



**Report on Washington's Food System
Response to Executive Order 10-02
January 2012**

Table of Contents

EXECUTIVE SUMMARY1

SECTION ONE: INTRODUCTION3

SECTION TWO: SNAPSHOTS, ACTORS, GAPS, AND OPPORTUNITIES5

 2.1 Hunger and Food Security5

 Snapshots5

 Role of Washington State6

 Role of Federal, State, and Local Partners7

 Gaps and Risks8

 Sector Opportunities9

 2.2 Health and Nutrition10

 Snapshots11

 Role of Washington State13

 Role of Federal, State, and Local Partners14

 Gaps and Risks15

 Sector Opportunities15

 2.3 Promotion of Washington Products17

 Snapshots18

 Role of Washington State19

 Role of Federal, State, and Local Partners21

 Gaps and Risks22

 Sector Opportunities23

 2.4 Farms and Farmland Preservation26

 Snapshots26

 Role of Washington State28

 Role of Federal, State, and Local Partners29

 Gaps and Risks30

 Sector Opportunities32

 2.5 Food System Infrastructure33

 Snapshots33

 Role of Washington State36

 Gaps and Risks37

 Sector Opportunities38

 2.6 Cross-Sector Opportunities39

SECTION THREE: MOVING FORWARD41

REFERENCES42

Report on Washington's Food System: Response to Executive Order 10-02

EXECUTIVE SUMMARY

This report fulfills the Governor's directive in EO 10-02 to the state agencies. An Inter Agency Working group (IAW) comprised of the Departments of Agriculture (WSDA), Health (DOH), Social and Health Services (DSHS), the Office of Superintendent of Public Instruction (OSPI), and the Washington State Conservation Commission (WSCC), as well as partners representing sectors of Washington's food system collaborated to develop the report. This report completes one important step towards achieving a healthy, sustainable food system. The food system is a network of people and activities connecting production, transformation (processing), distribution, consumption, and food waste management, as well as associated inputs, influences and policies.

Goals of Report

- Provide a snapshot of the current state of the food system and a summary of the role of existing state agencies and federal, state, and local partners (section two).
- Highlight potential opportunities to address some of the current food system's gaps and risks, particularly those related to increased collaboration. This report does not present a comprehensive, prioritized list of gaps, risks, and opportunities. Although substantial work to improve the food system has occurred in all focus areas, the gaps and opportunities in the report highlight examples of opportunities for working together to improve the food system (section two).
- Recognize a commitment by the five agencies listed in Executive Order 10-02 to increase joint efforts with food system partners to develop realistic solutions that strengthen the food system through the creation of a Food Systems Round Table (section three).

Focus Areas within the Report

- **Hunger and Food Security:** In 2010, one in six households in Washington experienced food insecurity, affecting an estimated 300,000 children. Hunger not only results in poor physical and emotional health, but also keeps children from achieving educational success. The main cause of hunger in Washington is poverty.
- **Health and Nutrition:** Currently, more than one in four Washington adults are obese, which is more than double the rate in 1990. Obesity is linked to diabetes, heart disease, stroke, and asthma. Key factors causing the recent increase in obesity are lack of physical activity; eating too much high-calorie foods including sugary beverages; and not eating enough healthy, nutrient-dense foods including whole grains, fruits, vegetables, and low-fat and fat-free dairy products.
- **Promotion of Washington Products:** The total value of Washington agricultural products produced in 2008 was almost \$8 billion.¹ While Washington's farm exports are substantial, so is the quality and offerings of locally grown products to consumers. Consumer demand for local foods is driving an increase in direct farm sales. About 14 percent or 5,418 of Washington farms participated in direct sales in 2007, according to self-reported farm data collected by the U.S. Department of Agriculture's National Agricultural Statistics Service. Washington ranks seventh in the nation for having the most direct farm sales and second nationally for population size to dollars spent ratio.

- **Farms and Farmland Preservation:** Washington is home to about 40,000 farms and more than fourteen million acres of farmland.² Unfortunately, Washington's farms are diminishing. Between 1997 and 2007, almost 700,000 acres of agriculture, or about 4.3 percent of farmland, was lost. Development is a major factor for the loss of farmland since three quarters of Washington's active farm and ranch land has a market value that exceeds its value for agriculture.
- **Food System Infrastructure:** The chain of activities connecting the food system, beginning with production and ending with consumption and food waste management, is complex and relies on many diverse inputs and infrastructure elements. In order to remain globally competitive, businesses have consolidated, which has forced many small and mid-sized farms and food processors out of business. However, increased consumer demand for local food has resulted in the growth of a number of smaller farms and food processors in the past 10 years. These businesses are often owner-operator run, and they face a complex set of local, state, and federal regulations; changing markets; food safety concerns; labor issues; and rising transportation and energy costs.

Report Recommendation

The state agencies of the IAW recommend moving forward by convening a Food Systems Roundtable. The proposed Food System Roundtable will encourage discussion and information-sharing to assist in coordinating efforts to improve the food system. The state government cabinet agencies Department of Social and Health Services and Department of Health could serve as initial conveners of this roundtable. The task for its ongoing maintenance will become a shared responsibility among both private and public participants.¹ The overall aim of the roundtable would be to develop a twenty-five-year vision to establish common direction and ensure a coordinated food system

¹ Agency and stakeholder participation will be dependent on available resources.

SECTION ONE: INTRODUCTION

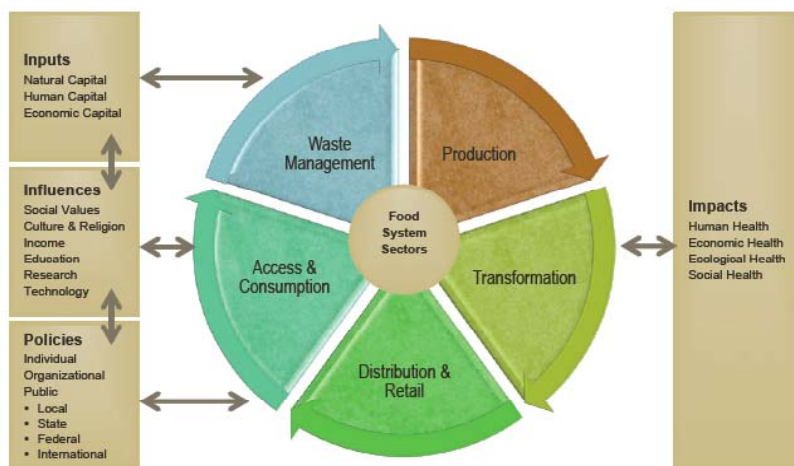
The food system is defined as a network of people and activities connecting production, transformation (processing), distribution, consumption, and food waste management, as well as associated inputs, influences, and policies. Washington's food system has direct impacts on the state's human, ecological, economic, and social health. It affects every household and every community. State government plays important roles in the food system, from implementing federally funded nutrition programs to creating policies that help determine how food is produced, distributed, regulated, and purchased in the state.

In 2010, Governor Gregoire issued Executive Order 10-02 "Strengthening Washington's Food Systems through Policy and Collaboration" (EO 10-02). Executive Order 10-02 calls for a "more focused examination of state food policy, food-related programs, and food-related issues." In EO 10-02, the governor directed five state agencies to assess existing data, identify gaps and opportunities, and support realistic solutions for improving the state's food system. When signing Executive Order 10-02, Governor Gregoire noted, "By acting today we will bring all aspects of our food system together ... This executive order will help identify the gaps in the food system that prevent nutritious food from getting to all people in Washington, and to find solutions and bridge those gaps."

This report fulfills the governor's directive in Executive Order 10-02 to the state agencies. An interagency working group comprised of the Departments of Agriculture (WSDA), Health, Social and Health Services (DSHS); the Office of Superintendent of Public Instruction (OSPI); and the Washington State Conservation Commission (WSCC), as well as food system partners representing sectors of Washington's food system worked together to develop the report. Due to the wide range of interested partners and the short time period to produce the report, the state agencies asked the partners to designate lead individuals to represent the following five food system focus areas defined in EO 10-02: Hunger and Food Security; Nutrition and Health; Promotion of Washington Products; Farms and Farmland Preservation; and Food System Infrastructure.

While this report focuses on areas called out in Executive Order 10-02, the interagency working group also considered how these areas fit into the broader food system. Figure 1 shows one approach to understanding the food system that shows the relationship between inputs, influences, policies, and impacts of five food system sectors (production, transformation, distribution/retail, access/consumption, and waste management).

Figure 1: The Food System



Source: Iowa Food Systems Council, 2011. Accessed at <http://www.iowafoodsystemsCouncil.org/cultivating-resilience/>.

All working group participants shared a short-term commitment to fulfill the requirements of Executive Order 10-02, as well as a long-term vision to improve the food system. Participants shared the hope that this report would serve as a springboard for action on short-term opportunities and provide a framework for a long-term coordinated vision. Due to time constraints and the breadth of the subject matter, the gaps, risks, and opportunities in the report are meant as examples, and do not represent a prioritized list of policy options.

The state agencies of the IAW recommend moving forward by convening a Food Systems Roundtable. Given current resources, DOH and DSHS could convene the recommended roundtable at first, followed by a shared leadership model with stakeholders. The overall aim of the roundtable would be to develop a twenty-five-year vision to establish common direction and ensure a coordinated food system. Potential elements of a vision include:

- No Washington resident faces food insecurity.
- All Washington residents, particularly low-income residents, have access to nutritious food.
- The food supply is safe, healthy, and secure.
- Washington continues to be a top agricultural exporter, and more of the food consumed in Washington is produced in Washington.
- Washington's farmland is preserved and protected for food production.
- Food production is a viable economic activity, and farmers have access to the necessary resources including land, soil, water, and labor.
- The food system protects the environment through agricultural best practices, and protection and wise use of our natural resources.
- The food system infrastructure enables connections among small-scale producers and consumers.

SECTION TWO: SNAPSHOTS, ROLES, GAPS, AND OPPORTUNITIES

2.1 Hunger and Food Security

Hunger is a global, national, and local epidemic. The main cause of hunger in Washington is poverty. In order to alleviate hunger, Washington must have food security. Food security is defined as access by all people at all times to sufficient food for an active and healthy life. Food security includes, at a minimum, the ready availability of nutritionally adequate and safe foods, and an assured ability to acquire acceptable foods in socially acceptable ways.³ Household characteristics that influence whether or not food security is met include employment, household structure, mobility, access and ability to sustain income shocks.⁴ Environmental and state level characteristics that influence food security include average wages, housing costs, social and racial injustice, food assistance programs, and state tax policy.

Snapshots

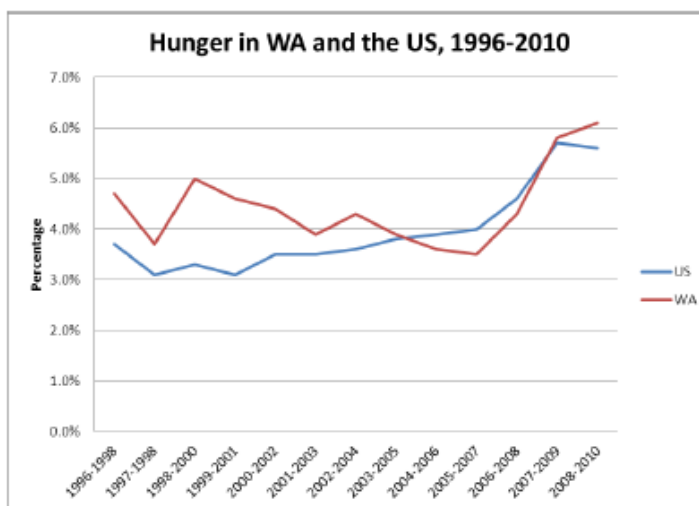
- A growing number of Washington residents live in poverty. In 2010, 13.4 percent of individuals in Washington were living in poverty, compared to 11.8 percent in 2006. See Table 2.1.1.
- Unemployment is the number one reason people visit food banks.⁵ The percentage of unemployed workers in Washington was 4.8 percent in December 2007 and rose to 9.2 percent by June 2009. The state's unemployment rate remained at or above 8.9 percent from April 2009 through April 2011.
- Since the beginning of the current recession, the number of Washington families struggling with hunger has almost doubled. From 2008 to 2011, the number of households experiencing hunger rose nearly 100 percent to more than 160,000 households. This is 6.1 percent of total households in Washington. Washington's rate of hunger is 11th highest in the nation.⁶
- As many as 400,000 children in Washington — or 25 percent — live in food insecure households.
- Households with significantly higher rates of food insecurity include lower income households, single men, African American and Hispanic households, and households with children headed by a single woman.⁶
- About 985,000 individuals per month in Washington received food assistance through the Supplemental Nutrition Assistance Program (SNAP) in 2010. This was a 20.6 percent increase from the year before. In terms of dollars distributed, SNAP issuance (from both federal and state funds) in 2010 totaled over \$1.5 billion.⁷
- The National School Breakfast and Lunch Program and the Summer Feeding Programs served more than one million children in Washington.
- In the fall 2010, food banks reported an all-time record number of clients. The emergency food system distributed more than 134 million pounds of food statewide to 1.5 million clients.

Figure 1
Percentage of Individuals Below Poverty Rate* in Washington State

Year	Percentage
2006	11.8
2007	11.4
2008	11.4
2009	12.3
2010	13.4

* As established by the U.S. Department of Health and Human Services Poverty Guidelines for Washington State. Note that the poverty guidelines is often far below that of a “living wage.”
 Source: U.S. Census Bureau. 2010. American Community Survey. Accessed at <http://www.census.gov/acs/www>

Figure 2



Source: Children’s Alliance. September 2011. Hungry in Washington. Accessed at <http://www.childrensalliance.org/resource-center/hungry-washington-september-2011>

Role of Washington State

Washington State government has an instrumental role in addressing food security. The majority of resources coming into the state to support this effort are from the federal government. About 15 different U.S. Department of Agriculture (USDA) programs target food assistance and distribution. Many of these programs rely on critical state funds to meet matching requirements and fill the gap where federal programs do not meet the growing need.

- *Office of the Superintendent of Public Instruction* oversees the National School Lunch and Breakfast Program, Summer Feeding Programs, and the Child and Adult Care Food Program (CACFP), as well as a few other small programs.
- *Department of Social and Health Services* oversees the largest of the USDA programs which is the Supplemental Nutrition Assistance Program (SNAP), called the Basic Food Program in Washington. Department of Social and Health Services also oversees the Food Assistance Program (FAP), the Washington Combined Application Project (WASHCAP), the Transitional Food Assistance (TFA), and the Congregate Meals Program for seniors and disabled adults.

- *Washington State Department of Agriculture (WSDA)* oversees the State and Federal Emergency Food Assistance Programs (TEFAP and EFAP), Tribal Vouchers, and the Commodity Supplemental Food Program (CSFP).

