LOCAL FOOD SUPPLY CHAIN INITIATIVE IN SOUTHWESTERN PENNSYLVANIA

Southwestern Pennsylvania Commission
2015

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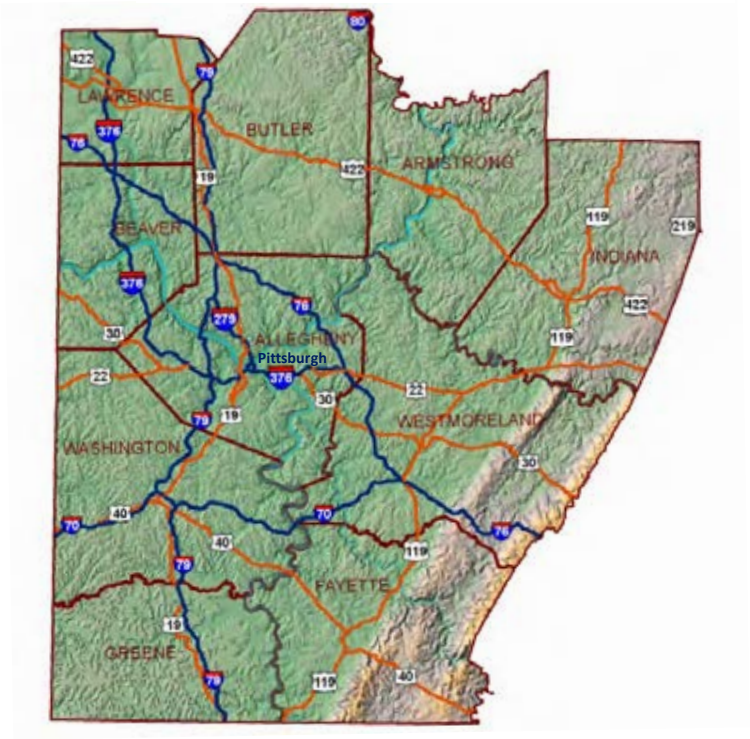
Introduction to the SPC Region

The Southwestern Pennsylvania region contains 10 counties – Allegheny, Armstrong, Beaver, Butler, Fayette, Greene, Indiana, Lawrence, Washington and Westmoreland surrounding the Pittsburgh Metropolitan Statistical Area. 2,574,959 people call our region home, including 1,088,482 households. These counties, while making one region, are as distinct as the differing people, groups and industries. Over the next 10 years, our region's population is forecast to grow by nearly 8% to over 2.7 million people. Households are expected to grow by slightly more than 10% to nearly 1.2 million.

Throughout its history, the Southwestern Pennsylvania region has been blessed with abundant natural resources. These rich resources attracted the earliest settlers to areas in our nation's frontier. Over many decades, changes in the use of our resources shaped the lives and economic fortunes of those who lived and worked here. Always underlying this change was the heartbeat of a productive and diverse agricultural economy. Today our region continues to transform itself as these resources are utilized in ever evolving ways.

Physical Features

Southwestern Pennsylvania Region



The Allegheny Plateau defined the region's terrain and strongly influenced its development. The geography is rugged and heavily dissected by surface waters producing deep valleys and steep hillsides. These abundant natural assets contributed the region's historic and existing land use patterns.

Beneath the rolling surface of western Pennsylvania lie vast energy resources, including coal, natural gas and shale oils. Extractive industries have long been vital elements of the regional economy. With recent discoveries of shale gas in the Marcellus and Utica shale deposits, new centers of economic activity emerged in the region.

Due in large measure to steep slopes and rolling topography, the majority of the region's population is concentrated along the river valley communities. The high concentration of population stemming outward from the highly urbanized county of Allegheny has contributed to relatively high population density levels found

in Beaver County. In contrast, the population density levels of the remaining eight counties are lower relative to the region.

In terms of land area, the SPC region is larger than the states of Connecticut, Delaware, and Rhode Island.

Farms and related services are already adapting to the changing environment. In recent years, Southwestern Pennsylvania farms are smaller and earn more per acre. However, smaller family farms that defined rural life in our region for generations now compete with large operations from across the nation and across the globe.

In addition to smaller farms, changing consumer preferences are driving changes in the way food is sold and marketed. With more family members in the workforce, convenience foods have become a larger part of the diet for more families. The major consumer of food both nationally and locally is still households; 78% of all food is purchased by households nationally.

Regional Forecast

SPC prepares new projections of regional population, employment and households. The recent predicts slow growth in employment and population through 2040. This continues the current trend that shows a slowing, and gradual reversal, of the population and employment decline that has been experienced regionally for over 30 years.

The overall regional population growth is estimated at approximately 482,000 by 2040, under 1% per year. Each county's population is projected to grow somewhat in that period. The rate of growth in households is determined by both the change in population and the change in household size. With a projected decline in household size and growth in population, the number of households in the region is projected to grow faster than population.

Over 258,000 new households are projected by 2040. Regional employment is projected to grow by over 450,000 jobs, or by about 1% per year. Job growth in services and other sectors will offset anticipated declines in the retail and manufacturing sectors.

1 Assessing the Local Food Supply Chain in the SPC Region

Why the Interest in Locally Produced Food?

During the past two decades, the discussion surrounding local food has changed. Originally the domain of a small cluster of urban farmers, the production of local food has evolved into a strategy for growing the local economy. However, many believe that a new law, the Food Safety Modernization Act, could adversely impact local food.

Local food proponents, often called "locavores", had focused on social justice, improved quality of food, the needs of perceived "food deserts", and environmental sustainability. These issues grew as the supply chain for food items become more complicated.

