45%, and Washington County grew by more than 46K people from 158K to 204K, an increase of 29%. Carroll and Madison Counties grew at a rate similar to that of the state as a whole. This growth is expected to continue going forward. The NWA region's population is projected to grow by nearly 30% between 2013 and 2020, with most growth occurring in Benton County (34%) and Washington County (22%).⁸

In the 2008-12 timeframe, the NWA region's median household income was \$46.4K. This is about 13% less than the national average of \$53.1K but 14% above the state average of \$40.5K. There is a wide variation in incomes by county, with Benton (\$53.5K) and Washington (\$41.4K) on the high end and Carroll (\$35.6K) and Madison (\$33.5K) on the low end. In real terms, median household incomes have been declining across the board.⁹ From 2000 to 2008-12, median household incomes in the U.S. and Arkansas declined by 8% and 9%, respectively. Incomes in the NWA region declined by 7% but there was again variation by county. Madison and Washington Counties both saw declines of 13%, while Carroll County declined 8% (similar to the U.S.) and Benton County incomes declined by only 4%.¹⁰

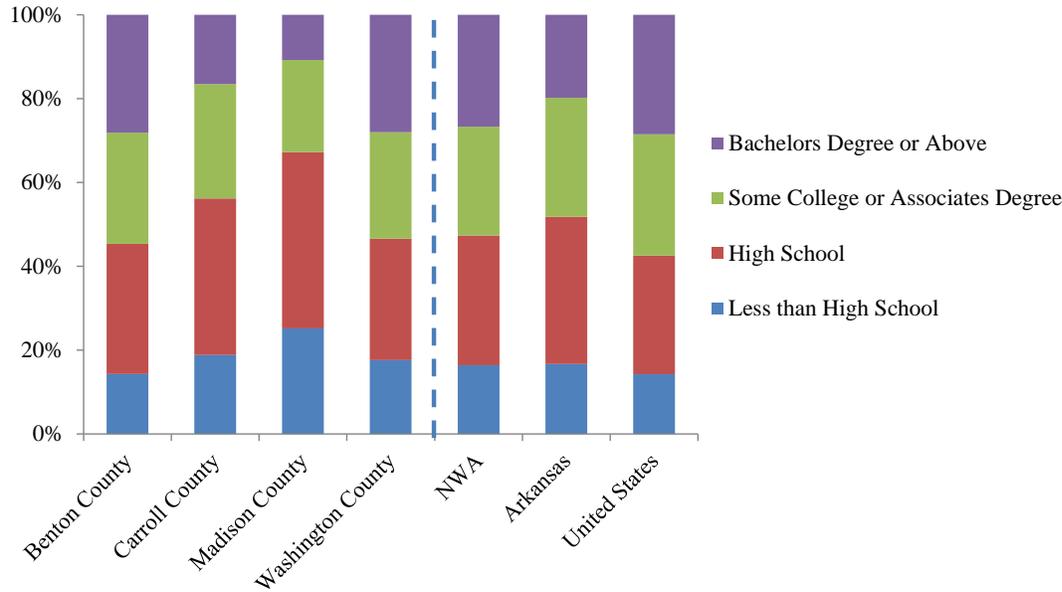
Educational attainment levels in the NWA region are slightly below U.S. levels but slightly above state levels. There is also wide variation by county, with Madison and Carroll Counties having much higher percentages of people with either a high school degree or less than a high school degree. However, there has been some improvement over time. For example, the percentage of people in Carroll County with less than a high school degree declined by 33% from 2000 to 2008-12, compared to a decline of only 27% at the national level. In addition, the percent of people with a bachelor's degree or above in Benton and Carroll Counties increased by 38% and 19%, respectively, better than the national average of 17%.

⁸ <http://iea.ualr.edu/population-estimates-a-projections.html#proj>

⁹ 2008-12 ACS

¹⁰ U.S. Census Bureau; 2000 Decennial Census; 2008-12 ACS; BLS CPI Inflation Calculator

Figure 10: Educational Attainment Levels (2008-12, By Geography)



Source: American Community Surveys, 2008-12

Large population increases in parts of the NWA region will likely drive the overall growth of food and hospitality employment. This will mainly occur through growth in food distribution, services, and retail, which are more local in nature and typically expand along with population. Food manufacturing is likely to be less impacted by local population growth and more responsive to regional and national food trends. Wage and education levels are likely to impact food trends as well. For example, as people have more disposable income, they are more likely to eat out at more expensive restaurants. Given the variation in these factors across counties, it is likely that the impact of demographics on the region’s food cluster will vary as well (e.g., food services might increase fastest in Benton County given its population, wage, and educational attainment trends).

Peer Analysis

Intro

The project team conducted a peer analysis in order to develop a better understanding of the characteristics and performance of the NWA region's food cluster. Peers included the respective regions (i.e., the metropolitan statistical area, the micropolitan statistical area, or, in one case, the county) of the following nine cities: Springfield MO, Branson MO, Joplin MO, Tulsa OK, Talequah OK, Muskogee OK, Stillwell OK, Fort Smith AR, and Harrison AR. All of these areas were also captured as part of one larger region (i.e., the BioRegion). Finally, the states of Arkansas, Missouri, and Oklahoma, as well as the United States overall were also analyzed as a comparison. For each of these geographies, the team looked at establishments (size and per capita) and farm statistics.

Establishment Size

For the food cluster overall, the size of establishments in the NWA region was not noticeably different from that of other geographies; however, the region's establishments do trend larger within certain parts of the cluster. Refer to Figure 11 for establishment size data. The largest difference is in the food manufacturing sub-cluster. Approximately 25% of all food manufacturing establishments in the region have 250 employees or more, and ~52% of establishments have 50 employees or more. As a comparator, only 11% of food manufacturing establishments in the BioRegion have 250 employees or more and only 27% of establishments have 50 employees or more. While there is approximately the same percentage of small/medium firms (10 to 50 employees) in both regions (18% in NWA v. 21% in the BioRegion), there is a difference in the percentage of small firms (less than 10 employees). Approximately 30% of food manufacturing establishments in the NWA region are small, compared to 52% of establishments in the BioRegion. Among specific BioRegion peers, the Fort Smith AR-OK and Joplin-Miami MO-OK MSAs trend slightly larger than the others but still have a smaller percentage of establishments in the larger size categories than does the NWA region.

The food distribution sub-cluster, which includes food wholesaling industries, also trends larger in the NWA region, but the differences with the BioRegion are not as large as in food manufacturing. For example, 2% of food distribution establishments in the NWA region are large (250 employees or more), compared to 1% in the BioRegion. However, the BioRegion has a higher percentage of medium/large firms (14%) than does the NWA region (9%), and one peer, Springfield MO, trends much larger than the NWA region; 26% of its firms are medium/large or large compared to only 11% for the NWA region. The NWA region again has fewer small firms than the BioRegion (53% compared to 59%). Although the NWA region's food distribution establishments are not significantly larger than its peers, it does have more of them. On a per capita basis, the NWA region ranks 2nd among all peers; only Harrison, AR ranks higher, and

this is a much smaller region in terms of population (only 45K compared to 470K in NWA). The large number of food distribution establishments appears to be driven by the poultry and livestock industries. For example, more than 40% of the food distributors in the region are involved in poultry and poultry product wholesaling, livestock wholesaling, other farm product raw material wholesaling, or farm supplies wholesaling.¹¹

Although the data are difficult to interpret given the relatively low number of establishments, the NWA region does appear to trend larger in the warehousing and storage industry. Of the 25 such establishments in the region, five (or 20%) of them are large (i.e., 250 employees or more). This ranks the NWA region first among its peers – the next highest percentage, in Springfield MO, is only 6%.

The NWA region's food services establishments appear to be about average in size. For example, approximately 8% of the food services establishments in the NWA region and in the BioRegion are medium/large (note that extremely few large establishments in the sub-cluster). In addition, the NWA region appears to have an average number of food services establishments when compared to other peers, ranking it in the middle of its peers.

While the NWA region's food services sub-cluster is similar to the other geographies, its retail sub-clusters differ. The region's grocery stores trend larger than its peers; for example, 26% of the region's grocery stores are medium/large, compared to only 22% in the BioRegion and 18% nationally (note that there are very few establishments in the large category). Similarly, only 34% of the region's grocery stores are small, compared to 45% in the BioRegion and 61% nationally. Additionally, on a per capita basis, the region ranks nearly last in three of four categories that were analyzed - NWA ranks 13th (out of 15) in food retail overall, 13th in grocery stores specifically, and 11th in other retail, which includes Food (Health) Supplement Stores, Other General Merchandise Stores, and Vending Machine Operators. While the region ranks third in Warehouse Clubs & Supercenters, this may be influenced by the presence of Walmart's corporate headquarters. It may also be that warehouse clubs and supercenters have filled the void created by the region's relative scarcity of grocery stores and other food retail establishments. Interestingly, of the peer regions, Springfield MO also ranks low in terms of grocery stores (12th) and other food retail (14th) but higher in warehouse clubs & supercenters (6th), while Tulsa OK ranks low (10th or below) in all of the food retail categories. Note that food retail / grocery stores on a per capita basis are much lower in both the NWA region and the BioRegion and, to a lesser extent, the states of Arkansas, Missouri, and Oklahoma, than for the United States as a whole.