In recent years, the Washington State government has taken many actions to reach more people with food assistance, even with fewer resources. Increasing access to and improvements in food assistance programs like Basic Food are critical in addressing food insecurity. The state's strong support of emergency feeding programs is instrumental in meeting the needs of low-income families who are struggling as they see their remaining safety nets all but disappear. A change to any one of the food assistance programs could have an unintentional impact on other programs and the clients they serve.

Department of Social and Health Services has served an additional 400,000 clients without budget and staff increases by maximizing opportunities to increase eligibility and access to assistance programs, as well as streamlining local office operations and using new technologies.⁸ The agency recently launched Washington Connections, an online tool that detects potential eligibility for numerous assistance programs at one time and allows people to apply for assistance online.

State agencies have increased collaboration to improve program reach. Department of Social and Health Services (DSHS) and Office of Superintendent of Public Instruction (OSPI) are working together to improve the low rate of participation in the Summer Food Service Program, which provides nutritious meals to children 18 years of age and younger in low-income areas. One innovative strategy they have identified is to test delivery of the Summer Food Service benefits through an Electronic Benefit Transfer (EBT) card in the summer months to families with students qualifying for free and reduced-price meals. The agencies have applied for federal funds to help cover the staffing, information technology and other resource costs of the new effort.

State agency partnerships have led to increased resources for partner agencies to distribute food to low-income clients. A recent pilot project between Washington State Department of Agriculture (WSDA) and Washington State Correctional Industries resulted in turning hard to use commodities into easy to use frozen meals for distribution to food banks. Also, WSDA efforts to bring together the agricultural and hunger relief communities have led to new partnerships and increased donations.

Role of Federal, State, and Local Partners

Partners are essential in bringing awareness and solutions to the issue of hunger. State agencies work closely with many partners to provide outreach, referral, direct service delivery, and distribution. Often, these partnerships extend into contractual relationships for these services. Local partners include school systems, local health agencies, non-profit organizations, faith-based organizations, food banks, meal providers, and coalitions.

An important role partners play is to conduct outreach, education, and referral services to prospective clients about programs like Basic Food; the Women, Infants, and Children (WIC) Nutrition Program; Commodity Supplemental Food Program (CSFP); State and Federal Emergency Food Assistance Programs (TEFAP and EFAP). That role can include providing

informational resources, access to a computer so that clients can access resources online, and screening clients to see if they qualify for additional benefits.

Another critical role of partners is to provide direct service. Together, food banks across the state distribute more than 89 million meals a year. While many food banks and meal programs receive food and/or funds from the state, they also rely on donations and support from local government, grocery stores, farmers, and community members and groups. Best practices encouraged by the Washington Food Coalition, the statewide association for these agencies, promote initiatives to improve the food bank and the meal program experience for clients. For example, Thurston County Food Bank employs a “shopping model” that allows people to select their own food. Also, the statewide emergency food system is working to increase the amount of fresh produce available to clients throughout the year. Emergency food providers are using all available resources to try and meet current demand but recognize that new initiatives for improvement may not be realized without new funding.

Tribal organizations are essential partners and contract directly with U.S. Department of Agriculture (USDA) to participate in the Food Distribution Program on Indian Reservations (FDPIR). Many tribal organizations receive additional funding through WSDA to support tribal food banks or tribal voucher programs.

Partners that focus on funding and advocacy work at a higher level to address hunger at both state and federal levels. For example, the statewide Anti-Hunger and Nutrition Coalition brings together organizations to advocate for policies to end hunger in Washington. Numerous funders have made food security a top priority. In 2011, the United Way of King County's Hunger Free Community initiative received significant funding from the USDA, Boeing Company, and other private funders to engage in anti-hunger work, including outreach about food assistance programs and community-based efforts such as community kitchens and community gardens.⁹

Gaps and Risks

The gaps and risks described in this section are not a comprehensive snapshot of all gaps and risks related to food security in Washington. Instead, they highlight examples that could be improved by increased collaboration and coordination.

Participation

Overall Basic Food participation is at its highest level of participation in history. However, 32 percent of eligible households did not participate in 2008-2010. Physical, cultural, and language barriers may affect participation.¹⁰ Some child nutrition programs continue to reach only small portions of eligible children, particularly the Summer Food Service Program and Child and Adult Care Food Program. A 2009 report from Children's Alliance shows that 300,000 Washington children received free or reduced-priced school lunch on an average day in the 2008-2009 school year. Only 11 percent of these same children received summer meals through the federal Summer Food Service Program.

Structural Gaps

Even when it is working at its best, the food assistance system still leaves many people hungry because these programs are designed only to supplement family food budgets. Poverty, unemployment, and rising costs for basic needs impact household budgets. In addition to

possible federal budget cuts to key anti-hunger programs (for example to Supplemental Nutrition Assistance Program (SNAP), Emergency Food Assistance Program (TEFAP), and Commodity Supplemental Food Program (CSFP)), state funding cuts to food assistance programs for the 2011-2013 biennium are estimated at more than \$37 million.¹¹ Local cities and counties face budget cuts to food assistance programs that affect the local service delivery systems such as schools and health clinics.

Budget cuts at federal, state, and local levels to critical safety net programs compound the likelihood of long-term poverty and economic insecurity that research has shown leads to hunger and food insecurity. Programs experiencing cuts are: Disability Lifeline, Medicaid and Medicare services, Maternity Support Services, the Housing Trust Fund, school district services, and health care clinics.

Emergency meal providers are not currently receiving state funds that have traditionally been set aside for the support of food banks and tribes. The emergency food community is actively seeking solutions to resolve through WSDA's Food Assistance Programs Committee housed in the Washington Food Coalition.

Sector Opportunities

This section highlights examples of opportunities where collaboration and coordination between agencies, non-governmental organizations and the private sector are key factors for success. This section is not intended to provide a comprehensive and prioritized list to address food security in Washington.

Opportunity 2.1.1: Collaborate to improve food assistance participation. Maximizing participation in all available food assistance and nutrition programs can go a long way towards ending hunger. To increase participation in the face of budget cuts and rising demand, the state must seek creative and innovative approaches. This may involve taking advantage of policy options, technology, and the collective knowledge of a broad array of partners. For example, the new Washington Connection expands online access to food assistance. However, the portal depends on people accessing it; the website is currently in English only (although a Spanish application is in development); and it does not currently have the capacity to address enrollment problems or questions. Washington Connections currently only provides online application options for DSHS programs, not the multitude of other agencies' benefits, although it does provide links to other agencies' programs. Department of Social and Health Services is working with its community partners to ensure improved outreach. Additionally, DSHS is exploring opportunities to broaden the scope of benefits available through the online portal.

Ensuring that nutrition assistance programs provide sufficient benefit levels and nutritious foods makes a difference in participation and food security. The USDA has linked an increase in SNAP benefits funded through the 2009 American Recovery and Reinvestment Act to a small, but statistically significant, decrease in food insecurity among recipients. Food assistance can stimulate economic development by providing state residents with income to purchase foods in their communities.

Opportunity 2.1.2: Explore program and service delivery redesign. Agencies can look for ways to streamline processes to manage program eligibility and data. One example is an interactive system to provide data cross-matches between the Office of Superintendent of Public Instructions (OSPI) and the Department of Early Learning (DEL). The new system simplifies the process for child care providers to apply to participate in the Child and Adult Care Food Program (CACFP). By using partnerships, data, technology and effective outreach, the two state agencies can build a more effective program.

Opportunity 2.1.3: Foster inter-industry partnerships. Washington State government can support partnerships in multiple ways. For instance, the WSDA Food Assistance Program, funded by the WSDA Specialty Crop Block Grant, contracted with the Washington Food Coalition to coordinate four Harvest Against Hunger Area Summits to bring the emergency food community together with local specialty crop farmers and their commodity commissions. The summits built new partnerships and strategies to ensure that surplus food makes its way into the emergency food system. A second example is that WSDA could connect hunger relief organizations with food processing facilities and transportation, such as trucks, that are not fully used at all times. These partnerships could increase the amount and health of foods available in food assistance programs.

Opportunity 2.1.4: Explore support options for non-governmental organization emergency meal providers. Non-profit emergency meal providers are not taken into consideration when supplemental food limits are reached. In urban areas non-profit meal programs absorb some of the need that exists when other resources have been exhausted. An example of the impact of meal programs is that during 2010 just 68 meal programs in Seattle served more than 3,000,000 nutritionally dense meals to those in need. These meal programs may be left out when discussing community impacts.

2.2 Health and Nutrition

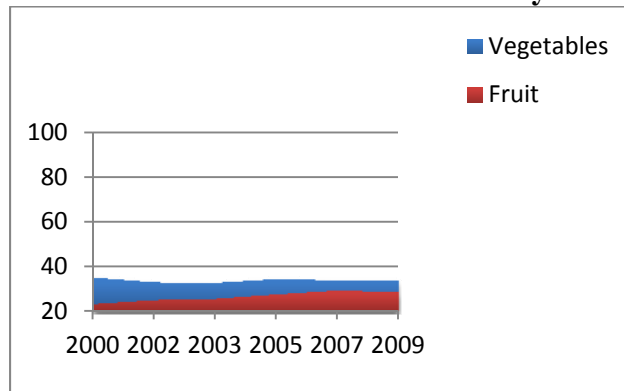
Washington's food system and the health of residents are connected in many ways, including through diet and food safety. Poor diet is a leading cause of early death and disease in the U.S., and is linked to diabetes, heart disease, strokes, and asthma.¹² A healthy diet can reduce risk of obesity, diabetes, heart disease and stroke, osteoporosis, and some cancers. To eat a healthy diet, people must have access to affordable, healthy, and culturally appropriate foods.¹³ The purchasing behaviors of consumers are complex and shaped by marketing, price, preference, convenience, and other personal and environmental factors.¹⁴

Food safety is an important public health issue. Across the nation, around 48 million cases of foodborne diseases, resulting in 128,000 hospitalizations and 3,000 deaths, occur each year.¹⁵ Foodborne illnesses are defined as diseases, usually either infectious or toxic in nature, caused by agents that enter the body through the ingestion of food. Challenges to food safety include the use of pesticides, veterinary drugs and food additives, urbanization, changes in lifestyles, international travel, environmental pollution, processing and handling practices, deliberate contamination, and natural and manmade disasters. An additional challenge comes from the complexity of the food system, which includes long and often anonymous supply chains. Workers, consumers and community members along the entire food chain system activities, from production to consumption, face food safety concerns including foodborne illness.

Snapshots

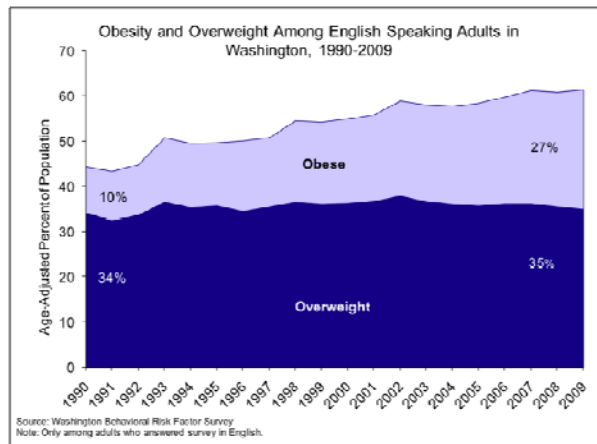
- Most Washington residents do not follow healthy patterns of eating as defined in the USDA Dietary Guidelines¹⁶ Only 26 percent of adults say they eat fruits and vegetables five or more times a day (See Figure 1).¹⁷
- In 2009, 27 percent of adults in Washington were obese and 34 to 36 percent were overweight (See Figure 2).¹⁸
- Obesity rates are higher among low-income and minority groups and those with lower education levels.
- The prevalence of diabetes has increased more than 50 percent since the 1990s in Washington.
- About 10 percent or more of 8th, 10th, and 12th-graders are obese — boys more than girls. However, the percentage of overweight and obese children did not increase between 2008 and 2010.
- The obesity-attributable health care spending for 2008 in Washington was estimated to be more than \$1.6 billion.¹⁹
- Conditions and diseases related to poor diet affect the next generation's health outcomes. In 2008, about 42 percent of Washington mothers were either obese or overweight before pregnancy. In 2008, six percent of women experienced diabetes in pregnancy, a serious condition that is associated with a lifelong risk of diabetes for the mothers and obesity in their babies.
- Breastfeeding protects mothers and babies from many diseases and conditions, including obesity. About 88 percent of Washington infants are breastfed, with a lower rate for WIC mothers and a lower rate for exclusive breastfeeding.²⁰
- Eating habits may be influenced by physical access to healthy foods. The USDA's Food Desert Locator shows more than 70 potential food deserts (defined as a low-income census tract where a substantial number or share of residents has low access to a supermarket or large grocery store) across Washington, many in rural areas.²¹
- The Women, Infants, and Children (WIC) Nutrition Program served more than 315,000 state residents in 2010.
- WIC Farmers Market Nutrition Program, administered by Department of Health, and the Senior Farmers Market Nutrition Program, administered by Department of Social and Health Services, provided more than 76,076 low-income mothers, children, and seniors with checks to redeem at farmers markets and farm stands to buy fresh fruits and vegetables. In 2010, more than 920 Washington farmers received these checks for a total of \$1.4 million in revenue.^{22,23}
- About 40 to 60 known foodborne illness outbreaks affecting 400 to 700 people occur in Washington yearly.²⁴ Improper food handling is the most common cause of foodborne illnesses (See Figure 3).
- The safe use of pesticides is a food safety consideration that has implications for both workers and consumers. From 2003 through 2008, there were 351 cases of agricultural workers in Washington with an illness or injury likely related to pesticide exposure.²⁵
- Food system practices can affect the health of community members. For example, agricultural runoff can pollute water sources. Seventy-four pesticides were detected in a 2006-2008 study of five watersheds, four of which have extensive agriculture.²⁶

Figure 1: Percentage of Washington Residents Who Eat Three or More Vegetables Per Day and Two or More Fruits Per Day



Source: Centers for Disease Control and Prevention. Accessed at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5935a1.htm>.

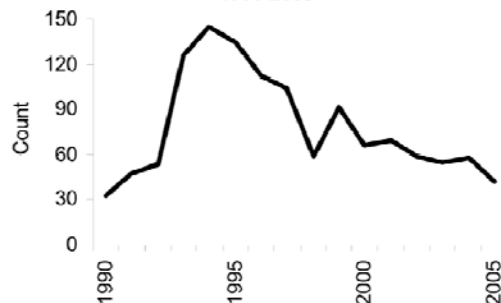
Figure 2



Source: Department of Health. Washington Behavioral Risk Factor Survey. <http://www.doh.wa.gov/cfh/NutritionPA/Documents/ObesityWa.pdf>

Figure 3

**Reported Foodborne Illness Outbreaks
WA State Department of Health
1990-2005**



Source: Department of Health. The Health of Washington State, 2007. Accessed at www.doh.wa.gov/hws/doc/EH/EH_FS2007.pdf.

Role of Washington State

This section highlights the main roles of state agencies in promoting healthy eating and food safety. Multiple state agencies work together to ensure health and food safety.