As supply chains for food have become longer and more complex, food security and safety concerns are becoming increasingly important. The Grocery Manufacturers Association noted in a Supply Chain and Supplier Safety discussion that the United States has

> **"experienced dramatic changes in the volume and variety of food imports. The percent of food imported into the U.S. increased by nearly 40 percent between 1995 and 2005 to 15 percent of the U.S. food supply. In particular, roughly 60 percent of the fruits and vegetables and roughly 80 percent of seafood now consumed in the U.S. are imported.**
>
> **To address the challenges posed by rising imports and changing consumer choices, consumer products companies and federal and state agencies have placed greater emphasis on the prevention of food contamination."[1]**

The interest in local foods comes at a time when incomes in rural areas are declining. According to a recent report, "at 16.5 percent, the nonmetropolitan poverty rate in 2010 continued to be higher than the national rate." [2] "In addition, the difference between urban and rural areas is profound. Overall, nonmetropolitan households earn 21.4 percent less than those in metropolitan areas." [3]

2012 Census numbers for the SPC region reflect the national trend. Median household income for the region is $48,660 compared with $51,651 for Pennsylvania and $52,762 for the US. The Pennsylvania Rural Center reports that "In 2011, per capita personal income in rural Pennsylvania counties was $34,521, or $10,676 less than in urban counties. This gap has more than doubled since 1970, when the inflation-adjusted, rural-urban income gap was $5,140" (U.S. Bureau of Economic Analysis). Local food production and value added food manufacturing could help to augment incomes of rural residents.

With the growing importance of food safety and security, economic developers have realized that local food production can be a viable source of local jobs and local income. Regions across the county are using various tools to encourage local food production and support food entrepreneurs.

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[1] Grocery Manufacturers Association, http://www.gmaonline.org/issues-policy/product-safety/food-and-product-safety/supply-chain-and-supplier-safety/#sthash.uGPMG9wR.dpuf, 2015

[2] Poverty in Rural America , Housing Assistance Council, Infosheet, September 2011

[3] Op cit

Current Data on Local Food

A 2010 report by the U.S. Department of Agriculture (USDA) noted that "[a] surge in consumer demand for locally-produced food is creating jobs and opportunity throughout rural America, for farms as well as small businesses that store, process, market and distribute food locally and regionally." [4] An excerpt from the report shows:

Local food markets account for a small but growing share of total U.S. agricultural sales.

- Direct-to-consumer marketing amounted to $1.2 billion in current dollar sales in 2007, according to the 2007 Census of Agriculture, compared with $551 million in 1997.
- Direct-to-consumer sales accounted for 0.4 percent of total agricultural sales in 2007, up from 0.3 percent in 1997. If nonedible products are excluded from total agricultural sales, direct-to consumer sales accounted for 0.8 percent of agricultural sales in 2007.
- The number of farmers markets rose to 5,274 in 2009, up from 2,756 in 1998 and 1,755 in1994, according to USDA's Agricultural Marketing Service.
- In 2005, there were 1,144 community-supported agriculture organizations, up from 400 in 2001 and 2 in 1986, according to a study by the National Center for Appropriate Technology. In early 2010, estimates exceeded 1,400, but the number could be much larger.

A key finding was that consumers were willing to pay more for food that was produced locally. As a result, the USDA began several programs directed toward local food production and marketing. Municipalities across the country have also adopted programs and amended zoning ordinances to promote local food production and sales.

"Consumers who value high-quality foods produced with low environmental impact are willing to pay more for locally produced food. Several studies have explored consumer preferences for locally produced food. Motives for "buying local" include perceived quality and freshness of local food and support for the local economy. Consumers who are willing to pay higher prices for locally produced foods place importance on product quality, nutritional value, methods of raising a product and those methods' effects on the environment, and support for local farmers." [5]

In this finding and the growing demand for local food has generated interest in regional policies to promote local food systems. Sixteen counties in Northeastern Ohio published a report on the benefits of food localization in December 2010. Southeastern Michigan issued a community food profile in 2007 and DVRPC issued the *Greater Philadelphia Food System Study in* 2010.

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[4] Martinez, Steve, et al. Local Food Systems: Concepts, Impacts, and Issues, ERR 97, U.S. Department of Agriculture, Economic Research Service, May 2010, p.iii.

[5] Martinez, Steve, et al. Local Food Systems: Concepts, Impacts, and Issues, ERR 97, U.S. Department of Agriculture, Economic Research Service, May 2010.p.iv

In 2012, a report covering the entire state of West Virginia, *Opportunities and Constraints in Local Food Supply Chains,* outlined actions necessary to promote the growth of local food systems.

These studies, completed before the new food law was enacted, found that regional actions could promote jobs and investment in the local food system. Examples of the types of recommendations that generally focused on expanding production and increasing the market include:

1. Expanding farmers markets and other direct marketing programs.
2. Increasing value-added processing.
3. Educating consumers on the value of buying locally.
4. Building warehouses that a group of producers could use to aggregate product and facilitate supplying larger customers.
5. Developing a regional coordination mechanism.
6. Revising zoning ordinances to allow gardeners to grow produce to sell in farmers markets.

Local Efforts

Efforts to promote local food and local food producers are underway in the SPC region. In a pattern similar to that found in the referenced food strategy documents, our region does not have a mechanism in place to connect the many small food producers to markets within the region or to major markets within 275 miles of Southwestern Pennsylvania.

A sampling of activities across the area includes:

- 175 farmers markets operate throughout the area.
- Pittsburgh has a Food Policy Council to look at "a food system that benefits the community, the economy and the environment in ways that are equitable and sustainable".
- In Fayette County, an effort is underway to open a grocery store featuring local foods and products.
- In Beaver County, Giant Eagle opened a processing plant for fresh produce.
- A brewery is in the works in northern Butler County.
- Local restaurants in several counties feature locally produced meats and vegetables.
- A private non-profit is operating a "farm-to-fork" service serving several counties in the region.
- A local group in Indiana is working to establish a food hub and farmers market.

Agricultural Sector in the SPC Region

The economic impact of the agriculture sector in the SPC region is growing. According to data from the USDA, the average market value of agricultural products in Southwestern Pennsylvania has increased. Average farm size in acres has declined and the number of farms has declined in our ten counties. Allegheny Counties has the fewest number of farms, while Washington County has the largest number of farms, and Indiana County has the largest farm size.

