

FOOD HUBS
CENTRAL PUGET SOUND
FOOD SYSTEM ASSESSMENT

REGIONAL FOOD POLICY COUNCIL
& UNIVERSITY OF WASHINGTON
JUNE 2011



PREPARED FOR THE REGIONAL FOOD POLICY COUNCIL
at the Puget Sound Regional Council

Councilmember Richard Conlin, Chair
Brad Gaolach, Vice-Chair

SPECIAL THANKS TO

Alon Bassok, Olivia Robinson, and Liz Underwood-Bultmann, Puget Sound Regional Council Staff
Megan Horst, Food Policy Council Intern, Puget Sound Regional Council
Roy Breiman, Chefs Collaborative
Linda Neunzig, Snohomish County

ACKNOWLEDGMENTS

Erik Baker, Kitsap County	Commissioner Charlotte Garrido, Kitsap County
Lindy Bannister, Wedge Community Co-op	Kate Halstead, Sno-Valley Tilth
Jim Barham, U.S. Department of Agriculture	Dan Hulse, Tahoma Farms
Brynn Brady, Pierce County	Louis Javeta, Bounty Hunter Seafood
Laura Flores Cantrell, Washington Farmworker Housing Trust	Carol Krause, Snohomish County Growers Alliance
Kate Collier, Local Food Hub	Bobby Moore, Willows Lodge
Doug Collins, Washington State University	Elliott Ryan, Latona Pub
Steve Evans, King County	

PREPARED BY

**University of Washington Department of Urban Design and Planning
Graduate Students**

Anne Broache	Ginger Daniel	Michael Goldman
Andreas Piller	Jenny Ngo	Michael K. Ward
Bo Wang	Joel McMillan	Michelle Umadhay
Briana Lovell	John Murphy	Patrick Green
Cameron Duncan	Jonathon Morrison Winters	Stefanie Young
Emily Anne Lindsey	Joming Lau	Tim Lehman
Erica Bush	Josh Vitulli	Ting Chen
Erika Harris	Kate Bonaparte	Travis English
Eun Jin Shin	Lisa Sturdivant	Virginia Werner
Eva Ringstrom	Matt Beal	

FACULTY

Branden Born, Associate Professor of Urban Design & Planning
Hossein Estiri, Teaching Assistant

June 2011

For more information contact studio67@uw.edu
View the studio team's full reports at <http://courses.washington.edu/studio67/psrcfood>

TABLE OF CONTENTS

Executive Summary	2
Introduction	14
Methodology	16
What is a Food Hub?	17
Why Create Food Hubs In The Central Puget Sound Region?	21
What Are The Challenges In Food Hub Development?	25
Examples of Food Hubs	27
CASE STUDY: Local Food Hub Charlottesville, Virginia	28
CASE STUDY: Wedge Community Co-Op Minneapolis, MN	32
CASE STUDY: The Everett Farmers Market Everett, WA	36
Key Considerations and Conclusions	39
Appendix FH-1: Case Study Interview Questions	40
Appendix FH-2: USDA Programs	41
Notes	45

PROJECT BACKGROUND

This project represents the final product of a twenty-week graduate studio course in the Department of Urban Design and Planning at the University of Washington's College of Built Environments. The studio team members come from a range of backgrounds, including urban planning, urban design, architecture, landscape architecture, real estate development, and public affairs and policy.

The Regional Food Policy Council enlisted the University of Washington studio team to identify and pursue research topic areas examining the regional food system. The Council sought to meet two major goals: creating a common knowledge base among Council members about the region's food system and informing the development of early action items on the Council's work plan.

During the first half of this project, the studio team produced a report describing the current state of the food system in the central Puget Sound region, composed of King, Pierce, Snohomish, and Kitsap counties. Through compiling this initial conditions report, the team developed a thorough understanding of five components of the region's food system (production, processing, distribution, consumption, waste stream) and four other topics that impact, and are impacted by the region's food system (the environment and tribes, restaurants, and comprehensive plans). The team compiled existing data on each topic and identified strengths, challenges, and outstanding questions, culminating with a presentation to the Regional Food Policy Council on March 11, 2011.

During the second half of this project, the studio, in partnership with Regional Food Policy Council staff, prioritized six more specific topics for further study based on the findings from the initial conditions report. Each topic addresses an emerging issue in the food system, gaps in existing data, and policy or programmatic needs identified jointly with the Regional Food Policy Council. The studio team employed a variety of research methods, including field data collection, archival research, policy scans, geospatial analysis, case studies, and interviews with food systems stakeholders. Each element of the project is a standalone report and is described in more detail below.



REGIONAL FOOD POLICY COUNCIL HISTORY AND CONTEXT

The Regional Food Policy Council, chaired by Seattle City Council President Richard Conlin, comprises 30 members representing all parts of the food system as well as government, social justice, anti-hunger, educational, and economic development organizations. The Regional Food Policy Council is housed within the Puget Sound Regional Council, the federally recognized Metropolitan Planning Organization for the central Puget Sound region, serving King, Pierce, Snohomish, and Kitsap counties. The Regional Food Policy Council is a working advisory committee that reports to the Puget Sound Regional Council's Executive Board and provides regional structure and coordination on food system issues.

The Regional Food Policy Council's formation reflects from the incorporation of the food system into the planning lexicon, as planners and policymakers are increasingly aware of the food system's widespread influence on the economy, environment, and society. Since convening its first public meeting in September 2010, the Regional Food Policy Council has established its vision, goals and mission statements, and is currently developing its future work plan.

Regional Food Policy Council Vision and Mission

Vision: The Regional Food Policy Council envisions a thriving, inclusive and just local and regional food system¹ that enhances the health of: people, diverse communities, economies, and environments.

Mission: The Regional Food Policy Council develops just and integrated policy and action recommendations that promote health, sustain and strengthen the local and regional food system, and engage and partner with agriculture, business, communities and governments in the four-county region.

Regional Food Policy Council Goals

- **Agriculture:** strengthen the economic vitality and viability of farming and promote a vibrant community of farmers; maximize opportunities for farming across scales; preserve land for farming.
- **Economic Development:** advance regionally-scaled infrastructure; enhance economic viability of local and regional food systems; support living-wage jobs and occupations.
- **Education:** foster education about and understanding of food, agriculture and environmental protection; facilitate outreach and education among elected leaders and communities.
- **Environment:** promote sustainable agriculture and protect the environment.
- **Equity:** promote equity and access to affordable, nutritious food; strengthen local and regional food systems and increase community food security.
- **Health:** improve public health through food access, nutrition and production; improve the health, safety, and welfare of workers and worker rights and reduce environmental health risks.
- **Policy:** connect local and regional efforts with statewide, national, and international efforts to strengthen local and regional food systems; develop model policies for use by jurisdictions in support of all goals; sustain Regional Food Policy Council.

¹ The food system is the network of people and activities connecting growing and harvesting, processing, distribution, consumption, and residue utilization, as well as associated government and non-government institutions, regulations and programs.

OVERVIEW OF REPORTS

FOOD PRODUCTION

The Food Production report comprises three distinct sections: Rural Agriculture, Fisheries, and Urban Agriculture.

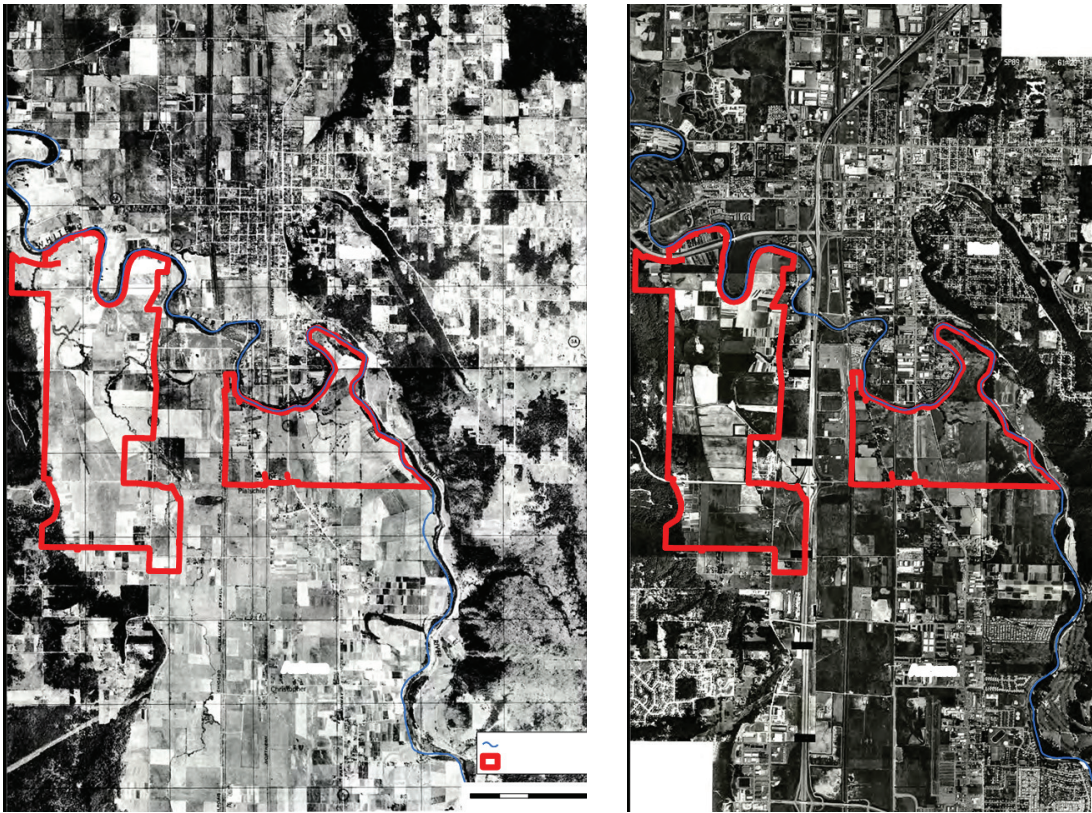
Rural Agriculture

Rural agriculture is a large component of the food system within the central Puget Sound region. This section explores how each county inventories farmland. In an effort to advance the Regional Food Policy Council's *agriculture* goal, which includes farmland preservation, this section identifies key steps to understanding how farmland is classified throughout the region.

Major findings from this report include:

- Each county in the central Puget Sound region uses different tools to inventory agricultural land, including Open Space Tax Classification, windshield surveys, and community outreach.
- Each of these tools offers benefits and limitations. For example, windshield surveys can provide an accurate survey of crop types but consume large amounts of staff time. The Open Space Tax Classification method (allowing owners of farm and agricultural land to have their property valued at current use rather than highest and best use) enables counties to identify farms whose land owners want to save money on taxes, but some farmland owners do not desire the land use restrictions and criteria associated with this classification.
- If each county uses similar data collection methods, the Regional Food Policy Council could have a better understanding of rural agriculture across the central Puget Sound region. It would be helpful for the Regional Food Policy Council to convene managers of county agricultural data collection to share best practices. Additionally the Regional Food Policy Council can support uniform data collection and suggest base farmland data that each county can collect.





The change in agriculture lands in King County from 1944 to 1989

Additionally, the studio team provided a geographic analysis of land cover patterns in three time periods: 1944, 1989-1991 (pre-Growth Management Act), and 2001-2002 (post-Growth Management Act). This analysis demonstrates visually how land use has changed in response to the policies in place during those time periods. Aerial photography shows urban and suburban development near the borders of county-designated agricultural lands. Alongside designated agricultural lands, the maps demonstrate infill of non-designated, undeveloped lands between the early 1990s and early 2000s. This visual analysis articulates the history of rural farmlands and the development pressures that cause land use change.

Fisheries

The state of fisheries has changed greatly since the early 1900s, but minimal data is currently available on the precise role of commercial fishing in the central Puget Sound region. Today, fewer fishing vessels have a home port in the region, the estimated value of the fisheries has decreased, and the average ex-vessel² price per pound for Puget Sound's iconic salmon is less than in 1950. The purpose of this report is to further the Regional Food Policy Council's *economic development* goal through an inventory of commercial fishing vessels, as a starting point, to better understand the economic impact the local fishing fleet has on the region.

Major findings from this report include:

- In recent years, there has been an overall decrease in the number of commercial fishing vessels the central Puget Sound region.

² Ex-vessel prices are the amount a commercial vessel makes when it unloads its catch, rather than how much is received at market

PUGET SOUND FOOD SYSTEM ASSESSMENT

- Economic impact studies of the Port of Seattle's Fishermen's Terminal show that a fishing vessel has a significant impact on the region's economy. For example, *The 2007 Economic Impact of the Port of Seattle*, prepared by Martin Associates (2009) estimates one purse seiner (a type of commercial fishing boat) contributes approximately \$220,000 annually. A commercial crabber contributes approximately \$550,000 annually.
- The number of commercial fishing vessels with a home port at Fishermen's Terminal in Seattle declined from 370 to 250 vessels between 2003 and 2007.
- Similarly, the number of jobs these commercial vessels supported declined from 5,524 to 3,424 jobs between 2003 and 2007.
- This decline impacts the local economy: in 2003 the vessels at Fishermen's Terminal brought in \$179.6 million to local businesses, compared to only \$43.8 million in 2007.
- It is difficult to determine the number of fishing vessels moored in each of the four counties, due to the nature of how the Washington Department of Licensing collects data. As a result, it is difficult to clearly understand what social and economic impacts these fishing vessels have on their home ports and markets in the region (beyond the recent economic impact study of Fishermen's Terminal in Seattle).
- Efforts could be taken to ensure that the region maintains a large fleet. Instead, a combination of factors has caused fisherfolk to relocate from the region or quit fishing altogether. Many vessels are moving north to the Port of Bellingham where local officials have realized the benefit of having a large fleet and are lowering moorage rates, enhancing amenities, and providing convenient access to nearby processors and icehouses.