Nutrition and Healthy Eating

- *Department of Health* works to improve nutrition and health in the state. The Healthy Eating Active Living and Healthy Communities Programs work with partners at the state and local level to increase access to healthy foods, physical activity, and tobacco prevention. The Coordinated School Health Program, in coordination with OSPI, provides training and resources to schools. Department of Health also provides some direct services. The Children with Special Health Care Needs Program promotes community-based nutrition and feeding team services for children with special health care needs through provider training and web-based material. The Women, Infants and Children (WIC) Nutrition Program provides health screening, nutrition education and breastfeeding promotion, referrals to other services and checks for families to purchase healthy foods. The Child Profile Program distributes information on nutrition, immunizations, and other health topics to all families in the state.
- *Department of Health and Human Services (DSHS)* manages the Supplemental Nutrition Assistance Program Nutrition Education (SNAP-Ed), contracting with Washington State University (WSU) and Department of Health. The SNAP-Ed Program promotes nutrition and health to Basic Food eligible consumers in 30 counties and eight Indian Tribal Organizations. For instance, the Food Sense program, funded by SNAP-Ed, provides educational activities that promote healthy food choices and food safety to adults and children in schools and in partnership with community organizations. DSHS also administers the Senior Farmers Market Nutrition Program (SFMNP).
- *Office of the Superintendent of Public Instruction (OSPI)* oversees a number of school-based feeding programs, described in Section 2.1, that serve more than one million children. OSPI also manages the USDA Fresh Fruit and Vegetable Program, which provides free fruit and vegetable snacks to more than 120 elementary schools in Washington. The OSPI partnered with Washington State Department of Agriculture (WSDA) to increase access to fresh fruits and vegetables in Washington schools through the WSDA Farm-to-School Program and Small Farm Direct Marketing Programs. However, the Washington State Legislature recently cut funding both WSDA programs.

Food Safety

- *Washington State Department of Agriculture* licenses and inspects all food-processing businesses (currently 2,785 businesses) from dairies to seafood. The WSDA works with the U.S. Food and Drug Administration and the U.S. Department of Agriculture (USDA) to monitor food production safety. The WSDA responds to and investigates emergency events related to chemical, radiological, and natural disaster occurrences. The Fruit and Vegetable Inspection Programs conduct audits for Washington farms seeking voluntary USDA Good Agricultural Practices (GAP) certification to document on-farm food safety practices. The Office of Compliance and Outreach partners with the Fruit and Vegetable Inspection program and other agency programs to assist small and diversified growers in achieving GAP certification.
- *Department of Health* inspects and licenses raw shellfish businesses in addition to regulating shellfish growing areas and processing facilities. Department of Health also

supports local health agencies on the interpretation for enforcement of the food code. Both Washington State Department of Agriculture and Department of Health respond to and assess reported pesticide events.

- *Washington State Department of Ecology* and WSDA conduct studies about the impacts of agricultural chemical use on the environment, including on watersheds.

Multiple federal, state, and local agencies work together to monitor foodborne illnesses and food service practices, and conduct food recalls and product trace-backs. The state Board of Health adopts retail food service rules, and the Department of Health Food Safety Program and local health agencies enforce them. The Department of Health, Department of Health and Social Services, and Department of Early Learning also regulate food service in certain facilities and institutions.²⁷

Role of Federal, State, and Local Partners

The federal government plays an important role in health and nutrition data collection, promoting healthy eating, allocating resources, and ensuring food safety. For example, USDA oversees federal domestic nutrition assistance programs and supports guidance, nutrition policy coordination, and nutrition education. The USDA develops new dietary guidelines every five years, most recently updated in 2010. Michelle Obama's *Let's Move Initiative* supports the USDA Dietary Guidelines and has created innovative ways to implement and market them nationally, such as the Healthy Food Financing Initiative. The Farm Bill and the Child Nutrition Reauthorization Act are national policies that influence access to healthy and unhealthy foods.

Institutions at local, regional, and state levels such as schools and school districts, hospitals, and health clinics, worksites, child care centers, and community centers also play a role in promoting healthy foods. For example, Senate Bill 5436, passed by the Washington State Legislature in 2004, required every school district to adopt a nutrition and physical activity policy. These policies set the stage for healthier eating habits.

The private sector has an important role in shaping the community environment related to nutrition education, access to healthy food, food safety, and breastfeeding. For example, the Washington Restaurant Association worked with Public Health — Seattle & King County to develop menu-labeling standards. The Washington State Dairy Council provides funding to schools and summer meal providers to purchase equipment for serving foods to children at the recommended safe temperatures. Many employers support breastfeeding mothers by setting aside a clean, private space as a lactation room, and providing enough time for pumping or breastfeeding.

Across the state, many non-profits and local health agencies promote healthy eating through education and outreach, such as cooking classes, community kitchens, and nutrition education classes. Non-profits and local health agencies also improve access to healthy foods in communities in food banks, farmers markets, community gardens, and healthy retail initiatives. In addition, several food and nutrition related coalitions and non-governmental organizations focus on healthy food policy issues, such as the Good Food Coalition that successfully lobbied for the Local Farms Healthy Kids Act in 2008.

Gaps and Risks

The gaps and risks described in this section are not a comprehensive snapshot of all gaps and risks related to nutrition and health in Washington. Instead, they highlight examples that could be improved by increased collaboration and coordination.

Lack of support for comprehensive chronic disease prevention

One major risk is the lack of support for comprehensive diet-related disease prevention in Washington. Most of the funds for chronic disease prevention come from the federal Centers for Disease Control and Prevention (CDC), and do not address a comprehensive approach that addresses individual behavior changes as well as creating a supportive environment through policy, systems, and environment changes. In this time of restricted resources, funding for chronic disease prevention continues to decrease. The lack of state support has consequences on overall health and the economy. Obesity, for example, results in higher health care costs.

Food deserts

Some communities in Washington have low access to healthy foods, high access to unhealthy foods, or a combination of the two. This affects a person's ability to have a healthy diet. Experts call these areas "food deserts." Food deserts are areas that lack access to affordable fruits, vegetables, whole grains, low-fat milk, and other foods that make up the full range of a healthy diet.²⁸ For instance, studies have shown that residents of communities with grocery stores tend to eat more fruits and vegetables and tend to have a lower risk of obesity.²⁹ However, low-income, minority, and rural neighborhoods often face limited access to grocery stores.³⁰ Rural areas in Washington tend to have a high number of low-income residents who live farther than one mile from a grocery store. Also, a 2005 study showed that fewer than 60 percent of Washington adults said that they could find healthy food for meals eaten away from home at delis or restaurants.¹²

Unsupportive environments for breastfeeding

Although mothers in Washington have a high rate of starting to breastfeed (88 percent), the rate drops to 60 percent at 6 months of age, and down to 33 percent at 12 months³¹. Worksites and healthcare centers can support breastfeeding success, but often lack supportive environments and policies. Only 4 birthing hospitals in Washington are baby-friendly³² and only 31 percent of worksites reported in 2005 that they have a dedicated area for pumping milk or breastfeeding.³³

Complex food system

A fourth risk is ensuring food safety in a complex, international food system. Recent recall activities in the state, such as alfalfa sprouts packaged in Idaho,³⁴ highlight the challenges of identifying the source of contamination in a food system comprised of large processing facilities and long, anonymous, often global supply chains. One complication is educating food system employees, many of whom are transitory and/or non-English speaking, about safe practices. Meanwhile, the complex set of regulations intended to promote safe production and handling practices presents some barriers to smaller-scale producers and processors.

Sector Opportunities

This section highlights examples of opportunities where collaboration and coordination between agencies and partners are key factors for success. This section is not intended to provide a comprehensive and prioritized list to address nutrition and health in Washington.

Opportunity 2.2.1: Increase outreach, funding, and other support for nutrition programs.

Nutrition programs should focus on the full spectrum of prevention, including individual behavior changes, community change, and policy changes. Funding should focus on evidence-based practices and innovative projects and policies to improve nutrition and access to healthy foods. When feasible, nutrition programs should be integrated into other programs targeting the same audience. For example, studies have shown that community-based programs to increase physical activity, improve nutrition, and prevent smoking and other tobacco use can show a return on investment of \$5.60 for every dollar spent within five years. Additionally, robust school-based initiatives to promote healthy eating and physical activity have shown a cost effectiveness of \$900-\$4,305 per quality-of-life-year saved.³⁵

Opportunity 2.2.2: Develop, implement, and monitor healthy food procurement guidelines, standards, and procedures for government agencies, schools, child care, and other institutions.

Establishing nutrition standards for institutions such as child care facilities, correctional institutions, and senior centers impact food availability, and could add to the overall demand for more healthful products. Nutrition standards can be defined as a policy adopted by an entity or state government requiring that the food it purchases, provides, or makes available meets standards established by public health authorities.³⁶ For example, Department of Health adopted a policy to offer healthy foods when foods are served at meetings and events. Some schools have adopted comprehensive wellness policies that include nutritional guidelines for foods in vending machines, a la carte lines, and school stores. Department of Health has committed to supporting healthy procurement guidelines as a key issue in the Governor's Issue Paper from the agency for 2011-2012.

Opportunity 2.2.3: Expand low-income access to fresh fruits and vegetables. Nutrition programs and food assistance programs can work together to address hunger while improving access to healthy foods. Programs designed to increase low-income access to farmers markets are showing some success. A demonstration project to promote Electronic Benefits Transfer (EBT) and WIC fruit and vegetable checks at farmers markets in one county has modeled collaboration among state experts in technology and administrative policy, community experts in farmers markets, and low-income shoppers. The WIC Fruit and Vegetable Community Partnership Project is an innovative project that focuses on increasing access to fresh fruits and vegetables in 12 communities across the state by increasing collaboration between the local WIC agencies and community partners.

Opportunity 2.2.4: Collaborate with food retailers to promote healthier foods. Many grocers, restaurants, and other food retailers are offering more healthy food to their customers. An example of how government can support these efforts is the Healthy Foods Here Program, funded by Public Health — Seattle & King County and managed by Seattle Office of Economic Development. Healthy Foods Here provides business support and incentives to corner stores and other food retailers to increase healthy items such as produce, low-fat milk, whole grains, WIC approved foods, lean meats, and lower sodium options. Similarly, Department of Health recently worked with eight local health agencies using funds from the federal Communities Putting Prevention to Work program to increase healthy options in 11 small stores.

Opportunity 2.2.5: Improve outreach about food safety through technology and collaboration. Washington food products will continue to rise in demand and value in the global, domestic, and local marketplace if viewed as high quality and safe. It is important to

ensure the continued safety and quality of Washington food products, and build on the image as part of an overall marketing strategy. One area of opportunity to enhance food safety includes improved training of food workers and food safety practices. Web-based training offers a promising way to reach a wide number of workers with the latest information. Research can also lead to improvements in food handling practices. For example, using results from extensive research, food safety officials and food retailers worked together to establish higher temperatures for ground beef and colder temperatures for cold holding.

Opportunity 2.2.6: Promote healthy food access in local municipalities. Local cities and counties can provide residents with supportive communities that promote healthy eating, active living, and tobacco-free living. Collaboration among state and local partners is integral in this work. Department of Health works with partners to provide technical assistance to communities on these topics through funding from a CDC Obesity Prevention Grant and a recently funded Community Transformation Grant (CTG). Public Health — Seattle & King County, through the Communities Putting Prevention to Work Initiative, provided education and technical assistance to seven South King County cities to help them assess and improve their food system policies including in their comprehensive plans and zoning codes.

Several communities and regions across the state, including several tribes, have developed food-related advisory boards to engage community partners in improving access to healthy foods. These efforts can result in programs and policies that increase healthy foods in communities such as providing land for community gardens, providing financial support, changing comprehensive plans, and conducting community food assessments.

Opportunity 2.2.7: Support breastfeeding in communities, worksites, child care centers, and health care settings. The Washington State Nutrition and Physical Activity Plan promotes several opportunities to improve breastfeeding success. Notable opportunities are establishing maternity care practices that promote breastfeeding and establishing breastfeeding support policies in worksites. Department of Health, in partnership with the Breastfeeding Coalition of Washington, is developing a statewide program to encourage and train health care centers using the CDC's *10 Steps to Breastfeeding Success*, which have shown great success in improving breastfeeding duration and exclusivity in birthing hospitals. The Breastfeeding Coalition of Washington works with local breastfeeding coalitions and businesses to improve worksite lactation policies and environments.

Opportunity 2.2.8: Consider high-impact, highly feasible policies. The University of Washington Nutrition and Obesity Policy Research & Evaluation Network is conducting a project to understand the perceived impact, political feasibility, and feasibility of implementation of state level policies that have the potential to improve access to healthy foods. The project highlights policies rated by experts, stakeholders, and policymakers as having both the highest potential for impacting access to healthy foods and the greatest feasibility for adoption and implementation.³⁷

2.3 Promotion of Washington Products

Expanding market opportunities for Washington farmers will preserve and strengthen local food production and increase the already significant contribution that agriculture makes to the state and local economies. The total value of agricultural products sold in Washington in 2009 was

more than \$7 billion (See Figure 1).³⁸ Washington agriculture is an important player in both the national and global marketplace. Top export commodities include apples, dairy products, wheat, potatoes, cattle/calves, hay, nursery/greenhouses, cherries, hops, and grapes (See Figure 1). While exports are an important part of the promotion of Washington products, many small-scale farmers and food processors market their products locally and/or direct to consumers. A survey conducted in four Washington counties in 2002 indicates high consumer demand for locally grown foods including vegetables, fruit, eggs, dairy, beef, and poultry.³⁹ Survey respondents also indicated a willingness to pay more for local foods.

Across the U.S. over the past decade, direct-to-consumer food sales grew by about 100 percent, while total agricultural sales increased by only 48 percent. Washington State had a much higher growth rate of 232 percent in direct farm sales in the past decade (See Figure 2).⁴⁰ Washington ranks seventh overall in terms of total direct farm sales. Direct farm sales provide opportunities for small and medium-sized farms. Direct market channels used by Washington farmers to sell directly to the public include farmers markets, farm stands, Community Supported Agriculture, online sales, and sales directly to buyers at schools, restaurants, grocery stores, and other firms and institutions.⁴¹

Snapshots

- Of the state's top 50 export commodities, 16 are ranked first or second in sales among all states in the nation.
- Nearly \$11 billion in food and agricultural products were exported through Washington ports in 2009; the third largest total in the U.S.⁴² With such a strong export economy, the state has had a net positive agricultural trade balance in the last few years.⁴³
- Potatoes and wheat are important export products. At least 90 percent of Washington potatoes⁴⁴ and about 85 percent of Washington and Pacific Northwest wheat is exported, with Asian markets as large buyers.⁴⁵ Japan receives nearly 65 percent of the french fries made from Washington potatoes.
- The total value of farm direct sales increased to \$43.5 million in 2007 from \$13.7 million in 1997. This represents about 0.6 percent of all farm sales, believed by the USDA to be an under estimate.
- More than 5,400 farmers statewide engaged in direct farm sales in 2007. Clark, King, Snohomish, Spokane, and Yakima counties each have more than 300 farms participating in direct sales including farmers markets and Community Supported Agriculture subscriptions.
- About 170 farmers markets operate in 38 of 39 counties.⁴⁶ Total gross sales at farmers markets in 2010 were about \$55 million, up from \$38 million in 2006.⁴⁷
- WIC Farmers Market Nutrition Program, administered by Department of Health, and the Senior Farmers Market Nutrition Program, administered by Department of Social and Health Services, provided more than 76,076 low-income mothers, children, and seniors with checks to redeem at farmers markets and farm stands to buy fresh fruits and vegetables. In 2010, more than 920 Washington farmers received these checks for a total of \$1.4 million in revenue.^{48,49}
- There are more than 200 Community Supported Agriculture operations in business statewide in 2011.⁵⁰

Figure 1: Washington's Top Five Agriculture Commodities, 2009

	Value of receipts, \$1,000	Percent of state total farm receipts	Percent of U.S. value
1. Apples	\$1,178,971	17.9	59.4
2. Dairy products	\$681,912	10.3	2.8
3. Potatoes	\$634,191	9.6	18.7
4. Cattle and calves	\$600,834	9.1	1.4
5. Wheat	\$588,840	8.9	5.2
All commodities	\$6,592,649		2.3

Source: U.S. Department of Agriculture, Economic Research Service.