Economic Development Potential of Local Foods

Consumers in the SPC region spend approximately $6.2 billion dollars annually on food (U.S. Bureau of Labor Statistics, 9/12). Initial research shows there are 414 food manufacturers employing 6,478 workers in the SPC region. The entire regional food supply chain supports 73,137 businesses employing 198,202 people (Dun and Bradstreet, August 2014).

Growth in the local food supply could have ripple effects across many economic sectors and all of the SPC counties. An analysis using *Implan* modeling software shows that 30,000 more jobs could be created in the region if activity in the food supply chain expanded by 10 percent. Detailed information illustrating the potential is shown in (Figure 1-1).

The region has the critical mass and economic momentum to support an analysis of the local food supply chain and make recommendations to strengthen it. Building the local supply chain offers an opportunity to segue into the farms of the future.

Majors Changes to Food Production: Implementation of the New Food Safety Modernization Act (FSMA)

In 2011, the Food Safety Modernization Act (FSMA) was signed into law. FSMA's intent is to build food safety into the food system by establishing comprehensive, preventive-based controls across the food supply chain. The Federal Food and Drug Administration is currently promulgating regulations that will change how local food producers and processors handle their crops and products. According to the National Sustainable Agriculture Coalition, "these rules could, over the long term, impact the kind of food you are able to find and purchase in your community. The proposed rules may also increase the costs of purchasing fresh fruits and vegetables."

While the overall impact of the regulations is unknown at this time, the act requires more certifications and charges fees for mandatory inspections. Local producers are concerned that the additional costs associated with meeting the new standards will force smaller operations to stop producing, depriving farmers markets of vendors and neighborhoods of fresh produce.

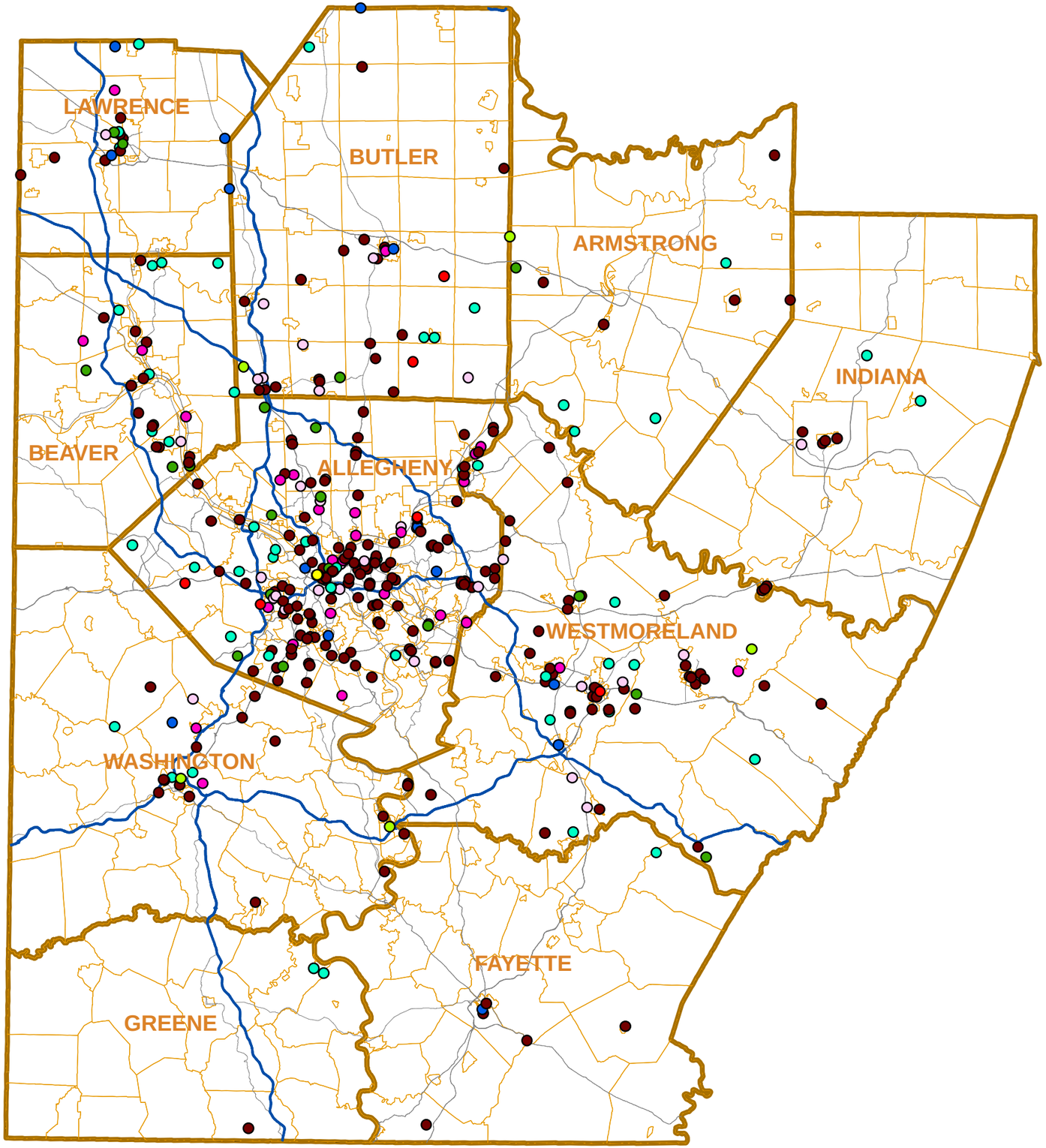
The rules and increased costs may affect food hubs, Community Supported Agriculture programs, and multi-farm storage facilities. All of these are the types of programs that have helped local foods reach a broader market.

The impending changes may offer an opportunity to create regional approaches to the newly mandated production and processing changes.