Urban Agriculture

This section uncovers opportunities for urban agriculture in the central Puget Sound region that coincide with the Regional Food Policy Council's goals of *agriculture, economic development, education, environment, equity and health*. The studio team examined urban agriculture based on the Community Food Security Coalition's definition, in which urban agriculture "refers to the production, distribution and marketing of food and other products within the cores of metropolitan areas...and at their edges." The studio team focused its research primarily on the five metropolitan cities in the region as designated under *VISION 2040*—Bellevue, Bremerton, Everett, Seattle, and Tacoma—but believes the framework and methodologies it created can be extended to smaller suburban cities for future assessment.

The goals of this section are:

- To broaden Regional Food Policy Council's understanding of the potential scope of urban agriculture in North America
- To explore the current practices in the central Puget Sound region
- To identify where area comprehensive plans can address urban agriculture
- To identify future opportunities for more urban agriculture regionally

Major findings from this report include:

- North American urban agriculture takes many forms beyond traditional community gardening, including backyard garden programs for food-insecure residents, prison gardens, and commercial rooftop farms.
- Each of the five metropolitan cities (Bellevue, Bremerton, Everett, Seattle, Tacoma) addresses urban agriculture in different ways (e.g., through city ordinances, specific codes/zones, and plans). Tacoma has the most detailed comprehensive plan and urban agriculture-related policy coverage, which may serve as a model for other cities in the region.
- The studio team proposes a new methodology, based on existing land use data and aerial photography, to determine potential sites for implementing urban agriculture. This site assessment considers:
 - environmental characteristics (e.g., steep slopes and other ecological barriers),
 - community needs (e.g., residential density and proximity to existing community gardens),
 - accessibility factors (e.g., parking availability and pedestrian access), and
 - differences in land use ownership (e.g., private, public, and institutional lands).



From Left to Right:
University Of
Washington
Tacoma -
Giving Garden
Urban Chickens
University
P-Patch

FOOD DESERTS

Food deserts are areas “with limited access to affordable and nutritious food, particularly such an area composed of predominantly lower-income neighborhoods and communities,” according to the 2008 U.S. Farm Bill. This report focuses on identifying food deserts in the central Puget Sound region, with a focus on how transportation networks can aid or interfere with access to healthy food. The studio team further defined access to “affordable and nutritious food” through availability of the following food retail outlets:

1. Full-service grocers, which provide access to a full range of healthy food
2. Specialty foods outlets, which provide access to some healthy foods but not a full range (butcher, bakery, etc.)
3. Cultural grocers, which provide ethnically significant food access points

The studio team employed a geographic information systems analysis to locate census blocks lacking the specified food retail outlets within a quarter mile from bus stops in King, Pierce, Snohomish, and Kitsap Counties. The analysis incorporates data on bus line and stop data, income, vehicle ownership, locations of elderly populations, and locations of the three types of grocers described above.

Example of Food Desert Analysis

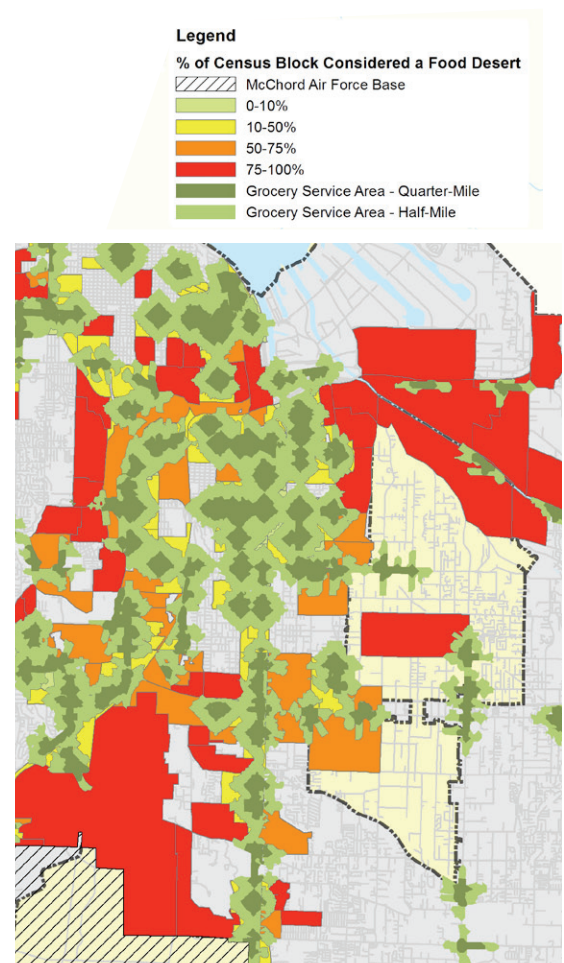
Major findings from this report include:

- Urban cores tend to have greatest access
- Urban peripheries are facing food access challenges
- Transit lines have a substantial effect on food access
- Bring together community groups and government to best address local concerns and situations

Policy considerations to improve access include:

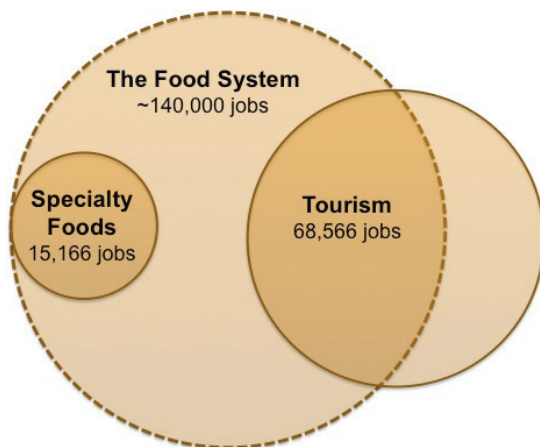
- Coordinate transit systems with food access points
- Educate riders on location of grocery stores
- Promote community level programs including farmers markets, community gardens, mobile food carts

This report is intended to serve as a starting point for future efforts to monitor and address food deserts in the region. The hope is for this work to be easily replicable as the Regional Food Policy Council moves forward with its *equity, health, and policy* goals.



WAGES

In order to advance the Regional Food Policy Council's *economic development* goal of supporting living wage jobs, this report seeks to understand the current state of food system employment. The production, processing, and retail sectors of the food system provide about 165,000 jobs in the central Puget Sound region in 2009. The analysis reveals that the majority of these jobs do not provide a living wage, which is the wage rate necessary to meet minimum standards of living. This report also presents key considerations for supporting economic development through the creation of living wage jobs in the food system as possible ways to address this challenge.



The number of jobs in various job sectors in the Central Puget Sound Region

Major findings from this report include:

- About 80 percent of non-farm food system workers earn wages below the lowest living wage standard used in this report (\$13.33 per hour, tips included).
- The lowest paid occupations are bussers as well as counter, cafeteria, coffee, and concessions servers. All make about \$9.25 per hour and number about 23,000, a significant share of regional food system employment.
- The highest paid occupations are purchasing agents and food scientists. Both make roughly \$29 per hour, though these occupations account for less than 0.2 percent of the 165,000 workers in the regional food system.

FOOD HUBS

This report provides guidance for policymakers and food systems stakeholders on food hubs, an emergent tool intended to sustain small and midscale farmers, to promote regional economic development, and to fulfill demands for locally and regionally produce food in a more efficient way. The U.S. Department of Agriculture's working definition of a food hub is "a centrally located facility with a business management structure facilitating the aggregation, storage, processing, distribution, and/or marketing of locally/regionally produced food products."

Food hubs may help advance the Regional Food Policy Council's *agriculture* goal by focusing on support for small and midscale farmers, which may in turn provide incentives to preserve farmland and improve the regional viability of farming. Food hubs may also help to advance the *economic development* goal by providing employment opportunities in the areas they serve and opening up access to new retail and wholesale markets that smaller farmers struggle to reach.

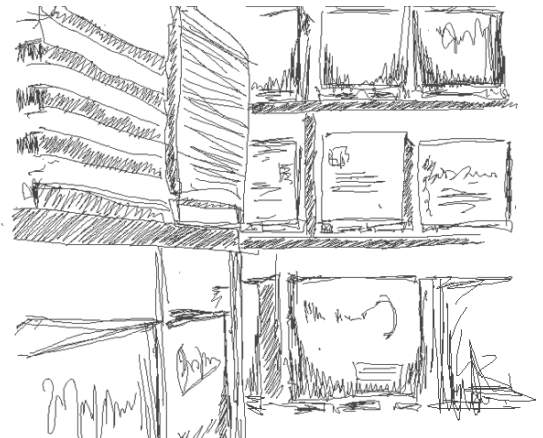
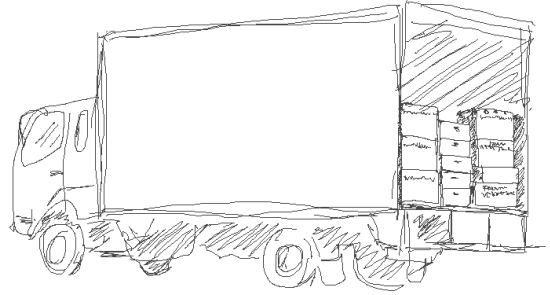
Major findings from this report include:

- Food hubs are gaining national momentum, as evidenced by U.S. Department of Agriculture's extensive and growing work on the topic in concert with local food systems organizations nationwide. More than 100 food hubs exist nationwide, averaging more about \$1 million in annual sales. More than half started within the last five years.

PUGET SOUND FOOD SYSTEM ASSESSMENT

- Food hubs typically have three major components:
 1. wholesale aggregation/distribution,
 2. active coordination with food producers, and
 3. permanent facilities.
- Some food hubs provide additional services, such as space for wholesale and retail vendors, health and social service programs, community kitchens, and community meetings.
- Key considerations in starting a food hub include demand for locally and regionally produced food, creativity with funding, seamless systems for distribution and sales, careful market analysis, and review of policies to determine whether financial or regulatory incentives may aid food hub development.
- The planned Everett Farmers Market in Everett, Washington, which combines retail and wholesale sales of agricultural products, commercial kitchen facilities, distribution, education, and other elements, offers lessons for planning future regional food hub efforts.
- Two detailed case studies illustrate how food hubs have developed in two areas that share some of the central Puget Sound region's demographic and physical characteristics: the Local Food Hub, a non-profit food aggregator, distributor, and educational farm located in Charlottesville, Virginia; and The Wedge, a cooperative business with a retail store, distribution warehouse and educational farm located in Minneapolis, Minnesota.
- In recent years, all four counties in the central Puget Sound region have identified various barriers for smaller farmers, ranging from marketing and economic development to access to commercial kitchens to mechanisms for garnering wholesale clients. Food hubs may help to meet these needs while filling demonstrated consumer demands for locally and regionally produced food.

Core Food Hub Components:
Distribution, Warehousing and
Aggregation, Processing, and Retail Sales



POLICY

This report is intended to provide information to policymakers, food systems stakeholders, and advocates that can guide future action and policy development. The aim of this section is twofold:

- To increase communication, information-sharing, and education about policy work and policy opportunities region-wide
- To provide relevant model food systems policy language for use in support of the Regional Food Policy Council goals

As a whole, this report aims to advance the *policy* and *education* goals of the Regional Food Policy Council. First, this report summarizes policies contained in countywide plans that specifically address food system activities. Next, this report provides sample comprehensive plan and municipal code language for a variety of food systems activities. Jurisdictions can tailor these policies to their individual needs and situations. Then, this report discusses policies related to three food system topics: agricultural land preservation, food processing for economic development, and on-farm alternative energy production.

Major findings from this report include:

- There are small and simple policy changes that municipalities can make as a first step to enable food systems activities:
 - including food systems goals in comprehensive plan elements;
 - creating a streamlined permit for small farmers markets;
 - enacting food systems-supportive resolutions;
 - establishing farmers markets as approved land uses;
 - establishing community gardens as approved land uses or open space sub-districts;
 - enabling interim, temporary, or vacant land use agreements for community gardening or urban agriculture uses; and
 - establishing “healthy food zones” near schools.
- Agricultural land preservation policies are best understood in the context of a “package” of ten policy tools that work best when used in combination with each other. These tools are:
 - Agriculture zoning
 - Agriculture districts
 - Comprehensive plans
 - Conservation easements
 - Differential assessment of farmland
 - Private land trusts
 - Purchase of development rights
 - Right-to-farm law
 - Transfer of development rights
 - Urban growth boundaries
- Local food processing facility development and renovation can be enhanced by applying for and supporting the continuation of underutilized U.S. Department of Agriculture funding resources, such as the Community Facilities Fund.
- Encouraging government procurement of locally-grown foods increases processing demand by midscale farms as well as funding available for processing facility development (e.g. food hubs).
- Technical assistance and incentives can assist the agricultural community with undertaking renewable energy and energy efficiency projects.

ROAD MAP TO A GREENER RESTAURANT

Because the restaurant industry is a major component of the food system, it is important to consider the role of restaurants in achieving environmental, economic, and social goals. Developed in partnership with Seattle Chefs Collaborative, the *Road Map* provides guidance for new and existing restaurants on how to become more aware and responsive to sustainability issues. Users of the *Road Map* will find information and resources in six topic areas: food sourcing, water use, energy and the built environment, waste management, cleaning green, community and economy issues. The *Road Map* includes links to local resources that serve as supplementary material to the recommendations and incentives that the aforementioned categories offer. The completion of the *Road Map* signifies the first step in providing outreach to area restaurants; Seattle Chefs Collaborative will use the *Road Map* as the basis for future communication and marketing initiatives.