Figure 2: Role of Direct Farms Sales in Washington, 2007

Direct Sales	1997	2002	2007	Percent change from 1997 to 2007	Percent of total agricultural sales in 2007
Number of Farms	3,055	4,527	5,418	86%	13.80%
Value in \$1000	13,700	34,753	45,537	232%	0.60%
Average per Farm (\$)	4,485	7,677	8,036	99.3%	

Source: U.S. Department of Agriculture, Economic Research Service

Role of Washington State

Washington State Department of Agriculture (WSDA) promotes the agricultural industry and helps Washington food and agricultural producers sell their products internationally. The International Marketing Program helps Washington companies export food and agricultural products. They work closely with the U.S. Department of Agriculture (USDA) to promote exports and with the governor's office and industry to resolve foreign trade barriers. WSDA helped businesses make \$94 million in new sales in 2010, supporting an estimated 790 jobs. The department is also helping growers launch lucrative new long-term relationships; for example, after some strategic introductions by WSDA in 2009, \$20 million in Washington hay will ship to Chinese dairies this year. The WSDA works closely with the Washington State Department of Commerce on the Washington Export Initiative launched by Governor Gregoire in 2010. The initiative sets ambitious goals to increase the number of companies exporting and increase the total sales out of Washington. Washington State Department of Agriculture also works with Washington's 23 commodity commissions, industry-funded state agencies that promote and fund crop research and/or the marketing of crops.

Focusing more on in-state consumption, *DSHS, OSPI and the Department of Corrections (DOC)* engage in efforts to buy Washington-grown products. For example, DOC partnered with WSDA Farm-to-School Program to conduct a Farm to Prison pilot program supplying local food from Washington farms to the Monroe Correctional Facility in Snohomish County and to the Stafford Creek Correctional Center in Grays Harbor County. Prisons represent unique opportunities for state producers, as they are able to receive product with minimal or no packing requirements.

WSDA's *Domestic Marketing* Programs were eliminated in the 2011 legislative session, but have had significant impact on promotion of Washington products and assistance for Washington farms. The *Economic Development Program* provided food business recruitment and retention. The *Small Farm Direct Marketing Program*, established in 2001, worked statewide with farmers, food processors, farmers markets, chefs, and non-profit organizations to increase direct market sales through clarifying regulations and providing one-on-one business support. The Small Farm Direct Marketing Program excelled at convening stakeholder groups for peer-to-peer education. WSDA conducted groundbreaking training on topics such as finding the right market, financing, educational resources, and technical infrastructure and licensing requirements for a variety of farmers including Latino farmers, women farmers, and limited resource farmers. The Small Farm Direct Marketing Program developed resources such as educational workshops, classes, and publications to communicate requirements and reduce regulatory burdens so that small-scale farmers and food processors could meet regulations and licensing requirements at cost-effective ways in order to successfully produce and market their products. Its latest publication is a series of 11 Farm Wisdom Videos covering business, marketing, and cost-saving practices by small farmers and food processors. This video series was touted by funder USDA Risk Management Agency on their national webpage for its successful educational role. The Small Farm Direct Marketing Program served more than 1,000 farmers and food processors in person annually.

Washington Department of Agriculture's (WSDA) Farm-to-School program worked with institutional buyers, farmers, and food processors and assisted with clarifying and removing market barriers to increase purchases of Washington-grown products for schools, prisons, and other institutions. The program leveraged state funding to obtain more than \$750,000 in federal grants in the two and a half years of operation. The funds were used to hire more staff and support efforts to identify and disseminate best practices for farm-to-school, with a focus on menu planning, procurement, food safety, and reducing market barriers for agricultural producers seeking to sell to institutions. The WSDA's program staff served as state leads in the National Farm to School Network, serving as models for others around the country seeking to implement farm to school programs. The program worked with the Washington School Nutrition Association to enhance the annual Taste Washington Day event by matching farms and schools for direct purchases and promotion of Washington agriculture and healthy eating, resulting in \$17,000 in sales for Washington farms for 2010 Taste Washington Day. Surveys indicated that schools expected to serve students \$90,000 worth of Washington-grown produce from partner farms in the six months following the event. Several relationships from 2010 have continued.

Effective July 1, 2011, all of the Domestic Marketing programs, including Economic Development, Small Farm Direct Marketing, and Farm-to-School, were eliminated by the legislature due to budget reductions. Limited initiatives from these programs continue under short-term USDA specialty crop block grants and CDC-funded King County grants which allow WSDA to develop critical resources to assist institutions and small farms in farm-to-institution and direct market opportunities. Staff members in the Office of Compliance and Outreach currently focus on Good Agricultural Practices for food safety on small and mid-sized farms, regulatory compliance guidance for schools seeking to purchase Washington-grown food, and value-added business operations for farms. Several grants for these projects will end in 2012, while a few last through mid-year 2013. Without grant funding, Washington will lose these critical areas of assistance for reducing regulatory and market barriers and helping farms achieve voluntary food safety certifications.

In addition to these programs, WSDA also managed “From the Heart of Washington.” Launched in 2001 by the WSDA in partnership with a diverse group of governmental, food industry, and small farm stakeholders, “From the Heart of Washington” was a public awareness campaign designed to increase consumer demand for Washington food and agricultural products. The program also helped retailers promote Washington grown products to consumers through signage and branding. This program was eliminated in 2008 due to budget reductions.

Washington State Department of Agriculture’s Market Promotion Grant Program offered \$240,000 annually in mini-grants to the agriculture industry to promote Washington products. This program was eliminated in 2009 due to budget reductions.

Local Farms-Healthy Kids Act

The passage of the Local Farms-Healthy Kids Act⁵¹ in 2008 was an important policy step in promoting Washington products. The act created programs and pilot programs to connect institutional buyers to local farms, including WSDA Farm-to-School Program, Farm-to-Food Banks Pilot through Department of Commerce, and Washington Grown Fresh Fruits and Vegetables Program. The act also created a farmers market technology pilot program to increase electronic payment access including Basic Food, debit and credit card payments at 20 farmers markets. This project generated \$302, 417 in electronic payments from 11,912 unique transactions.⁵² An example of the impact of these programs comes from the Washington Grown Fresh Fruit and Vegetable Program, operated within the Office of Superintendent of Public Instruction. In 2008-2009, 25 schools were awarded grants and 9,939 children benefited from fresh fruit and vegetable snacks. Supported by WSDA Farm to School Program, at least 30 Washington farms selling directly to schools received \$226,000 in total sales in the snack program.

The WSDA Farm to School Program operated from December 2008 until it was eliminated in the 2011 legislative budget reductions. In that time, the program conducted mobile workshops for farmers and school food service staff around the state, organized on-farm trainings in Good Agricultural Practices food safety certification, established a farm-to-school database for buyers and sellers, launched a web-based farm-to-school toolkit⁵³, partnered on local purchasing projects for senior, child care, and prison meal programs, presented at many conferences and professional meetings around the state, and provided technical assistance to individual school districts and communities as they initiated farm-to-school programs at the local level.

Role of Federal, State and Local Partners

The federal government provides several indirect avenues for the promotion of Washington-grown agricultural products in-state and regionally. The USDA funds the WSDA Specialty Crop Block Grant Program, which is often used to promote Washington products. For example, a grant awarded to support the “Fresh Food in Schools” project of the Washington Sustainable Food & Farming Network provides technical assistance and support to 20 school districts to increase purchases of Washington food products. Grant funding was also awarded to a joint project between Sustainable Connections and the Northwest Agricultural Business Center. The project will increase the overall demand, production capacity, and competitiveness of Northwest Washington specialty crops to supply retail, wholesale, and institutional markets through targeted marketing and promotion, business development, and technical and production

assistance.⁵⁴ The USDA will also provide \$3.1 million in grant funding to WSDA for projects to support the state's fruit, vegetable, and horticulture growers.

Local governments are also important partners in promoting Washington products. For example, in 2008 the City of Seattle passed a Local Food Action Initiative, a series of actions promoting local and regional agriculture. The initiative strives to create local economic opportunities related to local food production, processing, distribution and waste management, as well as to support strategies to connect major institutions, such as schools and hospitals, to locally grown food.

Non-profit partners, sometimes funded by local government, are also active in establishing innovative projects. Puget Sound Fresh, a program of Cascade Harvest Coalition, is a successful model of a non-profit driven effort to market locally produced foods. With financial backing from the King County government, the King County Conservation District, as well as membership and advertising fees, the buy local program supports regional producers with a consumer-friendly searchable website, Farm Guide; newsletter; and broad marketing campaigns. Gorge Grown Food Network is a similar citizens' and farmers' initiative working to build a regional food system in the rural Columbia River Gorge region of Washington and Oregon.

Institutions are also working actively to increase their purchase of Washington products. Skagitonians to Preserve Farmland initiated a Skagit County Farm to Healthcare Pilot Project in partnership with the Economic Development Association of Skagit County. This initiative helps hospitals buy local, sustainable food to promote nutrition and wellness, and helps Skagit County growers develop new, secure, and diverse markets including local and regional health care agencies. Schools are also engaging in direct purchase from Washington farmers. Wenatchee School District and Kent School District are both purchasing from multiple farms, with products ranging from the mainstays of apples, pears, and plums to less common items like sunchokes and heirloom tomato varieties. Another example comes from University of Washington Housing and Food Services, which sources its all-natural, cage-free eggs from a farm near Roy, Washington.⁵⁵

In the private sector, grocery stores, food cooperatives, restaurants, and other private businesses are responding to the consumer demand for fresh, local foods by sourcing from Washington farmers, ranchers, and seafood processors.⁵⁶ Intermediaries such as Charlie's Produce serve as purchaser, processor, and distributor. Charlie's makes purchasing commitments to Washington growers and is the marketing agent for about 20 local organic growers who pack in their "Farmer's Own" label. On the retail end, food stores actively market local foods in a number of ways, including advertisements and newsletters, in-store signage highlighting particular farmers, ranchers and fishers, and events that bring farmers into stores. For example, Tonasket Natural Foods Co-Op purchases food directly from producers in and near Okanogan County.

Gaps and Risks

The gaps and risks described in this section are not a comprehensive snapshot of all gaps and risks related to promotion of Washington products. Instead, they highlight examples that could be improved by increased collaboration and coordination.

Lack of funding for marketing small and medium sized farms

One major risk to ongoing promotion of Washington products is the lack of secure funding for outreach and marketing programs aimed at small and medium-sized farmers. Effective July 1,

2011, the nationally-recognized Domestic Marketing & Economic Development, Small Farm Direct Marketing, and Farm-to-School programs in WSDA have been suspended due to legislative budget reductions. The long-term viability of these sectors is questionable without state level support. Additionally, a structured, statewide program to link farmers with local, independent grocers, or restaurateurs does not exist, although some programs support this work regionally. Statewide infrastructure development for farm and food businesses is another gap left by eliminating WSDA programs.

Private sector barriers

On the private sector side, the grocery industry has identified a number of hurdles to increasing their local purchases, including access to basic storage and processing infrastructure, timely communications with farmers, and sufficient insurance backing. Many of these same hurdles exist in farm-to-institution markets.

Barriers to long-term viability of small farms

Another risk to the promotion of Washington products is related to the capacity and long-term viability of small farms. Most farms that sell directly to consumers are small farms with less than \$50,000 in total farm sales, located in or near metropolitan counties.⁵⁷ Barriers that small farms face to local food market entry and expansion include: capacity constraints; lack of distribution systems for moving local food into mainstream markets; limited research, education, and training for marketing local food; and changing regulations that may affect local food production, such as food safety requirements.⁵⁸ Meanwhile, small farms near urban areas also face challenges to their sustained operations related to the price of land and pressure from development, as discussed further in 2.4.

Sector Opportunities

This section highlights examples of opportunities where collaboration and coordination between agencies and partners are key factors for success. This section is not intended to provide a comprehensive and prioritized list to address promotion of Washington products in Washington.

Opportunity 2.3.1: Provide assistance for small scale farms and direct marketing.

Washington faces a great need and opportunity to promote the in-state and domestic sale of Washington products to ensure the long-term viability of farms and to preserve farmland for 61 to 80 percent of Washington's farms. This is especially important in light of the growth of small scale farms and consumer demand for local foods. While funding was cut to the WSDA programs that aided the growth and viability of this sector, it is fragile and at heightened risk in an economic downturn without WSDA support.

Opportunity 2.3.2: Address barriers to direct marketing. The state has already taken action to address some of the barriers to direct marketing. In 2010, WSDA produced the *Small Farm Direct Marketing Handbook: Regulations and Strategies for Farm Businesses* that outlined in plain language the specific regulations and licensing requirements for agricultural products. It also outlined labor laws, infrastructure requirements, and financing opportunities. WSDA conducted more than twenty educational mobile workshops in 2010-2011 to support producers in understanding regulations and facility requirements for poultry and meat production, fruit and vegetable processing, milk production, cheesemaking, and more. The Farm-to-School Program presented six regional workshops around Washington to educate farmers and school buyers on

requirements and purchasing direct from growers, seasonal produce availability, school produce needs, and identifying distribution/infrastructure solutions.

In 2011, the Washington State Legislature passed Senate Bill 5748 exempting food producers with annual gross revenues of under \$15,000 from the current requirement for a commercial kitchen. The law reduces the amount of regulations and expenses for those wanting to produce and sell food on a small scale, such as baked goods, jams, jellies, and preserves directly to the end consumer.

Another effort to reduce barriers was the passage of Substitute House Bill 1172, which created a pilot program to allow wine and beer tastings at select farmers markets. It will be important to monitor the impact of these new programs and to continue to identify areas where policy change could reduce barriers to direct marketing. The state can also play a critical role in providing technical assistance with regulations. In Vashon Island, Vashon's Farm-to-School Program and the Vashon Island Growers Association are creating streamlined guidelines for food safety that will allow small farms to sell to the local school district. Key partners include Washington State Department of Agriculture (WSDA) and Washington State University's Extension Program.