Figure 1-1

SPC REGION

FOOD MANUFACTURING SITES



Legend

Primary NAICS

- 3111 Animal Food Manufacturing
- 3112 Grain and Oilseed Milling
- 3113 Sugar and Confectionery Product Manufacturing
- 3114 Fruit and Vegetable Preserving and Specialty Food Manufacturing
- 3115 Dairy Product Manufacturing
- 3116 Animal Slaughtering and Processing
- 3117 Seafood Product Preparation and Packaging
- 3118 Bakeries and Totilla Manufacturing
- 3119 Other Food Manufacturing
- Interstate Highway
- Other Major Roads
- Municipal Boundary
- County Boundary

SOUTHWESTERN PENNSYLVANIA COMMISSION SPC

February 2015

0 5 10 20 Miles

Source: Dun and Bradstreet Data, Million Dollar Database, January 2012

Meeting Regional Priorities in *Mapping the Future: The Southwestern PA Plan*

The proposed activities meet the following policy goals in the Community Economic Development Strategy and long range transportation plan for the region:

Priority: The region will preserve and develop its agricultural industry.

Priority: Revitalization and redevelopment of the region's existing communities is a priority.

SPC is proposing to conduct an analysis to answer the following:

- How can the region increase economic activity (jobs and investments) by supporting the local food system and value-added components of the system?
  - What is the economic impact of increasing local food consumption?
- How can increased activity and/or producing value-added products increase incomes for people involved in the local food system?
- How large is the food supply chain in the region and what are the components?
- What regional actions and policies are needed to promote the local food supply chain?

Summary of Findings and Recommendations

According to a recent study by researchers at Penn State University, increasing sales of local foods in Southwestern Pennsylvania can directly affect the growth of personal income across the region. This important research finding was an impetus for SPC to explore the potential for income growth in the rural areas in our region.

SPC examined the local food supply chain to determine if increasing the local food supply chain could increase the economic base for our region by generating increased jobs and investments.

SPC staff met with over 150 representatives from across the supply chain in local group settings and in individual meetings to discuss opportunities and barriers to increasing the production and sale of value-added agricultural products. Meeting attendees represented businesses including food producers, food manufacturers, bankers, extension agents, planners, food retailers, insurance agents and restaurant owners.

Recent data for the food supply chain shows the size of the industry cluster in Southwestern Pennsylvania: approximately 14,000 businesses employing over 184,000 people. According to economic models, if economic activity in the supply chain can be increased by 10%, the region would add $4 billion in business activity and 33,000 new jobs.

"We found that for every $1 increase in agricultural sales, personal income rose by 22 cents over the course of five years," said Stephan Goetz. "Considering the relatively small size of just the farming sector within the national economy, with less than 2 percent of the workforce engaged in farming, it's impressive that these sales actually move income growth in this way."

Penn State. "Local foods offer tangible economic benefits in some regions." ScienceDaily. ScienceDaily, 3 February 2014. <www.sciencedaily.com/releases .2014/140203155205.htm>.

Summary of Findings

- Many producers in the region indicate they would like to increase production; however, the number of acres in the region used in production of vegetables declined by 24% between 2007-2012.
- Sellers have a difficult time finding buyers for a variety of reasons.
- The current interest in local foods has resulted in 26 community supported agriculture (CSA) ventures and 175 farmers markets in the ten-county area. However, little information is available regarding market policies and impacts of the markets.
- There are several privately-owned produce auctions in Southwestern Pennsylvania.
- Local foods have propelled the Pittsburgh region into the national limelight.
- However, the success of local food enterprises and entrepreneurial activities are not well known in the region.
- Consumers at all levels need to be educated on preparing and cooking many local products.

- Higher margin, value-added products and processing offer viable options for increasing sales and income for local producers, according to research from the USDA.
- Increasing demand for food from countries with emerging economies offer opportunities for producers and food manufacturers in Southwestern Pennsylvania.
- Farms are complex businesses that feed into diverse supply chains. The 9700 farms in the region form a solid economic base for the rural counties.
- Labor concerns are an ongoing challenge.
- Small businesses in the local food supply chain are not well connected to locally available support services.

Barriers

- Regulations at the state and federal level frustrate growers and value-added producers.
- Challenging labor markets and immigration uncertainties affect many of the producers in the region.
- There are numerous organizations across the ten counties that focus on serving parts of the local food value chain or organizations representing a statewide trade group. However, there are no efforts to build regional businesses or groups directed towards value-added processing.
- Some specialty producers have a difficult time reaching customers. Some of these producers need specialized production facilities.
- The smaller size of farms in the region makes it difficult for producers to generate enough quantities to meet the needs of institutional buyers and larger product distributors.
- The shorter growing season in Pennsylvania limits produce sales and produces large seasonal variations in income.
- There is a declining number and a perceived lack of livestock processing facilities in Southwestern Pennsylvania.
- The lack of data for and about Southwestern Pennsylvania food processing establishments hinders the growth of regional industry sectors and clusters.
- The Food and Drug Administration is in charge of promulgating regulations for the enactment of the new Food Safety and Modernization Act. Depending on the regulations, the Act could have far-reaching impacts on how local food systems operate.
- The lack of local networking groups and regional support for businesses in the local food value chain is a deterrent to growth and innovation.
- Local companies are not connected to the research in technology that is being undertaken at regional universities.
- There is no viable market for produce that does not meet the highest grade requirements even when the produce is healthy and sound.

Opportunities

- Population growth, increased incomes and more interest in locally produced food are opportunities for new investments and jobs in this sector.
- Growing niche markets in our region and adjacent regions can increase incomes for rural residents in Southwestern Pennsylvania, e.g., organic, grass-fed livestock, dairy products, etc.
- The increasingly global market for food products offers broader markets for local foods including protein products.
- Strengthened regional networks as a means to develop and support food-related businesses.
- Work with partners in the region to access the viability of a produce seconds (fruits and vegetables that do not meet consumers' cosmetic expectations) market for produce in the region.
- New interest in cooking at home and using locally produced foods are opportunities for community groups to engage young people.
- The region encompasses many of the key components of a viable industry cluster: producers, research institutions, educational institutions, and workforce. The next step is to complete an analysis of interactions among and between the businesses and other players in the region.
- Determine if the region can compete with the "future foods" and new technologies for growing food.

