



IRIS

Initiative for Rural Innovation & Stewardship

NORTH CENTRAL WASHINGTON REGIONAL FOOD SYSTEM BASELINE ASSESSMENT - APPENDIX I LITERATURE REVIEW

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North Central Washington Regional Food Assessment Literature Review

Introduction

In response to the call to action for building a healthy future for Washington family farms published in the white paper of the same name, IRIS has initiated a regional food systems project that will gather and analyze data to address the needs of family farms and increase public understanding of and support for family farms. As a first step in this process, the North Central Washington Regional Food Assessment is designed to synthesize existing information and to identify gaps relative to key aspects of the food system in Chelan, Douglas and Okanogan counties and the Quincy Basin of northern Grant County. Information gathered through a collaborative process with key food system stakeholders and a regional research team will be used to build a common vision and to inform future actions aimed at strengthening the North Central Washington (NCW) regional food system. This includes all of those activities that result in the production and exchange of food across the three counties of Chelan, Douglas and Okanogan, and northern Grant County. In particular, the NCW regional food system baseline assessment will focus on the direct market sector to provide a starting point for efforts to increase the percentage of locally grown foods consumed in the region.

In 2007, the USDA agricultural census counted 979 farms down from 1,193 farms in Chelan County selling through the direct market, but the value of direct sales increased to an average of \$213,278 per farm up from \$142,000 (USDA, 2007). Both Douglas and Okanogan Counties increased total number of farms selling in the direct market in 2007 to 955 and 1662 farms, respectively, with average direct market sales per farm at \$202,479 in Douglas County and at \$125,606 in Okanogan. While census data provides some indication of an upward trend in terms of adding economic viability for NCW farms, we know less about the forms of direct marketing that might prove most effective for enhancing the sustainability of North Central Washington's regional food system. A primary objective for IRIS' regional food project is to learn about successful strategies practiced elsewhere and to evaluate the possibility of implementing such strategies here.

Defining a successful regional food system

The goal of this literature review is to identify the basic elements of a successful regional food system. A successful regional food system is one that can be sustained over time while conserving the natural resource base and providing economic viability for farmers and food security for community members.¹

¹ Food security refers to when all people at all times have both physical and economic access to sufficient food to meet their dietary needs for a productive and healthy life.

The 2003 Washington Family Farm summit envisioned several aspects of a successful regional food system that would return sufficient income back to the land so that farmers could meet their common basic needs. The summit highlighted the importance for farmers of an increased share of the food dollar, diverse markets, low-input and knowledge-intensive agriculture, diverse markets, value-added processing, and new, meaningful relationships with consumers, other farmers, and farm workers. One way that many regions around the country are trying to work towards this vision is by building place-specific, local food economies.

Food system researcher Gayle Feenstra (2002) includes the following goals for locally based, self-reliant food economies: a stable base of family farms that use sustainable production practices; marketing and processing that create more direct links between farmers and consumers; food and agriculture-related businesses that create jobs and recirculate financial capital; improved access by all community members to an adequate, nutritious diet; improved working and living conditions for farm and other food system labor; and food and agriculture policies that promote local food production, processing, and consumption (www.sarep.ucdavis.edu). According to Iowa State University researchers, producers and markets are linked in a regional food system via efficient infrastructures that: promote environmental health; provide competitive advantages to producers, processors and retailers; encourage identification with a region's culture, history and ecology; and share risks and rewards equitably among all partners in the system (<http://valuechains.org/rfswg.html>).²

Economic benefits of regional food systems

“While local food is enjoying new interest in much of the country, data revealing the extent of local food production and consumption are typically lacking. This lack of data has made it difficult to set local food goals and assess progress toward such goals.” (Timmons, Wang and Lass, 2008).

In the Timmons, et.al. study, the local foods indicator for Washington State shows 75.3% of all food consumed in the state could be locally grown.³ Furthermore, “communities around the country have conducted local economic analyses demonstrating ways that **food dollars flow out of the economy** -- including money that consumers pay for foods that could be produced locally but aren't, and the amount that local conventional farmers pay for inputs, debt payments, and other expenses.” (<http://www.whyhunger.org/programs/fslc.html>).

Recently, Sustainable Seattle issued their ‘Why Local Linkages Matter’ report that describes the dollar flows and economic linkages of food-related businesses in the Central Puget Sound region of Washington State. “The analysis shows that locally directed spending by consumers more than doubles the number of dollars circulating among businesses in the community... In

² Their pdf “Developing a Vibrant and Sustainable Regional Food System” is valuable with key graphic on page 5.

³ “Note that raising food locally is only a first step; a lack of processing facilities can also constrain local food consumption. Yet a maximum figure can be based on production alone. For some crops, seasonality is also important and is not reflected in these calculations (e.g., fruit production and consumption may appear to be balanced, but fruit may actually be in surplus in some seasons and in deficit in others).” (Timmons, et.al. 2008)

general, healthy dollar flows are associated with a greater number and diversity of local linkages that build on the small-lot variety that is characteristic of sustainable agriculture and production. We can grow the local food economy to a scale that meets the region's needs for justly and sustainably produced food through locally directed spending, the building of relationships, and strategic public and cooperative ventures. These investments will make a difference to the economic success of our region's food producers, manufacturers, distributors, restaurants and grocers; to preserving farmland; and to providing access to healthy, affordable food in all of our communities"

(<http://sustainableseattle.org/Programs/LFE%20Files/LFE%20REPORT%20FINAL.pdf>).

Another valuable economic report, *Evaluating the Impact of Alternative Marketing Scenarios for Washington State Farms*, uses an input-output analysis called IMPLAN that includes a database of regional production and consumption to find that under the base situation for vegetables, only 60.8% of the roughly \$254 million Washington households spent on vegetables is supplied by Washington farmers (for entire report, see

<http://www.nwdirect.wsu.edu/systems/WashingtonAnalysis.pdf>). This analysis concludes that improved direct marketing transfers money from the transportation and marketing sectors to the farming sectors and that a 5% increase in Washington supplied fruit to households resulted in an increase in direct sales for farms of roughly \$12 million. For vegetables, direct sales for farms increased by about \$12.7 million (graphs of these results are included in their report).

All of these studies point to improving the economic viability of agriculture through the development of more local markets and the infrastructure to support such markets. Research indicates that there is strong interest among producers in marketing more of their produce and livestock locally, while many consumers also want to eat local food. Most farmers use a combination of marketing methods, finding that in marketing as well as in production, diversity helps provide stability and sustainability (SAN publication, www.sare.org/diversify).

The most common examples of direct-to-consumer marketing include: farmers markets, farm stands, and roadside stands; community supported agriculture (CSA)⁴; U-pick farms; mail order and internet marketing; niche markets such as organic, locally grown, heirloom, or range-fed livestock; and agri-tourism venues. The USDA direct marketing website has a national map of direct marketing resources by state at www.ams.usda.gov/directmarketing/DM_states.htm and a link for farmers to find assistance (funding) for direct marketing projects at www.ams.usda.gov/directmarketing/funding.htm. The Sustainable Agriculture Network of SARE has a useful publication, *Marketing Strategies for Farmers and Ranchers* at www.sare.org/publications/marketing/marketing.pdf or www.sare.org/publications/marketing/index.htm. Contents include the direct marketing

⁴ CSA, Community Supported Agriculture, is defined in USDA documents as a farm in which members or "shareholders" of the farm or garden pledge in advance to cover the anticipated costs of the farm operation and farmer's salary. In return, they receive shares in the farm's bounty throughout the growing season, as well as satisfaction gained from reconnecting to the land and participating directly in food production. Members also share in the risks of farming, including poor harvests due to unfavorable weather or pests. By direct sales to community members, who have provided the farmer with working capital in advance, growers receive better prices for their crops, gain some financial security, and are relieved of much of the burden of marketing.

examples listed above as well as cooperatives, restaurant sales, adding value/processing, alternatives for remote locations, and evaluating new farm enterprises.