Opportunity 2.3.3: Collaborate to better understand local food systems. The American Farmland Trust of Washington and the University of Washington are working on a foodshed assessment to map the flow of food between producers and consumers in the Puget Sound region. In addition, Washington State University is studying Washington farmers markets, their management structures, and consumer demographics. These and other studies may help Washington better understand the real barriers and opportunities to increasing local consumption. WSDA is a partner in this project.

Opportunity 2.3.4: Strengthen state of origin labeling. In 2009, U.S. Department of Agriculture (USDA) mandated country of origin labeling (COOL), requiring larger food retailers to notify consumers about the source of certain foods including certain meats, seafood, fruits, vegetables, and nuts.⁵⁹ Similarly, Washington could strengthen labeling practices to promote Washington food products. Such labels could add value to Washington products in the marketplace, particularly if Washington maintains a reputation for safe, healthy food and if demand by Washington residents for local food continues to rise. State lawmakers already passed Senate Bill 1812 in 2009, which declared that a wine label may not claim or imply that the origin of the wine is "Washington" unless at least 95 percent of the grapes used in the production of the wine were grown in Washington. One approach to increase state-of-origin labeling for food products could include renewed investment in a program similar to *From the Heart of Washington*, which enabled more than 400 statewide grocers to display signage and logos in their stores.

Opportunity 2.3.5: Establish procurement standards for Washington grown foods. According to the intent of the Local Farms-Healthy Kids Bill passed in 2008, "The legislature finds that the state's existing procurement requirements and practices may inhibit the purchase of locally produced food." State institutions have the opportunity to establish procurement standards to support local foods. For example, Office of Superintendent of Public Instruction (OSPI) can support Washington producers and ensure fresh and nutritious food for students. The WSDA is working with OSPI to write a locally grown procurement guide for Washington schools to assist and encourage school districts to buy Washington-grown foods. Washington

State Department of Agriculture’s Farm-to-School program started a pilot project with Department of Corrections (DOC) in two institutions that has spread to all state prisons. The WSDA has supported a pilot project in King County to encourage child care centers and senior meal programs to purchase locally-grown produce. Other governments across the country are providing examples of procurement policies for local foods. For example, the Illinois Food, Farms and Jobs Act (HB3990 - 2009) includes a local procurement goal and a Local Food, Farms and Jobs Council to support action toward the goal.⁶⁰

The following table highlights the numbers of institutions with opportunities for increasing local food procurement and consumption.

Institutions / Buildings	Approximate Number in Washington
Prisons, jails, and correctional centers	Twelve prisons managed by DOC, plus numerous city and county jails, and correctional centers
Universities and community colleges	Twenty-seven universities and 34 community colleges
Schools	More than 1,000 elementary schools and more than 400 high schools ⁶¹
Government buildings	Fourteen agencies with multiple locations participate in the statewide Community Supported Agriculture program
Hospitals	61 ⁶²
Child care centers	2,060 ⁶³
Certified nursing facilities	234 ⁶⁴

2.4 Farms and Farmland Preservation

Farm and ranchlands are the backbone of Washington's rural communities and community food security. Without agricultural land, there are no working farms, ranches, or food. Active agriculture covers about one-third of the land area of Washington. The state's 39,000 farms produce more than 300 commodities, second in the nation in terms of diversity. The farms themselves reflect this diversity and can be grouped into three types: large, medium, and small. Large farms, generally categorized as farms with gross sales of more than \$500,000, represent the majority of Washington's agricultural economic output. These farms primarily focus on national and international markets. Medium farms are more typical of the average farm size in Washington, and represent a broad variety of commodities including orchards and mixed crops. Many of these farms are connected into international, national, and regional markets, with more farms entering into a more localized distribution of product. Small farms, or those under 50 acres, are the most rapidly growing segment of Washington's farming industry. In 2007, they accounted for nearly 61 percent of the farms in Washington.⁶⁵ Small farms are located throughout Washington, and are often located in urban/rural fringe areas. These farms generally focus on specialty crops that are directly marketed, including berries, dairy, fruits, and vegetables. Smaller farms tend to be more regionally based and rely on local markets, either through retail such as supermarkets and restaurants or direct sales through farmers markets and home subscriptions (Community Supported Agriculture).

Snapshots

- The total number of commercial farms in Washington increased in recent years to 39,500 in 2009 (compared to 29,000 in 1997) due mostly to growth in small farms under 10 acres. The vast majority of these farms are family or individually owned.
- Washington is losing farmland at a significant rate, about a 4 percent loss between 1997 and 2007. The state had about 14.8 million acres of farms in 2009, compared to about 16.5 million acres in 1982, and 18 million acres in the 1950s.⁶⁶
- Since 1982, Washington has lost 167,000 acres of prime farmland, meaning land best suited for crops.
- Causes of farmland loss include development, conversion to non-agricultural estates, conversion to wetlands, non-use by former farmers/ranchers, and public acquisition. One major reason for conversion is that agricultural land in Washington often has a greater market value than its value for agriculture.⁶⁷
- Average net farm income in 2007 was \$45,454, up from \$35,959 in 2002. However, less than half of farms reported net gains.
- The profitability of farming is likely to be challenged in future years by rising expenses. Average farm production expenses in 2007 were about \$137,000,000, a 42 percent increase since 1997.⁶⁸
- The farmer's average share of what consumers spend for food is only 11.6 cents of each dollar, with the rest going to inputs, processing, marketing, and distribution.⁶⁹
- Washington has an aging farm population with nearly seven times as many Washington farmers over 55 as there are younger than 35.
- Agriculture has varying impacts on the environment. Farming practices can contribute to soil erosion, water pollution, and greenhouse gas emissions. In response, some farmers are integrating new management practices to reduce environmental impacts such as lowering their use of agricultural chemicals, practicing water and soil conservation methods, and managing lands in to enhance wildlife. Some farmers have sought organic

certification. In 2007, state organic acreage covered 0.7 percent of the state's farmland.⁷⁰ There were 735 certified farms, 1.9 percent of the state's total farms.

Figure 1

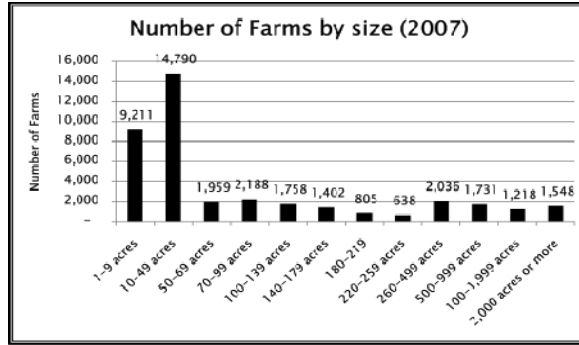


Figure 2

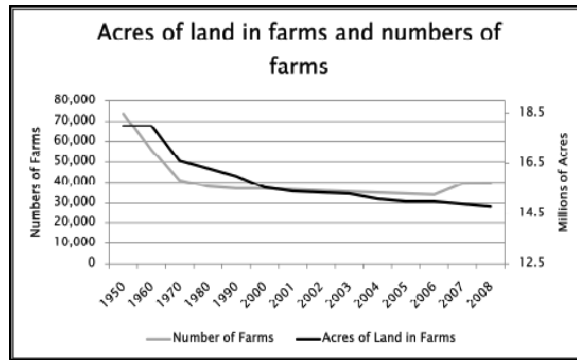


Figure 3

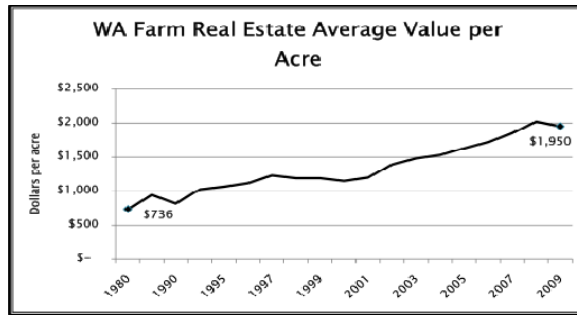
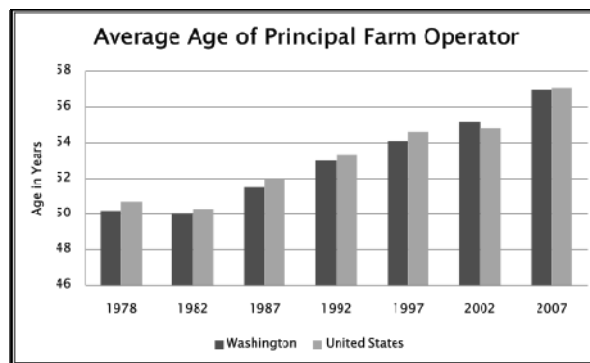


Figure 4



Source of above figures: Office of Farmland Preservation. 2009. Washington State Farmland Preservation Indicators. Accessed at ofp.scc.wa.gov/wp-content/uploads/.../2009-Indicators-Report.pdf.

Role of Washington State

Washington has some policies in place to support agricultural preservation.⁷¹ Examples include the Growth Management Act, Open Space Tax Act, Right to Farm Act, agricultural protection programs, and executive orders.

- Washington's Growth Management Act was adopted in 1990 and strengthened in 1991. The law requires all counties to designate important agricultural land and adopt regulations to ensure that land uses adjacent to farms and ranches do not interfere with agricultural operations⁷².
- The Open Space Taxation Act, enacted in 1970, allows property owners to have their open space, farm and agricultural, and timber lands valued at their current use rather than at their highest and best use. The act states that it is in the best interest of the state to maintain, preserve, conserve, and otherwise continue in existence adequate open space lands for the production of food, fiber, and forest crops, and to assure the use and enjoyment of natural resources and scenic beauty for the economic and social well-being of the state and its citizens.⁷³
- Right-to-farm laws have been enacted to protect agricultural operations within a state or county by providing owners with a defense against potential nuisance suits that might be brought against the farm.⁷⁴

Other policies include agricultural zoning, conservation easements, purchase of development rights, and transfer of development rights. Still in effect is a 1980 Executive Order from Governor Dixie Lee Ray directing all state agencies to evaluate and consider the impacts of agriculture on their land policy decisions and, in addition, "give due regard to local government planning, zoning, or other local government agricultural land protection programs."⁷⁵

Washington state agencies also have influences on farming and farmland:

- *Washington State Conservation Commission's* mission is to "lead the citizens of the state in the wise stewardship, conservation, and protection of soil, water, and related natural resources." The commission houses the Office of Farmland Preservation (OFP)⁷⁶ and the state's Agricultural Conservation Easement Account⁷⁷ that was developed to create a purchase of agricultural conservation easements program that facilitates use of federal funds and provides assistance to local governments.
- *The Office of Farmland Preservation* assists counties in technical planning around agricultural lands and farmland preservation with grants and technical support.⁷⁸
- *Conservation Districts* work with landowners on a voluntary basis, providing incentive-based conservation assistance on private lands.
- The *Washington Wildlife and Recreation Program* includes the Farmland Preservation Program⁷⁹ that funds purchase of development rights on farmlands in Washington and ensures the lands remain available for agricultural practices.
- *Washington State Department of Agriculture* is primarily responsible for regulating the activities of agricultural producers (along with other state agencies that have some jurisdiction over agricultural activities).⁸⁰ The WSDA also supports education, marketing, and promotion programs for farmers. Due to recent budget cuts, programs supporting these efforts have been reduced, or in some cases, eliminated. In 2011, the WSDA Small Farm, Direct Marketing, and Domestic Marketing programs were not funded resulting in a loss of service to this farm demographic.

- Washington's 23 *agricultural commodity commissions* are engaged primarily in marketing and/or research related to a specific commodity. They are funded by producer assessments and vary in size and activity.
- *Washington State University* is a research land-grant university that operates four research and extension centers, and has extension offices in all 39 counties.

In addition to the above, other agencies have the potential to support farming and farmland preservation. The Washington State Department of Natural Resources is a major owner of agricultural lands and the Washington State Department of Transportation is actively involved in the purchase of agricultural lands for environmental and wetland mitigation. The Washington State Department of Commerce is the lead state agency charged with enhancing and promoting sustainable community and economic vitality in Washington and provides local communities with technical assistance related to land use and economic planning.

Role of Federal, State, and Local Partners

Farm policy in Washington is heavily influenced by federal policy. The federal Farm Bill, for example, has enabled funds for the purchase of conservation easements and protection against development of productive farmland. The bill has also provided commodity support payments to certain commodity growers, and provided funding for a Specialty Crop Block Grant Program that focuses on the enhancement of specialty crop growers.

As an example, the Specialty Crop Block Grant Program recently provided funding to Cascade Harvest Coalition (a non-profit organization dedicated to “re-localizing” the food system in Washington by more directly connecting consumers and producers), for FarmLink and Farm-to-Table; two efforts focused on connecting aspiring and retiring farmers as well as creating increased sales and access to local products.

The federal government also impacts farms and farmland through the work of agencies such as the USDA, the agricultural credit programs, Natural Resources Conservation Services, the Environmental Protection Agency, and the Farm Service Agency, among others. Federal agricultural research through land grant universities also plays an important role in agricultural productivity and conservation. In the short-term future, federal funds for emergency relief are likely to be focused in particular regions of the country where farming has been impacted by flooding, droughts, and other disasters.

At a local level, individual counties in Washington use additional techniques to promote farming and preservation of agricultural land, including the purchase and transfer of development rights, agricultural zoning, land use plans and development regulations, farmland protection programs, conservation futures, conservation easements, and agriculture exclusive zones. Some have helped start and fund marketing and branding programs such as Puget Sound Fresh. One of the most useful and valuable tools used by local governments are agricultural strategic plans which outline land use goals and objectives. The Office of Farmland Preservation has provided technical assistance to several local governments to develop these plans. Counties also are direct funders of their local WSU Extension office, in collaboration with WSU.

Non-profit organizations play a significant role in organizing and advocacy around farmland preservation issues. There are several groups committed to improving agriculture in Washington

including the American Farmland Trust, the Washington State Farm Bureau, the Washington State Grange, the Washington State Dairy Federation, the Washington State Cattlemen's Association, and others. These groups supported the creation of the Office of Farmland Preservation and continue to be instrumental in advocating the importance of preserving farms in Washington.

Non-profit organizations also play critical roles in protecting farmland, including educating the public about its importance and providing training. For example, in Skagit County, Skagitonians to Preserve Farmland worked with the Washington State Legislature to pass Senate Bill 6211, which designates nearly all of I-5 through Skagit County as Washington's first Agricultural Scenic Corridor, works to promote farmland and allows access to federal grants.⁸¹

Other examples of active non-profit organizations are The Nature Conservancy and Futurewise. The Nature Conservancy program Farming for Wildlife encourages farmers to rotate a wetland environment with the crop rotation, demonstrating an innovative form of farmland preservation in environmentally sensitive areas.⁸² Futurewise works to increase protections for working farms and farmland, particularly during major updates to local Comprehensive Plans, development regulations, and Critical Area Ordinances.