Proposed Goals and Actions

Goal: Create and Support Sustainable Economic Development Activities in Rural Parts of Southwestern Pennsylvania

- Create a Local Food Project within the Southwestern Pennsylvania Commission with the mission to promote jobs and investments in Southwestern Pennsylvania.
    - Undertake actions to promote local food.
    - Create partnerships across the region to support value-added processing in the agricultural sector.
        - Establish an advisory committee to provide strategic input.
    - Encourage public policies that support the local food supply chain.
    - Stabilize the fragmented market for locally produced foods.
        - Work with state legislators from the ten counties to encourage state-funded institutions purchase 5% of their food purchases from locally sourced Southwestern Pennsylvania and Pennsylvania businesses.
        - Inform and educate legislators to the benefits of supporting locally produced food.
        - Develop criteria and a database of local producers for institutions.

Goal: Supply Chain Planning and Organization

Build understanding of the local food supply chain and the factors that increase competitiveness.

- Build an information base about the local food supply chain industry sector that serves to strengthen network connections within the region.
    - Develop a database of commercial food kitchens available for public use.
    - Build understanding of the local food supply chain.
    - Develop a regional network of support for local groups that interact with their local supply chain industries.
    - Encourage policies that promote the purchase of local food in business and government agencies across the region.
        - Government operated buildings and facilities
        - Restaurants/institutions
        - Partner with chambers of commerce
- Small Business Program: Build regional entrepreneurial programs that target value-added food processors and manufacturers.
    - Partner with focused agencies in the region to develop a program to target small food manufacturers and improve the business aspects of local food manufacturing.
        - Develop a small producer business "track" in existing small business development centers.
        - Develop a regional export strategy and program for the local foods sector.
- Develop best practices manual showing how other regions addressed the many challenges facing small food producers.

Educate regional consumers and businesses about the benefits of buying locally produced food.

- Provide support for groups to develop locally based action committees to encourage locally produced and manufactured food items and educate local consumers.
- Build a program offering farm "internships" allowing volunteers to experience farm life while working on a farm. Several program models can be found in Europe.
- Work with local producers to promote local specialty items like locally produced milk.

Goal: Increase Jobs and Investments

Using the industry cluster approach, interact with groups of businesses rather than isolated transactions.

Create and support locally-based industry groups to grow businesses.

- Increase the use of agri-tourism as a means of increasing incomes in rural areas. The USDA reports a 24% increase in farm income from agri-tourism.
    - Use models that fit individual county's interests
    - Create regional advisory group
    - Offer workshop on agri-tourism
    - Develop regional approach to promote agri-tourism in SPC region
- Encourage and increase awareness of value-added producers to the possibility of larger markets for locally produced food by offering a series of business workshops on best practices.
    - How to export agricultural products
    - How to sell food products to both local and federal agencies
    - Improve connections for rural businesses to viable markets in the region
- Increase local awareness of and cooperation among specialty food producers in the region.
- Create and manage regional networks connecting specialty producers in the region.
    - Regional digital network for local value-added producers (e.g., organic, grass-fed livestock, local dairy products).
- Expand markets through sustainable supply chain initiatives
    - Use of alternative energy
    - Target Companies that maintain LEED standards
    - Adopt certifications and hazard analysis plans

- Small Business Program: Build regional entrepreneurial programs that target food processors and manufacturers.
    - Partner with focused agencies in the region to develop a program to target small food manufacturers and improve the business aspects of local food manufacturing.
        - Develop a small producer business "track" in existing small business development centers.

- To decrease the effects of seasonality on producer income, promote livestock production in region, especially grass-fed beef.
    - Apply for grants to develop more efficient marketing for regional producers.
    - Connect operators to energy efficiency options to improve business.
    - Determine need for livestock processing facilities.
        - Update inventory of meat processing facilities for Southwestern Pennsylvania.
        - Conduct analysis for feasibility of alternative types of facilities.

- Provide technical support for Grass-fed, an association of grass-fed beef producers with a local chapter in Southwestern Pennsylvania to increase efficiency and support those operations.
- Work with regional entities to increase sustainable practices in food waste disposal.
- Pilot a project with producers to off-set impacts that increases in livestock production may have on water systems.
    - Example: pilot project in Ohio

Goal: Support Innovation and Technology

Innovation and new technologies are keys to longer-term viability of the local food supply chain in Southwestern Pennsylvania. It is important to go beyond discussions with sector businesses and analysis and engage in dialogue with cluster members, including high tech institutions and industries.

- Complete a digital map, developed at the local level, showing restaurants and retail establishments serving local food. The map product would be marketed through local tourism websites.
- Develop a local supply chain advancement program.
- Support research into food production and products.
- In collaboration with regional partners, build entrepreneurial programs that target food processors and manufacturers.
    - Decrease use of water and energy.
    - Promote alternate energy uses.
- Complete cluster analysis of food manufacturing and value-added processing in the region. A cluster analysis provides a window on the interactions among the numerous private companies, educational institutions, and public entities that support the industry. The process highlights growth opportunities and improves industry/education networks.
    - Facilitate industry-led innovation.
    - Encourage alliances among public and private partners.
    - Encourage cooperation among public agencies.
    - Provide connection to business incubators and training programs.
    - Determine the types of workforce training programs needed by the industry.
        - Trained labor pools continue to attract new expansions and relocations to these same sectors.
- Determine the viability of a food product innovation institute located in Southwestern Pennsylvania.

"Advancements in wireless technology, inexpensive sensors to monitor seeding rates and data-crunching techniques honed in Silicon Valley have helped agricultural companies build systems to help farmers examine which seeds to use in different soils or whether they're underutilizing farm equipment."