Major components of the *Road Map*:

- There are 35 self-assessment questions for restaurant operators covering the six topic areas. Examples of questions include “Do you compost food and other organic waste?” and “Do you use non-toxic cleaning products?”
- Each question contains at least two action items that restaurants can implement along with at least one resource, often more, that helps restaurants to think about sustainability. Examples of action items include giving food waste to farmers for animal feed and making your own non-toxic cleaning products.
- The *Road Map* provides region-specific resources, such as information about rebates offered by area cities, links to local harvest schedules, and local entrepreneurs who are involved with sustainable restaurants.
- The icons next to each question indicate at least one benefit—economic, environmental, or social—that can be achieved by taking the actions listed; many questions have multiple benefits.



CONCLUSION

The common thread binding this project's eight distinct reports is attention to the Regional Food Policy Council's goals. The reports described above:

- provide new qualitative and quantitative data,
- identify social and economic implications of this project's work,
- offer policy ideas, and
- suggest needs for future work where applicable.

The intent is to provide information that will assist Regional Food Policy Council members as they work toward their vision and mission of developing “just and integrated policy and action recommendations” toward a “thriving, inclusive and just local and regional food system.” The reports can stand alone and need not be read in any particular order. However, reading the entire set can provide an understanding of challenges and opportunities in the food system that is as diverse as the central Puget Sound region itself.

View the studio team's full reports at <http://courses.washington.edu/studio67/psrcfood>.

INTRODUCTION

This report examines food hubs, an emerging tool designed to address gaps between small and mid-scale food producers and consumers. The major justification for food hubs is the recognition that many of these producers lack the infrastructure and support needed to aggregate, process, distribute and market their products in an economically efficient manner.¹ Food hubs address this by building more efficient connections between consumers, institutions, and local farmers by centrally locating the necessary physical and social infrastructure to distribute locally or regionally produced food.

The goal of this document is to introduce policymakers and regional food system stakeholders to the concept of food hubs and to identify their potential role in the development of this tool. This report identifies the core components of a food hub, describes the unique opportunities and challenges associated with food hub development, and illustrates functioning examples of this concept through three case studies:

1. Local Food Hub, a non-profit food aggregator, distributor, and educational farm located in Charlottesville, VA.
2. The Wedge, a cooperative business located in Minneapolis, MN, with a retail store, distribution warehouse and educational farm.
3. The Everett Farmers Market, a food hub in Everett, WA still in its conceptual phase and slated to open early 2013.

Connection to Regional Food Policy Council goals

The studio team identified the research needs on this topic in collaboration with staff from the Puget Sound Regional Council's Regional Food Policy Council as it develops its future work plan. The topic is timely and relevant to the Regional Food Policy Council's work for two main reasons:

- Food hubs are gaining national momentum, as evidenced by extensive work in the past two years led by the US Department of Agriculture. As part of its "Know Your Farmer, Know Your Food" initiative, the US Department of Agriculture is focusing on food hubs as a method for bolstering the economic viability of smaller farmers and local food systems.
- Preliminary case-study research suggests that food hubs appear to be a viable strategy for achieving identified needs in the central Puget Sound food system, notably, promoting local economic development and preserving agricultural lands.

Food hubs may help the Regional Food Policy Council to advance two of its major goals--economic development and agriculture while also linking to four other goals--education, equity, health, and policy, as explained in the following section.

Primary Ties

Agriculture: With their emphasis on support for small and mid-scale farmers, food hubs may help to increase the economic viability of farming and

farmland, in turn providing incentives to preserve farmland and encouraging new generations of farmers to emerge.

Economic Development: Food hubs promote economic development for farmers by opening up access to new retail and wholesale markets that they often struggle to reach. Increasing market access for farmers strengthens the local food economy and improves farmers' ability to compete with larger corporate farms for larger clients, such as schools and other institutions. They also provide and sustain employment opportunities for people in the areas they serve. Food hubs promote the viability of small and medium size farms through increasing access to a variety of markets.

Secondary Ties

Education: Some food hubs identified by US Department of Agriculture and others include an educational component, such as apprenticeships for people interested in learning how to farm and workshops in which existing farmers can learn sound business practices. Some also provide consumer education on where their food comes from and why local and sustainable practices matter.

Equity: More than two-thirds of food hubs identified by the US Department of Agriculture have a focus on increasing access to rural communities and urban neighborhoods where healthy, affordable food can be difficult to obtain."² In addition, through support for Women, Infants and Children supplemental nutrition program and Supplemental Nutrition Assistance Program payment options, food hubs with a consumer component can serve as an important outlet for fresh and minimally processed food.

Health: Food hubs can help to promote healthy communities by increasing access to fresh and local foods. Food hubs may institute large-scale programs to deliver healthy foods to institutions such as schools or hospitals.

Policy: If a local government wants to encourage the development of food hubs, it can create programmatic frameworks that promote food hubs, ease policy barriers to their development and investigate financial and regulatory means to encourage them.

METHODOLOGY

The studio team sought to determine how food hubs can be viable strategies in the central Puget Sound region by:

1. surveying the current typologies and economic models in which food hubs operate;
2. through case studies, identifying models that can be applied to this region; and
3. outlining key policy and funding considerations.

To obtain background information about the current state of and justifications for food hubs, the team conducted a review of existing literature and definitions of food hubs from leading organizations in this field. The team also obtained additional details through a phone interview with James Barham, an economist with the US Department of Agriculture's Agricultural Marketing Service who is leading the agency's food hub research efforts.

The concept of food hubs is relatively new, with little detailed documentation existing on this topic. After identifying the need for a more thorough understanding of what food hubs are and how they are developed, the team used case studies as a strategy to learn more about the topic.

The team pursued a case study of the proposed Everett Farmers Market because of its direct applicability to and location in the central Puget Sound region. However, the team also identified the need for an exploration of existing food hubs outside this region in order to examine business models, funding structures, and activities of other food hubs that may be generalizable to the region.

The studio team then selected potential case studies from a list of food hubs defined and identified by US Department of Agriculture's research. The team chose two organizations that exemplify the core components of a food hub as defined by US Department of Agriculture yet represent differences in maturity, geography and business models. This approach allowed the team to gain an understanding of a broad spectrum of food hub typologies. The team posed a standardized set of questions through phone interviews with the two organization's proprietors [Please see Appendix FH-1 for full list of questions]. The final case studies present an overview of the organization's history and growth and identify their key activities, actors, issues, opportunities and successes. The categories of information presented vary slightly among the case studies based on the level of detail that proprietors were willing or capable of sharing.

WHAT IS A FOOD HUB?

The term food hub emerged within the past few years and continues to evolve.³ Various entities are working to further define the concept of food hubs in order to advance the concept as a local and regional economic development tool. National leaders in the field include US Department of Agriculture, the National Good Food Network, the Wallace Center at Winrock International, the National Association of Produce Market Managers, and the Project for Public Spaces. In conjunction with US Department of Agriculture, these groups are conducting extensive research to gain a greater understanding of the scope and scale of food hubs through online surveying, focus groups, and phone interviews.⁴

The US Department of Agriculture assumed a leading role in this process with the launch of its “Know Your Farmer, Know Your Food” initiative in fall 2009, and has since institutionalized its activities so that they may continue even amid administrative changes.⁵ In a speech in April 2011, Deputy Secretary of Agriculture Kathleen Merrigan described food hubs as “innovative business models emerging across the country specifically to provide infrastructure support to farmers” and spoke of their reliance on “cooperation instead of competition.” She emphasized the agency’s commitment to helping food hubs get started, adding that food hubs are not a “flash in the pan” idea.⁶

The agency’s working definition of a food hub is “a centrally located facility with a business management structure facilitating the aggregation, storage, processing, distribution, and/or marketing of locally/regionally produced food products.”⁷

The US Department of Agriculture acknowledges that there are variations in how food hubs embody this definition depending on stakeholder needs, ranging “from narrow market efficiency functions to those related to visions of building a more sustainable food system.”⁸

In an attempt to differentiate food hubs from farmer’s markets or other food distribution or sales entities, US Department of Agriculture has identified three key components:

- (1) wholesale aggregation/distribution,
- (2) active coordination with food producers, and
- (3) permanent facilities.

Some food hubs provide additional services, such as space for wholesale and retail vendors, health and social service programs, community kitchens, and community meetings. Table FH.1 provides an overview of food hub components and their purpose.

US Department of Agriculture expects its definition to change somewhat in the coming months to account for the “brokering” role that some food hubs play--that is, never handling products but instead helping to link farmers with distributors and to market their products.⁹ This broader definition may include an organization like the Puget Sound Food Network, which uses online tools to connect farmers, food processors, distributors, retailers, restaurants, and other participants in the Puget Sound regional food system.

Table FH.1 Key Components of Food Hubs

Aggregation/ Distribution-Wholesale	Drop-off point for multiple farmers and pick-up point for distributors and other customers that want to buy source-identified local and regional food
Active Coordination	Hub business management team that actively coordinates supply chain logistics, including seeking markets for producers and coordinating efforts with distributors, processors, and buyers
Permanent Facilities	Space and equipment for food to be stored, lightly processed, packed, and possibly sold under a hub’s regional label
Other Possible Services	Provide wholesale and retail vending space, offer space for health and social service programs, community kitchens, community meetings, etc.

Source: Jim Barham, “Regional Food Hubs: Understanding the scope and scale of food hub operations” (Presentation, May 2011).

Other definitions

1. A 2008 Cardiff University report commissioned by the Welsh government attempted to define food hubs and explain their potential applications for purveying local food in Wales: “On the simplest level the **Food Hub can represent any kind of organisational model where food sourcing and supply is co-ordinated...comprising of direct links between the producer and the consumer.** The concept of a Food Hub assumes that there are many market actors involved, and that its co-ordinating function will increase the efficiency of market relations. A Food Hub, therefore, may be thought of as acting as an intermediary that offers to put the produce of many suppliers, growers, farmers and processors into the hands of retailers, food service firms, public sector buyers and procurement consortia, and/or direct to the final consumer.”¹⁰
2. The Urban and Environmental Policy Institute at Occidental College in California, one of the members of the National Good Food Network, was one of the first U.S. entities to use the term food hubs.¹¹ They define a regional food hub as “**a centralized facility designed to aggregate, store, process, distribute, and market locally or regionally produced food products.**” They have also formed a Regional Food Hub Network, which refers to “a new aggregation, distribution and marketing paradigm that will link Regional Food Hubs through a degree of overarching management, technology, and shared infrastructure.”¹²
3. Wholesome Wave, a Connecticut-based organization formed to address food equity needs, has proposed a concept called “healthy food hubs,” which “create locations **where urban agriculture, farmers markets, health screening, and nutritional education collide in one essential location.**”¹³

4. In the book *Agricultural Urbanism*, authors De La Salle and Holland define a food hub as “a place that brings together **a wide spectrum of land uses, design strategies, and programs focused on food to increase access, visibility, and the experience of sustainable urban and regional food systems within a city.**” Their discussion focuses on food hubs as a planning strategy for creating a sense of place.¹⁴

Preliminary typology of food hubs

Existing food hub studies have made efforts to further define food hubs by creating typologies. Understanding potential typologies may help to develop a common language around food hubs and advance the concept. Below are two examples of typologies: The first is a preliminary typology, developed by Horst et al., following the work of de la Salle and Holland, which begins to categorize the diversity of food hubs.¹⁵ The second typology listed was established by US Department of Agriculture.¹⁶

Preliminary Typology by Horst et al.

Regional Aggregation Food Hub:

A centrally located facility with a business management system that facilitates the aggregation, storage, processing, distribution and/or marketing of locally or regionally produced food products. Often actively managed and coordinated by one organization, and primarily oriented around wholesale.

Destination Food Hub: A site-specific location where food-related retail businesses serve local residents and act as a primary attraction for out-of-town visitors who make up a significant percentage of customers.

Neighborhood-Based Food Hub (could also be called a Food District or Food Precinct):

Generally consists of multiple contiguous city blocks with a high concentration of independent wholesale and retail food outlets.

Boutique/Artisanal Food Hub: Often operates in one facility under single ownership, with a focus on artisanal, value-added, and specialty food and beverage sales.

Education and Human Service Focused Food Hub:

Enables food-related community services such as community gathering places, community kitchens and processing facilities, SNAP and WIC benefit sign-up, agricultural skills training, healthy cooking and eating classes and demonstrations, and community garden and agricultural micro-enterprise project planning.

Rural Town Food Hub: A rural town where relationships and strong connections between local food producers, processors, and consumers foster a thriving local food economy.

Online Food Hub Network: An internet-based online directory and marketplace that fosters efficient connections between local and regional food producers and consumers, including institutions, restaurants, and stores.

Hybrid Food Hub: A facility or set of facilities that integrates various kinds of activities described above. Many food hubs function as hybrid food hubs. Eastern Market in Detroit, for example, is self-described as “a local food district with more than 250 independent vendors and merchants processing, wholesaling, and retailing food.”

Preliminary typology of food hubs cont'd

US Department of Agriculture Typology

Non-profit driven model: Hubs that are created and maintained by non-profit organizations to facilitate farmer to consumer transactions.

Producer/Entrepreneur driven model: Primary impetus is from farmers or others working in the food system. Focus is on easing distribution and processing outlets for producers.

Retail driven model: The main revenue source for the hub is retail shopping.