One role the state can play is in improved coordination with other government agencies and organizations toward common outcomes. Besides the above mentioned groups, other actors besides the state working on issues related to farms and farmland preservation include Commodity Commissions, Conservation Districts, research and training-based institutions, local governments, and non-profit organizations.

For example, in Snohomish County, local partners include Snohomish Conservation District, WSU Snohomish County Extension, Puget Sound Regional Food Policy Council, Snohomish County (which has an Agriculture Economic Development Advisory Team, an Agriculture Advisory Board, and several staff members working on farming issues), the Snohomish County Growers' Alliance, and active non-profit organizations including the Snohomish County Farm Bureau, Futurewise, Cascade Harvest Coalition, and Washington Sustainable Food and Farming Network.

Each farming community across the state has its own group of partners. In some regions, the movement towards coordinated action to support farming and farmland preservation has already gained momentum. Again, as an example in Snohomish County, many of the mentioned organizations are collaborating on efforts such as agriculture based conferences and the Snohomish County Agriculture Sustainability Project which identifies key strategies for economic recovery and expansion of Snohomish County's agriculture industry.

Gaps and Risks

The gaps and risks described in this section are not a comprehensive snapshot of all gaps and risks related to farmland preservation in Washington. Instead, they highlight examples that could be improved by increased collaboration and coordination.

Washington food producers have likely never faced as many challenges as they do today. Many of these are detailed in WSDA's 2009 Future of Farming Report and Office of Farmland

Preservation's 2008 and 2009 reports to the legislature.^{83,84,85} Some of these issues are highlighted below. Full reports can be accessed through the endnotes.

Burden of regulation

Washington farmers have reported regulations as a big obstacle.⁸⁶ While most individual laws have a sound rationale, the increasing number of local, state, federal, and non-governmental regulations affects almost every aspect of farm operations and results in direct costs to alter established farm practices. The 2009 WSDA Future of Farming Report discusses regulations and offers several recommendations.

Smaller operators face special disadvantages due to regulatory complexity and fewer resources.⁸⁷ In 2011, the Office of Farmland Preservation (OFP) began discussions with WSU to conduct a regulatory burden assessment for specialty crop producers beginning in 2012. This is the outcome of the 2008 Future of Farming report and the 2009 OFP report to the legislature where the Farmland Preservation Task Force recommended a study be conducted to assess the impacts of regulations on producers.

Lack of access to land

Particularly in Western Washington, increasing farmland value makes it difficult for new and existing farmers to either take on or add acreage. Another trend that impacts farmland is the conversion of existing irrigation water rights to non-agricultural uses either through sale or through transfer.⁸⁸ Local governments and state agencies also have impacts on access to land. Local zoning actions can increase land costs due to potential development and access to common city services such as water and sewer.⁸⁹ While this can be beneficial to landowners looking to transition out of farming, it creates a barrier for new farmers to enter the industry.

Washington agencies also contribute to the removal of farmland. Agricultural land is often prime habitat for species of concern including mammals and fish, and is also targeted for recreational opportunities. Some state agencies and non-profit organizations work to acquire these lands for these values, often through simple acquisition but also with conservation easements. If agricultural lands are acquired for non agricultural activities, the land can then become an incompatible use and effectively prohibiting continued agriculture. State agencies have no requirement to report acquisition of farmland for non agricultural or agricultural purposes.

Declining resources

The agriculture industry benefits greatly from Washington's natural environment, including a favorable growing climate, an abundant water supply delivered through rain and irrigation, and prime soils. The abundance of these resources is being challenged by factors such as climate change, polluted runoff, increasing competition for resource use, and development in agricultural areas.

Lack of sufficient labor

Labor continues to be a major concern for agriculture producers across all sectors. Changes in immigration laws and enforcement, worker safety labor laws, and the nation's highest minimum wage all effect recruitment of a qualified labor force to meet peak labor requirements, especially at harvest.

As an example, stricter immigration controls have led to labor shortages, since many farms (particularly fruit tree farms) rely heavily on seasonal and migrant farm labor.⁹⁰ Average farm wages for farm workers can vary from the state's minimum wage or wages based on quantity of work. This can lead to challenges in attracting a large skilled efficient work force.

Sector Opportunities

This section highlights examples of opportunities where collaboration and coordination between agencies and partners are key factors for success. This section is not intended to provide a comprehensive and prioritized list to address farmland preservation in Washington.

An increased commitment by the state and coordination with other partners is critical to the future of farming in Washington. A coordinated food vision can support and connect local farms and farmers to other parts of the food system, including processing, distribution, and the emergency food system. This will expand market opportunities for farmers and ultimately contribute to farmland preservation. A coordinated food vision can also provide the opportunity for a broader community interested in food and farming issues to work together with government to develop more informed outcomes and workable solutions, including land use tools, to these issues.

The potential for state and local actions related to farmland preservation include emphasizing local foods and how a food system approach can work to examine the loss of farmland and other environmental issues, such as water quality and wildlife habitat. In addition, by increasing local demand, efforts can be supported that create recognition of the need to “preserve” local food production.

Opportunity 2.4.1: Link non-profit organizations local economic development, environmental protection and farmland preservation as they relate to the overall food system and the work of the state agencies engaged in these issue areas. Several state agencies' goals are connected to farming and the environment. These issues are pertinent to the work of the Washington State Conservation Commission, Department of Ecology, Department of Agriculture, Department of Commerce, and counties. This is also the work of several non-profit organizations operating in Washington.

Opportunity 2.4.2: Expand technical assistance to local governments. The Washington Conservation Commission and other governmental (WSU Extension) and non-governmental groups (American Farmland Trust) can assist local governments in developing strategic agricultural plans and implementing land use tools to preserve farmland.

Opportunity 2.4.3: Collaborate with key stakeholders across the state on outreach, education, and sharing of best practices. Each farming community across Washington has its own system of committed individuals working to advance food policy strategies. These efforts can be more effective through coordination among local governments, WSU Extension, non-profit organizations, conservation districts, farmer groups, and others. The state has many opportunities to collaborate with and use these existing networks.

Opportunity 2.4.4: Review impact of state acquisition on farmland. Washington has competing goals when it comes to farmland preservation. For example, some state agencies purchase farmland to convert to wetlands as part of its wetlands mitigation program or to be utilized for wildlife habitat values. The state could review impacts of state acquisitions on farmland and farming by requiring an Agricultural Impact Statement (AIS) for state land acquisition. The AIS would enable state government to track the amount of farmland purchased by state agencies each year and over time, to inform policy discussions. The AIS could be a step towards ensuring no net loss of farmland by the public sector. A similar concept was considered in 2010 and was passed by the full Washington State Senate.

Opportunity 2.4.5: Focus on economic opportunities for new farmers. New farmers, especially those involved in small-scale agriculture, can become profitable and offer protections to farmland if the state and partners support local food purchases and direct marketing. An opportunity exists to encourage more institutional purchasing programs of local foods and also encourage direct marketing which, among other benefits, can increase awareness between farmers and consumers. Increased demand for local foods could create awareness of the need to preserve farmland.

2.5 Food System Infrastructure

Washington's food system is a complex network involving many diverse relationships that link production and processing to transportation, distribution, consumption, and waste management. Different food products follow different chains of activities. At the beginning of the chain of activities is production and harvesting. The state's farms produce more than 300 crops while the seafood industry harvests fin fish and other shellfish, clams, crab, mussels, oysters, salmon, tuna, and other seafood.⁹¹ Each of these different food products are processed and distributed via various channels. For example, some pea harvests go to processing facilities for canning and freezing and eventually to supermarket distribution, while other pea harvests go to processors for animal feed, and still others go directly to consumers.

Much of Washington's food system infrastructure has been shaped in recent years to meet the needs of the larger companies. As a result, much of the food system infrastructure is not scaled for small- and medium-scale producers — the fastest growing segment of farmers. This so-called "agriculture of the middle" may have the most potential for scaling up local and regional food purchasing and decreasing the complexity in the food system. The following points highlight the existing conditions of the food system infrastructure and focus on issues of "agriculture of the middle."

Snapshots

Processing

- Food processing (not counting beverages) is a \$13 billion industry that employs 40,000 people in counties across the state.⁹² It's the second largest manufacturing industry in the state, with more than 700 food-manufacturing establishments in 2009, down from 752 in 1999.
- Fruit and vegetable, seafood, meat, bakery products, dairy products, and grain milling are the major types of processing. Large food processing firms include Darigold, National Frozen Foods, Pasta USA, Continental Mills, Lamb-Weston, and Westward Seafood.⁹³

- Washington is home to 66 dairy processors. Most dairy processing has moved from Western Washington to bigger, more concentrated operations in Eastern Washington. Western Washington has experienced expansion of small artisan cheese and specialty dairy, which are processed on small farms that have recently added processing facilities.⁹⁴
- Over the past 30 years, many USDA-inspected meat slaughtering facilities in Washington have closed, leaving 13 in the state. These remaining large plants will generally not slaughter for small producers.

Transportation

- Food transportation relies on a complex network of trucking, rail, air, and shipping infrastructure. Food products and beverages that leave Washington are mostly shipped by train and truck to the rest of the country along major rail lines, interstates, and internationally through the Ports of Tacoma and Seattle.
- Within Washington, food is distributed largely by trucks on interstates and roadways. It's estimated that there are 21.6 million truck trips made each year on state highways.⁹⁵
- Food products often travel 1,500 miles before being consumed.

Distribution

- Washington is home to about 3,000 food and beverage stores (including grocers) and 15,000 food service and drinking places (including full and quick service restaurants).⁹⁶
- Nationally, sales by the 20 largest food retailers such as Wal-Mart, Supervalu, Costco, and Kroger have increased from 39.2 percent of U.S. grocery sales in 1992 to 64.2 percent in 2009.⁹⁷ About 85 percent of Washington's restaurant industry is dominated by small businesses with 20 or fewer employees.⁹⁸ Restaurants run on very tight profit margins. The challenges contribute to a high failure rate, with more than 50 percent of restaurants closing or turning over in ownership every five years.
- Additional important distribution outlets, particularly for low-income residents, include school meal programs, the emergency food system, and food assistance programs. Most of the transportation, storage, and distribution activities for the emergency food system are conducted by non-profit organizations.⁹⁹

Food waste management (the disposal and/or utilization of food packaging and food waste)

- Organics make up about 25 percent of the state's overall waste stream. The most prevalent source of organics is food scraps, which account for 800,000 tons of waste annually.

Food system workers

- Labor is an integral part of production, processing, retailing, and waste management. Examples of other jobs related to the food system are truckers and train operators, advertisers, and dieticians.
- Washington's 30,000 farms depend upon almost 98,940 seasonal and year-round workers. About 80 percent of the state's total agricultural employment is in Eastern Washington. Most agricultural jobs pay relatively low wages.¹⁰⁰
- In 2007, about 30,000 Washington residents were employed in food processing in 937 establishments, with about half in fruit and vegetable or seafood preserving and processing.¹⁰¹

- Wages for food system employees vary. Counter workers, who often earn minimum wage, earn a median of \$9.21/hour while servers often earn minimum wage plus an average of \$15.00/hour in tips totaling more than \$23.00/hour.¹⁰² Most non-managerial food retail workers do not receive benefits such as health insurance or paid sick leave.
- The level of unionization varies within the food industry. Grocery store workers are heavily unionized. Restaurant workers belong to unions at a rate lower than one percent. A large percentage of the labor force in food service, particularly in restaurants, includes transitional employees such as teenagers.
- Many of the jobs related to the food system carry some occupational risks. Meat cutters, for example, perform tasks that put them at risk for injuries due to cutting tools and machinery, high-force or repetitive motions, heavy boxes, slippery floors, and other potentially hazardous conditions.¹⁰³ This industry continuously has the highest injury rate of any industry in the country. Other risks to food system employees may include exposure to pesticides.

Energy and sustainability

- The food industry accounts for an estimated 10-20 percent of energy consumption in the U.S.¹⁰⁴ About 14 percent of that figure can directly be attributed to transportation, while the remainder supports production, processing, packaging, and home refrigeration and preparation.
- The amount of energy used varies greatly by food product, with conventional meat and more processed food using significantly more energy than whole, unprocessed fruits and vegetables.

Figure 1:



Figure 2: Organics Comprise 25 percent of State Waste Stream, 2009

Material	Est. Percent	Cum. Percent	Est. Tons
Food Scraps	16.6%	16.6%	824,605
Lumber and Pallets	7.9%	24.4%	392,420
Mixed Grade Paper	7.3%	31.8%	363,920
Compostable Paper	5.6%	37.4%	278,932
Bags and Film	5.4%	42.8%	269,539
Green Waste	5.3%	48.1%	265,570
Fines/Residues/Inerts/Remainders	4.8%	52.9%	240,128
Cardboard	4.7%	57.7%	235,313
Textiles	3.3%	61.0%	166,545
Other Construction Materials	3.3%	64.3%	161,980
Diapers	2.6%	66.8%	128,676
Furniture/Mattresses	2.4%	69.2%	118,151
Animal Manure	2.3%	71.5%	115,163
Other Ferrous Metals	2.3%	73.8%	114,491
Carpet	2.3%	76.1%	112,579
Total	76.1%		3,788,012

Source: Department of Ecology, 2009. Washington Statewide Waste Characterization Study. Accessed at <http://www.ecy.wa.gov/biblio/1007023.html>

Role of Washington State

Washington State government has a significant influence on the state's food system infrastructure.

- *Washington State Department of Agriculture's* prominent roles in food system infrastructure are related to food safety, licensing and distribution, which have been highlighted in the Nutrition and Health, Promotion of Washington Products, and Farmland Preservation focus areas of this report. The WSDA assumed responsibility for the state's Food Assistance programs on July 1, 2010. In this role, the agency brings in commodity surplus from U.S. Department of Agriculture. The agency also stores and transports about 60 truckloads of mostly dry food products to more than 20 lead agencies across the state through subcontracts with non-profit organizations. These agencies in turn distribute emergency food to more than 500 smaller agencies, including food banks. One challenge the agency faces is increasing the distribution of fresh and frozen produce with limited storage and transportation options.
- *Department of Health* plays an important role in promoting food safety, described in the Nutrition and Health and Promotion of Washington Products focus areas of this report.
- *Department of Commerce's* mission is to grow and improve jobs in Washington. The department's current strategic plan and list of programs has very little focus on any aspect of the food system, with the exception of some limited funding for farm worker housing, regional transfer of development rights programs, and small biodiesel and renewable farming initiatives.
- *Department of Corrections* is a large consumer and a potential storage, processing, and distribution resource. The agency is initiating a number of food-related sustainability efforts as highlighted in the Washington Department of Corrections Sustainability Plan. These include composting and organic gardening programs.
- *Department of Labor & Industries* impacts many of the activities related to employment in food-based industries. The department establishes procedures for hiring, training, conditions, pay, and overtime.