¹¹ Based on EMSI / Equifax Business-Level Data, Pulled 2/2014

Figure 11: Food Cluster Establishments, By Size

Food Cluster / Food Manufacturing & Distribution

By Sub-Cluster	Food Cluster				Food Manufacturing				Food Distribution				Warehousing & Storage				Refrigerated Warehousing & Storage			
	Small	Small / Medium	Medium / Large	Large	Small	Small / Medium	Medium / Large	Large	Small	Small / Medium	Medium / Large	Large	Small	Small / Medium	Medium / Large	Large	Small	Small / Medium	Medium / Large	Large
NWA	46%	42%	9%	3%	30%	18%	27%	25%	53%	36%	9%	2%	32%	28%	20%	20%	N/A	50%	25%	25%
Bio Region	50%	40%	9%	2%	52%	21%	16%	11%	59%	27%	14%	1%	57%	33%	9%	1%	40%	40%	20%	N/A
Fort Smith AR-OK MSA	49%	39%	8%	3%	32%	26%	16%	25%	71%	17%	13%	0%	39%	48%	13%	0%	N/A	80%	20%	N/A
Joplin-Miami, MO-OK MSA	50%	38%	9%	3%	43%	18%	21%	18%	50%	39%	11%	0%	57%	29%	14%	0%	60%	N/A	40%	N/A
Springfield MO MSA	47%	43%	9%	1%	66%	16%	16%	3%	55%	19%	24%	2%	56%	38%	0%	6%	100%	N/A	N/A	N/A
Tulsa OK MSA	50%	39%	9%	1%	60%	18%	18%	5%	63%	26%	11%	0%	69%	21%	10%	0%	67%	33%	N/A	N/A
Branson MO MISA	57%	34%	9%	1%	72%	17%	11%	0%	67%	33%	0%	0%	50%	50%	0%	0%	N/A	N/A	N/A	N/A
Harrison AR MISA	47%	46%	5%	1%	0%	100%	0%	0%	44%	44%	11%	0%	0%	100%	0%	0%	N/A	N/A	N/A	N/A
Muskogee OK MiSA	44%	44%	11%	1%	36%	55%	9%	0%	57%	29%	14%	0%	25%	50%	25%	0%	N/A	N/A	N/A	N/A
Tahlequah OK MiSA	57%	38%	5%	1%	67%	33%	0%	0%	50%	50%	0%	0%	100%	0%	0%	0%	N/A	N/A	N/A	N/A
Adair County OK County	53%	39%	3%	5%	0%	67%	0%	33%	0%	100%	0%	0%	50%	50%	0%	0%	N/A	100%	N/A	N/A
Arkansas	50%	40%	8%	2%	38%	23%	20%	19%	57%	33%	8%	2%	51%	34%	11%	4%	17%	52%	26%	4%
Missouri	50%	41%	9%	1%	52%	26%	15%	6%	58%	32%	8%	1%	52%	33%	12%	3%	42%	26%	32%	N/A
Oklahoma	51%	39%	8%	1%	55%	25%	13%	7%	59%	31%	9%	1%	62%	25%	9%	4%	45%	55%	N/A	N/A
United States	56%	35%	8%	1%	52%	29%	14%	5%	63%	26%	9%	1%	49%	33%	13%	4%	39%	40%	19%	2%

Food Services and Retail

By Sub-Cluster	Services				Food Retail				Grocery Stores				Other Retail				Warehouse Clubs & Supercenters			
	Small	Small / Medium	Medium / Large	Large	Small	Small / Medium	Medium / Large	Large	Small	Small / Medium	Medium / Large	Large	Small	Small / Medium	Medium / Large	Large	Small	Small / Medium	Medium / Large	Large
NWA	41%	51%	8%	N/A	54%	32%	15%	N/A	34%	40%	26%	N/A	72%	19%	2%	7%	8%	15%	15%	62%
Bio Region	43%	49%	8%	0%	65%	23%	12%	N/A	45%	33%	22%	N/A	69%	19%	3%	8%	2%	N/A	20%	78%
Fort Smith AR-OK MSA	42%	51%	7%	N/A	66%	27%	7%	N/A	47%	41%	12%	N/A	67%	22%	3%	7%	N/A	N/A	25%	75%
Joplin-Miami, MO-OK MSA	41%	51%	8%	N/A	77%	19%	4%	N/A	58%	33%	8%	N/A	75%	12%	4%	10%	N/A	N/A	17%	83%
Springfield MO MSA	40%	52%	8%	0%	56%	26%	19%	N/A	36%	35%	29%	N/A	69%	17%	4%	11%	N/A	N/A	18%	82%
Tulsa OK MSA	44%	48%	8%	0%	65%	20%	15%	N/A	44%	27%	29%	N/A	68%	21%	4%	8%	5%	N/A	20%	75%
Branson MO MISA	49%	41%	9%	N/A	63%	26%	11%	N/A	50%	33%	17%	N/A	83%	8%	N/A	8%	N/A	N/A	N/A	100%
Harrison AR MiSA	38%	59%	4%	N/A	73%	13%	13%	N/A	64%	18%	18%	N/A	56%	39%	N/A	6%	N/A	N/A	N/A	100%
Muskogee OK MiSA	37%	49%	14%	N/A	50%	45%	5%	N/A	36%	57%	7%	N/A	70%	26%	N/A	4%	N/A	N/A	N/A	100%
Tahlequah OK MiSA	44%	50%	6%	N/A	76%	18%	6%	N/A	67%	22%	11%	N/A	75%	17%	N/A	8%	N/A	N/A	N/A	100%
Adair County OK County	64%	36%	N/A	N/A	50%	50%	N/A	N/A	25%	75%	N/A	N/A	83%	N/A	17%	N/A	N/A	N/A	100%	N/A
Arkansas	43%	50%	7%	0%	63%	25%	12%	0%	46%	34%	20%	0%	65%	26%	3%	6%	1%	3%	32%	64%
Missouri	44%	48%	8%	0%	63%	24%	13%	0%	50%	30%	19%	1%	66%	23%	4%	6%	N/A	N/A	37%	63%
Oklahoma	43%	49%	8%	0%	69%	21%	9%	0%	55%	30%	14%	0%	72%	18%	4%	7%	1%	N/A	26%	73%
United States	51%	42%	7%	0%	70%	18%	12%	0%	61%	20%	18%	1%	68%	23%	4%	5%	1%	2%	42%	55%

Source: U.S. Census, County Business Patterns

Farm Analysis

The NWA region has ~7.5K farms, representing 15% of farms in the State of Arkansas but only 6% of the state’s land area. The region represents 8% (1.1M acres) of Arkansas’s total farm acreage (14M acres) and 15% of all of Arkansas’s farmers. In comparison, the BioRegion has about seven times the acreage of NWA (7.6M acres) and represents 10% of the total combined farm acreage of Arkansas, Missouri, and Oklahoma. Refer to Figure 12 for key farm statistics by region.