Consumer driven model: Primary impetus for the hub comes from consumers, whereby

pooling their collective buying power, they gain the ability to negotiate with producers/distributors for market changes such as lower prices or improved business practices.

“Hybrid” market model: Food hubs that incorporate both a retail and wholesale component.

“Virtual” Food Hubs: Food hubs where local individuals and businesses can exchange services and goods directly through an online service.

Food Hub Goals

Although the motivations of organizations that develop food hubs differ, many common themes appear in their missions. Arguably the most basic goal of food hubs is to fill consumer demands for locally and regionally produced foods and to assist small and mid-scale producers with moving their products to market efficiently.¹⁷

Some common goals among food hub proponents include:

- *Communication and industry access:* Create connections between producers, processors, distributors, and purchasers. Increase communication and collaboration to ensure efficient movement of food through the entire chain.¹⁸
- *Reduce barriers to market:* Services may include providing better transportation, distribution and processing facilities, and assistance with production planning and marketing.
- *Economic development:* Promote the viability of small and local farmers. Ensure that activities support growth of agriculture and living wages.¹⁹ Pursue hub development in low-income neighborhoods to increase employment opportunities.
- *Public health:* Promote healthy, fresh foods to consumers by increasing access and affordability. Provide institutions such as schools and hospitals with options to serve healthier foods.²⁰
- *Educational opportunities:* Drive interest in agriculture and locally grown food through education, including culinary and farming classes and facility tours.

WHY CREATE FOOD HUBS IN THE CENTRAL PUGET SOUND REGION?

Demand for Local Food

A core mission of most food hubs is a commitment to selling locally or regionally produced food.²¹ Local food has been increasing in importance on the political agenda in recent years, as consumers become more educated and concerned about the source of their food for physiological, environmental, social and economic reasons.²² A review of recent literature suggests that “significant” demand exists for locally produced food.²³

There is a recognition that definitions of “local” may vary depending on the context, as evidenced in the case studies detailed later in this report. However, a number of studies suggest that demand for locally grown food has been rising nationwide in the past few decades. For example, according to the US Department of Agriculture, the number of farmers markets nationwide more than tripled between 1994 and 2010.²⁴ In a survey of its members, the National Restaurant Association identified “locally sourced meats and seafood” and “locally grown produce” as the top two trends for 2011.²⁵ Large institutions such as universities, hospitals, prisons and school districts are also attempting to procure larger amounts of locally sourced food, as evidenced by the advent of Farm to School and Farm to Prison programs in Washington and other states. Across the nation, the number of Farm to School programs jumped from two in 1996 to more than 2,200 in 48 states in 2011.²⁶

This trend is no different in the central Puget Sound region. The Puget Sound Food Network reports that “the market for local food in the Puget Sound region is stronger than ever.”²⁷ For example, a recent survey by the King County Agriculture Program found that 62 percent of the respondents buy local food either monthly or weekly.²⁸

Rationale for Food Hubs

The American food system has followed two divergent paths in recent years. One consists of small-scale farms and enterprises that thrive on direct-to-consumer sales. The other consists of large-scale, consolidated farms with established supply chains that move bulk commodity items around the country and the world.²⁹

Direct-to-consumer sales, using venues such as farmer’s markets and community-supported agriculture, represent a small but growing portion of the nation’s agricultural sales--about 0.8 percent when non-food products are excluded.³⁰ This pattern of food production has largely grown as a response to large-scale industrial farming. It is primarily the dominance of large-scale farming that has led to the decline of the “agriculture of the middle,” according to Kirschenmann et al. Farms that constitute the agriculture of the middle can also be understood as “farming-occupation farms” and “large-family farms.”³¹ Most of these farms have gross annual sales between \$100,000 and \$250,000. Kirschenmann et al. emphasize that the agriculture of the middle is a market-structure phenomenon related to but not necessarily determined by physical

scale. These farms fall between the small direct markets and the massive commodity markets, and they struggle to find a foothold in either.³²

The challenges for the agriculture of the middle, however, present a unique market opportunity because there is a growing demand for foods that are produced in accordance with sustainable agriculture standards. The farmers “of the middle” are in the best position to provide these products because they have the capacity to supply local markets with sustainable and organic produce. What is missing is a functional value chain to connect these farmers to the markets.³³ Very little mainstream infrastructure and logistical support exists to move products from small and mid-sized farms into market, according to US Department of Agriculture.³⁴ Furthermore, large food distributors are not typically structured to accommodate product purchases from individual smaller farmers due to volume requirements.³⁵

A study on food hubs in Wales, United Kingdom, asks whether there is a “missing middle” in the local food infrastructure.³⁶ The “missing middle” in this case refers to the lack of a mechanism by which small producers can access a middleman facility that enables them to trade with large customers, such as supermarkets, food service vendors, or public procurement consortia.³⁷

A food hub can become this “middle” that networks farmers and their products with large customers. This strategy makes it more feasible for large purchasers to buy locally grown food in the volumes that they need, which could not happen if individual producers attempt to reach those customers on their own. The concept of food hub assumes that there are many market actors involved, and coordinating functions will increase efficiency of market relations.³⁸

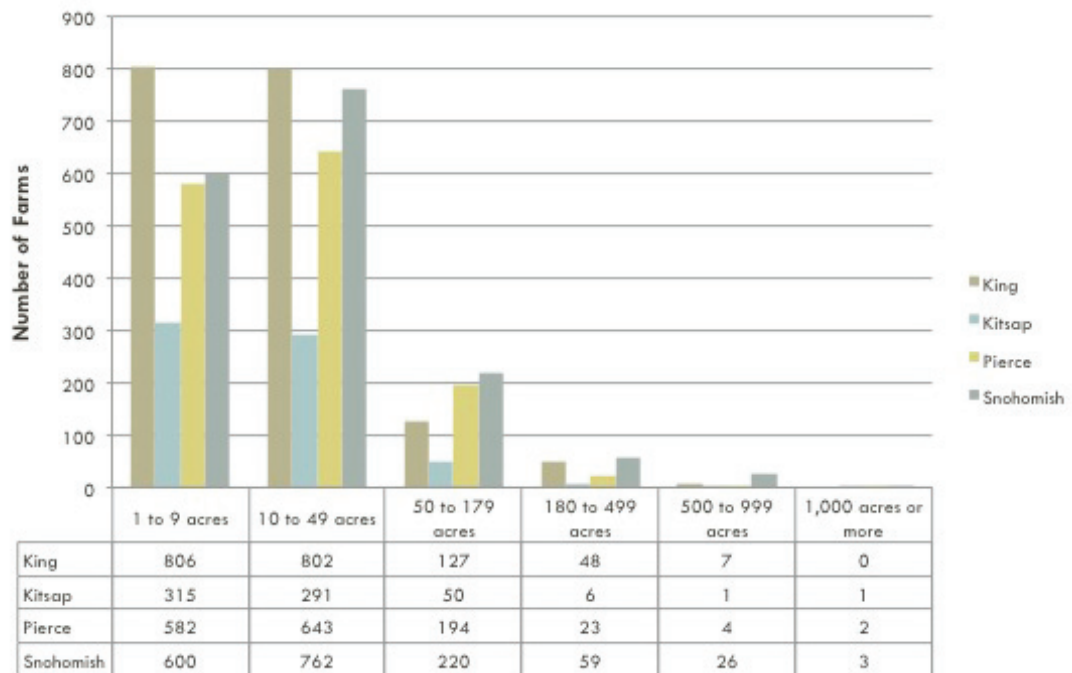
Food hubs are viewed by their proponents as a possible solution to the challenges of inadequate distribution, marketing, and processing infrastructure for smaller farmers--what Barham describes as a market failure.³⁹ Proponents argue that food hubs offer a mechanism through which smaller farmers can access larger retail, institutional, and commercial food service markets that were not previously possible. They offer opportunities to create alternatives to commodity agriculture that strengthen local economic development through agriculture.

The three core components of a food hub, according to US Department of Agriculture, enable these opportunities to be achieved. The aggregation and wholesale distribution facility helps create a consistent, reliable supply of locally produced food as well as a drop-off point for producers and a pick-up point for purchasers.⁴⁰ Because it is in the interest of large-scale purchasers to reduce transaction costs, they tend to do business with large farms because it is less costly to purchase greater quantities from fewer producers.⁴¹ The aggregation of products in a food hub allows mid-sized farmers to maintain their scales of production while still being viable in wholesale markets.

Regional Food Production Context

In the central Puget Sound region, recent reports indicate that each of the four counties desires to encourage and sustain the economic contributions made by smaller-scale farmers. Food hubs may help area counties to move in

Figure FH.1: Farms in the central Puget Sound region by size



Source: US Department of Agriculture 2007 Census of Agriculture, "Washington State and County Data," 2007, http://www.agcensus.usda.gov/Publications/2007/Full_Report/Volume_1,_Chapter_2_County_Level/Washington/wav1.pdf.

this direction. Figure FH-1 shows that small and midscale farms dominate this region, with the vast majority smaller than 50 acres.

In King County, there is a trend toward greater numbers of, and smaller acreage in farms. The average farm size decreased from 35 acres in 1982 to 28 acres in 2009. At the same time, the number of farms grew from 1,091 in 1987 to 1,790 in 2007.⁴³ A 2009 report by the King County Department of Natural Resources and Parks reported that the "value of local agriculture is even more appreciated than before while the continued growth of the urban population puts more pressure on agricultural land."⁴⁴ The county identified barriers for small farmers in numerous areas, including marketing and economic development, access to commercial kitchens to create value-added products like jams and salsas, and mechanisms for making higher-volume sales to institutions such as schools, hospitals, and prisons.

In Pierce County, the average farm size declined from 39 acres in 2002 to 33 acres in 2007, and the number of farms declined from 1,474 to 1,448 in that same five-year period.⁴⁵ The county does not expect large-scale agricultural operations to grow and instead has experienced an influx of "small, more intensive, direct-market farming operations that are quite profitable and are likely to sustain themselves over time, especially given some encouragement and protection from the public sector."⁴⁶ One of the major barriers that these farms experience, however, is in employing strategies that allow them to compete with larger wholesalers. A 2004 report from the American Farmland

Trust recommended a number of steps that may be related to the mission of food hubs, including: (1) increasing marketing and business development support for farmers, (2) increasing retail and institutional food buying from local farmers, (3) improving regulatory and other coordination among farmers.⁴⁷

In Kitsap County, farms represent about six percent of the county's land area. The number of farms has grown from 440 in 1987 to 664 in 2007.⁴⁸ Small farms dominate that number, with 90 percent measuring less than 50 acres and an average farm size of 2.3 acres.⁴⁹ The county notes that it lacks solid economic data on many of these small farms but suggests that the vast majority of them do little, if any, commercial production.⁵⁰ The county also has a long history of fishing along its 230 miles of shoreline on Puget Sound and Hood Canal.⁵¹ A county-organized policy group called the Kitsap County Food Chain has identified a number of weaknesses and threats to the county's agricultural industry, including: (1) lack of supporting infrastructure, including food processing facilities, (2) lack of data about potential purchasing needs that could be served at military bases by local farmers, (3) aging agricultural workforce and lack of training opportunities for a new generation of farmers, and (4) lack of commercially viable small farms.⁵²

In Snohomish County, more than 200 new farms started between 1997 and 2002.⁵³ A land survey found roughly 34,500 acres of designated farmlands in production and approximately 19,700 acres of non-designated farmlands in production. In an extensive 2008 report developed with community input, county officials recommended a number of actions that food hubs could help to facilitate, including: (1) creating a year-round public market, (2) providing a distribution hub with infrastructure to connect farmers with purchasers, (3) working with the Washington State Farm-to-School initiative, and (4) developing marketing and branding methods to increase the visibility of county farms.⁵⁴

WHAT ARE THE CHALLENGES IN FOOD HUB DEVELOPMENT?

Financial Stability

Financing food hubs at start-up and over the long term presents a major challenge. Sixty percent of the 45 food hubs who responded to the US Department of Agriculture's survey received some sort of government funding to assist with starting up their operations, and 30 percent continue to receive some sort of government funding.⁵⁵ To assist potential food hub organizers, the US Department of Agriculture has compiled a concise list identifying at least seven federal funding sources that food hubs have used in the past, as well as others that may be possibilities for the future. [See Appendix FH-2 for a list of these funding resources.]

Foundation grants, in-kind support, and individual donations represent other common sources of food hub funding. Anywhere from 30 to 40 percent of the food hubs surveyed reported relying on such funding sources either during start-up or while continuing their operations.⁵⁶

The experience of some existing food hubs illustrates that the concept can be financially viable. In detailed follow-up interviews with 20 more established food hubs, US Department of Agriculture found that 10 of them are currently breaking even or turning a profit, and seven expect to be in that category within three years.

The "magic number" for a food hub having business success appears to be gross sales of \$2 million or more.⁵⁷ This figure may offer guidance on how many individual food hubs could be sustained in a particular region.

Reaching that \$2 million target typically requires sourcing from anywhere from 40 to 60 suppliers, carrying a variety of different products, and being able to provide year-round operations. The importance of year-round sales may cause challenges for food hubs that have a mission of sourcing all of their products locally. Although proponents view the purpose of food hubs as primarily promoting local or regional products, food hubs may need to buy produce outside of their immediate vicinity or pursue alternative strategies for food sourcing in order to remain financially viable.⁵⁸

Equity issues

The food hub concept at times may highlight some of the ongoing tensions between encouraging economic development through local food production and serving low-income populations. On the one hand, various studies have shown that consumers are willing to pay more for locally produced food.⁵⁹ In order to achieve what they consider to be fair prices for farmers, successful food hubs tend to sell premium products to grocery stores and food co-ops that serve a generally higher-income population, often pricing items out of the range for a large sector of the population.