- *Department of Revenue* collects business, sales, and property taxes. The agency offers several tax incentives for specialty food enterprises. These include a Business and Occupation Tax Exemption for Manufacturers of Fresh Fruit and Vegetables, Business and Occupation Tax Exemption for Manufacturers of Dairy and Seafood Products, and a Sales Tax Deferral/Waiver on Construction of Cold Storage & Certain Food Manufacturing/Processing Facilities.
- *Washington State Department of Transportation (WSDOT)* develops the Washington State Transportation Plan and other strategic documents to guide decision-making about transportation infrastructure, including state highways, roads, short line railroads, mountain passes, and bridges. These are all critical to the movement of food within and beyond Washington. The agency also makes decisions regarding fees and tolls, which affect food transporters. In a pilot effort, WSDOT established the Produce Rail Car Program in 2006¹⁰⁵ establishing a pool of refrigerated railcars. In 2010, the average use rate of the produce rail cars was 47 percent and usage continues to grow.

Gaps and Risks

The gaps and risks described in this section are not a comprehensive snapshot of all gaps and risks related to Washington's food system infrastructure. Instead, they highlight examples that could be improved by increased collaboration and coordination.

Lack of small and medium-scale processing infrastructure

Historically, the processing industry has seen economic benefits to operating in Washington, including high quality commodities and relatively low energy and water costs. While the processing industry seems to have stabilized, there are fewer and more concentrated facilities. An example of this trend is Nalley's, which had pickle, chili, and canned beans operations in Tacoma. A large conglomerate bought the company and all of the production was transferred out of state. The trend to fewer, larger processing plants leaves a gap in flexible small and medium-scale processing infrastructure. In a survey of Oregon and Washington livestock producers, 60 percent said they needed improved access to a USDA-inspected processing facility.¹⁰⁶ Also, the meat from animals slaughtered and processed by WSDA-licensed facilities may not be re-sold, and therefore, producers cannot sell the animals directly to restaurants, groceries, or consumers.

Transportation

For truckers transporting food and other goods, transportation costs are a concern. Congestion is also a significant problem in western Washington. A challenge is that little system data exists to inform decision makers about the economic impact, system bottlenecks, and supply chains flowing through freight systems that support Washington state producers and delivery of goods to consumers.¹⁰⁷

Transportation of agricultural products in Washington includes challenges such as the increasing costs of fuel, congestion in western Washington, the lack of all-weather roads in eastern Washington, and limited rail and barge access statewide.¹⁰⁸ The state faces funding limits, a growing backlog of deferred maintenance, aging bridges, and the growing gap between the needs and the ability of the state gas tax to adequately fund projects. In addition, the value of building an infrastructure that will encourage the use of even more energy must be weighed against concerns about rising oil prices, air pollution, and climate change. Rail and other kinds of transport will require significant investment. Moreover, industry analysts point out that the

prevailing “just-in-time” food delivery system is increasingly vulnerable to disruptions in the supply of oil, weather crisis, or breakdowns in communications.

The story of Palouse Coulee City Railroad provides an example of the challenges to improving rail infrastructure to serve needs. In 1996, the Port of Columbia assumed ownership of the rail line between Dayton and Walla Walla. A private company (WATCO) operates the short line through a lease agreement with the port. Palouse Coulee City Railroad locomotives haul about 4,000 carloads of wheat, lentils, and barley more than 202 mainline miles in Washington’s Palouse region. The success of this public-private effort has been limited by the conditions of the railroad, which keep speeds as low as 10 miles per hour. Rehabilitation work is needed, but the source of funding for repair and maintenance is unclear and collaboration will likely be needed.

Labor

Labor is a critical component of a healthy food system. Employers across the food system report problems with labor shortages and the burden of complying with employment regulations. The food system, particularly farming and certain kinds of food processing and food service, employ large numbers of immigrants and may be affected by reductions in immigration and higher levels of restrictions on employing foreign workers. Those employees working in food processing, distribution, preparation and service, retail, and waste management often receive low wages and limited benefits. Some face on-the-job risks, such as exposure to chemicals and working with dangerous equipment. A coordinated effort among government, non-profit organizations, unions, and the private sector is important in creating a more business-friendly environment and improving the labor pool and working conditions for employees. Recruiting, hiring, and retaining a skilled workforce are challenges across the state’s food system.

Sector Opportunities

This section highlights examples of opportunities where collaboration and coordination between agencies and partners are key factors for success. This section is not intended to provide a comprehensive and prioritized list to address Washington’s food system infrastructure.

Opportunity 2.5.1: Involve food system partners in long-range planning. The state makes many infrastructure planning and funding decisions that impact the food system. Food system partners can be involved in long-range transportation, land use, health, and economic planning.

RailEx, out of Walla Walla, is an example that demonstrates how involving various food system partners in transportation and other long-range planning may lead to innovative and effective solutions. The state had been trying to move fresh produce from the region to the East Coast of the U.S. by rail, but faced challenges due to rail’s poor track record and infrastructure limits. RailEx, a private company that specializes in long-distance refrigerated food distribution, saw an opportunity and now runs trains carrying Washington produce and wine among other products to the East Coast of the U.S.

Opportunity 2.5.2: Support the development of small and medium-scale processing. Various joint efforts are underway to establish smaller scale meat processing facilities. For example, the Puget Sound Meat Producers Cooperative, a non-profit cooperative of local ranchers, farmers, butchers, restaurant owners, and others; and Piece Conservation District collectively operate a mobile meat processing unit initially servicing King, Kitsap, Lewis,

Mason, Pierce, and Thurston counties.¹⁰⁹ The unit has received both USDA inspection and WSDA Organic Program inspection certifications. Similarly, the Cattle Producers of Washington recently partnered with the Odessa Public Development Authority to establish a meat processing facility in Odessa. Enabled by a \$1.2 million loan, the facility will serve as a new cooperative association to provide livestock processing services for small ranchers in the area. Washington State Department of Agriculture's Small Farm Direct Marketing Program provided assistance as a liaison with USDA and worked to reduce regulatory barriers. The state can continue to support these efforts by easing regulatory barriers, providing funding assistance, and offering programmatic and organizational support.

Opportunity 2.5.3: Support the development of food hubs. According to the USDA, a food hub provides a centralized facility for the aggregation, storage, processing, distribution, and/or marketing of locally and regionally produced food products. In Washington, collaborative efforts are underway to strengthen existing food hubs and establish new ones. In Everett, Snohomish County officials have partnered with a local producer cooperative and a private developer to construct a new food hub in downtown. The facility will host an indoor farmers market and shared aggregation, processing, and distribution facilities. In Dayton, the Port of Columbia is leading an effort to construct Blue Mountain Station Food Park. Its goal is to create a cluster of artisan organic food processing companies to create a manufacturing base while enhancing the area's growing wine and food tourism industry.¹¹⁰ The establishment of food hub facilities benefits from collaboration by the private sector, non-profit organizations, and various government agencies.

Opportunity 2.5.4: Encourage innovative food and agricultural waste management practices. Across the state, initiatives such as on-farm composting of manure and bedding, manure share programs, and diverting edible food from stores and restaurants to food banks are lowering the amount of farm and food waste sent to the landfill.¹¹¹ Some local municipalities have also established municipal composting programs and outreach efforts to encourage residents to compost in their backyards.¹¹²

2.6 Cross-Sector Opportunities

In addition to the sample sector opportunities named in the individual focus areas throughout Section 2 of this report, the interagency working group noted cross-sector opportunities that expand across the entire food system. Individual actions will not be enough to address the complex challenges of the current food system. Collaboration across state departments, across scales of government, and with the private and non-profit sectors is critical. The working group believes Washington State government has a unique role to play in fostering a coordinated, statewide vision. These opportunities are not intended to be a comprehensive and prioritized list to address Washington's food system infrastructure.

Generate new funding mechanisms. A more coordinated approach positions Washington to seek and receive federal grant funding that often requires interagency coordination. State agencies have already recognized this. For example, in early 2011, Department of Social and Health Services (DSHS) and Office of Superintendent of Public Instruction (OSPI) leaders discussed partnership opportunities to improve the low rate of participation in the Summer Food Service Program. Because of this discussion, DSHS agreed to distribute outreach materials for the program in the current year and work with OSPI to create an application for Summer EBT

for Children for summer 2012. In another example, the Department of Health recognizes that reducing health disparities and improving community health in a sustainable way requires partners to work together for solutions. For the newly funded Community Transformation Grant, Department of Health will bring together a leadership team that will be comprised of high-level policymakers representing multiple agencies and sectors. Members of the leadership team include interagency working group team members.

Collaborate among agencies and with federal, state, and local partners. Many opportunities exist for agencies to work together on common goals. The scope of the food system in Washington means that a particular challenge is the large number of active groups. An example of a food system issue that would benefit from coordinated engagement is encouraging healthy and local food procurement in state institutions.

Educate broadly about food system issues. Many people are not used to thinking about food system gaps, risks, and opportunities as part of a system. A coordinated long term vision provides a platform for communicating widely about the importance of Washington's food system to the economy, environment, and health of the state.

Influence national policy. With some coordination, state agencies and partners can weigh-in on federal programs and funding sources that affect nutrition, health, agriculture, and other food system issues in Washington. Examples include the ensuring both the Child Nutrition Reauthorization Act and the Farm Bill promote nutrition and local foods while reducing food insecurity.

SECTION THREE: RECOMMENDATION FOR MOVING FORWARD

The interagency working group believes this report is a starting point for improving coordination efforts that impact Washington's food system. To ensure a coordinated food system, the working group and its partners must cultivate a sense of shared responsibility and contribution across sectors. Both state agency and food system partners expressed a commitment to engage in a model that would:

- Share responsibilities, resources, and support;
- Provide opportunities to leverage assets, think creatively, and find solutions to food system issues; and
- Recognize the current financial crisis and not create a new structure or governance.

The state agencies are dedicated to increasing collaboration efforts with food system partners to develop realistic solutions that strengthen the food system. The state agency working group participants considered several options, and have decided to put forward the most realistic solution as our preferred recommendation.

In order to achieve a more coordinated Washington food system, the state agencies recommend the formation of a Food System Roundtable. The proposed roundtable will be modeled after existing roundtables that address issues such as economic vitality and employment. The roundtable will provide a forum for participants to seek common ground, develop effective partnerships, and share beneficial information; it will not be a forum to impose binding actions or directions on either government representatives or non-governmental partners.

The proposed Food System Roundtable will encourage discussion and information-sharing to assist in coordinating efforts to improve the food system. The state government cabinet agencies Department of Social and Health Services and Department of Health could serve as initial conveners of this roundtable. The task for its ongoing maintenance will become a shared responsibility among both private and public participants.²

The overall aim of the recommended roundtable would be to develop a twenty five year vision for the food system in Washington State. The first steps to achieve that aim would be to:

- Identify the scope and priorities for the roundtable;
- Determine leadership and membership, and identify support for convening the ongoing roundtable; and
- Determine a timeline and plan to develop the 25 year vision.

Developing the 25-year vision is necessary to establish common direction and ensure a coordinated food system. Potential elements of the vision include:

- No Washington resident faces food insecurity.
- All Washington residents, particularly low-income residents, have access to nutritious food.
- The food supply is safe, healthy, and secure.
- Washington continues to be a top agricultural exporter, and more of the food consumed in Washington is produced in Washington.

² Agency and stakeholder participation will be dependent on available resources.

- Washington’s farmland is preserved and protected for food production.
- Food production is a viable economic activity, and farmers have access to the necessary resources including land, soil, water, and labor.
- The food system protects the environment through agricultural best practices, and protection and wise use of our natural resources.
- The food system infrastructure enables connections among small-scale producers and consumers.

Once a broad, guiding vision is established in the proposed roundtable, partners can work through the existing array of food system partners to coordinate and develop solutions on issues relating to the food system. It is not the intent to replace existing efforts but to find opportunities to more closely align our broad food system partner efforts with a shared vision. Through our preferred recommendation of a Food System Roundtable, and our current food policy related meetings, state agencies will be able to build and strengthen their relationships with non-state agency actors and each other. These forums will invite invaluable discussions between nongovernmental organizations and state agencies that will help inform decisions impacting Washington’s food system. As all partners work through their networks to support a shared vision for a more coordinated food system in Washington, the roundtable will be a forum for sharing ideas, experiences, and impacts on Washington’s food system.

It is the interagency work group’s intention that the proposed roundtable will use this report as a guide for beginning to address the gaps in Washington State’s food system.

REFERENCES

-
- ¹ Washington State Department of Agriculture. 2011. Export Statistics. Accessed at <http://agr.wa.gov/Marketing/International/Statistics.aspx>.
- ² United States Department of Agriculture, Economic Research Service. 2011. Washington Fact Sheet. Accessed at <http://www.ers.usda.gov/statefacts/WA.htm>
- ³ Washington State Department of Health and UW Center for Public Health Nutrition. 2010. Opportunities for Increasing Access to Healthy Foods in Washington. Accessed at http://depts.washington.edu/waaction/tools/featured_resources/access_report.html
- ⁴ USDA Economic Research. 2006. What Factors Account for State-to-State Differences in Food Security? Accessed at <http://www.ers.usda.gov/publications/EIB20/>
- ⁵ Food Lifeline. Hunger in America, Western Washington Findings. 2010. Accessed at <http://www.foodlifeline.org/hunger/resources/documents/HungerinAmerica2010-WesternWashingtonKeyFindings.pdf>
- ⁶ Children’s Alliance. September 2011. Hungry in Washington. Accessed at December 13, 2011 from <http://www.childrensalliance.org/resource-center/hungry-washington-september-2011>
- ⁷ DSHS, Economic Services Administration, Management Accountability Performance Statistics (EMAPS) data provided by Thibodeau, Bob, Basic Food Program Manager, DSHS.
- ⁸ Data provided by Thibodeau, Bob, Basic Food Program Manager, DSHS.
- ⁹ United Way of King County. 2011. Hunger Fact Sheet. Accessed December 13, 2011 at <http://www.uwkc.org/news-events/event-calendar/haw/fact-sheet.html>
- ¹⁰ Children’s Alliance. September 2011. Hungry in Washington. Accessed December 13, 2011 at <http://www.childrensalliance.org/resource-center/hungry-washington-september-2011>
- ¹¹ Estimated State Food Assistance cut of \$30M; Child Nutrition cut of \$6M; WIC Farmers Market cut of \$420,000 and WIC cut of \$800,000.
- ¹² UW Center for Public Health Nutrition. 2010. Opportunities for Improving Access to Healthy Foods in Washington.
- ¹³ USDA Dietary Guidelines for Americans 2010. Accessed at <http://www.cnpp.usda.gov/dietaryguidelines.htm>