Figure 12: Farm Counts, Employment, and Land Summary

Geography	Farm Count ('000)	Farmers, Primary Occ. ('000)	Farmers, Other Occ. ('000)	Farm Acreage (M)	Weighted Average of Average Farm Acreage	Weighted Average of Median Farm Acreage
NWA	7.5	3.2	4.4	1.1	144	66
Bio Region	35.8	14.3	21.5	7.6	211	83
Fort Smith AR-OK MSA	6.1	2.5	3.6	1.1	176	76
Joplin-Miami, MO-OK MSA	4.1	1.8	2.4	0.7	180	80
Springfield MO MSA	8.1	3.2	4.9	1.3	156	76
Tulsa OK MSA	9.9	3.8	6.1	3.0	305	90
Branson MO MiSA	1.2	0.5	0.7	0.2	192	107
Harrison AR MiSA	1.9	0.7	1.2	0.4	187	87
Muskogee OK MiSA	1.8	0.7	1.1	0.4	203	85
Tahlequah OK MiSA	1.4	0.6	0.8	0.2	179	80
Adair, OK	1.2	0.5	0.7	0.2	207	97
Arkansas	49.3	22.0	27.4	13.9	281	80
Missouri	107.8	45.0	62.8	29.0	269	115
Oklahoma	86.6	36.1	50.5	35.1	405	137
United States	2,204.8	993.9	1,210.9	922.1	418	80

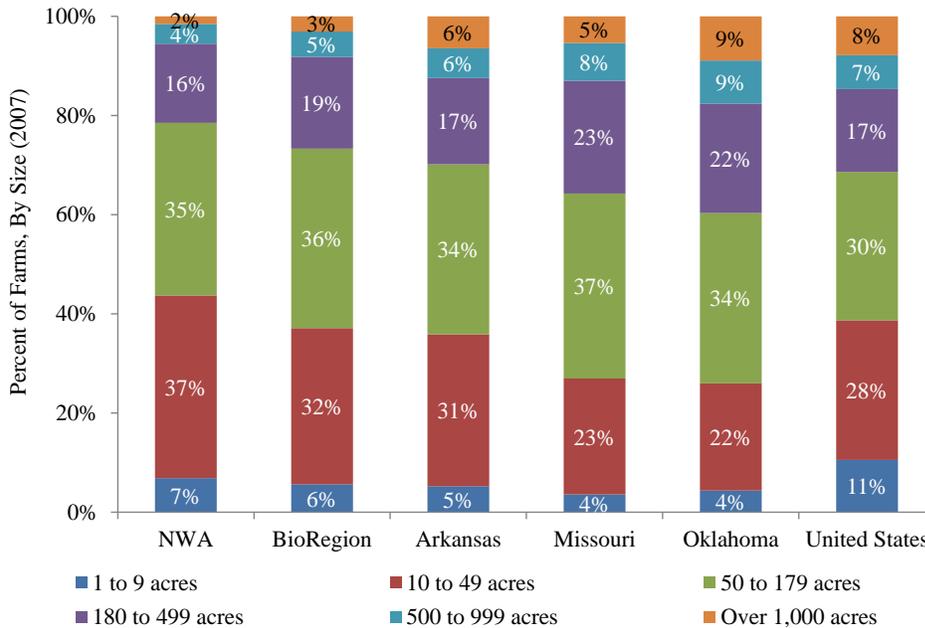
Source: USDA Census of Agriculture, 2007

The median farm size in the NWA region is only 66 acres, while it is 83 acres in the BioRegion and 281 in the state of Arkansas. Approximately 44% of NWA’s farms are 1 to 49 acres in size compared to only 37% in the BioRegion and 36% in Arkansas, while only 21% of NWA’s farms are over 180 acres in size compared to 27% and 30% in the Bioregion and Arkansas, respectively. Refer to Figure 13 below . The discrepancy in size is mainly driven by NWA’s strength in poultry and egg production, which typically have lower acreage requirements than other types of production. Nationally, poultry and egg production has the second lowest average farm acreage (109 acres per farm) of any farm product reported by the USDA’s Census of Agriculture (by comparison, the overall average of all farms is 418 acres).

Figure 13 for an overview of farm size by geography. The discrepancy in size is mainly driven by NWA’s strength in poultry and egg production, which typically have lower acreage requirements than other types of production. Nationally, poultry and egg production has the

second lowest average farm acreage (109 acres per farm) of any farm product reported by the USDA’s Census of Agriculture (by comparison, the overall average of all farms is 418 acres).¹²

Figure 13; Farm Size (By Geography, 2007)



Source: USDA Census of Agriculture, 2007

Farms in the NWA region have extremely high dollar value of product per acre statistics: approximately \$1,200 of product are generated per acre in NWA, which is about 4.5, 2.2 and 3.6 times the rate in the BioRegion, Arkansas, and the United States, respectively. The weighted average value of products sold per farm in NWA is over 3X that of the BioRegion and is higher than in any other analyzed geography. Despite having smaller-sized farms by acreage, NWA has disproportionately large farms by sales volume: 9.4% of all farms in NWA have over half a million dollars in sales, which is over four times that of the BioRegion and just slightly higher than the Arkansas average of 9.3%. The NWA region also has the second-lowest percentage of firms with sales of less than \$2,500 (after the Harrison MicroSA). Generally, the NWA region’s farms-by-sales volume distribution is similar to the BioRegion except for the smallest and largest sales buckets.

¹² USDA Census of Agriculture, 2007

Figure 14: Farm Sales Summary

Geography	Value of Products Sold (\$1,000)	Weighted Average Value of Products Sold Per Farm (dollars)	Percent of All Farms, By Size				
			Less than \$2,500 in Sales	\$2,500 to \$9,999 in Sales	\$10,000 to \$49,999 in Sales	\$50,000 to \$499,999 in Sales	Over \$500,000 in Sales
NWA	\$1,273,159	\$168,764	33%	26%	23%	9%	9%
Bio Region	\$1,975,488	\$55,214	40%	26%	24%	8%	2%
Fort Smith AR-OK MSA	\$510,359	\$83,515	40%	26%	22%	7%	5%
Joplin-Miami, MO-OK MSA	\$422,219	\$102,505	35%	26%	26%	9%	4%
Springfield MO MSA	\$267,642	\$32,953	36%	27%	27%	10%	1%
Tulsa OK MSA	\$288,619	\$29,106	46%	26%	20%	7%	1%
Branson MO MiSA	\$32,503	\$27,383	42%	26%	26%	6%	1%
Harrison AR MiSA	\$138,828	\$72,990	32%	26%	30%	7%	4%
Muskogee OK MiSA	\$52,689	\$28,558	42%	27%	24%	6%	1%
Tahlequah OK MiSA	\$129,816	\$94,411	42%	28%	23%	6%	1%
Adair, OK	\$132,813	\$110,494	37%	26%	23%	10%	3%
Arkansas	\$7,508,806	\$152,166	36%	24%	21%	10%	9%
Missouri	\$7,512,926	\$69,677	37%	21%	25%	14%	3%
Oklahoma	\$5,806,061	\$67,072	40%	23%	24%	11%	2%
United States	\$297,220,491	\$134,807	41%	19%	18%	17%	5%

Source: USDA Census of Agriculture, 2007

A disproportionate percentage of the NWA region’s farms raise cattle and calves and chickens for meat compared to other geographies. More than 70% of farms in the NWA region raise cattle and calves compared to the BioRegion’s 66% and the State of Arkansas’s 57%. While other geographies come close to (and the Harrison MicroSA actually surpasses) the percentage of farms with cattle and calves, no other geography comes close to NWA’s percentage of farm’s with chickens for meat (which is over 8%). This is mainly driven by the Tyson Company and, without the NWA region, the state of Arkansas’s 5% statistic would fall to under 4%. Refer to Figure 15 below.

Figure 15: Percent of Farms with Product Types

Percent of all Farms, By Product									
Geography	Cattle and Calves	Hogs, Pigs, Sheep, and Lambs	Chickens, Layers	Chickens, Meat	Grains	Hay, Haylage, Silage, Greenchop	Vegetables	Fruit and Nut Trees	Other (e.g., Beans, Cotton, Peanuts)
NWA	71%	5%	8%	8%	0%	57%	1%	1%	0%
Bio Region	66%	6%	7%	2%	3%	53%	1%	3%	2%
Fort Smith AR-OK MSA	67%	5%	6%	5%	2%	51%	1%	1%	1%
Joplin-Miami, MO-OK MSA	69%	5%	6%	2%	12%	58%	1%	3%	6%
Springfield MO MSA	68%	5%	7%	0%	2%	61%	1%	1%	1%
Tulsa OK MSA	61%	6%	9%	0%	3%	46%	1%	7%	1%
Branson MO MiSA	68%	5%	7%	1%	0%	45%	1%	1%	0%
Harrison AR MiSA	74%	4%	8%	3%	0%	49%	1%	1%	0%
Muskogee OK MiSA	66%	6%	6%	0%	3%	53%	1%	3%	2%
Tahlequah OK MiSA	68%	7%	9%	1%	0%	51%	1%	2%	0%
Adair, OK	69%	6%	6%	3%	0%	58%	1%	1%	0%
Arkansas	57%	4%	6%	5%	9%	47%	2%	1%	17%
Missouri	54%	5%	6%	1%	23%	55%	1%	1%	18%
Oklahoma	64%	5%	6%	1%	13%	46%	1%	5%	2%
United States	44%	7%	7%	1%	27%	44%	3%	5%	16%

Note: Products are not mutually exclusive. Source: USDA Census of Agriculture, 2007

It should be noted that the vast majority of poultry farmers in Arkansas are under contract, most of them with Tyson Foods, Inc. According to the USDA Census of Agriculture, 97% of all farms raising chickens for meat in Arkansas are under production contracts with a company.¹³ In NWA, there are a total of 609 farms raising chickens for meat; assuming the same 97% production contract rate suggests that ~590 farms in the region are under contract. Many of these farms are contracting to Tyson. In addition to being the corporate headquarters of Tyson Foods, the NWA region is home to three out of 38 (or 8%) of Tyson's chicken processing plants. On average, Tyson has approximately 145 contract poultry farmers per plant.¹⁴ Applying this same ratio to the NWA region suggests that ~434 poultry farms in the region are contracting with Tyson, which would represent ~71% of all poultry farms and 74% of all contracted poultry farms in the region. Tyson also has a high presence in other parts of the state; Arkansas is home to 15 out of 38 (or 39%) of the firm's U.S. plants.¹⁵

¹³ USDA Census of Agriculture, 2007

¹⁴ According to Tyson Foods, Inc.'s Fiscal 2013 Fact Book, there are 38 poultry processing plants and 5.5K contract poultry farmers in the U.S., suggesting an average of 145 contract farms per plant.