Wall Street Journal, "Start-ups Put Data in Farmers' Hands" www.wsj.com/articles

Local Food Value Chain
Proposed Goals and Action

Create and support sustainable sconomic sevelopment activities in rural Southwestern Pennsylvania

- Create the Project for Rural Development within the Southwestern Pennsylvania Commission with the mission to promote jobs and investments in Southwestern Pennsylvania
- Undertake actions to promote local food activities to recycle local consumer dollars in the local economy by building capacity at the local level
- Create partnerships across the region to support value-added processing in the agricultural sector
- Encourage public policies that support the local food supply chain
- Work with officials from the ten counties to encourage publically funded institutions to purchase food from locally sourced businesses to the greatest extent feasible

Goal: Local Food Value Chain Planning and Organization

Build understanding of the local food value chain and the factors that increase competitiveness

- Build an information base about the local food value chain industry sector within the region that serves to strengthen network connections with the region
  - Develop a database of commercial food kitchens available for public use
  - Survey and measure the economic value of the 175+ farmers markets in the region
    - Who are the customers and how far do they travel to the market?
    - What are the rules governing the market?
    - What is the economic impact of the market?
    - Has the market retained income that was flowing to businesses outside the community?
- Develop a regional network to support local groups that interact with their local supply chain industries
  - Provide support for groups to develop locally based action committees to encourage locally produced and manufactured food items and educate local consumers
- Encourage policies and linkages that promote the purchase of local food in business and government agencies across the region
- Develop best practices manual showing how other regions addressed the many challenges facing small food producers
- Educate regional consumers and businesses about the benefits of buying locally produced food
- Work with partners to build a program offering farm internships allowing volunteers to experience farm life while working on a farm. Several program models can be found in Europe

Goal: Focus on Industry Groups to Increase Jobs and Investments

Using the industry cluster approach, interact with groups of businesses rather than isolated transactions

Create and support locally based industry groups to grow businesses

- Increase the use of agri-tourism as a means of increasing incomes in rural areas. The USDA reports a 24% increase in farm income from agri-tourism
  - Develop regional approaches to promote agri-tourism in the region to support local activities
- Encourage and increase awareness of value-added producers to the viability of larger markets for locally produced food by offering a series of business workshops on exporting agricultural products
- Determine if alternative marketing using social media can be used to build the regional industry or increase capital for start-ups
- Increase local awareness of and cooperation among specialty food producers in the region
- Create and manage regional networks connecting specialty producers in the region. Regional digital network for local value-added producers
- Expand markets through sustainable value chain initiatives
- Small Business Program: Build regional entrepreneurial programs that target food processors and manufacturers
- Partner with agencies in the region to develop a program to target small food manufacturers and improve the business aspects of local food manufacturing
  - Develop a small producer business track in existing small business development centers
- Support regional partners in promoting the adoption of certifications and hazard analysis plans
- Apply for grants to develop more efficient marketing for regional producers
- Connect operators to energy efficiency options to improve business
- Determine need for livestock processing facilities
  - Update 2004 inventory for Southwestern Pennsylvania
    - Conduct analysis for feasibility of alternative types of facilities
- Provide technical support for local groups in southwestern Pennsylvania serving target industries to increase efficiency and support production
- Work with regional entities to determine if sustainable practices in food waste disposal are viable option in Southwestern Pennsylvania

Goal: Support Innovation and Technology

Innovation and new technologies are key to longer term viability of the local food supply chain in southwestern Pennsylvania. It is important to go beyond discussions engaging sector businesses to engage in dialogue with cluster members, including high tech institutions and industries to envision the future of food production in Southwestern Pennsylvania.

- Develop a local value chain promotion program
- Support research into food production and products
- In collaboration with regional partners, build entrepreneurial programs that target food processors and manufacturers
- Decrease use of water/energy
- Promote alternate energy uses during production
  - Target companies that maintain LEED standards
- Complete cluster analysis of food manufacturing and value added processing in the in the region. A cluster analysis provides a window on the interactions among the numerous private companies, education institutions, and public entities that support the industry. The process highlights growth opportunities and improves industry/education networks

Facilitate industry-led innovation

- Encourage alliances among public and private partners
- Encourage cooperation among public agencies
- Provide connection to business incubators and training programs
- Determine the types of workforce training programs needed by the industry
- Use trained labor pools to continue to attract new expansions and relocations to these same sectors
- Determine the viability of a food product innovation institute located in Southwestern Pennsylvania

2 Food Production in Southwestern Pennsylvania

Historical Perspective

Records from 1840 outline the role agriculture played in the development of the regional economy. The trends established up to eighty years ago are still in place. Farm enterprises have always been very dependent on a good transportation system to get products to markets.

A report on early agriculture in our region, *Agricultural Resources of Pennsylvania, c. 1700-1960 Agriculture in the Settlement Period*, describes the products and travails of life in rural Southwestern Pennsylvania. Nearly everyone was engaged in occupying and clearing land. The resulting products, such as logs, potash, maple sugar, cash grains, and whiskey were sent to market on rudimentary transport routes. Due to the high cost of shipping, farmers concentrated on producing high value items. [1]

"By the mid-nineteenth century, farms in Fayette and Westmoreland Counties produced grain, butter, cheese, maple products, and wool, cider, and forest products. Goods were sent to Pittsburgh and from there to New Orleans. The National Road and other roads to Pittsburgh stimulated the agricultural economy by providing good transport to markets and also because travelers and drovers on the road needed food and drink, for themselves and their animals. Large herds of animals were driven out from Westmoreland County on these byways." [2]

During the 1800s, sheep farming was a mainstay in Greene and Washington Counties. "By 1860, Washington County was the nation's leading sheep county." [3]

Between 1890 and 1930, the number of farms was declining. With the introduction of new technologies, including electricity, agriculture was changing. Mechanization came slowly to regional farms. In many cases, topography limited the efficacy and use of new farm technologies. Jobs were opening in nearby mines and other industries.