There is currently a need to identify viable food hub business models that could allow for sales in food deserts or areas with lower-income populations without

requiring the food hub to rely heavily on subsidies, grants or other intermittent sources of income. If successful, food hubs may present an opportunity to address concerns of social welfare, health and economic disparities by providing fresh, local foods to underserved neighborhoods.

Still, some food hubs make a concerted effort to extend their services to low-income populations. About half of food hubs distribute food to areas considered to be food deserts, and about 40 percent offer youth or community employment opportunities.⁶⁰ For instance, the Local Food Hub in Charlottesville, as detailed in the following case study, sells some of its food at below-wholesale prices to the local Boys and Girls Club, which in turn sets up mobile retail produce stands.⁶¹

EXAMPLES OF FOOD HUBS

As of this writing, the US Department of Agriculture and National Good Food Network had identified more than 100 entities across the United States that they consider to be food hubs, with many clustered in the Northeast and Midwest.⁶² About 60 percent of the food hubs surveyed by US Department of Agriculture and its research collaborators started within the last five years. More than half of the food hubs surveyed reported being non-profits or cooperatives, with the remainder being corporations of various types.⁶³ Their average sales total about \$1 million per year.

- Other key findings from the US Department of Agriculture's preliminary survey research include *Products and suppliers*: Fresh fruits and vegetables are the dominant food product category available through existing food hubs, with 95 percent of those surveyed offering those goods. More than half of them offer eggs, dairy, poultry, meat, grains, and honey or preserves. The median number of food hub suppliers is 40.
- *Major activities*: An overwhelming majority of the surveyed food hubs perform distribution and aggregation of food products and provide key services to farmers, including marketing and promotion, transportation or on-farm pickup of goods, and finding new markets for producers.
- *Customer base*: About 60 percent sell wholesale, while about 45 percent conduct retail sales. Nearly 90 percent sell to restaurants, and more than half of them sell to grocery stores, colleges and universities, food cooperatives, other food distributors, and school food service providers.
- *Employment*: Food hubs employ an average of 12 paid staff--7 full-time and 5 part-time--according to the US Department of Agriculture's ongoing online survey of food hubs.⁶⁵ Additional research will be necessary to determine any "economic multiplier" effects of food hubs.

The following case studies offer a more detailed look into the process of developing food hubs. The studio team selected three food hubs--two existing and one scheduled to open next year--to display the variety of formats in which food hubs may appear.

CASE STUDY: Local Food Hub Charlottesville, Virginia⁶⁶



Figure FH.2 Local Food Hub: Photo of Local Food Hub's single refrigerated truck being stocked for delivery at its distribution warehouse in Charlottesville, VA

Photo taken by:
US Department of
Agriculture (<http://www.flickr.com/photos/usdagov/5263433735/>),
December 15, 2010.

Business Model: Non-profit
Year Founded: 2009

Background and Start-up

Like the central Puget Sound region, the Charlottesville, Va. area has seen changes in its agricultural economy in recent decades. Longstanding farmers have been selling their properties and retiring, while an influx of younger, college-educated families have been buying land and starting their own, typically smaller-scale, farms.

Local entrepreneur Kate Collier interacted with many of these farmers while running Feast, her nine-year-old specialty food retail shop, which prioritizes buying from local farmers and food artisans. She found that small and medium-sized farmers were spending more time on marketing and distribution than on actual farming. They were also struggling to make sound business decisions about how much to grow and charge for their products.

Based on farmers' requests, Collier produced a white paper outlining a vision in which smaller farmers could work together to land large wholesale clients that they couldn't reach as individuals and, by extension, shore up the local food economy. She presented her findings at a 2008 meeting of local institutions like schools, prisons, and senior centers, who were looking for ways to put money back into the regional economy during the depths of the recession.

The institutions present said they would buy up to 25 percent of their food from local sources if there was one number to call, the food was delivered in a refrigerated truck, and the supplier had liability insurance. A foundation representative in the audience approached Collier afterward and said he'd talk to his board about coming up with some start-up money for the project.

After just six months of fundraising, Collier and her founding business partner, Marisa Vrooman, were able to write a business plan and open the warehouse component of the Local Food Hub on July 7, 2009. They added an educational farm component in February 2010.

Major Activities

1. Operates a once-unused warehouse in an industrial park six miles outside of Charlottesville that buys products from 50-60 local farmers and then distributes/sells them on an exclusively wholesale basis using one 16-foot refrigerated truck.
2. Aggregates produce to sell to other food distributors, including Sysco.
3. Works with small and medium-sized farmers to plan and coordinate crop production, from projecting product demands to assisting with scaling up, in order to prevent inadvertently pushing down prices due to excess supply of a particular product.
4. Runs a 60-acre farm in Scottsville, Va., about 25 minutes outside of Charlottesville, that grows produce for sales and donation to charity, as well as provides agricultural education to apprentices, interns and community members. Barn is often utilized for community events.
5. Provides community education, particularly to children, through marketing materials made in-house, such as handouts for classroom teachers that explain the source of products and promote local farmers.
6. Donates 25 percent of food grown on farm and five percent of food aggregated in warehouse to area food banks and hunger organizations. Sells food at below wholesale prices to the area Boys & Girls Club, which then sets up "pop-up" produce markets around town.

Start-up Costs

- Estimated need of \$300,000
- Obtained \$10,000 from the Nelson County Economic Development Board to write a business plan, \$150,000 from a foundation, \$50,000 in community donations from a letter-writing campaign
- Received use of a renovated warehouse as an in-kind donation from a local landowner
- Later received use of a working farm as another in-kind donation

Finances

- Total annual budget for organization is about \$650,000. About \$150,000 of its income comes from its activities, and fundraising must make up the remaining \$500,000.
 - Collier expects that the warehouse side of organization will be self-sustaining by 2015; her plan is to seek outside donations until that point.
 - Annual budget for the farm is about \$230,000. About \$35,000 is currently offset through sales to the warehouse operation, and outside donations fund the rest.
- As of April 2011, the hub had purchased \$510,000 worth of food from 56 farms since opening in July 2009. Break-even number is \$1.2 million in produce running through the warehouse.

Operational Structure

- Resembles other food distributors' approaches, with a standard price list and one phone number to call, in an effort to make services easy to use by all customers. Farmers are asked to deliver items to the Local Food Hub's specifications for boxing, size, weight, etc.



Figure FH.3 Local Food Hub Farm: Volunteers work in the fields at the Local Food Hub's educational farm.

Source: Local Food Hub, (<http://www.flickr.com/photos/localfoodhub/4730316971>), June 23, 2010

- No charge to farmers for distribution of their goods. Farmers are expected to fill out surveys that allow the Local Food Hub to collect metrics such as their demographics, what they plan to grow next year and how useful the organization's services are.
- Charges its wholesale customers a service fee, rolled into the final price of the goods, to help offset the costs associated with running the warehouse, staff, and truck.

Staff

There are seven full-time and one part-time staff and a variable number of volunteers (about six on a regular basis but as many as 100 total at various points in 2010). The farm site has five paid apprentices and five paid summer interns.

A total of 65 farmers are signed up as "partner-producers" and able to take advantage of educational and networking services provided by the hub.

Open Seasons/Hours

Open year-round. Warehouse is not open to public and is staffed during business hours.

Products

Fruits and vegetables, pastured meats, chicken, pork, beef, frozen, eggs, and shelf-stable value-added items made from Virginia products (e.g., grape juice from vineyards, honey, bottled water from a local spring, country ham, peach cider). Products are not typically certified organic because only one farm in the "local" area is certified organic by US Department of Agriculture, in large part because of the expense associated with getting certified and keeping required records. Because seasonal produce brings in very little income from December through May, the plan is to increase the volume of value-added products sold (frozen food products, apples, jams and jellies).

Definition of "local"

The Local Food Hub's bylaws define local as coming from the entire state of Virginia. In practice, the organization sources primarily from farms within a two-hour drive of their warehouse. This decision results in part because the Local Food Hub Farm Services staff visits each farm to source-verify that the food they sell is in fact grown on their farm and driving vast distances is unmanageable. Farmers also deliver directly to the warehouse on a weekly basis, so expenses involved in driving long



Figure FH.4 Local Food Hub Products: Boxes of locally grown produce inside the Local Food Hub warehouse await delivery to a hospital client

Source: Local Food Hub (<http://www.flickr.com/photos/localfoodhub/5145706099/>), June 8, 2010.

distances could outweigh the benefits. The restricted sourcing area allows for consistent pricing and competition among farmers in the immediate region.

Customer Base

Delivery area for warehouse is within a roughly 40-mile radius around Charlottesville. The more than 120 customers include schools, hospitals, restaurants, retail outlets, and food distributors. Top customers are University of Virginia Hospitals, University of Virginia Dining Services, two local grocery stores, 45 local public and private Schools, and Sysco. The Sysco account delivers Local Food Hub-aggregated produce to other colleges outside Charlottesville where students have expressed preferences for local foods.

Keys to Success

- **“Easy” start-up:** Willing foundation, government and community donors allowed the organization to meet its financial start-up costs and made start-up “inspiring and amazing” for Collier.
- **Interest from large institutions:** Three of the Local Food Hub’s top five customers are large school systems or hospitals.
- **Community support:** Even more so than wanting to support local farmers, citizens voiced a desire for easier access to healthy food in local institutions such as schools, childcare centers, and in their local grocery stores and restaurants. This demand in turn drives the subsequent purchases by the Local Food Hub’s wholesale customers.

Future Needs and Plans

- **Ensuring ongoing financial support and overcoming “funding fatigue:”** Many donors who once wrote large checks toward start-up costs are reducing their donations, likely in part because of the perception that the Local Food Hub is already a success, even though the warehouse side of organization will not be self-sustaining until 2015.
- **Attracting a food processor/co-packer to the area:** Having a more convenient processing facility would expand options for food items to aggregate and distribute during the winter months when fresh produce is not available.
- **Exporting the Local Food Hub concept:** Once she fine-tunes the business model, Collier dreams of creating a workbook and support consulting services to help other groups start food hubs.

CASE STUDY: Wedge Community Co-op Minneapolis, Minnesota⁷⁰



Figure FH.5 Wedge Community Co-op storefront

Source: Wedge Worldwide (http://1.bp.blogspot.com/_izAQmfy1Z6o/SvmRN76CQ4I/AAAAAAAAAZY/mMRS9rcoC94/s1600-h/wedgeCoop.jpg).

Business Model: Cooperative

Year Founded: 1979

Background and Start-up

The history of the Wedge is characterized by growth. Over its 32-year history its membership has grown from a handful of members to more than 14,000 in 2010, and its sales have reached \$42 million. Emphasizing local, fresh and sustainable food, the Wedge places a priority on people and environment. The Wedge Community Foods began in 1979 when a small group of neighbors came together to use their purchasing power to buy bulk healthy, quality food. The business began out of a basement apartment. When sales to the community grew to overwhelm the small space, the cooperative moved into the larger space of a former convenient store down the street. Then once again in 1992, the store expanded into its parking lot, where the retail store's 11,000-square foot building now stands. In 2002, the store and its departments were certified organic.

The Wedge's foray into distribution and warehousing--the key transition from grocery store to food hub--began in 1999 with the Co-op Partners Warehouse. Demand from their produce department had overwhelmed the space in the retail store, and the cooperative looked to a separate warehouse space to store additional produce. The Wedge saw an opportunity to work with farmers beyond purchasing produce for their store and began to use the warehouse for aggregation and distribution to other cooperatives in the area. Co-op Partners Warehouse provides two options to growers: selling their products directly to the Wedge or using the Wedge's distribution networks to delivery products to their destinations.

In 2007, the owners of one of the largest organic farms in the area planned to retire and sell their farm, the Gardens of Eagan. The owners had worked closely with the Wedge and established a strong relationship throughout the years. The owners proposed selling the farm to the Wedge, and the

sale is set to happen in 2012. The cooperative established the Organic Field School on the farm for education and training, with a structure in which farmers train other farmers. Small, roughly two-acre incubator farms exist on site and allow new farmers to begin farms with assistance and support from the school. To preserve the farm as an educational resource to the community, the Wedge created a nonprofit LLC to ensure sales made from the farm stay on the farm.⁷²

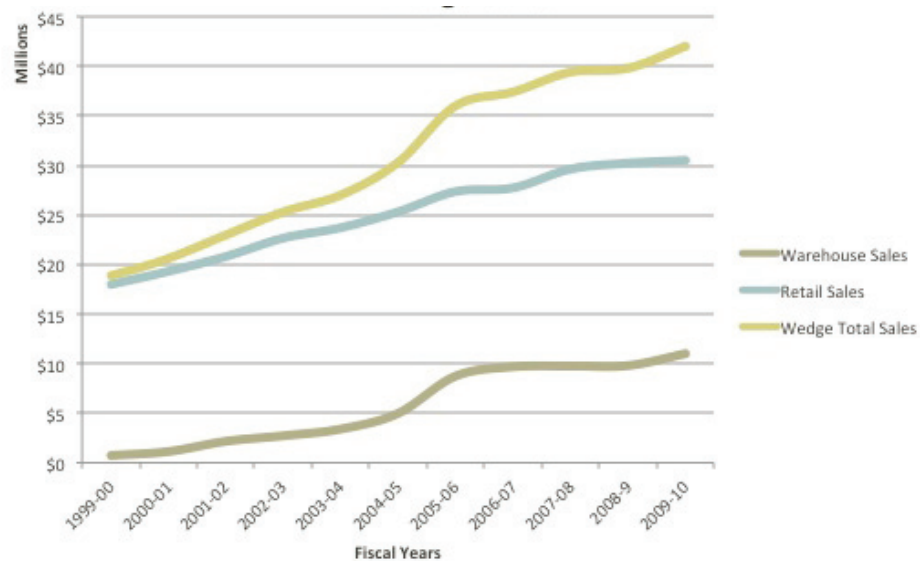
Major Activities

1. Operates an 11,000-square foot retail store as the “face” of their operations. The retail store also has a deli and bakery.
2. Operates a 45,000-square foot warehouse, Co-op Partners Warehouse, which aggregates locally farmed food and distributes it to their retail store and other businesses in the area and in neighboring states.
3. Operates Garden of Eagan and the Organic Field School, where new farmers are taught how to grow food organically and sustainably.
4. Awards grants to local non-profit organizations through WedgeShare. In 2010, WedgeShare gave \$75,000 in grants.
5. Conducts consumer education through tours, classes, and talks in their retail store and on the Gardens of Eagan. The cooperative publishes a bi-monthly newsletter and has a large online resource on their website www.wedge.coop.