¹⁵ Tyson Foods, Inc; Fiscal 2013 Fact Book

NORTHWEST ARKANSAS REGIONAL FOOD ASSESSMENT

APPENDIX C: IMPLEMENTATION RESOURCES

Each of the project team's four broad recommendations is listed below with a brief directory of resources to support implementation. The directory include descriptions and links to organizations and initiatives around the U.S. that can serve as models for similar activities tailored to Northwest Arkansas as well as funding and education resources.

1. Cultivate a Regional Food Identity

Do Not Define Local | Establish a Regional Brand | Tailor Marketing Campaigns to the Region's Diverse Audience | Honor the Diversity of Local Food Stories

Models and Examples

Berkshire Farm & Table, a non-profit that promotes regional food culture in the Berkshire Mountains Western Massachusetts, recently partnered with Tastes on the Fly, a restaurant group that specializes in bringing regional food to airports, to curate a selection of Berkshire-based products for a new retail outlet—Berkshires Farm Market—in Boston's Logan airport. Berkshire Farm & Table also designs virtual "Taste Trails" to educate consumers about the Berkshire's beer, cider, cheese, and charcuterie offerings, and organizes local food events. *Included in final report.* www.berkshirefarmandtable.org

Piedmont Grown promotes the North Carolina Piedmont Region by certifying farmers, farm based businesses, farmers' markets, Local Food System businesses, artisan food producers, and supporting businesses and organizations. Certified farms, businesses, and organizations may use the Piedmont Grown logo and participate in a yearly Farm to Trade Marketing event. <http://www.piedmontgrown.org>

The **Wine Road Northern Sonoma County** is an association of nearly 250 wineries and accommodations that organizes festivals and events featuring member wineries lodging sites. www.wineroad.com

Funding and Other Resources

USDA Farmers Market and Local Food Promotion Program (formerly called the Farmers' Market Promotion Program, renamed in the 2014 Farm Bill) provides grants to increase domestic consumption of, and access to, locally and regionally produced agricultural products, and to develop new market opportunities for farm and ranch operations serving local markets by developing, improving, expanding, and providing outreach, training, and technical assistance to, or assisting in the development, improvement, and expansion of, domestic farmers markets, roadside stands, community-supported agriculture programs, agritourism activities, and other direct producer-to-consumer market opportunities.

www.ams.usda.gov/AMSV1.0/FMPP

2. Coordinate and Grow Regional Supply

Hire a Local Food Coordinator | Develop Farm-to-Plate Regional Meat Supply Chains | Increase and Diversify Fruit and Vegetable Production in the Region | Ensure Long-Term Farmland Viability

Models and Examples

Founded in 2010, **Marksbury Farm Market** is a small-scale, privately owned, processor and butcher shop in Garrard County, Kentucky. Marksbury has a 12,000 sq. ft. USDA-inspected, Animal Welfare Approved slaughterhouse and packaging facility. Sixty percent of their throughput is branded product sold under the Marksbury Farms label and the remainder is processed for farmers selling through direct markets. Marksbury Farms sells grass-fed beef, pastured pork, poultry, and lamb produced with strict standards.

including a grass-based feeding system and no use of antibiotics or steroids. One staff person manages producer relationships and animals procurement and 3 work in sales and marketing: 1 focused on institutions grocery accounts, and 2 focused on restaurants. Currently, Marksbury Farms' distributes their products (with their own small fleet) to 70 restaurants, 4 Whole Foods, and institutional markets like the University of Louisville. *Included in final report.* www.marksburyfarm.com

Adirondack Grazers Cooperative, launched in 2012, is a farmer-owned cooperative in rural New York State. The coop is comprised of 30 farmer members. The Coop staff is responsible for establishing and ensuring common production protocols, scheduling slaughter and processing, marketing and selling the coops' products, and organizing distribution logistics. Currently Adirondack Grazers sells to a number of New York City restaurants and Fresh Direct, a grocery delivery service. *Included in final report.* www.adkgrazers.com

Louisville, Kentucky's Farm to Table Coordinator is the foundation of the Farm to Table Program, which has resulted in \$15 of known sales for every \$1 invested in it by the state, or \$3.2 million in known sales facilitated. The program has also provided education for over 1,000 individuals, including over 300 farmers. In 2011 Louisville was awarded the Outstanding Achievement City Livability Award for its Farm to Table program, sponsored by the U.S. Conference of Mayors. www.louisvilleky.gov/economicdevelopment/farmtotable/

Rutland Area Farm and Food Link (RAFFL) in Rutland, Vermont works to expand availability and access to locally produced foods, bolster the greater Rutland region's agricultural economy, and increase community appreciation and understanding of the positive impact of farms and farmers on the Rutland region. RAFFL publishes a Locally Grown Guide and provides skill-building workshops and one-on-one assistance for young farmers as well as organizing a workplace CSA program. www.rutlandfarmandfood.org

The nonprofit food-hub-without-walls **Red Tomato** coordinates regional produce supply as well as logistics, marketing and a local branding program for a network of Northeast farms. The organization operates with almost no brick-and-mortar infrastructure by contracting with third-party distributors and carriers to transport product from participating farms to wholesale buyers. www.redtomato.org

The **Vermont Land Trust's Farmland Access Program** aims to provide farmers with opportunities to purchase or lease affordable farmland, while preserving farmland and keeping it in agricultural production. www.vlt.org/initiatives/affordable-farmland

Iroquois Valley Farms, LLC is a Certified B Corp. with a social mission to provide long-term land access for family farmers. The company buys farmland that is Certified Organic or in transition to organic production and leases it to beginning farmers at competitive rates with unlimited lease renewals. www.iroquoisvalleyfarms.com

Funding and Other Resources

The 2014 Farm Bill consolidated the Wetlands Reserve Program, Grassland Reserve Program and Farm and Ranch Land Protection Program to create the **Agriculture Conservation Easement Program**. The ACEP provides financial assistance to Indian tribes, state and local governments, and non-governmental organizations with farmland or grassland protection programs that purchase agricultural land easements that protect the agricultural use and conservation values of eligible land. *Included in final report*

The **USDA Beginning Farmers and Ranchers Development Program** provides grant funding for organizations to develop and offer education, training, outreach, and mentoring programs to enhance the sustainability of the next generation of farmers. www.csrees.usda.gov/fo/beginningfarmerandrancher.cfm

Washington State University Small Farms Team **directory of programs and services for Hmong farmers:** www.smallfarms.wsu.edu/immigrant-farmers/hmong-websites.html

3. Leverage Public Resources to Improve Local Food Access for All Northwest Arkansans Through Diverse Outlets

Prioritize Region-Wide SNAP Enrollment Efforts | Utilize Public Schools as Community Food Hubs | Meet Consumers Where They Are: At Supermarkets

Models and Examples

New York City youth run 14 **Youthmarkets** in schools, churches, and other community organizations across the city. GrowNYC, a NYC non-profit, provides planning, development, and management oversight, purchases locally grown produce from regional farmers, and trains young people from under-served areas of the city to operate a farm stand in their neighborhood as their own small business. The community-based partner hires and employs young people and provides market locations and publicity, and serves as the crucial link between the Youthmarket program and the community. Included in final report.

www.grownyc.org/youthmarket

The Oakland Unified School District has set up **Oakland Fresh school produce markets** in approximately 20 schools. Parents and students run markets during after school hours one day per week. The school district purchases the produce through a local distributor. www.ousd.k12.ca.us/Page/946