Foundational structures and funding streams

Our review of case study literature has revealed that North American regional food systems tend to be built upon one of four types of foundational structures: the Food Policy or quasi government model,⁵ the Network of Non-profits model, the University Research based model, or the Farmers' Cooperative model. At least one of these types of foundational structures underlay each of the more successful regional food systems that we examined. In other words, the regional food systems may grow out of a food policy council often funded by government, or out of a network of non-profit organizations funded through grants and donations, or out of community food system research by a University subsidized by research student labor, or out of a farmers' cooperative of some sort which is usually funded initially by USDA or Community Development grants. This list is not exhaustive but rather emerged as we investigated viable regional food systems keeping in mind the question of reliance on some type of external funding. Anecdotally, it appears that external funding (grants, government funding, or subsidized labor) is necessary at least initially to help create a vibrant regional food system.

For example, the National Association of Counties for Sustainable Communities 2007 report highlights four methods *counties* have used to build regional food systems: food policy councils, farm to school programs, infrastructure for local producers, and agriculture conservation easement programs. At the county level, these methods seem to provide the most success in implementation and significant impact. The report pairs each method with a comprehensive case study which illuminates how the method plays out on the ground (<http://www.naco.org>). The case study for 'infrastructure for local producers' features Woodbury County, IA because of its success in enabling farmers to offer new products to local purchasers, assisting farm entrepreneurs, providing incentives for a new generation of small and mid-scale farmers, retaining existing agriculture infrastructure, and responding to market changes. Moreover, of interest to North Central Washington, Woodbury is "trying to put farming back in the driver's seat to jumpstart their rural economic development through local family farming" by giving farmers property tax rebates and requiring all county food service purchase locally grown products (<http://www.woodbury-ia.com>). Woodbury farmers are seeing that they can count on selling their crops locally, and are increasing production and diversifying their crops to meet the growing demand. About 20 new jobs have been generated by the local food businesses, and the climate of support for organic agriculture is attracting larger enterprises that will provide more jobs, including a \$40 million organic soybean facility, which will hire 150 new employees and require quadrupling organic soy production in the state to meet their demand.

⁵ A food policy council is a non-partisan form of civic engagement that brings together a diverse array of food system stakeholders who advise a city, county, or state government on policies related to agriculture, food distribution, hunger, food access, and nutrition (www.statefoodpolicy.org). According to Drake University Agricultural Law Center, there are at least thirteen State Food Policy councils in Arizona, Connecticut, Illinois, Iowa, Kansas, Massachusetts, Minnesota, New Mexico, North Carolina, North Dakota, Oklahoma, Oregon and Utah.

Also relevant to IRIS' vision are the agricultural conservation easement programs that have developed in at least 55 local governments and 27 states which have received matching funds from the USDA Natural Resources Conservation Service for established programs. For example, Lancaster County, PA has set aside land for farming into the future to ensure long-term ability to grow local fresh foods while preserving agricultural community landscapes and providing income for farmers (<http://www.naco.org>). Closer to home, Puget Consumers Cooperative's Farmland Trust preserves and stewards threatened farmland in the Northwest. "The Trust takes its mission one step further than most land trusts by working to place farmers on the property, actively producing food for the local community" (<http://www.pccnaturalmarkets.com/farmtrust/>).

Relevant examples

Table 1. lists best candidates for successful regional food systems based on longevity, conservation of natural resources, and economic viability for farmers and food security for community members. These food systems are organized geographically with North American examples, Pacific Northwest examples, and then Native American examples. The final column indicates the type of funding model that appears to underlay the case-study regional food system.

Table 1. Successful Regional Food System Examples

Geographic Extent	Regional or Metropolitan Food System Name, Managing Entity & Brief Description	Food System Elements Involved	Funding Models
North American examples			
<p>Greater Toronto Area serving 5 million people</p>	<p>Toronto Food Policy Council 277 Victoria Street, Suite 203, Toronto, Ontario M5B 1W1. Wayne Roberts, Project Coordinator 416-338-7937 E-mail: tfpc@toronto.ca Website: http://www.toronto.ca/health/tfpc_index.htm</p> <p>The Toronto Food Policy Council is a government agency founded in 1991 that works with business and community groups to develop policies and programs promoting food security and a food system that fosters equitable food access, nutrition, community development and environmental health.</p> <p>As one of the few urban-rural policy development bodies in Canada, TFPC tries to bridge the gap between producers and consumers.</p>	<p>Food & Hunger:</p> <ul style="list-style-type: none"> • "Field To Table" program was assumed by FoodShare in 1992. It provides affordable, nourishing, regionally-sourced food to 15,000 low-income residents each month. • Food Access Grants Program, approved by Toronto City Council in 1995, and administered the program from 1996 to 1998, directing \$2.4 million for kitchen purchases in 180 schools and social agencies. <p>Health:</p> <ul style="list-style-type: none"> • Helped create Ontario's first Green Community food program. • Worked with Student Nutrition Coalition to expand school food programs in the City from 53 to 350. Helped persuade the provincial government to fund student nutrition programs. <p>Agricultural Land Preservation:</p> <ul style="list-style-type: none"> • Bills and strategic plans for long-term food security that seek to preserve farmland in and near the city in order to account for the true cost of haphazard urban sprawl on Canada's prime agricultural lands. <p>Economic Development:</p> <ul style="list-style-type: none"> • Worked with the City of Toronto Economic Development Division on a consolidated approval process for public health regulation of small-scale food processing businesses, as a source of jobs and to source raw materials locally to sustain Ontario farms. • Researched commercial kitchen incubators for City of Toronto Economic Development Division and FoodShare, which led to construction of a 2,000 sq. foot incubator kitchen • Initiated a "Buy Ontario" food program involving Huron County farmers and eight Ontario hospitals to increase hospital purchases of local foods. • Promoted farmer's markets, including the Junction Farmers Market, in collaboration with local Business Improvement Associations. <p>Urban Agriculture & Food Waste Recovery:</p> <ul style="list-style-type: none"> • Advocated that the City capture its food wet waste stream of compostable organics. A principle of "no net loss of urban nutrient resources" means using waste from one food consumption as feedstock for urban agriculture, community gardening, bio-gas development and brownfield remediation. <p>Community Gardens Communications, Capacity Building & Public Education</p>	<p><i>Food Policy model:</i></p> <p>The TFPC operates as a sub-committee of the Toronto Board of Health (government funding) with representatives from food corporations, conventional and organic farms, cooperatives, unions, social justice and faith groups, and the city council. TFPC has a small staff and modest budget. It has no authority to pass or enforce laws.</p> <p>(Similarly, San Francisco Food Systems is located within the San Francisco Department of Public Health's Environmental Health Section and is engaged in a number of activities that bridge people to healthy, nutritious, affordable, locally and regionally grown food with a focus on low-income food security, but little advocacy for farmers.)</p>