Finances

- Total sales from the Wedge were estimated to be \$42 million in 2010, with profits totaling .01% of total sales, or \$440,000.
- The retail store recorded approximately \$30.5 million in sales in 2010, while the warehouse had \$11 million worth of sales. The bulk of profits come from the retail store. Although warehouse sales are substantial, the profit margin is significantly lower than in the retail store.

Figure FH.6 Wedge Community Co-op Growth from 1999 to 2010



Source: Wedge Co-op, “At the Wedge” (Newsletters, Minneapolis, MN, 1999 to 2010), <http://www.wedge.coop/newsletter/>.

- The Gardens of Eagan is financially independent, with profits from farm sales used to reinvest in the farm.
- The Wedge currently has no long-term debt. With each expansion, the Wedge has made an effort to pay off loans as quickly as possible. They purchased their retail store property a number of years ago, dramatically lowering their overhead.

Operational Structure

- The warehouse has a number of options for growers and producers. They may choose either to sell their products to the Wedge or use the Wedge's distribution networks to deliver products. The warehouse also has rental options for dry and refrigerated storage, UPC and packaging if necessary.
- The warehouse has two buyers that negotiate prices with producers each year. The cooperative emphasizes sustainable wages for producers.
- The Wedge uses eight trucks to pick up products and deliver them to businesses. The cooperative provides daily deliveries within 100 miles, and two daily deliveries to businesses in the city.
- Currently the Gardens of Eagan has a salesperson that sells their produce to the cooperatives in the area. Wedge trucks deliver these orders.

Staff

Total staff at retail and warehouse (260; 75 percent full-time, 25 percent part-time). The Gardens of Eagan has no employees and is run solely through volunteers.

Open Seasons/Hours

Warehouse is not open to public and is staffed during business hours.

Products

The Wedge purchases both for their retail store and for their warehouse. The cooperative places a priority on organic and sustainable practices, and six of every seven items in their produce section is organic. In the warehouse, buyers purchase produce from farmers, dairy and meats in addition to processed and niche products. Currently Equal Exchange, a company specializing in fair trade products, rents space in the warehouse for their products and utilizes the Wedge's trucks and distribution networks to move their goods.

Definition of "local"

Although the Wedge defines local more broadly than most organizations, their focus remains on sustainably grown food. The Wedge sources their food from any of the eight states adjacent to Minnesota, with their eight trucks staying within a 100-mile radius

Figure FH.7 Customer receipt showing the amount of local and organic food purchased



Source: The Wedge Sustainability Report

of the Minneapolis-St. Paul area. The Wedge has an innovative system that allows customers to see the percentage of organic and local food purchased at the bottom of every receipt, encouraging customers to purchase local and sustainable items.

Customer Base

The bulk of the customers are residents of the Minneapolis and St. Paul. With their retail store, local customers are residents of the Uptown neighborhood in Minneapolis and the surrounding city. The distribution center delivers to any of the 11 cooperatives in the Twin Cities and local businesses, such as restaurants, within a 100-mile radius. The Wedge also has agreements with a courier service for sales outside the 100-mile radius in any of the eight states surrounding Minnesota.

Keys to Success

1. *Retail component:* Although the warehouse and distribution portion of the business has grown significantly, financial reports show that the profit margin of the warehouse is quite small in comparison to the retail. A retail component coupled with the warehouse has expanded their customer base and lowered “middleman” costs.
2. *Emphasis on people:* By listening to the needs of their customers, their employees, and their farmers, the Wedge has ensured that quality products arrive at their cooperative and that customers are satisfied with their experience.
3. *Smart financial decisions:* The Wedge partnered with local banks to help finance their expansions. When the cooperative was profitable, they paid loans as quickly as possible. The Wedge is currently debt-free and owns its buildings.
4. *Fair wages:* The Wedge emphasizes living wages (the cooperative calls this “sustainable wages”) for both their employees and the farmers they work with. They offer 401k savings, medical and dental benefits for their employees. Their buyers sit down with farmers each year to ensure that the farmers profits will ensure continued existence and growth of the farm.
5. *Education:* The Wedge’s mission to educate their customers has been critical throughout the years to getting customers to come back and to understand where their products come from. Employees are trained each year on organic foods and procedures. The Garden of Eagan, focused primarily on education, helped their first graduates secure a loan and purchase a small farm.

CASE STUDY: The Everett Farmers Market Everett, Washington⁷⁵

Business Model: non-profit

Year Founded: Scheduled to open in 2013

Background

Snohomish County is actively trying to find ways to promote local agriculture and maintain the economic viability of local farmers. According to Linda Neunzig, the county's agriculture coordinator, the county has been studying the prevalence and strength of local farms and is beginning to develop policies and programs that encourage agricultural sustainability. The county assembled the Snohomish County Agricultural Economic Development Action Team and commissioned the Snohomish County Agriculture Action Plan. At the county's annual Focus on Farming Conference, many participants said a major barrier to farming is inconsistent access to markets and that a year-round farmers market would boost their ability to succeed as small to medium-scale farmers. Snohomish County Growers Alliance, a non-profit organization established in June 2010 and made up of local farmers, decided to pursue the creation of this market with facilitation from Neunzig and political support from the county. Snohomish County Growers Alliance consists of small to medium-scale farmers who have been searching for ways to make local farming more economically viable. Their mission is to bolster the economic vitality of agriculture in Snohomish County.⁷⁶

At the time of writing, the Everett Farmers Market is still a project in conception, but its characteristics are exemplary of many of the necessary elements for an effective food hub. It will be situated in downtown Everett, taking up an entire city block. It will house not only a year-round indoor farmers market, but also an aggregation facility for wholesale food distribution and a commercial kitchen and other processing facilities. The entire food hub will be managed by SCGA. Carol Krause, the president of SCGA explained that local farmers struggle to reach markets for their products. Thus, the goals for SCGA include expanding markets, supporting local growers, raising awareness of true costs of food as well as the benefits of local food, and creating an organization of growers for greater political clout. Its purpose is support, represent, and provide a voice for agriculture industry within Snohomish County. It has the potential to play a significant role in working to improve agriculture's economic viability, educating consumers about the value of local food production, advocating with elected officials on behalf of agriculture, and generally promoting local agriculture. The first action for this private sector non-profit organization is the creation of this market.

Moreover, the proximity of the market to downtown Everett, combined with the apartments that the developer will build above the ground floor, will contribute to economic synergies that benefit both the market and the city.⁷⁷ As an example of a hybrid food hub (see "Typologies" side bar), the market combines elements of food aggregation, processing, and retail, creating the potential for the market to become a destination for consumers, wholesalers and restaurant owners from around the central Puget Sound region.

Major Activities and Characteristics

The following activities will be the responsibility of the Snohomish County Growers Alliance:

1. Operate a 60,000 square foot, year-round farmers market, with approximately 60 vendors or 96 individual vendor stalls.
2. Operate a food court where prepared food can be purchased and consumed on site.
3. Operate an aggregation and distribution facility where farmers can sell their products at wholesale prices to large-scale purchasers. The size of the distribution area is not yet determined but will require a large commercial refrigerator, freezer, and dry storage areas to accommodate bulk produce and other foods.
4. Operate a kitchen and processing facility that farmers and other organizations, such as Meals on Wheels, can rent to process food on site.

The following three activities will be the responsibility of the developer:

1. Lease the market space to Snohomish County Growers Alliance.
2. Lease commercial space to business, most likely restaurants, that would operate on the ground level and open up to the street front and to the interior of the market.
3. Lease apartments and/or condominiums on the upper floors of the building.

Additionally, there will be a rooftop garden, and possibly other public open spaces adjacent to the building. At the time of writing, the architecture firm responsible for designing the food hub had not been announced, and there were no preliminary design concepts available.

Staff

For the creation of the market, the primary actors are Snohomish County Growers Alliance (approximately 30 members, led by Carol Krause), Linda Neunzig of Snohomish County, and developer Lobsang Dargey of Dargey Enterprises. Once complete, Snohomish County Growers Alliance will have three paid managers, one each for the market, the distribution facility, and the kitchen. It is unknown at this time how many other paid employees will be needed. Snohomish County Growers Alliance will potentially work with Snohomish Senior Services and Meals on Wheels to establish the commercial kitchen as their primary meal preparation site. This is an innovative partnership because they will purchase much of the raw foods on site from the market, prepare meals in the kitchen, and then deliver them to many different destinations. Furthermore, Meals on Wheels has agreed to let Snohomish County Growers Alliance use the vans for its own distribution needs.⁷⁸

Open Seasons/Hours

The market will be open seven days a week, 12 months a year although precise business hours have yet to be determined.

Definition of “local”

A precise definition of the extent of local was not established. The focus will be to invite farmers from Snohomish County and throughout the Puget Sound region, such as King County to the south and Whatcom County and Skagit County to the north. All vendors must be the producers of their products; reselling products will not be permitted. There will also be an interview process for vetting vendors to ensure a beneficial mix of tenants.

Feasibility Study

In the Spring of 2010, Snohomish County and the City of Everett collaborated with developer Oliver McMillan to conduct a feasibility study on the viability of a proposed

farmers market on Everett's waterfront.⁷⁹ Although the current proposed site for the food hub has changed, the framework that the economic analysis provides is still valid for the current proposed site in the heart of downtown Everett. Consultants for the study determined that in order for a market to bring sufficient numbers of people from around the region, the market would require at least 60,000 square feet. This site would include space for 60 vendors or 96 individual stalls, a 240-seat food court, a 6,000-square foot kitchen, cold and dry food storage, receiving areas, and other processing facilities. This size could draw a regional customer base located up to a 30-minute drive from the site.

Beyond examining economic feasibility, the study also discusses the qualitative needs of design for the site, or placemaking. The study states that the execution of food presentation is almost as important as the critical mass of vendors and space. There needs to be variety, with food and vending offered in a festive and entertaining atmosphere. The site itself should appeal to people similar to those who are attracted to farmers markets, which can be achieved through physical design and the creation of a festive atmosphere.

Operational Structure

The market will be managed as a non-profit entity by Snohomish County Growers Alliance. The alliance will serve as an umbrella business organization, with each of the three distinct components (retail market, distribution network, and commercial kitchen) run as three separate entities with different managers and business structures. The planned fee structure for vendors is as follows:

- A farmer must be a member of Snohomish County Growers Alliance prior to renting a vendor stall for a set, not-yet-determined price.
- There will be no financial investment from farmers themselves in the construction of the market. Farmers will only pay for Snohomish County Growers Alliance membership, the cost to rent the vendor stalls and any tenant improvements they wish to have in their market stall.
- The goal is that the market will be able to cover its operating costs through the rental fees from the farmers and the charges for use of the kitchen and membership to the distribution network. Startup operating grants may be necessary in the beginning.

Snohomish County Growers Alliance will be responsible for organizing the network of vendors, managing the space, and promoting the market. The developer has agreed to incur all construction costs and has agreed to lease the market space to the alliance, individual tenants will be responsible for their own tenant improvements. Thus Snohomish County Growers Alliance will not have to invest money in the beginning, although it will be responsible for keeping the market fiscally solvent without continued reliance on grants or other external funding sources.

The developer will also build restaurant space that he will be able to lease to individual businesses, although improvements will be the responsibility of the tenants. Furthermore, he will lease and manage the upper story apartments. Snohomish County Growers Alliance will play no role in managing the housing or restaurants in the building.

Effective Business Partnership

The Everett Farmers Market is an example of an effective partnership between the non-profit and for-profit sectors. The purpose of the market is so that farmers can have a physical site to aggregate their products and to build a network that would strengthen the business of local agriculture while creating a unique draw to downtown Everett and promoting local food.

KEY CONSIDERATIONS AND CONCLUSIONS

The central Puget Sound region can find lessons about food hub development from the experiences of existing food hubs, including those described in this report. Based on the team's research and analysis, key considerations for starting a food hub include:

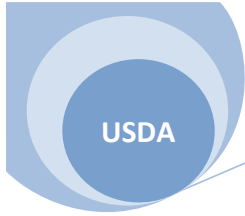
- *Demand for locally and regionally grown food:* Food hubs operate on the premise that consumers increasingly want products that originate from areas closer to where they live.
- *Support for farmers:* Successful food hubs not only aggregate and distribute goods but also are committed to educating and coordinating operations among food producers in order to help them reach new markets.
- *Creativity with funding:* The majority of existing food hubs receive some sort of government funding for start-up and ongoing costs. Individual and in-kind donations can also make a huge difference. Policymakers in this region should consider how best to facilitate funding options and other incentives particular to food hubs.
- *Organizational Synergies:* Looking for innovative opportunities between food hub participants can result in business efficiencies from thoughtful coordination of food hub activities.
- *Seamless systems for distribution and sales:* Food hubs with large, institutional clients employ aggregation or distribution systems that are compatible with practices already familiar to institutional and other large purchasers.
- *Careful market analysis:* Because food hubs can potentially take on a large number of activities, there must be close attention to the local community's needs and desires as well as what can be economically supported by the community. For instance, although most existing hubs focus on wholesale operations, a retail component may be viable as well in communities where the need is identified.
- *Policy review:* Through convening interactions among potential food hub participants, the Regional Food Policy Council may determine whether regulatory or financial incentives would help to promote food hubs and make recommendations or provide information accordingly.