Local Matters, in Columbus, Ohio, provides community education through a range of curricula: Food Matters is directed toward kids; Cooking Matters utilizes Share Our Strength's curriculum for parents and families; Growing Matters focuses on home and community gardening, and Wellness Matters is targeted toward workplaces. www.local-matters.org/what-we-do

The **Double Up Food Bucks** incentive program Michigan increases the value of SNAP dollars at supermarkets as well as farmers' markets. <http://www.doubleupfoodbucks.org/how-it-works>

The nonprofit Wholesome Wave operates an innovative pilot program called the **Fruit and Vegetable Prescription Program (FVRx)** that, like Double Up Food Bucks, provides additional money for fresh produce bought at farmers' markets. Veggie Rx provides the incentive dollars in the form of a "prescription" for one serving of produce each day (valued at \$1) per household member. The program creates and depends on strong, integrated partnerships between community members, their health care providers and their neighborhood farmers' markets to change participants' food consumption habits, to measure those changes and then to assess their impact on participants' overall health and community health. The program operates at 18 sites nationally and is estimated to reach 5,655 low-income families. www.wholesomewave.org/our-initiatives/fruit-and-vegetable-prescription-program

Funding and Other Resources

The 2014 Farm Bill established the **Food Insecurity Nutrition Incentive competitive grant program**, which will award \$100 million in matching grants over fiscal years 2014 through 2018 to support programs to increase fresh fruit and vegetables purchases among SNAP participants by providing incentives at the point of purchase. Eligible applicant organizations include governmental agencies, authorized retailers, non-profits, and other entities. *Included in final report.* The Fair Food Network is a good source of information about the Food Insecurity Nutrition Incentive grants program. www.fairfoodnetwork.org/connect/blog/healthy-food-all-2014-farm-bill-creates-national-healthy-food-incentive-grants

With funding from the 2008 Farm Bill, the **USDA's Healthy Incentives Pilot (HIP)** sought to determine how additional incentives (on top of SNAP dollars) influence consumer purchases and consumption of fruits, vegetables and other healthy foods. The pilot was carried out over 14 months in a Massachusetts county with the state's highest SNAP participation- a large share of the county's food retailers as well as 5,000

households participated. The interim evaluation findings were released in July 2013. www.fns.usda.gov/hip/healthy-incentives-pilot

4. Develop and Coordinate Local Food Cluster Technical Assistance and Resources

Establish a Local Food Accelerator Program | Invest in a Food System Incubator or Food Hub | Prioritize Diversity Among Leaders of Food Businesses and Networks

Models and Examples

Farm Fresh Rhode Island's (FFRI) Market Mobile is a small but key piece of food distribution infrastructure in RI, particularly for small and mid-scale producers seeking entry into wholesale markets. FFRI, a nonprofit organization which is also the state's leading farmers' market operator and a trusted aggregator of information about local farm and food systems, launched their web-based ordering platform in 2009 with start-up funding from the state's Division of Agriculture. It works like this: producers go online weekly to post their product availability, update quantities and set pricing—unlike many comparable food hub models, farmers in this system each set their *own* prices, building in a service fee that supports Market Mobile's operating costs. Buyers can search by farm name or by ingredient, and then place orders online. After each purchase, the site automatically updates product availability, ensuring that buyers aren't purchasing product that someone else has already bought. Though all transactions happen online, one of the assets that really makes Market Mobile effective for producers and buyers is a staff person who works for their mutual benefit actively communicating across food system sectors to ensure that wholesale sourcing opportunities are not missed. Four trucks run routes statewide and up to Boston two days each week year round serving businesses including farm stands, consumer buying clubs, food retailers, restaurants, caterers and institutions. In the beginning, producers aggregated product outside of Farm Fresh RI's indoor winter farmers' market, and FFRI staff borrowed a truck and its driver from one of the market's vendors to make wholesale deliveries. Market Mobile now operates out of a warehouse with walk-in coolers and a formal packing line. This infrastructure (in combination with the organization's relationships with farmers) also enables the organization to pickup unsold and donated produce from farmers' market, aggregate it at the warehouse and distribute fresh produce to food pantries that serve over 1,500 families. Other than these donations, no inventory is held at the Market Mobile warehouse—farmers deliver only what has been ordered and product ships out less than 24 hours later. In 2012 Market Mobile sold \$1.5 million worth of local foods produced by 50 farm and food businesses, up from pilot year sales of \$225,000. www.farmfresh.org/hub/

Local Food Hub, a non-profit in Charlottesville, Virginia, purchases locally grown products from over 70 family farms in Central Virginia, aggregates and stores products in its 3,500 square food warehouse with multiple temperature zones, and distributes to more than 150 locations in the region, including public schools, hospitals, institutions, restaurants, and retailers in two refrigerated delivery trucks, and a smaller refrigerated van. Through their Grower Services program, Local Food Hub works directly with producers to provide the technical assistance and guidance needed to navigate the wholesale marketplace. www.localfoodhub.org

GrowFood Carolina aggregates produce from over 20 local farms within 120 miles of Charleston, South Carolina in their warehouse, and serves over 40 local businesses. Growfood Carolina was launched in 2011 in partnership with the Coastal Conservation League, a non-profit organization dedicated to protecting the natural environment of the South Carolina coastal plain and enhancing the quality of life in its communities. As an incubating organization, the League intends for GrowFood Carolina to become fully independent by 2017. www.growfoodcarolina.com

Blue Ridge Natural Food Ventures is a project of AdvantageWest, a nonprofit regional economic development partnership serving the westernmost counties of North Carolina. Blue Ridge Food Ventures is an 11,000–square–foot shared–use kitchen and natural products manufacturing facility that offers support in product development, guidance for navigating regulations, equipment for bottling and packaging, and advice on marketing and label design. www.advantagewest.com/food-and-natural-products

The Appalachain for Economic Networks (ACENet) in Appalachian, Ohio provides business incubation and microloans, product development and marketing and distribution guidance for new and expanding food manufacturers, and food manufacturing and shared commercial kitchen facilities. www.acenetworks.org

With an overarching goal of fostering a sustainable and diverse food system, **The Carrot Project** support small and mid-sized farms and farm-related businesses by partnering with farmers, lenders, investors, donors, and technical assistance providers to with accessible and scale appropriate financing and technical assistance to support successful utilization of financing packages. www.thecarrotproject.org

Funding and Other Resources

The **USDA Business and Industry Guaranteed Loan Program** guarantees loans to borrowers that are launching or growing businesses in rural areas that: provide employment; improve the economic or environmental climate; promote the conservation, development, and use of water for aquaculture; or reduce reliance on nonrenewable energy resources by encouraging the development and construction of solar energy systems and other renewable energy systems. www.rurdev.usda.gov/rbs/busp/b&i_gar.htm

The **National Good Food Network Food Hub Resource Center** www.ngfn.org/resources/food-hubs

Blue Ridge Food Ventures directory of food incubators and resources

<http://www.advantagewest.com/food-and-natural-products/launch-your-business/food-entrepreneurs/resources/other-incubators>

The nonprofit Wholesome Wave’s **Healthy Food Commerce Investments** project invests in regional food hubs (financially and with an array of technical assistance services) to improve efficiency in developing sustainable, just regional supply chains. <http://www.wholesomewave.org/our-initiatives/healthy-food-commerce-investments/>

The Fair Food Network’s **Fair Food Fund** invests in entrepreneurial enterprises that connect farmers with the growing demand for local food. The fund prioritizes investment in businesses that also focus on increasing access to healthy food in underserved communities. Fair Food also provides ongoing support and technical assistance to initiatives it funds. <http://www.fairfoodnetwork.org/fairfoodfund>

NORTHWEST ARKANSAS REGIONAL FOOD ASSESSMENT

APPENDIX D: LOCAL FOOD COORDINATOR JOB DESCRIPTION

[Insert overview of hiring org here]

The **Local Food Coordinator** will serve as the lead facilitator of efforts to establish business connections that will benefit the regional farm and food economy and strengthen the regional food system. The Local Food Coordinator's activities are intended to stimulate sales and purchases of regionally produced food between farmers and commercial and institutional food buyers.

The position requires an experienced professional with an understanding of Northwest Arkansas agricultural production and regional supply chains and excellent business acumen and project management and communication skills.

The successful candidate will also be a confident, insightful, independent thinker with a high level of emotional intelligence and comfort in a liaison role in diverse settings.

The Local Food Coordinator will report to the [hiring or supervising org]. This position will be located in [location] and will require significant travel throughout the region with occasional domestic travel outside of Arkansas.

Position Description and Objective

The Northwest Arkansas Local Food Coordinator provides a unique service that brings together area farmers and food producers and Northwest Arkansas commercial and institutional buyers– schools, restaurants, retailers, distributors, and foodservice accounts– bolstering the regional food economy and strengthening the regional food system. It provides an economic benefit to regional farmers by expanding their markets as well as meeting the growing commercial, institutional, and consumer demand for regional foods.