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<p>Hartford, Connecticut</p> <p>In more recent years, the organization has extended its reach to develop food projects and to provide training and technical assistance throughout Connecticut</p>	<p>Hartford Food System 86 Park Street, Second Floor Hartford, CT 06106</p> <p>Jerry Jones (860) 296-9325 Email: jjones@hartfordfood.org</p> <p>Established in 1978, the Hartford Food System (HFS) is a private, non-profit organization working to create an equitable and sustainable food system that tackles a wide range of food cost, access, and nutrition problems. HFS relies on a collaborative approach, and is governed by a board of directors that is comprised of representatives from Connecticut businesses, government agencies, churches, and community organizations.</p>	<p>Hartford Food System nonprofit directs its efforts at four major food system components: production, distribution, education and training, and public policy.</p> <p>The group has helped to establish farmers markets, distribute coupons to low-income households for use at farmers markets, improve public transportation to food outlets, create a grocery delivery service for homebound elderly people, and launch Connecticut Food Policy Council which operates a 400-member Holcomb Farm CSA that distributes 40% of its produce to low-income people and started a statewide trust to preserve farmland in 2002, produce the "Connecticut Farm Map" which features 300 of the state's best agricultural destinations. "Connecticut Comes First" purchasing program started in 2002 by the Connecticut Correctional System which is now buying Connecticut-grown and school food improvements. Grow Hartford, a project of the Hartford Food System, promotes a sustainable and equitable food system in Hartford by cultivating youth leadership and civic participation through agriculture. Providing low-income Hartford residents with convenient access to local, sustainably produced fruits and vegetables. The Hartford Food System is partnering with smaller retailers to improve the nutritional quality of the groceries they sell. Through the Healthy Food Retailer initiative, stores receive promotional assistance and grassroots outreach in return for shifting a portion of their shelf space from junk food to normal groceries.</p>	<p><i>Non-profit model:</i> The board's primary purpose is to make policy, provide for long-term organizational development and financial oversight, and raise funds. Approximately 45% of annual revenue is contributed by foundations and corporate donors, 9% by government grants, 7% by individual donors, and 2% by religious congregations. Program generated income, principally from produce sales and share memberships at Holcomb Farm CSA, accounts for 34% of annual revenue.</p>

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<p>Vermont State</p> <p>Most agencies seem to have western Vermont locations</p>	<p>Rural Vermont 15 Barre Street Suite 2 Montpelier, VT 05602 (802)223-7222 website: http://www.ruralvermont.org/</p> <p>NOFA www.nofavt.org PO Box 697 39 Bridge St, 2nd Floor Richmond, VT 05477 (802) 434-4122 Email: info@nofavt.org</p> <p>Rural Vermont speaks on behalf of small farmers and citizens. NOFA Vermont leads the organic interests, Shelburne Farms, the Intervale, Two Rivers/Foodworks, and new, emerging food-system hubs including the Rutland Area Food & Farm Link, Hardwick’s Center for an Agricultural Economy, and Vital Communities/Valley Food & Farm are building a local food system, and nearly a dozen local food groups are creating a regional food system that has roots in the 1970s and 80s.</p>	<p>Vermont seems to have a long-running network of farm/food organizations that link together to sustain specific programs such as Vermont Fresh Network’s farm and chef partnership; Vermont FEED (Food Education Every Day)’s farm to school program run as a partnership of three Vermont non-profit organizations, partners with state and local, public and private organizations to provide school communities with the capacity to create local connections and foster sustainable school food system change; and NE Organic Farming Association of Vermont (NOFA)’s farm to cafeteria programs including farm to college and farm to hospital and a multi-farm CSA program integrating the products of two or more local farms and/or food businesses for distribution through member shares. These partnerships are often made between different kinds of farms (e.g. vegetable farms connecting with orchards, dairies, and meat growers) and can also work well between farms and local food businesses (e.g. farms connecting with local bakeries, wild-edible foragers, cheese makers, etc.) with Farm Share and Senior Farm Share programs for low-income consumers by subsidizing local CSA shares. There are currently about 20 Vermont farms working with these initiatives and developing food security in their communities. NOFA-VT coordinates with the markets to support special events designed to draw new and return shoppers to the market including the Shop Fresh with the Chef and Youth Farmers’ Markets. Many locavore organizations (known as Pods) have sprung up in communities across Vermont and are inspiring their communities to chose local foods and support their local farmers, thus creating demand for food grown in Vermont. For example, the "Buy Local, it's just that simple" campaign encourages consumers to shift 10% of their food purchases to local providers and estimates the potential economic impact of doing so to be \$100 million. The Vermont Food Bank is Vermont’s only food bank that serves 270 network partners: food shelves, pantries, senior centers, shelters and after-school programs. Vermont has the highest per capita direct sales among the fifty states (USDA, 2004).</p> <p>Vermont Sustainable Agriculture Council has mapped Vermont’s local food system (http://www.uvm.edu/sustainableagriculture/Documents/SACMappingreduced.pdf)</p>	<p><i>Non-profit network model:</i> These groups are funded by business and educational sponsors as well as dues-paying members. They sell educational materials and are linked with Universities and government agencies.</p>

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<p>British Columbia, Vancouver area</p>	<p>Farm Folk/City Folk community-based food system 1937 West 2nd Avenue Vancouver, BC Canada V6J 1J2; (604) 730-0450 Email: info@ffcf.bc.ca Website: http://www.ffcf.bc.ca/index.html</p> <p>FarmFolk/CityFolk FF/CF is a non-profit of farmers and urbanites co-creating a community-based sustainable food system, by engaging in public education; advocating around local issues; and building alliances with organizations to connect farm & city, producer & consumer, grower & eater.</p>	<p>Farm Folk/City Folk founded in 1993 coordinates food delivery schemes, holds annual harvest festivals on farms, converts large city parks into working farms, and acts as a matchmaker between people with land who no longer actively farm with people who want to farm but cannot afford to.</p> <p>As a means to address development pressures on farmland and the difficulties for new farmers like the high cost of land, low incomes, hard work and high risk of farming, FF/CF partnered with The Land Conservancy of BC to initiate a Community Farms Program. A community farm is a multi-functional farm where the land is held “in trust” for community and a wide variety of activities take place on a shared land base: food production, environmental education, agricultural mentorship, conservation of natural and cultural heritage, outdoor recreation and co-housing, for example. People who want to farm sustainably on a small scale are investing in community farming. There are currently more than 20 community farms which give new farmers access to affordable land through long-term leases and provide flexible labor pools. Farm Folk/City Folk works towards re-localizing the food system by encouraging eating locally, to spur local economic growth while conserving farmland through active agricultural use.</p>	<p><i>Non-profit model:</i> This non-profit is supported by membership dues, selling buy local coupon books, endowment funds.</p>