As the Regional Food Policy Council works to advance its goals, particularly those related to economic development and agriculture, food systems stakeholders may benefit from incorporating food hubs into this strategy. A coordinated system that increases the efficiency of food distribution is a necessary element in ongoing efforts to maintain the viability of small and mid-scale agriculture in the central Puget Sound region. Food hubs are opportunities to make agriculture in the region more economically sustainable.

Appendix FH-1: Case Study Interview Questions

1. How and why did your organization get started? Who or what was the major driver behind the project?
2. Whose/what demands are you trying to meet? Who is your primary customer/client base?
3. What are the dominant activities of your food hub?
4. Describe the location and physical setting of your organization.
5. What is your business structure (e.g. non/for profit, etc)? Number of employees and volunteers?
6. How was the project financed at start-up? How does it function financially now? Is it financially solvent? If not, do you have an expectation that it will be?
7. Volume of food that passes through the hub at various stages (processing, sales, etc.)? What types of products do you sell?
8. What are your hours/seasons?
9. Is the space used for other activities besides the dominant activities of your organization? (e.g. community meetings, social services, Meals on Wheels)
10. Who provides you your products/services?
11. Do you distribute products, and if so, to whom/where? Resell?
12. Tell us about your physical space--size? Specifically built for this purpose or retrofitted building? Parking? Accessibility by what modes of transportation?
13. What would be your ideal space for a building? What are your needs, from a physical design/equipment/land perspective?
14. Do you accept EBT/food stamps?
15. What kind of obstacles/challenges did you face in opening the place? Current challenges? Anything related to zoning or regulations that policymakers should keep in mind?
16. What are your future plans as an organization?
17. One of our challenges is defining what a "food hub" constitutes. What do you consider to be the essential components of a food hub? What needs do they serve that separate them from, say, a market or food co-op?
18. What advice would you give to policymakers, developers, food producers, or others interested in promoting "food hubs"?

Appendix FH-2: USDA Programs



Potential USDA Programs to Support Regional Food Hub Development

This is not a comprehensive list, but an edited selection of USDA programs that have previously supported regional food hubs, with examples of funded projects. Many other USDA programs support various activities of regional food hubs. Page 4 has a longer list of funding resources, divided by agency. State and local USDA offices offer a wealth of resources in researching and preparing applications for support.

Rural Development agency:

The following programs are administered by the states offices of USDA's Rural Development. Find your state office here: http://www.rurdev.usda.gov/recd_map.html

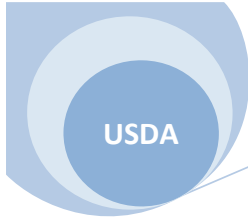
- 1. The Rural Business Enterprise Grant (RBEG)** supports the development of physical infrastructure and facilities, including food processing, marketing, and distribution business ventures for locally-grown agricultural products. It is administered by the Rural Business Cooperative Service, and can support everything from planning, plant upgrades, equipment purchases, and technical assistance. Grants range from \$10,000 up to \$500,000, although smaller projects are given higher priority. Rural public entities, Indian tribes, and rural non-profit organizations are eligible to apply. "Rural" in this case is defined as any area other than a city or town that has a population of greater than 50,000 and the urbanized area contiguous and adjacent to such a city or town according to the latest decennial census. Information and grants are disbursed on the state level. For more information go to: <http://www.rurdev.usda.gov/rbs/buspr/bbeg.htm>

RBEG Example: Coast Grown in San Luis Obispo received an \$88,000 RBEG grant in 2007 to form the Coast Grown Cooperative of 18 independent farms and ranches along California's Central Coast and to build the first Mobile Harvest Unit in California. The grant helped pay for a producer survey, cooperative feasibility report, mobile unit feasibility report, business plan, seat a board of directors, articles of incorporation, by-laws, develop quality standards, ranch facility requirements, hazard analysis plan, standard sanitation operation plan, all mobile unit permits and guidelines in place, MHU modifications, website, logo and brochures, new member application packet, and to hire a CEO.

- 2. The Rural Business Opportunity Grant (RBOG)** supports training and technical assistance for business development (to include support for food processing, marketing and distribution business development of locally-grown agricultural products). It emphasizes strategic technical assistance, training, and planning activities that promote "best practices" in sustainable economic development for rural communities with exceptional needs. For more information go to: <http://www.rurdev.usda.gov/rbs/coops/rbog.htm>

RBOG Example: The Ecotrust FoodHub in Portland, Oregon received \$250,000 to build up food-hub.org, an online directory and marketplace to help wholesale food buyers and sellers find each other, connect and do business. RBOG funding is being used to increase recruitment of producers and buyers in rural communities throughout the Pacific Northwest, and provide the training and assistance necessary to ensure FoodHub supports their business, procurement, and marketing goals.

Last updated April 18, 2011 – prepared by USDA's "Know Your Farmer, Know Your Food" Regional Food Hub Subcommittee.



Potential USDA Programs to Support Regional Food Hub Development

3. The Value-Added Producer Grant (VAPG) supports the production of value-added agricultural products from commodities. Up to \$100,000 can be awarded for planning, and up to \$300,000 for working capital. Eligible entities are independent producers, farmer and rancher cooperatives, agricultural producer groups, and majority-controlled producer-based ventures. For more information go to: <http://www.rurdev.usda.gov/rbs/coops/vadg.htm>

VAPG Example: Grasshoppers Distribution of Louisville, KY received a VAPG of \$85,480 in 2006 to assist their work with small-scale family agriculture producers in Kentucky and southern Indiana. They operate a Community Supported Agriculture program and facilitate wholesale distribution to restaurants, groceries, and special events. They also assist producers become “KY Proud” certified, a label that promotes Kentucky agricultural products and encourages buying and eating locally.

4. The Business and Industry Guaranteed Loan Program (B & I) helps provide loans for businesses and cooperative ventures where a loan will keep a business from closing, prevent the loss of employment, or provided expanded job opportunities. Private lenders are provided loan guarantees by USDA to ensure better terms. Any legal entity (including individuals) is eligible to apply, but restricted to rural cities with populations less than 50,000, with priority given to populations of less than 25,000. Loans may be used to prevent businesses from closing, or to provide expanded job opportunities; convert, enlarge, repair, modernize or otherwise develop a rural business; purchase and develop land, easements, rights-of-way, buildings, or facilities; purchase equipment, leasehold improvements, machinery, supplies, or inventory. Applications must be filed with Rural Development State Offices. For more information go to: http://www.rurdev.usda.gov/rbs/busp/b&i_gar.htm

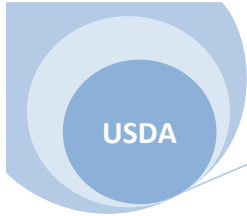
B&I Example: Organic Renaissance, LLC in Athol, MA helps connect local growers to restaurants and retailers by assisting with transportation, aggregation and distribution, while preserving direct relationships between buyers and sellers. In 2010 they received a \$450,000 B&I guaranteed loan from GFA Federal Credit Union to expand their operations, build a 100% hydro-powered aggregation facility, build up their online ordering system and educational programs that focus on local agriculture, and food education in the community (especially to children).

Agricultural Marketing Service agency:

5. The Farmers Market Promotion Program (FMPP) is a grant program designed to facilitate and promote farmers markets and other direct-to-consumer market channels for agricultural products. Grants are awarded on a competitive basis. The maximum amount awarded for a proposal cannot exceed \$100,000. Approximately \$10 million is allocated for Fiscal Years 2011 and 2012. Entities eligible to apply include agricultural cooperatives, producer networks, producer associations, local governments, nonprofit corporations, public benefit corporations, economic development corporations, regional farmers market authorities, and Tribal governments. “Growing Farmers,” “Professional Development,” and “Expanding Local and Rural Economies” are just a few of the goals of the program. The emphasis of this program is on direct-to-consumer marketing, which includes multi-farm CSAs and online buying clubs. For more information go to: <http://www.ams.usda.gov/FMPP>

Last updated April 18, 2011 – prepared by USDA’s “Know Your Farmer, Know Your Food” Regional Food Hub Subcommittee.

Appendix FH-2: USDA Programs



Potential USDA Programs to Support Regional Food Hub Development

FMPP Example: The Oklahoma Food Cooperative received \$66,200 in 2007 to enhance its distribution system with better transportation and computerized recordkeeping equipment so it can expedite the delivery of produce using a web-based marketing and ordering system for regional producers. The cooperative is a producer and consumer-owned cooperative based in Oklahoma City, OK in which 200 producer members sell more than 6,000 individual items, including meat, produce, milk, and value-added items to the 3,000 coop members using an Internet ordering portal and 48 member-operated distribution routes that reach cities, towns and hamlets across Oklahoma each month. All products sold through the cooperative must be produced in Oklahoma.

National Institute of Food and Agriculture agency:

6. Community Food Projects Competitive Grant Program (CFP) is designed to increase food security in low-income communities by developing linkages between two or more sectors of the food system, supporting the development of entrepreneurial projects, and encouraging long-term planning for communities. Grants of \$10,000 to \$300,000 (lasting 1-3 years) are competitively awarded to eligible nonprofit entities that need a one-time infusion of federal assistance to establish and carry out multipurpose community food projects. Approximately 18 percent of submitted proposals have received awards. For more information go to: <http://www.csrees.usda.gov/hungerfoodsecurity.cfm>

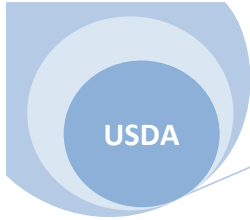
CFP Example: The American Friends Service Committee in Albuquerque received a \$300,000 grant in 2009 for three years of funding to develop the New Mexico Agri-Cultura Network, a local food shed that works with small growers, procurement agents, institutional buyers, and policy-makers to bring farm-fresh produce into Albuquerque public schools. Economic revitalization of the South Valley is a priority, with the project emphasizing training of low-income community members to be agricultural producers, help meet local food needs and incorporate innovative marketing strategies that mutually benefit agricultural producers and low-income consumers.

7. Sustainable Agriculture Research and Education (SARE) awards competitive grants to advance sustainable innovations that support the whole of American agriculture, with a special emphasis on outreach and dissemination of project results. Four regional offices administer SARE funds, which support research on topics including on-farm renewable energy, pest and weed management, sustainable communities, agro-forestry, marketing, and more. For more information go to: www.sare.org

SARE Example: Greater Falls Food Hub, in the Central Connecticut River Valley bioregion of Vermont, received a \$15,000 Sustainable Community grant from Northeast SARE to research and assess new distribution models, increase access to value-added infrastructure, and develop programs to deliver local foods to low-income families. Their facility includes dry, cold & frozen storage facilities, a licensed, commercial-sized food processing kitchen to do value-added, incubator, commercial, and educational activities, a wholesale/retail distribution outlet for fresh, stored, and processed local food, and local food community meals, community workshops (gardening, cooking, preserving, storing, extending the season), community celebrations and cultural events..

Last updated April 18, 2011 – prepared by USDA’s “Know Your Farmer, Know Your Food” Regional Food Hub Subcommittee.

Appendix FH-2: USDA Programs



Potential USDA Programs to Support Regional Food Hub Development

Other Potential USDA Programs Offering Regional Food Hub Support

Note: USDA's "Know Your Farmer, Know Your Food" website (www.usda.gov/knowyourfarmer) provides a comprehensive list of funding programs available to support local and regional food systems development.

Rural Development:

The Community Facilities Program provides loans and grants for the construction, acquisition, or renovation of community facilities or for the purchase of equipment for community projects.

http://www.rurdev.usda.gov/HCF_CF.html

The Rural Economic Development Loan and Grant Program (REDLG) promotes rural economic development and job creation projects in rural areas. <http://www.rurdev.usda.gov/ga/tredleg.htm>

Agricultural Marketing Service:

Federal-State Marketing Improvement Program (FSMIP) provides matching funds to states to research and innovate new marketing opportunities for food and agricultural products. <http://www.ams.usda.gov/FSMIP>

National Institute of Food and Agriculture:

The Organic Research and Extension Initiative supports the ability of producers and processors who have already adopted organic standards to grow and market high quality organic agricultural products.

<http://www.csrees.usda.gov/funding/rfas/OREI.html>

Farm Service Agency:

Farm Storage Facility Loan Program can finance the construction of on-site storage, cooling, and minimal processing facilities for eligible commodities. The 2008 Farm Bill expanded those eligible commodities to include vegetable and fruit (including nut) producers.

<http://www.fsa.usda.gov/FSA/webapp?area=home&subject=prsu&topic=flp-fp>

Natural Resources Conservation Service:

Environmental Quality Incentives Program provides financial and technical assistance to help plan and implement conservation practices that address natural resource concerns. The 2008 Farm Bill began offering high tunnels, or hoop houses, to help extend the growing season for fresh market vegetable producers.