Using the supply and demand information aggregated in the Northwest Arkansas Regional Food Assessment as a starting point, the Local Food Coordinator will provide ongoing education to both buyers and producers; identify high value products and seasonal opportunities through detailed research; work with farmers on production methods, post harvest handling, food safety, and packaging capabilities to meet the needs of specific buyers; identify opportunities for efficient aggregation and distribution of regional products; and identify and vet potential suppliers, matching supply and demand in the regional food economy.

The key role of the Local Food Coordinator is to bring business-minded creativity and innovative solutions to regional food procurement challenges, with the end goal of growing the capacity of regional farmers and buyers to buy/sell locally-produced foods through education, training, technical assistance, and organizational and public policy development and advocacy.

Position Activities and Responsibilities

Working on behalf of the [hiring organization], the Local Food Coordinator's duties include:

- Build region-wide understanding about the Northwest Arkansas regional food strategy and values for regional agricultural production and procurement, economic development, and food system development
- Grow the supply of regionally-produced foods and the demand for these foods among area commercial and institutional buyers

- Develop and support the network of regional farmers/food producers and buyers that are interested in pursuing and growing regional sales/purchasing relationships
- Aggregate detailed information about demand (e.g. products, volumes, specifications, requirement) and available supply, and identify high priority procurement opportunities
- Develop and coordinate communication platforms for regional farmers/food producers and buyers
- Identify and prioritize professional education and training needs for regional farmers (e.g. food safety, grading, packing, and packaging requirements, season extension, high demand varieties/breeds/production methods) and coordinate education and training/technical assistance resources
- Identify and prioritize professional education and training needs for commercial and institutional buyers and chefs (e.g. seasonal menu planning, preparing grass-fed livestock, whole animal cooking) and coordinate education and training/technical assistance resources
- Establish foundation for long-term procurement relationships between regional farmers/food producers and commercial and institutional buyers
- Develop and implement a simple system to track regional food sales and procurement activities
- Identify and pursue strategies to understand and advocate for modifications to public and corporate/institutional purchasing / procurement policies to facilitate increased purchases of regionally-produced food
- Develop metrics to quantify and describe results of local coordination, including but not limited to, measurement of: increased volume of regionally-produced foods (available for regional purchase) volume and value of regional food purchases, number of farms/food producers and buyer participants, dollar and product volume exchanges in the regional economy, number and type of educational and training offerings, participation in trainings and educational activities, impact to farmers/food producers and buyers and/or their constituents as a result of this work

Requirements

- Bachelor's degree preferred
- 4-6 years of professional business, food marketing, or professional education experience in lead roles
- Expert knowledge in several of the following areas with an aptitude and interest to learn the others: food, agriculture, food and agriculture policy, business planning, marketing and operations, economic development
- Outstanding project management and time management skills
- Exceptional analytic and strategy skills
- Superb oral and written communication skills
- Work independently with minimal supervision

- Positive attitude, detail oriented and entrepreneurial
- Excellent in prioritization and in management of shifting timelines and priorities
- Strong ability to work proactively and take initiative
- Solutions driven with outstanding, flexible partnership skills
- Excellent judgment
- Ability to approach challenges with a positive, solutions-driven attitude and sense of humor
- Strong experience working cross-culturally, and across multiple sectors including government, business, education, and non-profit
- Proven ability to work on several projects simultaneously, keep accurate records and follow up as necessary
- Hardworking, resilient, and positive attitude
- Excellence in Microsoft Office (Word, Excel, PowerPoint, Outlook)

The position is a [full-time/part-time] position with an annual salary of XXX.

Please, submit your resume and a cover letter with XXX. Qualified candidates will be contacted by [e-mail/phone]. XXX is an Equal Opportunity Employer.

Food System Community Meeting Summary – Key Objectives and Action Items

Objective: establish benchmarks, milestones and targets for the regional food system.

- Conduct a regional community food assessment to inform and build support for practical action towards a stronger regional food system – it can identify needs and assets, and inform community goals and benchmarks.
- Conduct feasibility studies on different models that can coordinate aggregation, processing, distribution and marketing of locally produced foods from multiple producers to multiple markets with recommended best-fit operations for NWA.

Objective: enhance the region’s processing and distribution capability to ensure better connections between local producers and consumers.

- Depending on the outcomes of feasibility studies:
 - Establish / support the creation of a local food hub(s) to serve as an aggregation and distribution point for local producers and consumers. A local food hub may serve several functions:
 - Provide direct/online marketing, education, outreach, coordination, and facilitation to producers and consumers.
 - Aggregation - traceability, liability, quality control, consistency, volume, uniformity.
 - Delivery – institutional users, restaurants, markets, and food banks.
 - Processing & Commercial Kitchen – preparation, processing, and packaging of value-added products; animal slaughter and meat processing.
 - Point of Sale – to individual consumers, wholesalers, retail establishments, restaurants, and institutions (schools, hospitals, businesses).
 - Education – consumer education and producer training classes with a demonstration area
 - Outlet for farm surplus.
 - Establish / support the creation of increased local processing capacity to serve independent producers:
 - Consider mobile processing units.
 - Recruit a local custom processor to become USDA inspected and help them do it.
 - Work with the university to use their processing facility.

Objective: affect policy change to ease financial burdens and other restrictions on local food producers and sellers.

- Work with local interests and subject matter experts to create a local, state and federal legislative agenda.
- Create / identify / the appropriate organization to develop an education / advocacy effort to influence legislation, regulation and enforcement of small agribusinesses.
- Work with localities to incorporate ideas like edible landscaping, citywide composting, water catchment, gray water use, and community gardens on current city green space in to city planning.

Food System Community Meeting Summary – Key Objectives and Action Items

Objective: establish / source an organization and sustainable support to implement ongoing programs, coordinate with other implementing organizations, and collaborate with regional resources.

Objective: expand awareness about the economic, health, and environmental benefits of local food.

- Establish/renew a regional food brand and identity package.
- Determine priority target audiences and communication channels to market resources, programs and messages.
- Utilize a mix of different media and direct contact to communicate key messages, resources and programs.
- Develop education components to focus on school age children (awareness & participation), and secondary/post secondary students to cultivate a new generation of small farmers.

Objective: make locally grown food accessible to all Northwest Arkansans.

- Dedicate a percentage of aggregated surplus to local food banks and other low income food programs.
- Foster leadership and forge communications in underserved communities and solicit ideas for better access.
- Examine public transportation routes and other community access points to bring more local food to underserved populations.

Objective: support local producers to increase regional food capacity.

- Build / expand producer networks to enhance producer-to-producer, producer to consumer, and consumer to producer communications.
- Host events/seminars to enhance producer education.
- Provide resources to connect producers to financing, business education, regulations, and ag extension.

NORTHWEST ARKANSAS REGIONAL FOOD ASSESSMENT

APPENDIX F: GLOSSARY OF TERMS

Aggregation and Distribution
Animal Breeds
Animal Welfare Certifications
Antibiotic-free
Approved vendors
Broadline Distributors
Cage-free
Certification
Commercial Kitchen
Direct Marketing
Distributor/Wholesaler
Fair Trade
Family Farms
Farm-raised
Food Access
Food Hub
Food Miles
Food Safety
Food Security
Food Service company/Institutional food service provider/Caterer
Food System
Free Range
GAP (Good Agricultural Practice)
Genetically Modified Organism (GMO)
Grading
Heirloom
Hormone-free
Medium-Size Farms
Natural
Nutrition specifications (and nutrition labeling)
Organic
Pasture-raised
Processor/Manufacturer
Product Specifications
Seasonal
Sustainability
SNAP (Supplemental Nutrition Assistance Program)
Varieties
WIC (Women Infant Children Nutrition Program)

Aggregation and Distribution – The process by which fresh and manufactured food products are assembled, stored, sorted, repacked, and transported (by truck, rail, sea or air) to commercial food buyers.

Animal Breeds – As buyers and consumers become more interested in offering unique food offerings to their customers and supporting efforts of biodiversity, they have become interested in unusual and new breeds of animals. Common breeds available in the marketplace are “Angus” (beef) and “Jersey” (milk) cows. Some breeds that are newly appearing in the marketplace are “Gloucester Old Spot” (pigs) and “Araucana” chickens, which are known for delicious eggs. Prevalent heritage breeds in Kentucky include the Bourbon Red Turkey, Red Wattle hogs, and Kentucky bison.