-
- ¹⁴ Just, D and Cheyne, A. 2011 Presentations on Behavioral Economics and Food Marketing and Media at Access to Healthy Foods Summit. Slides accessed at <http://accesstohealthyfoodscoalition.wordpress.com/>
- ¹⁵ Centers for Disease Control and Prevention. 2011. CDC 2011 Estimates: Findings. Accessed November 22, 2011 from <http://www.cdc.gov/foodborneburden/2011-foodborne-estimates.html#annual>.
- ¹⁶ USDA Dietary Guidelines for Americans 2010. Accessed at <http://www.cnpp.usda.gov/dietaryguidelines.htm>
- ¹⁷ Washington State Department of Health. November 2010. *Nutrition in Washington State*. Behavioral Risk Factor Surveillance System Survey Data 2010. Accessed January 13, 2012 at <http://www.doh.wa.gov/cfh/NutritionPA/Documents/NutritionWa.pdf>
- ¹⁸ <http://www.doh.wa.gov/cfh/nutritionpa/Documents/ObesityWa.pdf>
- ¹⁹ The Future Costs of Obesity: National and State Estimates of the Impact of Obesity on Direct Health Care Expenses. Accessed at www.nccor.org/downloads/CostofObesityReport-FINAL.pdf
A collaborative report from United Health Foundation, the American Public Health Association and Partnership for Prevention
- ²⁰ U.S. Centers for Disease Control and Prevention. National Immunization Survey 2000-2007. Accessed at http://www.cdc.gov/breastfeeding/data/NIS_data/index.htm.
- ²¹ United States Department of Agriculture. 2011. Feed Desert Locator. Accessed at <http://www.ers.usda.gov/data/fooddesert/fooddesert.html>
- ²² WIC Annual Report 2010: Meeting the Need. 2010. Accessed December 12, 2012 from <http://www.doh.wa.gov/cfh/WIC/materials/reports/2010/annualreport10.pdf>
- ²³ Washington State Senior Farmers Market Program. 2011. Accessed December 12, 2012 at <http://extension.wsu.edu/farmersmarket/Pages/SeniorFMNP.aspx>
- ²⁴ Washington State Department of Health. 2009. Communicable Disease Report. Accessed November 22, 2011 at <http://www.doh.wa.gov/notify/annlrpt/cdr2009.pdf>
- ²⁵ Washington State Department of Health. 2009 Pesticide Incident Report. Accessed at <http://www.doh.wa.gov/ehp/pest/pest-illness-data.htm>
- ²⁶ Washington State Department of Health. 2009 Pesticide Incident Report. Accessed at <http://www.doh.wa.gov/ehp/pest/pest-illness-data.htm>
- ²⁷ Washington State Department of Health. Health of Washington State. 2007. Food Borne Illnesses. Accessed at http://www.doh.wa.gov/HWS/doc/EH/EH_FS2007.pdf
- ²⁸ Food Deserts. Centers for Disease Control and Prevention. 2010. Accessed December 5, 2011 from <http://www.cdc.gov/Features/FoodDeserts/>
- ²⁹ 2006. Morland K, Diez Roux AV, Wing S. Supermarkets, other food stores, and obesity: the atherosclerosis risk in communities study. *Am J Prev Med* 2006;30(4):333–339.
- ³⁰ 2009. Larson, NI, Story, MT, Nelson, MC. “Neighborhood environments disparities in access to healthy foods in the United States.” *Am J Prev Med*. 36 (1):74-81.
- ³¹ Centers for Disease Control and Prevention. 2011. Provisional Geographic-specific Breastfeeding Rates among Children born in 2007 (Percent +/- half 95% Confidence Interval). Accessed December 5, 2011 from http://www.cdc.gov/breastfeeding/data/NIS_data/2007/state_any.htm
- ³² <http://babyfriendlyusa.org/>
- ³³ http://www.doh.wa.gov/cfh/NutritionPA/facts_and_figures/worksite_data/default.htm
- ³⁴ <http://www.fda.gov/Safety/Recalls/ucm261706.htm>
- ³⁵ American Heart Association. June 2011. The Value of Prevention for Cardiovascular Diseases. Accessed January 13, 2012 at http://my.americanheart.org/idc/groups/ahamah-public/@wcm/@sop/@smd/documents/downloadable/ucm_429515.pdf
- ³⁶ US Center for Disease Control. Improving the Food Environment through nutrition standards: A guide for government procurement. Accessed at www.cdc.gov/salt/pdfs/DHDSP_Procurement_Guide.pdf
- ³⁷ <http://depts.washington.edu/nopren/access>
- ³⁸ United States Department of Agriculture. 2007. Census of Agriculture. Accessed at http://www.nass.usda.gov/Statistics_by_State/Washington/Publications/Annual_Statistical_Bulletin/2010/content10.asp
- ³⁹ Ostrom, M. 2005. Food Consumption Behaviors and Attitudes in Four Washington Counties. Accessed at <http://www.crs.wsu.edu/outreach/mo/ag-consumer/index.html>
- ⁴⁰ This figure does not account for inflation. When accounting for inflation, the USDA estimates
- ⁴¹ USDA. 2009. Agriculture Marketing Services. Emerging Market Opportunities for Small-Scale Producers. Accessed January 13, 2012 at http://www.thegreenhorns.net/resources/Emerging_Market_Opportunities_for_Small_Scale_Producers.pdf

-
- ⁴² Washington State Department of Agriculture. Market Value of Crops and Livestock by County. Accessed at <http://agr.wa.gov/AgInWa/docs/126-CropProductionMap11-11.pdf>
- ⁴³ 2009 Agricultural Workforce in Washington. June 2010. Employment Security Department. Accessed January 13, 2012 at http://www.workforceexplorer.com/admin/uploadedPublications/10528_Agriculture_Report_WEX_2010.pdf
- ⁴⁴ According to the Washington State Potato Commission.
- ⁴⁵ Washington Grain Commission. Washington Wheat Facts 2009-2010. Accessed at: <http://www.wawg.org/images/E0177801/2009WF4WebFinal.pdf>
- ⁴⁶ Personal communication with Karen Kinney, Interim ED of the WA State Farmers Market Association. 2011.
- ⁴⁷ <http://agr.wa.gov/News/2009/09-21.aspx>
- ⁴⁸ WIC Annual Report 2010: Meeting the Need. 2010. Accessed December 12, 2012 from <http://www.doh.wa.gov/cfh/WIC/materials/reports/2010/annualreport10.pdf>
- ⁴⁹ Washington State Senior Farmers Market Program. 2011. Accessed December 12, 2012 at <http://extension.wsu.edu/farmersmarket/Pages/SeniorFMNP.aspx>
- ⁵⁰ <http://agr.wa.gov/News/2011/11-04.aspx>
- ⁵¹ HB 2798 / SB 6483
- ⁵² <http://www.wafarmersmarkets.com/resources/2010-EBT-TechnologyGrant.html>
- ⁵³ www.wafarmertoschool.org
- ⁵⁴ Specialty Crop Block Grant Program Information. Accessed at <http://agr.wa.gov/grants/>
- ⁵⁵ <http://www.hfs.washington.edu/abouthfs/default.aspx?id=869>
- ⁵⁶ Jan Gee, President and CEO of the WA Food Industry Association.
- ⁵⁷ USDA. 2010. Local Food Systems: Concepts, Impacts and Issues. Accessed at <http://www.ers.usda.gov/Publications/ERR97/>
- ⁵⁸ USDA. 2010. Local Food Systems: Concepts, Impacts and Issues. Accessed at <http://www.ers.usda.gov/Publications/ERR97/>
- ⁵⁹ USDA AMS. Country of Origin Labeling. Accessed at <http://www.ams.usda.gov/AMSV1.0/cool>
- ⁶⁰ Illinois General Assembly. Public Act 095-0145. Accessed December 7 from <http://www.ilga.gov/legislation/publicacts/fulltext.asp?Name=095-0145>
- ⁶¹ <http://www.schooldigger.com/go/WA/schoolrank.aspx?level=3>
- ⁶² http://www.ahd.com/state_statistics.html
- ⁶³ www.naccrra.org/randd/data/docs/WA.pdf
- ⁶⁴ <http://www.statehealthfacts.org/profileind.jsp?cat=8&sub=97&rgn=49>
- ⁶⁵ USDA National Agriculture Statistics Services. Washington State Agriculture Overview 2010. Accessed at http://www.nass.usda.gov/Statistics_by_State/Ag_Overview/AgOverview_WA.pdf
- ⁶⁶ USDA National Agriculture Statistics Services. Washington State Agriculture Overview 2010. Accessed at http://www.nass.usda.gov/Statistics_by_State/Ag_Overview/AgOverview_WA.pdf
- ⁶⁷ Washington State Department of Agriculture. Future of Farming.
- ⁶⁸ USDA. 2007. Census of Agriculture Washington State Summary.
- ⁶⁹ USDA. 2011. A Revised and Expanded Food Dollar Series: A Better Understanding of Our Food Costs. Accessed at <http://www.ers.usda.gov/publications/err114/>
- ⁷⁰ Kirby, E. & Granatstein, D. 2010. Current Status of Organic Agriculture in Washington State. Washington State University, Center for Sustaining Agriculture and Natural Resources.
- ⁷¹ Office of Farmland Preservation. 2009. Report to the Washington State Conservation Commission. Accessed January 13, 2012 at <http://ofp.scc.wa.gov/wp-content/uploads/2010/01/Merged-2009-OFP-Report.pdf>
- ⁷² RCW 36.70a
- ⁷³ RCW 84.34
- ⁷⁴ RCW 7.48.300
- ⁷⁵ Executive Order 80-01
- ⁷⁶ RCW 89.10 - Office of Farmland Preservation
- ⁷⁷ RCW 89.08.540 - Agricultural conservation easements account
- ⁷⁸ 2008 Final Report to RCO - OFP Technical Assistance Grants <http://ofp.scc.wa.gov/wp-content/uploads/2009/02/final-report-to-rco-2008-grants.pdf>
- ⁷⁹ Farmland Preservation Account, RCW 79A.15.130.
- ⁸⁰ WSDA Future of Farming, Regulatory Burden Appendix. Accessed at <http://agr.wa.gov/FoF/docs/RegulatoryBurden.pdf>
- ⁸¹ Accessed at <http://www.skagitonians.org/>

-
- ⁸² Accessed at <http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/washington/explore/farming-for-wildlife.xml>
- ⁸³ <http://agr.wa.gov/fof/docs/FoFStrategicPlan.pdf>
- ⁸⁴ <http://ofp.scc.wa.gov/wp-content/uploads/2011/04/Combined-Print-Report-Version.pdf>
- ⁸⁵ <http://ofp.scc.wa.gov/wp-content/uploads/2010/01/Merged-2009-OFP-Report.pdf>
- ⁸⁶ WSDA Future of Farming, Regulatory Burden Appendix. Accessed at <http://agr.wa.gov/FoF/docs/RegulatoryBurden.pdf>
- ⁸⁷ Office of Farmland Preservation Interviews conducted in 2011
- ⁸⁸ 2009 OFP Issue Brief: Change in Use water transfer decisions for irrigated water converting to continuous municipal use.
- ⁸⁹ American Farmland Trust "Cost of Community Services" study for Skagit County
- ⁹⁰ National Public Radio. January 18 2009. Accessed January 13, 2012 at <http://welkerswikinomics.com/blog/2009/01/18/competition-and-rising-costs-force-southwestern-farmers-to-consider-alternatives/>
- ⁹¹ 2009 Economic Impacts of the Washington Seafood Industry. Accessed January 13, 2012 at http://www.st.nmfs.noaa.gov/st5/publication/econ/2008/Pacific_Tables_Econ.pdf
- ⁹² Washington State Department of Agriculture. Fun Facts. Note that these number differs may differ slightly from other estimates. This is due to differences in the items included in food processing.
- ⁹³ Washington State Department of Agriculture. 2009. Future of Farming. Appendix: Major Processing. Accessed December 15, 2011 from <http://agr.wa.gov/FoF/docs/MajorFoodProcessing.pdf>
- ⁹⁴ Washington State Department of Agriculture. 2009. Future of Farming. Appendix: Major Processing. Accessed December 15, 2011 from <http://agr.wa.gov/FoF/docs/MajorFoodProcessing.pdf>
- ⁹⁵ Kassavant, K., Jessup, E. & Pike, Q. 2003. Transportation Usage and Characteristics of Washington State Warehouse/Distribution Center Businesses. *Journal of Business Case Studies*, 3,1.
- ⁹⁶ U.S. Census Bureau. 2009 County Business Patterns. Accessed at <http://censtats.census.gov/cgi-bin/cbpnaic/cbpsect.pl>
- ⁹⁷ Kaufman, P. and A. Kumcu. November 17, 2010. ERS/USDA Briefing Room. Food Marketing System in the U.S.: Food Retailing. Accessed December 15, 2011 at <http://www.ers.usda.gov/Briefing/FoodMarketingSystem/FoodRetailing.htm>
- ⁹⁸ Presentation, Anthony Anton, Executive Director Washington Restaurant Association, June 2011.
- ⁹⁹ Rotary First Harvest. 2009. Efficient and Effective: Washington State Hunger-Relief Transportation and Storage Capacity Gaps and Possible Solutions.
- ¹⁰⁰ Washington Employment Security Department. 2010. Agricultural Workforce Report: 2010. <https://fortress.wa.gov/esd/employmentdata/docs/industry-reports/agricultural-workforce-report-2010.pdf>
- ¹⁰¹ Washington State Department of Agriculture. 2009. Future of Farming. Accessed December 15, 2011 at <http://agr.wa.gov/fof/docs/FutureofFarmingReport-PrinterFriendly.pdf>
- ¹⁰² US Bureau of Labor Statistics.
- ¹⁰³ Washington State Department of Labor and Industries. Meat Cutter Hazards in Meat Markets and Departments. <http://www.lni.wa.gov/Safety/Topics/AtoZ/MeatDepartments/default.asp>
- ¹⁰⁴ Pimental et al. 2008. Reducing Energy Inputs in the US Food System. *Human Ecology*, 36:459–471.
- ¹⁰⁵ <http://www.wsdot.wa.gov/projects/rail/producerailcars/>
- ¹⁰⁶ Oregon State University. 2009. Northwest Meat and Livestock Processor and Producer Survey on State Inspection Program. Accessed December 15, 2009 from http://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/10775/SR_1089_ocr.pdf
- ¹⁰⁷ Washington State Department of Transportation. 2008. Development of a Washington State Freight Data System.
- ¹⁰⁸ Jessup, E and Casavant, K. 2008. Transportation System Initiatives Impacting Washington's Agricultural Industry of the Future. Appendix to Future of Farming Report, WSDA.
- ¹⁰⁹ Puget Sound Meat Cooperative, <http://www.pugetsoundmeat.com/>
- ¹¹⁰ Blue Mountain Station, <http://www.bluemountainstation.com/>
- ¹¹¹ Seattle Public Utilities.2011. . http://www.seattle.gov/util/About_SPU/Management/SPU_&_the_Environment/GrantPrograms/FoodRecovery/index.htm
- ¹¹² Thurston County Public Works Department. 2011. Compost (Food & Yard Waste) Options in Thurston County. Accessed December 15 from <http://www.co.thurston.wa.us/solidwaste/organics/organics-home.htm>
-