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Missouri	<p>Food Circles Networking Department of Rural Sociology University of Missouri-Columbia 204 Gentry Columbia, MO 65211 Mary Hendrickson (573) 882-3776 -Phone (573) 882-5127 -Fax Email: HendricksonM@missouri.edu Website: http://foodcircles.missouri.edu</p> <p>Growing Growers K-State Research and Extension 35230 W 135th Street Olathe, KS 66061 Laura Christensen, Program Manager (816) 805-0362 (cell) Email: growers@ksu.edu Website: www.growinggrowers.org</p> <p>Missouri Rural Crisis Center 1108 Rangeline Street Columbia, MO 65201 Phone: 573-449-1336 Fax: 573-442-5716 Email: info@morural.org</p> <p>The Missouri Rural Crisis Center's (MRCC) mission is to preserve family farms, empower farmers and rural communities, promote stewardship of the land and environmental integrity, and strive for economic and social justice by building unity and mutual understanding among diverse groups, both rural and urban.</p>	<p>A Food Circle is concerned with promoting the consumption of safe, regionally grown food that will encourage sustainable agriculture and help to maintain farmers, who will sustain rural areas. "We are working with interested farmers to set up a packing facility and distribution system that all farmers can use. Our goal is to enable area farmers to provide Kansas City restaurants and food stores with a steady supply of product, packaged like they want it and delivered all together so each farmer doesn't have to do his own thing," says Hendrickson. The Food Circles Networking Project is acting as a facilitator and resource provider. The project's educational efforts also extend to buyers. Hendrickson notes that some local products that chefs most desire require different packaging than the commodity-versions of the products. For example, buyers are used to their tomatoes being delivered in 25-lb. boxes. But the heirloom tomatoes they want from a local farmer aren't sturdy enough to be packaged in such a large box. Chefs also need to be educated on how to manage menus featuring local products that can't be supplied year-round, and, how to utilize the local food products' stories in their marketing and promotions.</p> <p>One such food circle is Kansas City Food Circle (a consumer organization) that collaborates with K-State Research and Extension, University of Missouri Research and Extension, and the Kansas Rural Center, to create Growing Growers with a goal of providing educational opportunities to help new growers get started and established ones get better at what they do. This is done through <i>farm apprenticeships</i> on farms that sell in the Kansas City. Farm apprentices work on a local farm to get first-hand, practical experience; they attend monthly workshops; they get direct one-on-one training from their farmer. The apprenticeships are both paid and volunteer; Growing Growers offer a first year apprenticeship that provides a broad overview of farming and then a follow-up second year apprenticeship that emphasizes more advanced farm management skills. There is a Growers Listserv of area growers, restaurateurs, grocery stores, and others interested in the local farming industry. Local grocers and restaurants can post emails soliciting suppliers, etc.</p>	<p><i>University research model:</i></p> <p>A Joint Project of the Missouri Rural Crisis Center and the University of Missouri with Extension staff in Kansas City and St. Louis</p> <p>Funded by government through academia</p>

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Iowa	<p>Practical Farmers of Iowa (PFI) Food Systems Program 2035 190th St. Boone, IA 50036-7423 Rick Hartmann (515)232-5661, ext. 104 Email: hartmann@practicalfarmers.org Website: practicalfarmers.org</p>	<p>PFI's Field to Family Community Food Project (FTF CFP) is notable for its success in creating new programs that become self-sustaining, locally run businesses. FTF integrates a number of smaller projects under a common food system framework in order to create synergies between the various programs, and catalyze new relationships between producers, processors and consumers. These projects include a Community Supported Agriculture (CSA), a farmers' market; hands on nutrition education through cooking and gardening classes; a catering service that offers All Iowa Grown Meals; and supporting events such as the Harvest Festival, a summer camp and the annual Food, Farm and Nutrition conference. One of PFI's most successful projects is its All Iowa Grown Meals. <i>PFI acts as a broker</i> for organic and locally grown foods served by conference centers, restaurants, and caterers. They work with 46 producers that practice sustainable agriculture from across the state. In the year 2000, they served approximately 6,000 people and generated \$16,000 in revenue for the farmers. Each event features a special menu listing all producers and a few words about sustainable agriculture and buying local to support small family farming.</p> <p>In 2004, the University of Northern Iowa's Local Food Project, which acts like a local food distributor, arranged \$465,000 in local food sales for 23 buyers, including supermarkets, restaurants, and institutional cafeterias, up from \$110,773 for three institutions in 1998 (http://www.ceee.uni.edu/Home/Programs/LocalFoods)</p> <p>In business since 2000, GROWN Locally, Goods Raised Only With Nature Locally, is a <i>cooperative</i> of over twenty small local farms dedicated to providing fresh, high quality foods to local food service institutions in a five county region of NE Iowa, with a CSA and linked with the Oneonta Community Food Co-op. Food services they sell to have mainly been hospitals, nursing homes and health care facilities. During its first year (2000), they worked with 14 buyers. In 2001, they started to work with additional food service establishments, including Luther College and a couple of restaurants, one which worked to build their menu around what GROWN Locally had available. (http://www.grownlocally.com/Sustainable.html)</p>	<p><i>Farmers' Cooperative model:</i></p> <p>Practical Farmers of Iowa (PFI) received a 1997 USDA CFP grant of \$135,600 for three years to help develop a food system that focuses on supporting local farmers and low-income households.</p> <p>To help sustain the All Iowa Grown Meals program, PFI created a fee system and organized annual fundraising dinners.</p> <p>GROWN Locally member's initial investment was \$100. Buyers are included in their monthly meetings and decision-making when possible.</p>

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	<p>Woodbury County, Iowa Woodbury County - Courthouse 6th Floor Department of Rural Economic Development 620 Douglas Street Sioux City, IA 51101 Robert B. Marqusee (712)279-6609 Email: rob@marqusee.com Website: http://www.woodburyorganics.com</p>	<p>Woodbury County is unusual in several major ways: it is a rural county deep in the heart of industrial agriculture; the county government has made a strong commitment to supporting organic and local agriculture as an economic development strategy; and the local food system work has evolved from a small, all-volunteer effort to significant economic and policy changes within just a few years. A local group called Sustainable Foods for Siouxland (SFFS) started organizing in 2003 and SFFS opened a year-round farmers' market in 2004. In 2005, a turning point came when Woodbury County hired a <i>Director of Rural Economic Development</i>, who was charged with determining what the county could do to stimulate economic growth while maintaining the rural character of the community. The County Board offered <i>property tax rebates</i> to farmers transitioning to organic agriculture (up to \$10,000 a year for five years) and established a public campaign for healthy lifestyles that included a <i>mobile farmers' market</i> and middle school cooking classes using fresh, local ingredients. In early 2006, the Board passed a Local Food Purchase Policy, which requires the county food service to purchase food grown and processed within 100 miles, with a preference for organics. The number of active producers at the farmers market has doubled from 10 to 20 over the last two years, and sales have increased about 20% in the last year.</p>	<p>County government programs under the Department of Rural Economic Development</p>

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Geographic Extent	Regional or Metropolitan Food System Name, Managing Entity & Brief Description	Food System Elements Involved	Funding Models
Pacific Northwest examples			
Western Montana	<p>Western Montana Grower’s Cooperative (WMGC) P.O. Box 292 Arlee, MT 59821 Mark Wehri, general manager (406)726-4769 phone (406)726-4770 fax EMAIL: grower@wmgcoop.com Website: http://www.wmgcoop.com</p> <p>The Western Montana Growers Cooperative was incorporated in early 2003 and started to sell member produce between Polson and Missoula that summer to wholesale and individual customers, by distributing their growers’ local food to restaurants, groceries and some local schools.</p> <p>Land Link Montana Community Food and Agriculture Coalition 127 N. Higgins Avenue, Suite 305, Missoula, MT 59802 Paul Hubbard, Program Coordinator (406) 543-0542 Email: pfhubbard@gmail.com ATTN: Land Link Montana</p>	<p>WMGC has 28 member farms supplying a wide range of items, including organic fresh fruits and vegetables, some processed fruits and vegetables, organic dairy products, local honey, and a variety of meats: organic poultry, natural beef, pork and bison. The website page on farmer profiles is one worthy of replicating (http://www.wmgcoop.com/?p=profiles). WMGC provides a wholesale marketing and delivery service for its members. Farmers bring their goods to a central warehouse in Arlee where the co-op truck is loaded. The deliveries are then made the next day – twice a week in the summer and once a week in the winter. In Arlee, Common Ground working through WMGC grows produce served in Missoula County Public Schools and then with access to a commercial, U.S. Department of Agriculture-approved kitchen for processing it has “value-added” produce from the organic farm, to make it more attractive to the school districts. Common Ground can now chop its own romaine lettuce, shred or slice carrots, and is trying something new - shredding and freezing organic zucchini, to be used by schools later for cooking and baking. It and 13 other producers are working through the Western Montana Growers Cooperative, which links restaurants, schools and other groups with local food producers (archived story from Missoulian.com)</p> <p>Land Link Montana is a matching service that connects landowners who want to see their land remain in agriculture with producers seeking access to agricultural land. The two parties then create a business agreement, such as a lease or sale. Land links facilitate successful farm/ranch transfers by providing: technical assistance on lease agreements and loans; referral networks to agriculturally savvy lawyers, accountants, and lenders; apprenticeship opportunities for beginning farmers.</p> <p>Incubator Farms A healthy local food system not only requires farmland, but also a new generation of farmers, particularly those who want to grow for local markets. Incubator farms lease land to new farmers, provide technical and market development assistance, facilitate sharing of equipment (which reduces start-up costs) and create an opportunity for farmers to learn from their own and others’ experiences. Then, once their businesses are viable, they spin off the incubator farm and find their own land. Although creating an incubator farm requires major donations and capital investment initially, over time the fees earned from the farmers can lead to financial sustainability for the operation of the program (Neva Hassanein, in Edible Missoula, Spring 2008).</p>	<p><i>Farmers Cooperative Model:</i> Funded in 2002 by a community food systems grant to fund lead staff person, WMGC grew out of this process and is now completely independent of the Lake County Community Development that initiated it.</p> <p>According to the general manager: “We generate our operating income by marking up what our producers supply the Co-op. We try to achieve a 25% gross margin to cover operations, which means if we sell something for a dollar the growers gets \$.75. The \$.25 goes toward operations. It is a cost based service, so if we generate more revenue than is needed for operations in a year, the members vote on whether that money will go back into their pockets or go toward infrastructure.”</p>