Animal Welfare Certifications – Humanely raised animals receive diets without antibiotics or hormones, and are raised with shelter, resting areas, and sufficient space to engage in natural animal behaviors. Certifications such as American Humane Certified, Animal Welfare Approved, and Certified Humane Certification are offered through the American Humane Association, the Animal Welfare Institute and Humane Farm Animal Care respectively.

Antibiotic Free – Antibiotic free refers to animals raised without the use of antibiotics. While the USDA does not allow use of the label “antibiotic free” on meat products, the USDA does allow the claims “no antibiotics administered” or “raised without antibiotics.” Since the mid 1940s, antibiotics have been routinely mixed into many livestock feed products to promote growth and prevent sickness. This practice is referred to as non-therapeutic or sub-therapeutic antibiotic use. The commonly used term, “raised without subtherapeutic antibiotics” distinguishes between non/sub-therapeutic antibiotic use and therapeutic use, or using antibiotics only when needed to cure illness or infection. No organization or government entity certifies any of these claims.

Approved Vendors – Commercial food buyers are frequently directed by their company’s policies to ask suppliers (such as farmers or processors) to complete paperwork, and, in some cases, provide various certifications to become approved vendors to their companies. These companies then only purchase food from vendors they have approved. Certain factors that may figure into becoming an approved vendor may include: number of years in business, women/minority-owned businesses, HACCP plans in place (see above), proof that the company has not defaulted on taxes or that the principals of the company do not have criminal records. Not all buyers or companies have requirements for approved vendors.

Broadline Distributors – Broadline distributors are those that carry a very wide range of products for sale, primarily, into restaurant, caterer and institutional foodservice customers. Their product offerings include food, non-food, paper and packaging supplies, cleaning products and often plates and other such dining/hotel products as well. Many of their products will carry their own label or the label of their own private-labeling company. In the case of these “branded products” the companies will issue specifications for the ingredients, nutrition, packaging and/or other requirements for the final product, in order for it to meet the company standards and bear its brand. Well-known broadline distributors in the Northwest Arkansas region include Sysco, US Foodservice, and Ben. E. Keith.

Cage-free – See Free range.

Certification – Certification is a verification of a claim made by a food producer such as a farmer, processor, or manufacturer. A certifying agency sets and enforces standards on food and

production processes to ensure that claims and labels are legitimate and meaningful. Certifications focus on social, environmental or economic sustainability objectives; some certifications set standards that combine these categories, while others focus on one category. Certifications may be second party, in which a company verifies a producer's claim, or third party, in which an independent organization sets standards for certification. Third party certifiers are considered the most objective and thus credible certifiers. The London-based International Social and Environmental Accreditation and Labeling Alliance (ISEAL) is an international association of leading standard-setting and conformity assessment organizations that focus on social and environmental issues, and works as a clearinghouse of sorts for global certification programs.

Commercial Kitchen – A licensed food processing facility authorized for preparation of food for sale to the public, including shared-use kitchens within which multiple entrepreneurs can operate small-scale food-manufacturing businesses.

Distributor/Wholesaler – An individual or company (usually the latter) that either or both aggregates (collects) various quantities of different food products – fresh, or manufactured or finished products— and ships these to other companies in the food sector. Including truck, rail, sea and air transport. Wholesalers may own warehouses, but not ship/ distribute product. Distributors and Wholesalers are both “middlemen” in the food chain – often not adding value (i.e. transforming the products from raw to finished) to food items beyond aggregation, cold storage (refrigeration), and transportation of these from one link in the food chain to another.

Fair Trade – “Fair Trade” refers to a broad movement toward standards that seek to ensure equitable international trade and fair partnerships between producers and buyers, reduce small farms’ vulnerability, and improve producers’ quality of life. The term “Fair Trade Certified” is a third party certification by the non-profit organization TransFair USA, the only United States-based third party certifier of fair trade products. The term “Fairtrade” describes the standards and certifications overseen by the Fairtrade Labeling Organizations (FLO) International, an umbrella organization representing Fair Trade labeling initiatives in 20 countries, including the United States (through TransFair USA), 13 European countries, Canada, Japan, Australia and New Zealand.

Family Farms – The following USDA definitions are widely accepted by most of the industry: family farms are not operated by a hired manager and not owned by an outside corporation, and small farms are those with less than \$250,000 in annual gross receipts and on which management and labor are provided by the farm family. Mid-scale farms, sometimes called agriculture of the middle, are farms that are too small to compete in bulk commodity markets and too large to efficiently market products directly to consumers. None of these terms are currently certified.

Farm-raised – While the term farm-raised does not specify the scale or production processes of the farm, it is meant to evoke a small farm, as opposed to a highly intensive industrial or factory farm. The term is not certified by any group or agency. Farmed raised also refers to the commercial raising of fish in tanks or enclosures, primarily for human consumption. Fish farming is a principal form of aquaculture and offers an alternative, if sometimes controversial, solution to the increasing market demand for fish and fish protein.

Food Access – Access by individuals to adequate resources for acquiring appropriate foods for a nutritious diet; a key element of food security: access by all people at all times to enough food for an active and healthy life.

Food Hub – A facility-based business or organization that manages the aggregation, storage, processing, distribution and/or marketing of source-verified, regionally produced foods.

Food Miles – Food miles refers to the distance food travels from farm to consumer. Food miles translate into carbon dioxide emissions, but the food miles measure does not take into account carbon emissions from food production (agricultural or processing) or the varying amounts of carbon emissions in air and ground transportation. There is currently no certifying or labeling agency for food miles claims.

Food Safety – Food safety refers to the steps taken by consumers, producers, processors, scientists, and government agencies to minimize food-borne pathogens or contaminants, whether accidental or intentional (e.g. agroterrorism or bioterrorism). A variety of federal agencies oversee different aspects of food safety, including the Food and Drug Administration, the USDA, and the Department of Homeland Security. Food safety also includes accuracy in labeling and packaging as well as product traceability in the event of a recall or food related health concern.

Food Security – There is no legally binding definition for this term, but one widely accepted meaning is the USDA's definition: access by all people at all times to enough food for an active and healthy life. Food Stamps and School Lunches are both federal programs designed to support and ensure food security. Food security can also be thought of on a community level and with broader parameters. In a food secure community, all residents would have uninterrupted access to safe, affordable, culturally appropriate, nutrient-rich, sustainably produced and fairly traded foods.

Food Service Company – Also referred to as "institutional food service providers" or "contract caterers," these are companies that receive, prepare and serve meals to clients in public and private settings. Public dining settings include schools, hospitals, jails and any municipally-run eating place. Private settings include some restaurants and cafes (such as corporate cafeterias, sports arenas and cultural institutions.) This sector is typically represented by companies (many of them large corporations such as Aramark, Sodexo, Compass, e.g.) whose focus is congregate meals. It does not refer to a restaurateur who may have a contract to operate a restaurant at a museum or ball-park.

Food System – All the activities, players, inputs and infrastructures involved in growing, processing, aggregating, distributing, marketing, selling, eating and disposing of food.

Free Range – While the terms free range and free roaming imply that animals raised for meat or eggs are not caged (cage free) and are free to roam, the USDA defines free range poultry as that which has had access to the outdoors. The degree and quality of access are not specified. The term's use on beef and eggs is undefined and unregulated. For poultry, meats and eggs, the terms pasture raised and grass fed suggest that animal was raised by grass grazing. More commonly, animals are fattened on grain in feedlots or confined animal feeding operations (CAFO). Many advocacy groups consider animals that are pasture raised, a term that is not certified, to be humanely raised. Humanely raised animals receive diets without antibiotics or hormones, and are raised with shelter, resting areas, and sufficient space to engage in natural animal behaviors. Humanely raised claims are certified by the Humane Farm Animal Care Program.

GAP (Good Agricultural Practice) – This refers to a set of criteria that are commonly accepted by both government organizations (Farm Bureau, State Departments of Agriculture, e.g.) and companies that purchase food, as on-farm processes that result in safely grown, picked, handled foods. GAP can be applicable and is relevant across all product types, and across various certifications (organic, sustainable, e.g.) – none of these replace GAP as a way to verify that food

that is grown and handled safely. There are costs associated with attaining GAP certification, and these costs are typically borne by the producer (farmers in most cases.) GAP certification is often experienced as a barrier-to-entry for regional agriculture producers to sell in wholesale quantities to established supply chains (institutional feeding companies and retail, e.g.), due to both cost and rigor (or perceived rigor) of the GAP certification.