After 1895, "farm families in the Southwest made their living by combining market farming, subsistence farming, off-farm employment and occasional lease or royalty payments." [4]

---

[1] Agricultural Resources of Pennsylvania, c. 1700-1960 Agriculture in the Settlement Period, Pennsylvania Historic and Museum Commission, The Pennsylvania Agricultural History Project, http://phmc.info/aghistory

[2] Allegheny Mountain Part-time and General Farming, 1840-1960. p10

[3] Southwestern Pennsylvania Diversified Agriculture and Sheep Raising, Agricultural Resources of Pennsylvania, c. 1840-1960. p33

[4] Agriculture in the Settlement Period, 1700-1840 HISTORIC AGRICULTURAL RESOURCES OF PENNSYLVANIA, 1700-1960: A NATIONAL REGISTER MULTIPLE PROPERTY DOCUMENTATION Pennsylvania Historical and Museum Commission 2014. p99

Industry shaped farming throughout the region and farming's fortunes tended to rise and fall with those of industry. A variety of industrial and extractive pursuits developed in the region during this period.

Manufacture districts provided ready markets for agricultural products. Hay and oats could be fed on the farm or to draft animals used in the mines. Brewers and distillers in the city needed grain. Human consumers bought dairy products, meat, poultry, eggs, fruit, and potatoes. Animals were brought to city butcher houses and sausage factories for localized processing.

Overall in the region between 1920 and 1960, farming either continued the previous pattern of combining farm work with industrial wage labor, or became more specialized, larger scale, and more commercialized.

The important trends in the agriculture sector in Southwestern Pennsylvania that began in the 1920s continue today:

- Smaller Farms
- Declining Number of Farms
- Balanced by Larger, Specialized, Commercial Farms
- Off-farm Employment
- Pittsburgh Market continues to offer Services and Markets for Regional Food Producers

Preserving Farmland

According to the Pennsylvania Bureau of Farmland Preservation, Pennsylvania leads the nation in the number of farms and acres permanently preserved for agricultural production. The state offers the following programs to safeguard farmed land.

A regional initiative expanding the local food value chain can support the sustainability of farmland by increasing its economic value, thereby decreasing its value for residential housing and other development.

Easement Purchase Program

The Pennsylvania Agricultural Conservation Easement Purchase Program was developed to protect prime farmland by purchasing conservation easements from farmers (Figure 2-1).

Agricultural Security Areas

Agricultural Security Areas protect farms and farmland from of non-agricultural uses. A combined minimum of 250 acres is required for the establishment of an ASA, which may include non-adjacent farmland parcels of at least 10 acres or be able to produce $2,000 annually from the sale of agricultural products (Figure 2-2).

Participants receive special consideration regarding:

- Protection from local ordinances and nuisance lawsuits affecting normal farming activities.
- Review of farmland condemnation by state and local government agencies.

An ASA qualifies land for consideration under the farmland preservation program at the owner's request, if the ASA has at least 500 acres enrolled.

The Clean and Green Act

The Clean and Green Act, established in 1974, is designed to preserve farmland, forest land and open space by taxing land according to its use as farmland rather than its market value and its potential use for activities other than agriculture. Additional information is available from the Pennsylvania Department of Agriculture, Bureau of Farmland Preservation, www.agriculture.state.pa.us.