Table 1. Successful Regional Food System Examples

Geographic Extent	Regional or Metropolitan Food System Name, Managing Entity & Brief Description	Food System Elements Involved	Funding Models
	<p>Montana’s Mission Mountain Food Enterprise Center a project of Lake County Community Development Corporation Contact: market@ronan.net or phone 1-888-353-5900. Website: http://www.mmfec.com/index.html</p>	<p>Montana’s Mission Mountain Food Enterprise Center consists of a Commercial Kitchen and Food Processing Center, our Market Association with \$50 annual fee, and a Business and Cooperative Development Center. This is a non-profit economic development center dedicated to assisting farmers, gardeners, fishermen, restaurateurs and manufacturers by assisting food-related businesses research and access raw materials and packaging; jump regulatory hurdles related to packaging, labeling and processing and help with advice on developing and marketing specialty food products.</p>	
<p>City of Portland, OR and surrounding Multnomah County</p>	<p>Portland/Multnomah County Food Policy Council 721 NW 9th Ave, Suite 195 Portland OR 97209 Susan Anderson, Director (503)823-6800 www.portlandonline.com/osd/index.cfm?c=41463</p> <p>Founded in 2003, a citizen-based advisory council to the City of Portland and Multnomah County that brings citizens and professionals together from the region to address issues regarding food access, land use planning issues, local food purchasing plans and many other policy initiatives in the current regional food system. It falls under the city’s Bureau of Planning and Sustainability. The Council is working with the region’s planning commission to encourage the inclusion of food access, affordable food and the viability of state agriculture in the region’s five-year comprehensive plan (as part of city & regional planning).</p>	<p>Portland/Multnomah County FPC seeks additional efficiency and effectiveness from a sort of “bilateral” arrangement between the city and the surrounding county. The regional food system emphasizes consumer education and community gardens, urban farms, youth programs, anti-hunger programs through Oregon Food Bank, and Urban Growth Bounty classes that include starting your own CSA and growing abundant vegetables with Small Plot Intensive (SPIN) Farming techniques. Citizens can find local food from CSAs, farmers markets, U-Pick farms, co-ops and grocery stores, home delivery groceries, local farms, caterers, and directories that include restaurants. Edible Portland is a quarterly publication devoted to local, seasonal foods, published by Ecotrust Food and Farms. Portland Public Schools run a local foods lunch program in which once a month, every ingredient of school lunch is swapped out for locally grown and processed versions—from the wheat in pizza dough to the beans in chili to the lettuce in the salad bar. Zenger Farm in SE Portland, Luscher Farm in Lake Oswego and Sauvie Island Organics are three multi-functional farms on publicly-owned lands. Each plays host to a CSA operation and offers educational programming for people of all ages. In 2007, Multnomah County commissioners resolved to create a "County Digs" Project ("Project") which identifies County-owned property suitable for urban agriculture and makes the property available to the public through property transfer or long-term lease for agriculture purposes. Urban agriculture includes community gardens, CSA, farms, farm stands, plant and flower production, small farm and farmer incubator businesses, and others.</p> <p>One innovative distribution model is the New Seasons Market, a Portland-based chain with six stores in Oregon, whose mission includes the goal of “building a regional food economy.” New Seasons buys from hundreds of small and mid-sized farming, fishing, ranching and manufacturing operations that have individual relationships with the purchasing managers. New Seasons cuts deals on price without a middleman and not based on the Commodity Price Index, but instead based on what the producer needs and what New Seasons Market thinks it can afford.</p>	<p><i>Food Policy Council model:</i></p> <p>City of Portland budgeted \$500,000 for 2008-2009 a sustainable economic development initiative in the Office of Sustainable Development, focused on sustainable food policy, sustainable business support, and biofuels.</p> <p>A recent report, <i>Growing Portland’s Farmers Markets/Direct-Market Economic Analysis</i>, details a \$17 million regional economic impact and estimates that farmers markets account for three percent of annual countywide consumer purchases of fruit and vegetables.</p>

Table 1. Successful Regional Food System Examples

Geographic Extent	Regional or Metropolitan Food System Name, Managing Entity & Brief Description	Food System Elements Involved	Funding Models
King, Snohomish, and Pierce Counties in Western Washington	<p>Cascade Harvest Coalition 4649 Sunnyside Avenue North, Room 123 Seattle, Washington 98103 Mary Embleton, director (206)632-0606 (206)632-1080 Email: mary@cascadeharvest.org Website: http://www.cascadeharvest.org/</p> <p>The Coalition incorporated as a non-profit in 1999. Since then, CHC has built programs and services that support farmers, consumers and communities; built effective working relationships with a wide variety of people and organizations; to change the food system for the better.</p>	<p>Cascade Harvest Coalition has a variety of programs to re-localize the food system in Washington and more directly connect consumers and producers. Each program focuses on an important step in the process of getting local farm products from seed to market:</p> <ul style="list-style-type: none"> • Puget Sound Fresh is the region’s premier “eat local” farm product branding and consumer education program. The CSA Directory 2009 lists 100 Farm-based CSAs and hybrid CSAs that include other farms’ produce as well. • Washington FarmLink is the state’s only program that links aspiring farmers with landowners and helps grow new sustainable farming operations. • Farm-to-Table: Connecting Local Farmers with Local Food Buyers is an annual series of workshops that connect local farmers with local buyers in an effort to create access to new markets and expand sales for locally grown products. • The Puget Sound Food Project is assessing the feasibility of and strategically planning for the development of a multi-purpose agricultural processing facility for small- and mid-sized producers in the Puget Sound region. • Harvest Celebrations are annual on-farm festivals to honor, celebrate and share in the bounty of local agriculture and an opportunity to connect urban residents with rural communities. • The Helping Hands Project is a series of work parties where local community volunteers help out on the farm and in exchange the farm donates fresh produce to local food banks. 	<p><i>Non profit network model with some county government support</i></p> <p>Funded through WSDA grants, business and foundation donations</p>
Willamette Valley, Oregon State	<p>Willamette Food and Farm Coalition PO Box 41672 Eugene, OR 97404-0389 (541) 341-1216 Email: info@lanefood.org Website: http://www.lanefood.org/</p>	<p>Since incorporation in 2000, the Willamette Farm and Food Coalition has drawn on the networking roots of a local food community that has been organizing for 30 years. The Willamette Farm and Food Coalition is a community based non-profit committed to developing a more secure and sustainable food system within Lane County, Oregon. WFFC is joining forces with Ten Rivers Food Web in Corvallis to come up with innovative ways to support farmers willing to transition acreage currently in grass seed into plots growing organic beans and grains. They believe growing more beans and grains in the Willamette Valley and selling them locally vs. shipping them elsewhere, are critical steps toward strengthening our regional food system. The Coalition is working to develop local markets (co-ops and buying clubs) and build infrastructure (processing and storage) to create incentives for farmers considering making the transition. Read an extensive report by Dan Armstrong on the Southern Willamette Valley Bean and Grain Project</p>	<p><i>Non profit network model:</i></p> <p>This non-profit is dependent on foundations, grants and sponsors</p>