Genetically Modified Organism (GMO) – A Genetically Modified Organism (GMO) is a plant or animal altered by genetic engineering, in which biologists transfer genetic traits across and between plant and animal species. While it is legal for farmers in many countries (including the U.S. and Argentina) to grow GMO crops for human and animal consumption, other countries (Japan and many European nations) have banned the growing and importing of GMOs until more is known about their safety and environmental impacts. Labeling products that include GMOs is not required in the U.S.. The terms GMO-free or no GMOs mean that the product contains no genetically modified ingredients. While no agency certifies this claim, food that is certified organic cannot contain GMOs.

Grading – Produce, meat and other agriculture products are frequently assigned a grade to help convey certain qualities (such as size, color, sugar content) or certifications that are recognized by wholesale buyers and consumers in the marketplace. Depending on the specific product, vegetables and fruits will get a USDA Grade A, B, C, etc. or will receive a State Department of Agriculture's Grade 1 or 2. Grade A or 1 are the highest grades offered for produce, reflecting highly desirable and consistent size, color, other appearance factors and the assumption of good flavor based on visible characteristics. Grades B, C, 2, etc. mean that the products are slightly "lesser" in the visible highly valued qualities, but these grades do not mean that the products are "lesser" quality in terms of flavor or healthfulness. For meat, the USDA grades Prime (highest) and Choice (second tier) are most familiar in the marketplace, though ALL meats (beef, lamb, pork) and many poultry items that are sold through commercial food supply chains must be slaughtered and processed by a USDA-staffed and certified processing facility. Some states have slightly looser provisions for the slaughter of poultry products, allowing state agriculture inspection to suffice for commercial sales of these items. Seafood is not graded in the ways noted here, but most fish is handled through an array of middle-men (distributors/processors, e.g.) who are required by their buyers to have HACCP plans. Fisheries management systems do require certain size and/or weight minimums for fish caught and sold. Small batches of farm products of all kinds that don't enter the commercial marketplace in large quantities are usually not graded.

Heirloom – Heirloom variety foods are distinguished by their unusual shapes, colors, tastes, and textures. Many common market varieties in the U.S. are hybrids, bred for consistency of appearance, extended shelf life, plant disease resistance, or extensive processing or transport. An heirloom plant variety or seed is one which has never been hybridized and can therefore be grown "true to type" for many generations, enabling growers to save seeds from a parent plant to sow the following year. Heirloom foods are sometimes also known as heritage foods, though this term is most often applied to purebred or rare animal breeds.

Hormone-free – Hormone-free, no hormones administered, or no synthetic hormones are labels that imply that an animal was raised without the use of artificial growth hormones. The most commonly used hormones in production are Recombinant Bovine Growth Hormone (rBGH) and Recombinant Bovine Somatotropin (rBST), which promote animal growth and increase milk production. As the USDA prohibits hormone administration for pigs or poultry, a hormone free label

on those products is not particularly meaningful. While the USDA can hold companies accountable for making a hormone free claim on beef and dairy products, no independent agency certifies it.

Medium-Size Farms – Farms that are too small to compete in bulk commodity markets and too large to efficiently market products directly to consumers; sometimes called the “agriculture of the middle.” It is well-documented that these farms are those that function in the most precarious economic state throughout the United States.

Natural – The USDA describes natural poultry and meat products as those that are minimally processed and do not contain artificial or synthetic colors, flavors, preservatives, or ingredients. No official definition or standards exist for this term, except in the categories of meat and poultry. No organization certifies this claim.

Nutrition Specifications (and Nutrition Labeling) – Public institutions lead the way in requiring that products they purchase (in particular processed items) meet standards for fat, sugar, carbohydrates, salt, calcium, etc. that align with the dietary goals they have for the people they are feeding. In some cases, such as school food programs, these dietary guidelines are driven by the USDA, which reimburses school districts for meals served in the School Lunch Program and therefore requires the meals to be of certain nutritional standards. Hospitals will have dietary guidelines for patient meals that align with the state, the hospital’s own or some other organizational mandate. Many food manufacturers and processors will offer (or be asked to change) their nutrition specifications for an existing product, to be eligible to bid on a new contract. Nutrition labeling is different than specifications in that it simply discloses the nutritional profile of what’s inside the package rather than driving the creation of that profile. Produce (fruits and vegetables) must meet certain overall size or portion size specifications for the organization’s meal planning objectives, and frequently the USDA requires “grades” (see above) for fruits and vegetables served in public settings. Meat and dairy products served in public institutions frequently *do* have to meet nutrition specifications, especially for fat content, added sugars, and other added ingredients (i.e. salt, fillers).

Organic – Food that is labeled organic in the United States must be certified by a USDA accredited agency, whether it was grown domestically or imported. USDA organic standards dictate that organic foods be grown without most synthetic fertilizers and pesticides, sewage sludge, genetically modified seeds, or irradiation. Feed for organic meat and poultry is grown organically and does not contain animal byproducts. Animals raised for organic food products must have access to the outdoors, including pasture for ruminants, and cannot be treated with hormones or antibiotics. The USDA offers different logos and claims for processed foods, depending on the percentage of organic ingredients included. Internationally, the International Federation of Organic Agriculture Movements (IFOAM)—a United Nations Food and Agriculture Organization accredited organization—seeks to promote organic production and increase international uniformity in organic standards.

Pasture-raised – See **Free range**

Processor/Manufacturer – A company that transforms raw materials, i.e. food ingredients, into prepared or packaged food products.

Product Specifications – Product specifications can vary widely from entity to entity and product to product. In addition to specifications that may require certain types of Grades (see above), nutrition standards (see above), or certifications (Organic, Fair Trade – see above), certain companies may require packaging specifications (type of packaging, size of packaging, efficiency of packaging, e.g.)

The great majority of the specifications that buyers included in this survey will require are listed in this glossary.

Seasonal – Seasonal refers to the window of time when a given food is freshest, ripest, and most abundant. An agricultural growing season is the period of the year during which crops are grown. A growing season is generally measured by the number of days between the spring's last frost and the winter's first frost. Geographic location, climate, daylight hours, average temperatures, rainfall, and water resources also contribute to defining a region's growing season and determining what can be grown. In culinary terms, seasonal refers to an approach to menu planning in which recipes are built around a geographic region's harvest calendar. Seasonal eating does not require eating only what is available locally. For example, while figs cannot be grown in New England, a chef there might choose to build a recipe around figs in the summer, figs' peak harvest time in California.

Sustainability – Sustainability refers to the ability to meet the needs of the world's current human population without compromising future generations' ability to provide for themselves (Brundtland Report of the World Commission on Environment and Development, United Nations 1987). A common, broadly-framed working definition of a sustainable food system is one which produces enough food to feed people affordably, nutritionally, and safely in a way that sustains the economic, environmental, and social systems in which the food system is embedded.

SNAP (Supplemental Nutrition Assistance Program) – Formerly called "food stamps" SNAP benefits are available for low-income individuals and families in every state who meet Federal requirements. Benefits are allocated on a sliding scale according to a formula devised by the USDA that takes into account family income, number of children, total household size, etc. Individuals and families do not have to be unemployed, homeless or disabled to receive SNAP benefits. It is an "assistance" program intended to help anyone who meets the criteria. In recent years, many more employed or partially employed individuals and heads of families have had to rely on food assistance through SNAP program. SNAP benefits can be used for a wide range of foods, fresh and packaged, including beverages and cold prepared foods. SNAP benefits typically cannot be used for hot, prepared meals (see below for exceptions). SNAP benefits are issued electronically to recipients through EBT (Electronic Benefit Transfer) cards, which are used like debit cards in approved stores, farmers markets and other outlets. In certain states, and at a small number of approved locations, homeless, disabled and elderly recipients of SNAP benefits can use these for prepared meals. The thinking behind this is that these classes of SNAP recipients are unlikely to be able to prepare meals for themselves.

Varieties – Varieties typically refer to the different types of products within a certain general class food items for sale. Granny Smith and Fuji are *varieties* of apples. Beefsteak and Green Zebra are *varieties* of tomatoes; in contrast, "cherry" is not a variety, but describes a size and shape of tomato that can apply across different varieties. "Heritage" or "heirloom" varieties are contemporary versions of older varieties that were more common in our food supply decades or centuries ago, and these words indicate that they are "older varieties" coming back into production in a contemporary way.

WIC (Women Infant Children Nutrition Program) – One of two main nutrition assistance program offered in every state through the USDA. WIC coupons are made available to mothers for purchasing mostly (but not all) approved food products such as milk, formula and cereals for their infants and young children. Coupons of various values are issued through local offices according to the mother's income. Non-food products that may be purchased with WIC coupons include

diapers. Any store that accepts WIC coupons must offer every product covered in the program for sale. In recent years the WIC program has offered "farmers' market coupons" for program recipients to purchase at discount fruits and vegetables from area farmers' markets. This is not a universal (nation-wide) program.