<http://www.nrcs.usda.gov/programs/eqip/index.html#intro>

The Conservation Innovation Grant seeks to stimulate the development and adoption of innovative conservation approaches and technologies, particularly as they relate to agriculture. "Promotion of Sustainable Agriculture," "Nutrient and Pest Management," and "Program Outreach and Conservation Technology Transfer to Targeted Groups" are just a few of the goals of this program.

<http://www.nrcs.usda.gov/technical/cig/index.html>

Risk Management Agency:

Risk Management Education is a comprehensive educational program to assist producers and agribusinesses to understand their increased risk exposure and responsibility in the current economic environment.

<http://www.rma.usda.gov/aboutrma/who/aboutrme.html>

Last updated April 18, 2011 – prepared by USDA's "Know Your Farmer, Know Your Food" Regional Food Hub Subcommittee.

NOTES

1. Jim Barham, "Getting to Scale with Regional Food Hubs," USDA Blog, December 14, 2010, <http://blogs.usda.gov/2010/12/14/getting-to-scale-with-regional-food-hubs/>.
2. "Ask Farm Aid," Farm Aid, accessed May 19, 2011, <http://www.farmaid.org/site/apps/nl/newsletter2.asp?c=qll5lhNVJsE&b=2723877>;
- Kathleen Merrigan, "Food Hubs: Creating Opportunities for Producers Across the Nation," USDA Blog, April 19, 2011, <http://blogs.usda.gov/2011/04/19/food-hubs-creating-opportunities-for-producers-across-the-nation/>.
3. Scott Cullen et al., "Food Hubs: Viable Regional Distribution Solutions" (Webinar, National Good Food Network, May 19, 2011), <http://www.ngfn.org/resources/ngfn-cluster-calls/food-hubs-viable-regional-distribution-solutions>.
4. Ibid.
5. Jim Barham, telephone interview with author, May 13, 2011.
6. Kathleen Merrigan, "Food Hubs: Creating Opportunities for Producers Across the Nation."
7. Know Your Farmer, Know Your Food Regional Food Hub Subcommittee, "Regional Food Hubs: Linking Producers to New Markets" (Presentation) <http://www.ams.usda.gov/AMsv1.0/getfile?dDocName=STELPRDC5088011&acct=wdmgeninfo>
8. Ibid.
9. Jim Barham, telephone interview with author.
10. Adrian Morley, Selyf Morgan and Kevin Morgan, "Food Hubs: The 'Missing Middle' of Local Food Infrastructure?" (Report, Brass Centre, Cardiff University, 2008), http://www.brass.cf.ac.uk/uploads/Food_HubKM0908.pdf, 3.
11. Jim Barham, telephone interview with author.
12. Vanessa Zajfen and Sharon Cech, "Regional Food Hubs and Regional Food Hub Networks", Urban and Environmental Policy Institute at Occidental College, accessed May 14, 2011, <http://departments.oxy.edu/uepi/cfj/rfh.htm>.
13. "Healthy Food Hubs", Wholesome Wave, accessed April 18, 2011, <http://wholesomewave.org/what-we-do/healthy-food-hubs/>.
14. De la Salle, Janine and Mark Holland. *Agricultural Urbanism*. Vancouver, BC : HB Lanarc, 2010.
15. Horst, Megan, Eva Ringstrom, Shannon Tyman, Michael K. Ward, Virginia Werner, and Branden Born. "Applying Lessons Learned about Food Hubs in Seattle, Washington to Enhance a Collective Understanding." (unpublished).
16. Jim Barham, "Regional Food Hubs: Understanding the scope and scale of food hub operations" (Presentation, May 2011).
17. Jim Barham, "Getting to Scale with Regional Food Hubs," USDA Blog, Dec. 14, 2010, <http://blogs.usda.gov/2010/12/14/getting-to-scale-with-regional-food-hubs/>.
18. Scott Cullen et al., "Food Hubs: Viable Regional Distribution Solutions."
19. Jim Barham, "Regional Food Hubs: Understanding the scope and scale of food hub operations" (Presentation, May 2011), <http://www.ams.usda.gov/AMsv1.0/getfile?dDocName=STELPRDC5090409>.
20. Scott Cullen et al., "Food Hubs: Viable Regional Distribution Solutions".

21. Holly Kipp, "Deputy Secretary Merrigan Discusses Local Foods and Ag policy with University Students in Oregon," USDA Blog, March 7, 2011, <http://blogs.usda.gov/2011/03/07/deputy-secretary-merrigan-discusses-local-foods-and-ag-policy-with-university-students-in-oregon/>.
22. Kevin Morgan and Adrian Morley, "Re-localising the Food Chain: The Role of Creative Public Procurement" (Report, The Regeneration Institute, Cardiff University, 2002).
23. US Department of Agriculture Economic Research Service, *Local Food Systems: Concepts, Impacts and Issues*, by Steve Martinez et al., ERR 97 (May 2010), <http://www.ers.usda.gov/Publications/ERR97/ERR97.pdf>, 1;11.
24. "Farmer's Markets and Local Marketing," USDA Agricultural Marketing Services, last modified August 4, 2010, <http://www.ams.usda.gov/AMSV1.0/ams.fetchTemplateData.do?template=TemplateS&navID=WholesaleandFarmersMarkets&leftNav=WholesaleandFarmersMarkets&page=WFMFarmerMarketGrowth&description=Farmers%20Market%20Growth&acct=frmrdirmt>.
25. National Restaurant Association, "Chef Survey: What's Hot in 2011," December 1, 2010, http://www.restaurant.org/pdfs/research/whats_hot_2011.pdf
26. "Our Mission," Know Your Farmer, Know Your Food, accessed May 23, 2011, http://www.usda.gov/wps/portal/usda/knowyourfarmer?navtype=KYF&navid=KYF_MISSION; "Washington State Farm-to-Prison Pilot," Washington State Department of Agriculture, accessed May 23, 2011, <http://www.wafarntoschool.org/Page/29/WSDA-Farm-to-Prison>.
27. "How It Works," Puget Sound Food Network, accessed May 23, 2011, <http://www.psfm.org/how-it-works/>.
28. King County, "King County Agriculture Program," http://psrc.org/assets/5652/rfpc_021111_king_ag_program.pdf, 9.
29. Kirschenmann, F., S. Stevenson, F. Buttel, T. Lyson, and M. Duffy. "Why worry about the agriculture of the middle?" *Food and the Mid-Level Farm: Renewing an agriculture of the middle*, eds. T.A. Lyson, G.W. Stevenson, and R. Welsh (Cambridge, USA: MIT Press, 2008), 3-22.
30. US Department of Agriculture Economic Research Service, "Local Food Systems: Concepts, Impacts and Issues," 5.
31. Ibid.
32. Ibid.
33. Ibid.
34. Jim Barham, telephone interview with author.; US Department of Agriculture Economic Research Service, "Local Food Systems: Concepts, Impacts and Issues," 23-25.
35. Jim Barham, telephone interview with author.
36. Adrian Morley, Selyf Morgan and Kevin Morgan, "Food Hubs", (BRASS Centre, Cardiff University, 2008), 2.
37. Ibid.
38. Ibid., 3.
39. Jim Barham, telephone interview with author.
40. Know Your Farmer, Know Your Food Regional Food Hub Subcommittee, "Regional Food Hubs: Linking Producers to New Markets" (Presentation)
41. Kirschenmann, F., et al. "Why worry about the agriculture of the middle?"
42. USDA 2007 Census of Agriculture, "Washington State and County Data," 2007, <http://>

www.agcensus.usda.gov/Publications/2007/Full_Report/Volume_1,_Chapter_2_County_Level/Washington/wav1.pdf.

43. King County Department of Natural Resources and Parks and King County Agriculture Commission, "FARMS Report - Future of Agriculture, Realized Meaningful Solutions," (Report, King County, WA, December 2009), <http://your.kingcounty.gov/dnrp/library/water-and-land/agriculture/future-of-farming/farms-report-no-apdx.pdf>, 5.

44. King County, "FARMS Report," vi.

45. USDA 2007 Census of Agriculture, "Pierce County Washington," http://www.agcensus.usda.gov/Publications/2007/Online_Highlights/County_Profiles/Washington/cp53053.pdf

46. American Farmland Trust, "The Suitability, Viability, Needs, and Economic Future of Pierce County Agriculture" (Report, Pierce County, WA, 2004), <http://www.co.pierce.wa.us/xml/abtus/ourorg/exec/ecd/documents/Pierce%20ag%20study.pdf>, 8.

47. Ibid., 14-15.

48. Kitsap County Board of County Commissioners and Kitsap County Food Chain Program, "Kitsap County Agriculture Sustainability Situation and Analysis," by Chase Economics (Report, Tacoma, WA, January 2011),

<http://kitsapfoodchain.org/wp-content/uploads/2011/03/Jan-2011-Kitsap-County-Agricultural-Sustainability-Situation-and-Analysis-draft2.pdf>, 14.

49. Charlotte Garrido, "Kitsap Food Chain Project" (presentation, PSRC Regional Food Policy Council, Seattle, WA, January 14, 2011), http://psrc.org/assets/5579/rfpc_011411_kitsap.pdf, 2.

50. Kitsap County Board of County Commissioners and Kitsap County Food Chain Program, "Kitsap County Agriculture Sustainability Situation and Analysis", 16.

51. Charlotte Garrido, "Kitsap Food Chain Project," 3.

52. Kitsap County Board of County Commissioners and Kitsap County Food Chain Program, "Kitsap County Agriculture Sustainability Situation and Analysis", 33-4.

53. Snohomish Agriculture Economic Development Action Team (SAEDAT)

"A Community Vision for Sustainable Agriculture in Snohomish County, Executive Summary" (Report, Snohomish County, WA, July 2009), http://www.co.snohomish.wa.us/documents/County_Services/FocusOnFarming/ExecSum.pdf, 4.

54. Snohomish Agriculture Economic Development Action Team (SAEDAT)

"A Community Vision for Sustainable Agriculture in Snohomish County, Executive Summary," 5.

55. Jim Barham, "Regional Food Hubs: Understanding the scope and scale of food hub operations" (Presentation, May 2011), <http://www.ams.usda.gov/AMSV1.0/getfile?dDocName=STELPRDC5090409>.

56. Jim Barham, "Regional Food Hubs: Understanding the scope and scale of food hub operations" (Presentation, May 2011).

57. Scott Cullen et al., "Food Hubs: Viable Regional Distribution Solutions".

58. Jim Barham, telephone interview with author; Lindsey Day-Farnsworth et al., "Scaling Up: Meeting the Demand for Local Food" (Report, University of Wisconsin-Madison, December 2009), <http://ngfn.org/resources/ngfn-database/knowledge/Scaling%20Up%20Meeting%20the%20Demand%20for%20Local%20Food.pdf>, ii, 11.

59. US Department of Agriculture Economic Research Service, "Local Food Systems: Concepts, Impacts and Issues," by Steve Martinez et al., ERR 97 (May 2010), <http://www.ers.usda.gov/>

Publications/ERR97/ERR97.pdf, iv.

60. Jim Barham, "Regional Food Hubs: Understanding the scope and scale of food hub operations" (Presentation, May 2011).

61. Kate Collier, telephone interview with author, April 26, 2011.

62. National Good Food Network, "Food Hub Center," accessed May 30, 2011, <http://ngfn.org/resources/food-hubs/food-hubs#us-food-hubs>

63. Ibid.

64. Ibid.

65. Ibid.

66. Kate Collier, telephone interview with author; Local Food Hub, accessed May 23, 2011, <http://www.localfoodhub.org>.

67. Photo taken by: US Department of Agriculture (<http://www.flickr.com/photos/usdagov/5263433735/>), December 15, 2010.

68. Photo Taken By: Local Food Hub, (<http://www.flickr.com/photos/localfoodhub/4730316971/>), June 23, 2010

69. Local Food Hub (<http://www.flickr.com/photos/localfoodhub/5145706099/>) June 8, 2010.

70. Lindy Bannister, telephone interview with author, April 29, 2011; Wedge Community Co-Op, accessed May 6, 2011, <http://www.wedge.coop>; Wedge Co-op, "At the Wedge" (Newsletters, Minneapolis, MN, 1999 to 2010), <http://www.wedge.coop/newsletter/>.

71. Photo taken by Wedge Worldwide (http://1.bp.blogspot.com/_izAQmfy1Z6o/SvmRN76CQ4I/AAAAAAAAAZY/mMRS9rcoC94/s1600-h/wedgeCoop.jpg).

72. Barth Anderson, "Wedge Buys Gardens of Eagan" Wedge Community Co-Op (2007), <http://www.wedge.coop/businesses-partnerships/wedge-buys-gardens-of-eagan>.

73. Wedge Co-op, "At the Wedge" (Newsletters, Minneapolis, MN, 1999 to 2010), <http://www.wedge.coop/newsletter/>.

74. Photo taken by the Wedge (Wedge Co-op, "At the Wedge" (Newsletters, Minneapolis, MN, 1999 to 2010), <http://www.wedge.coop/newsletter/>).

75. Linda Neunzig, interview with authors, April 22, 2011.

76. Snohomish County Grower's Alliance, accessed May 23, 2011, <http://www.snocogrowers.com>.

77. Community Attributes International, "Summary of Findings: Everett Riverfront Farmers Market Feasibility" (memorandum, May 2010), <http://www.heraldnet.com/assets/pdf/DH72540613.pdf>.

78. Linda Neunzig, interview with authors, April 22, 2011.

79. Community Attributes International, "Summary of Findings: Everett Riverfront Farmers Market Feasibility" (memorandum, May 2010), <http://www.heraldnet.com/assets/pdf/DH72540613.pdf>.