Table 1. Successful Regional Food System Examples

Geographic Extent	Regional or Metropolitan Food System Name, Managing Entity & Brief Description	Food System Elements Involved	Funding Models
Native American examples			
Oneida, Wisconsin	<p>Oneida Community Integrated Food System of Wisconsin PO Box 365 Oneida, Wisconsin 54155 1-800-236-2214 Website: http://www.oneidanation.org</p>	<p>Oneida Community Integrated Food System of Wisconsin has farm, food pantry, farmers market, orchard, cannery, retail store, and 4-H programs that include school garden and growing bioenergy crops (see http://www.oneidanation.org/ocifs/page.aspx?id=526)</p>	<p><i>Food Policy model through government funding</i></p>
Southern Arizona	<p>The Tohono O'odham Community Action (TOCA) Tohono O'Odham tribe lives on the second largest reservation in the US Post Office Box 1790 Sells, AZ 85634 Website: http://www.tocaonline.org/</p> <p>Founded in 1996, Tohono O'odham Community Action (TOCA) is a 501(c)(3) non-profit dedicated to creating a healthy, culturally vital and sustainable Tohono O'odham Nation.</p>	<p>TOCA in 1997 received an \$80,000 USDA grant for three years to help re-develop a comprehensive food system, including the production and distribution of healthier and more traditional staples along with nutritional and cultural education. In an effort to decrease food insecurity and increase self-reliance in this impoverished Indian nation, they have concentrated on redeveloping traditional flood based dryland farming, home gardening and the gathering of wild foods. When asked of the future direction for this program, the co-director of TOCA, excitedly speaks of a new production farm, the establishment of a cooperative for food processing and farming equipment, such as tractors and rototillers, as well as food processors, grinders and bean cleaning machines.</p>	<p><i>Non-profit model through USDA grant, businesses and foundation support</i></p>

Clearly, successful regional food systems can vary from place to place with an emphasis on supporting regional farming through direct and cooperative marketing, value-added processing, farmland conservation, and entrepreneurship programs as well as improving access to locally grown foods for eaters of all income levels through CSA shares, farm-to-table programs, anti-hunger advocacy and consumer education. Regardless of the location however, producers are often challenged in terms of difficult access to some local markets and limited infrastructure for food processing.

Key issues in regional food system development

Importance of distribution

One key element in regional food system sustainability, especially in relation to direct marketing viability, seems to be the form of distribution or delivery network that is developed. University of Wisconsin's Center for Integrated Agricultural Systems or CIAS (<http://www.cias.wisc.edu/about/>) has mapped distribution networks that aggregate and distribute local and regional foods across the country. The various types of business models that CIAS has classified as distribution networks are cooperative, home delivery network, farmer aggregator, auction, non-profit organization, value-added processor and independent business (see map at <http://www.cias.wisc.edu/uncategorized/distribution-models-for-local-food/>). For example, farmer-to-farmer networks and the linking of CSA farms into networks to supply a diversity of produce, dairy, and meats to regional share-holders is noted as an innovative organizational structure to build regional food systems and economically sustain farm families. Networks help farmers distribute information, offer moral and technical support, and share resource leads. For example, Wisconsin farmer-to farmer networks have established sustainable agriculture libraries, tested the use of computers in making farm decisions, sought funding for on-farm research, developed marketing links with cities, and coordinated conferences on topics of interest to farmers (www.cias.wisc.edu/networks.php#Wisconsin).

Challenges and solutions for small scale meat production

Small-scale livestock processing is challenging for most direct market producers. In a survey of Oregon and Washington livestock producers, Martin and Lawson found that 60% said they needed improved access to a USDA-inspected processing facility. In addition, 29% of producers cited a scarcity of USDA-inspected facilities as a challenge to their business (Martin & Lawson, 2005). Producers who cannot access USDA-inspected slaughtering and processing services in Washington can still sell animals to consumers if the meat is slaughtered by persons licensed by the WSDA. However, this meat can be marketed only to a relatively small subset of customers, because the animals must be sold live to the end consumer, to comply with the WSDA requirement that persons licensed by them can only slaughter or process "un-inspected meat food animals" for "the sole consumption of the owner." After purchase, the end consumer (or sometimes, the producer) contracts with a custom slaughterer to have the animal killed and processed. The meat from animals slaughtered and processed by WSDA-licensed facilities may not be re-sold, and therefore, producers cannot sell the animals to restaurants or groceries.

Nor can they sell cuts at farmers' markets, or through Community Supported Agriculture (CSA) Programs. For a summary of meat processing issues in Washington see WSDA report at <http://www-stage.agr.wa.gov/FoF/docs/MeatProcessing.pdf>.

One alternative model is The Northeast Livestock Processing Service Company, LLC (NELPSC), with programs to help farmers meet the growing demand for ethnic markets, processing of livestock for local and other niche markets, and connecting individual farmers with specific markets. Currently, NELPSC facilitates the processing of livestock, by finding the most appropriate processor, scheduling slaughter and overseeing processing to ensure quality control and consistent high yields. The company is funded by grants from the New York Farm Viability Institute and the NYS Department of Agriculture and Markets with additional support is received from USDA Natural Resources Conservation Service, Rensselaer County Economic Development Office, and the Hudson Mohawk RC&D Council.

Washington State has its own track record for innovation in livestock processing, with Island Grown Farmer Cooperative (IGFC) mobile processing unit (MPU) as the first USDA-inspected mobile slaughter facility for red meat in the U.S. Started in 1996, IGFC is a service co-op for livestock farmer-members to share the use of the MPU which was developed through a partnership between San Juan County extension service and Lopez Community Land Trust. The Community Agricultural Development Center in collaboration with WSU Stevens County Extension received a grant from Washington State Department of Agriculture to design, build and test a mobile poultry processing unit which is now used in both Stevens and Ferry counties. Poultry growers need to obtain a water sample, a food processing license, and an inspection from WSDA Food Safety Department for approved use on the farm.

In an effort to gain complete control over their meat products from 'pasture to plate', Thundering Hooves in Walla Walla completed construction of their own USDA on-farm slaughter trailer, or *Abattoir* (French term for 'slaughterhouse') in January 2007. Livestock are harvested on the farm under scrutiny of a USDA inspector in the self-contained abattoir which is later driven to their USDA cut & wrap facility in Walla Walla, so the carcasses can be unloaded and appropriately aged to enhance flavor and tenderness. Their pasture finished and sustainably raised meats are marketed through Thundering Hooves meat shop and through neighborhood buyers clubs throughout the Northwest.

Innovative efforts that could catalyze success:

Profiles of innovative agriculture in the New American Farmer is a SARE publication that describes over 75 farming operations from around the US which are embracing new approaches to agriculture and connecting with consumers. They are renewing profits, enhancing environmental stewardship and improving the lives of their families as well as their communities (www.sare.org/publications/naf2/index.htm). These farmer profiles can be searched by commodity, region, or state. One can also search by problems that the farming operation addresses, such as 'demanding labor requirements' or 'ranching on public lands' and 'better connections with consumers' to find out how these innovative farmers are meeting challenges.

Karl Kupers of Harrington, WA is featured as an innovative farmer with his dryland grain which is Food Alliance certified and marketed regionally to bakeries, food service and high-end fast food outlets. Kupers' profit can run 10 to 12 percent ahead of farmers in a wheat-and-fallow system, although those impressive numbers are dependent upon adequate rainfall. He is one of the co-owners and member farmers of Columbia Plateau Producers which markets wheat under the Shepherd's Grain™ label, the first dry-land eco-friendly trademark in the marketplace. These farmers use direct-seeding systems, which avoid traditional tilling of the soil. This preserves the soil's natural biosystems, saves fuel, prevents soil erosion and limits water runoff.

Elements of successful systems

Beyond the common forms of direct marketing like farmers markets and CSAs, our review finds that the following elements are significant to successful regional food systems (innovative examples are included):

1. *Intensive urban farming--Growing Power*, Will Allen grows fresh local foods inexpensively but intensively all year round in the city of Milwaukee, using greenhouses, worm bins, chickens, ducks, and tanks of hydroponic produce and fish. He recently received a MacArthur Genius Award for his work that began in 1993 with a youth farming program and has since expanded to programs and training sites in Milwaukee and Chicago. Weekly farm shares are sold for as little as \$14/box but productivity tops most other urban farms, selling \$200,000 worth of produce in 2007 (McMillan, March-April 2009). He says the secret to his success is soil—not buying fertilizer, but making his own with worm compost and fish waste to grow inexpensive organic food. Growing Power composts more than 6 million pounds of food waste a year, including the farm's own waste, material from local food distributors, spent grain from a local brewery, and the grounds from a local brewer, and grounds from a local coffee shop. Other models for intensive urban farming include programs like **SPIN**, Small Plot Intensive farming or even **Sky Vegetables**, Keith Agoada partnership with grocery stores to build roof-top hydroponic farms that grow the produce that will be sold in the supermarkets below (thus reducing transportation, distribution, and warehousing costs, and minimizing investment in land). “The nation's grocery chains have about 32,500 acres of potential rooftop farmland (ibid).
2. *Distribution and Delivery*: Portland's **Organically Grown** Company convinced small, local farmers to stagger planting schedules, and purchased seasonal crops from farmers further south as needed to meet the year-round volume requirements of supermarkets. The small nonprofit grew into an employee- and farmer-owned company of 160 staff. Organically Grown runs its warehouse entirely with wind power, fuels its trucks with biodiesel and pays a living wage. **Food in the Public Interest** in NY City is facilitating the coordination of deliveries to farmers markets and CSA's by exploring the provision of 'green EZ-passes' and micro-loan programs that subsidize local farmers to convert their trucks to waste-based bio-diesel. **Cascade Harvest Coalition** received a \$27,050 grant from the Washington State Department of Agriculture Small Farm and Direct Marketing Program to pilot the “Farm-to-College” project with University of Washington. Like most large institutions, UW Food Services have time and delivery restraints that limit them from purchasing from many individual farms. So, Cascade Harvest Coalition is creating a collaborative ordering, delivery and invoicing system to supply the UW Food Services with a variety of products from local farmers and to serve as a model ordering and delivery system that can be replicated by other farmer groups interested in selling local

products to other major institutions. CHC also organizes tours of participating farms for food service chefs and employees and tours of kitchens and dining halls for farmers to become familiar with the UW food service operations, and the college dining experience. All products ordered by UW chefs are delivered by truck, twice a week, to UW Food Services. (for details, see <http://www.cascadeharvest.org/FarmtoCollege.htm>).

3. *Farm to Cafeteria programs:* **New North Florida Cooperative** has been working with school districts since 1995 to provide fresh produce for school meals. From 60 to 100 African-American farmers based in Florida, Georgia, Alabama, Mississippi, and Arkansas serve more than a million students in 72 school districts. The association initially received financial assistance for the purchase of infrastructure and equipment to expand processing and distribution along with \$40,000 grant from the USDA Agriculture Marketing Service, but now about 90% of funding for NNFC marketing efforts comes from direct marketing sales. **Olympia School District's** Organic Choices Salad Bar-- The food service department reached an agreement with one local farm and is currently purchasing the organic potatoes and squash it grows. The food service department also made an agreement with another local farmer, who began providing organic salad greens for the school lunch program in the spring of 2003. Farmers and wholesale distributors deliver foods to the central kitchen at the district. These foods are then distributed to each participating school with their regular deliveries in district owned trucks. In addition to purchasing direct from farms, the Olympia School District works with a local produce distributor to source local organic salad greens, fruits and vegetables when in season and available. Please see the Washington State Department of Agriculture Farm to Cafeteria Connections handbook of marketing opportunities for small farms. <http://www.agr.wa.gov/Marketing/SmallFarm/docs/102-FarmToCafeteriaConnections-Web.pdf>
4. *Marketing Cooperatives:* Oregon's **Country Natural Beef** formed in 1986 as a consumer driven beef marketing cooperative of 29 members with a vision to protect open spaces by preserving the rural culture and families that nurture them. "Country Natural Beef is a conduit allowing individual family ranches to own, control and finance our beef from birth of the calf to our retail customer" (<http://countrynaturalbeef.com>). The beef is marketed through restaurants like **Burgerville** and retail stores throughout the West, like Puget Sound Producers Cooperative, New Seasons, and Whole Foods. One other example is **CROPP**, the US largest organic farmer's cooperative with 700 members in a regional cooperative structure (NW, NE, Rocky Mountains, Midwest, Florida, California and Texas). They started by growing and marketing cooperatively organic vegetables. Some of the growers also had dairies and felt the time was right to develop the organic dairy products market. CROPP produced and sold its first organic cheese as a private-label product by the early 1990s. With the encouragement of consumers who were concerned with food quality issues and who wished to purchase more natural, nutritious food grown without the use of pesticides or herbicides, CROPP developed its own brand name - Organic Valley - and expanded its line. CROPP's four divisions - dairy, eggs, meat and produce - hold monthly pool meetings that are open to all members. By 1999, CROPP was the first nationwide marketer of organic pork and poultry meat products. Now the cooperative markets the Organic Valley and Organic Prairie brand name products (www.organicvalley.coop/)
5. *Value-added processing including livestock that has been grass-fed or pasture raised:* There seems to be some cost-saving in pasture-raised or grass-fed beef, "Everyday that

our cattle are grazing out on these pastures as opposed to being fed hay, we are saving over \$1500/day.” High Sierra Beef ranchers in California find that grass-fed livestock can be profitable, but the future may lie in “tapping into more efficient and effective ways to direct-market meat to ‘buying clubs’ or larger groups of consumers who pre-order meats on a regular basis” (Capital Press Agriculture News, 12/07/07). Taking value-added one step further, **Wholesome Harvest** is a coalition of over 40 farmers in four states that raises, slaughters, and markets certified organic animals. Founded in 2001, Wholesome Harvest has been offering premium organic certified poultry and meats to grocers, chefs and households. “Our commitment to quality extends above USDA organic standards to additionally include pasture based production methods--and no feedlots or confinement/factory farms. Low density pasture production on small family farms ensures a higher quality of life for the animals, better environmental stewardship, and added flavor and nutrition. We are committed to revitalizing decimated rural communities and Fair Trade principles. Simply put, it means farmers make a living wage and can keep their family farms. While we work for a domestic fair trade certifying agency, we are going ahead and voluntarily following the **international principles of Fair Trade**, with collaboration on price setting and transparency of finances to farmers, the option for farmers to become owners and share profits, and a farmer board leading the organization. We seek to offer independent food choices for consumers that have traceability systems and authenticity in intention and production.”
(<http://www.wholesomeharvest.com>)

Finding scale-appropriate marketing schemes and using a diversity of direct marketing approaches can also catalyze greater regional food system success. It is important to consider effective use of information technologies. For example, the national Rural Coalition's *SuperMarket Project* is an ambitious, collaborative effort of rural, community-based agricultural cooperatives to employ technology in the preservation of their communities, cultures and farming professions. The project currently focuses on three exciting opportunities for opening new markets and increasing the competitive advantage of small farmers; an on-line retail storefront, a subscription-based food of the month program and an online product availability database (<http://www.supermarketcoop.com>).

Sustainable Seattle's *Why Local Linkages Matter* report and the action plan recommendations at its conclusion are worth reviewing for recommendations on expanding the local food economy. For example, “an efficient distribution system could draw more restaurants, grocers, and institutional food service into buying local. Given their high multipliers, adding more restaurants into the network by making it easier for them to source local food could greatly increase the impact of locally-directed spending. One proposal is a wholesale farmers market open 2 to 3 hours in the mornings. Another idea is to create a “smart” web-based information system that could efficiently move local product to grocers, restaurants, institutional food service kitchens, and food banks. The system would be an on-line resource for matching needs with capacity, taking into account efficient distribution routing, thereby helping to cut carbon dioxide emissions associated with local distribution”(ibid., p.E4).

Strategies for rural areas

For rural areas in particular which have smaller populations for direct consumer marketing, food system researcher Brian Halweil suggests that institutional food service will be an important

route to regional food system viability. “Currently, farm-to-institution projects remain small, and a large gap exists between what nearby farmers and food makers can supply and the current (and future) demand from foodservice companies. Apart from a few large success stories, these programs are not making a noticeable dent in farm income; price remains a barrier for budget-conscious cafeteria directors, as does the logistical hassle of dealing with smaller growers. As larger foodservice buyers—from the Department of Defense to Kaiser Permanente to Sysco—enter the fray, they could help eliminate price and distribution barriers, and increase returns to rural communities” (Halweil, 2005). In the Pacific Northwest, larger foodservice buyers include onsite restaurant companies such as Bon Appetit Management company (<http://www.bamco.com/>) which provides café and catering services to corporations, colleges and universities while highlighting where the food served comes from and how it is grown. Bon Appetit partners with CAFF’s Growers Collaborative LLC which aggregates product from farms that are too small to work with conventional distributors, removing a significant marketing barrier for independent family farms across the state (<http://www.growerscollaborative.org/>).

The following list based on Halweil’s recommendations for rural areas might be an initial agenda for North Central Washington regional food system supporters to consider, along with its links back to the case-study food systems in Table One:

- Encourage business and entrepreneurship programs through land-grant colleges, farmer associations, or community groups. See FOOD CIRCLES in Table One.
- Examine the potential for farmer-owned cooperatives or value chain arrangements for supplying foodservice. Support value chain projects that provide models for major farm sectors, such as grains, meats, and dairy, and engage mainstream farm groups to attract new growers for these value chains. See GROWING GROWERS and WMGC in Table One.
- Support supermarket “buy local” and sustainable product campaigns that can ripple through the food chain. See PUGET SOUND FRESH in Table One and visit www.placergrown.org to learn about PlacerGROWN logo, signage, banners, stickers, point of purchase cards and other marketing tools that identify Placer County, CA producers. Also Sustainable Connections at www.sconnect.org has a ‘buy fresh’ logo in their food and farming program as part of their buy local campaign in NW Washington.
- Encourage kitchen incubators⁶, food processing ventures, and marketing cooperatives that can feed full-service farmstands⁷, cafeterias, and foodservice providers. See

⁶ Around the country, incubator kitchens have helped spawn many new community-owned food businesses, particularly where farmers and aspiring food entrepreneurs cannot afford their own equipment or need some marketing and production assistance. For example, the Food Innovation Center at Rutgers University has helped 225 clients, 94 percent of them farmers or small businesses, develop or market food products. With only about 14 in the US, food incubators are business incubators that specialize in incubating food ventures and usually provides specialized food technical support. Most food incubators are facility-based and include a commercial kitchen that meets rigorous City, State, and Federal health guidelines. Food entrepreneurs “share” the kitchen, reserving it for production, eliminating the need for each food specialty venture to construct its own costly production kitchen.

TORONTO Food Policy programs and Montana Mission Mountain Food Enterprise Center in Table One.

One final consideration in terms of rural food systems would be to establish regional composting facilities to dispose of commercial food scraps (from restaurants and agricultural processing) while educating food service and consumers about food waste reduction. Composted materials could then be used in school gardens, community gardens, and on farms as needed to close the system loop from waste to re-valued input.

Conclusions

This is a qualitative review of the literature in terms of representative regional food systems rather than a quantitative one, since an enumeration of the great variety of food system projects was not possible. It provides a starting point for deliberations on the place-specific food and farm network that might connect Wenatchee Valley, Okanogan Valley, Methow Valley and Waterville Plateau food systems in ways that would prove most valuable for family farmers, direct market producers, and the community residents interested in eating fresh, locally grown foods. In order to recommend strategic directions for North Central Washington's regional food system, key food system stakeholders can use this review and the case-studies in Table One to map out viable options for diversifying production systems, improving value-added processing facilities, creating efficient and affordable distribution and delivery, while keeping in mind the particular needs of rural-based consumers.

Rural Missoula County producers and eaters, for example, better understood their foodshed when University of Montana students used census data to detail relevant trends in area demographics, agricultural production, environmental constraints, food distribution, employment in farming and food-related businesses, consumption, and food security. Similar to the IRIS research plan, they sought input from agricultural producers in the county, regarding what they think it will take to keep farms in operation well into the future. The group also talked with Missoula County residents of various income levels to identify their diverse concerns regarding

There are many more community-shared commercial kitchens nationwide, built as social service agencies, not business incubators dedicated to increasing the likelihood of businesses success and accelerating their growth (<http://www.ci.bluffton.in.us/foodIncubator.htm>).

⁷ "Full-service farmstands, like Underwood Family Farms in Oxnard, California, do millions of dollars worth of business each year, keeping enough profit to employ large extended families in addition to hired staff. By working with other growers, these stands can offer something closer to one-stop shopping and they are selling more and more prechopped greens, soups and sauces, and other home meal replacement items. Statistics are not available to describe the growth of such full-service farmstands, but it is clear that many farmers around the country are using such businesses to increase their income and stay on the land" (Halweil, 2005).

food quality, cost and access. The results from both parts of this research can be found in the report titled [Production and Consumption Report: Food Matters](http://www.missoulafac.org/content/index/17) (<http://www.missoulafac.org/content/index/17>).

IRIS is well-positioned to ensure that food and food production play a role in defining and deepening a sense of place and identity in North Central Washington, which will help enable market opportunities and generate demand for regionally grown produce, grains, meats, and dairy. As EcoTrust suggests, a sustainable food system compensates farmers, ranchers, and fishermen for providing stewardship services other than day-to-day food production, such as wildlife habitat management, ecosystem service provision, energy production, and compost generation. Such a system aims for a critical mass of businesses throughout the value chain that are owned and operated by local people who are vested in the community, having enough of the regional market share to provide economic resilience to the region while nurturing innovation and opportunity for the next generation of local food producers.

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