Agricultural Areas in the SPC Region

0 5 10 20
Miles

Figure 2-1

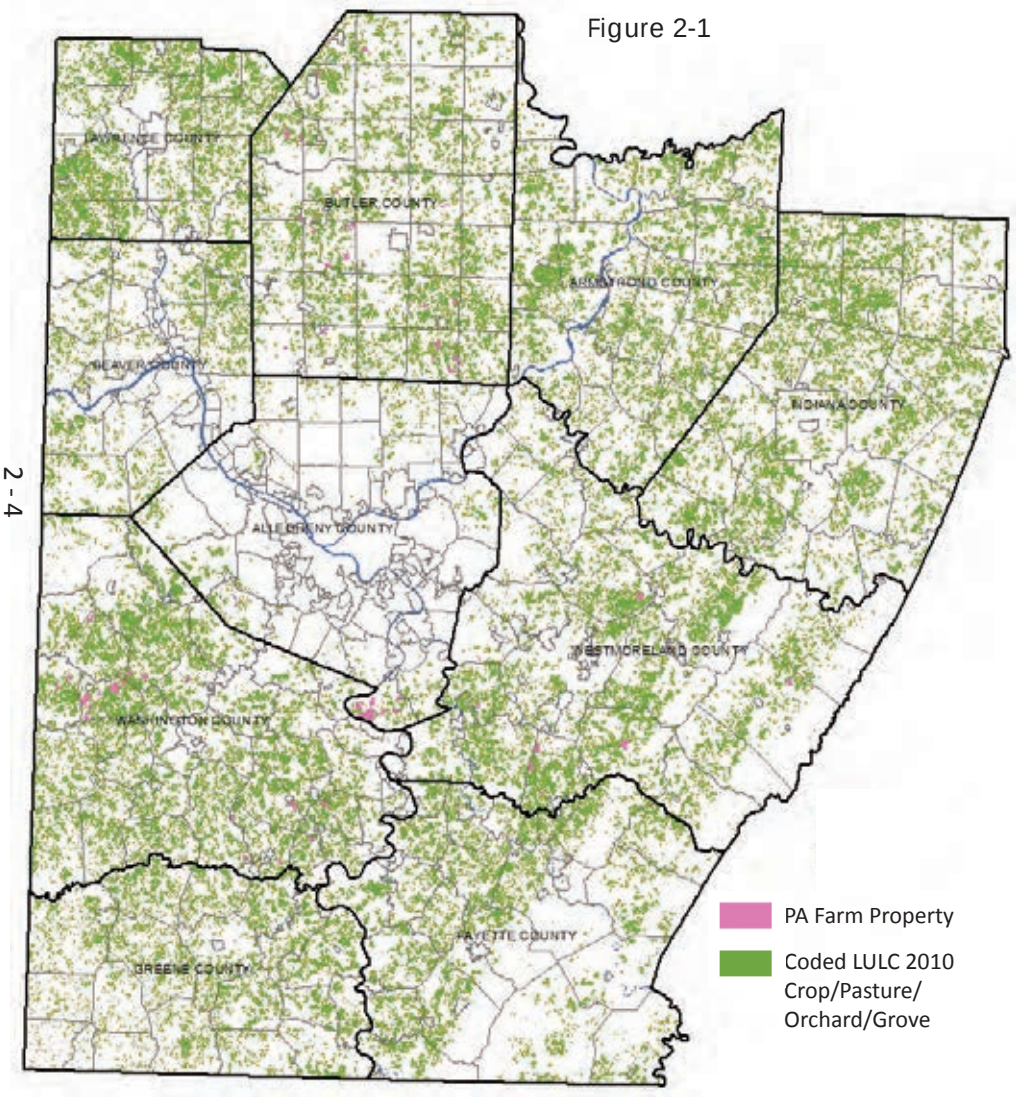


Figure 2-2

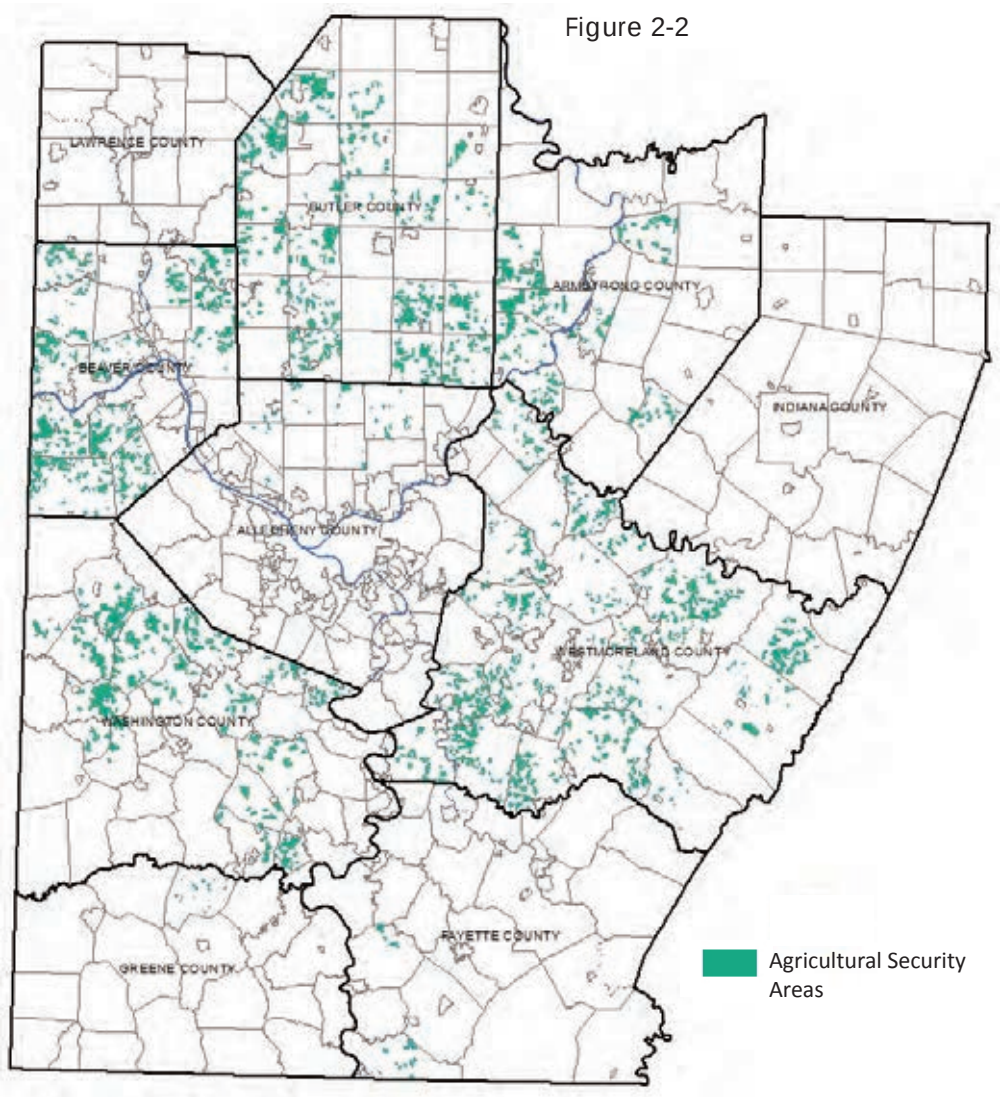


Figure 2-3

USDA CENSUS OF AGRICULTURE DATA 2012

COUNTY	NUMBER OF FARMS		AVERAGE SIZE IN ACRES		AVERAGE MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD PER FARM		LAND IN FARMS	
	Year 2012	Year 2007	Year 2012	Year 2007	Year 2012	Year 2007	Year 2012	Year 2007
ALLEGHENY	428	534	81	71	$24,291	$17,817	34,837	38,023
ARMSTRONG	783	794	165	154	$45,799	$65,461	129,090	122,275
BEAVER	646	824	86	81	$32,374	$18,431	55,795	67,075
BUTLER	1,061	1,116	128	116	$49,863	$34,645	136,237	129,850
FAYETTE	941	1,220	120	115	$28,717	$21,290	112,871	140,688
GREENE	876	1,245	128	121	$16,637	$7,483	112,358	150,203
INDIANA	1,166	1,544	132	122	$57,725	$49,500	153,752	187,711
LAWRENCE	659	708	122	130	$58,450	$50,338	80,468	140,688
WASHINGTON	1,915	2,023	107	104	$18,492	$14,161	205,821	211,053
WESTMORELAND	1,274	1,415	112	118	$38,156	$41,298	143,062	167,489
TOTAL	9,749	11,423					1,164,291	1,355,055

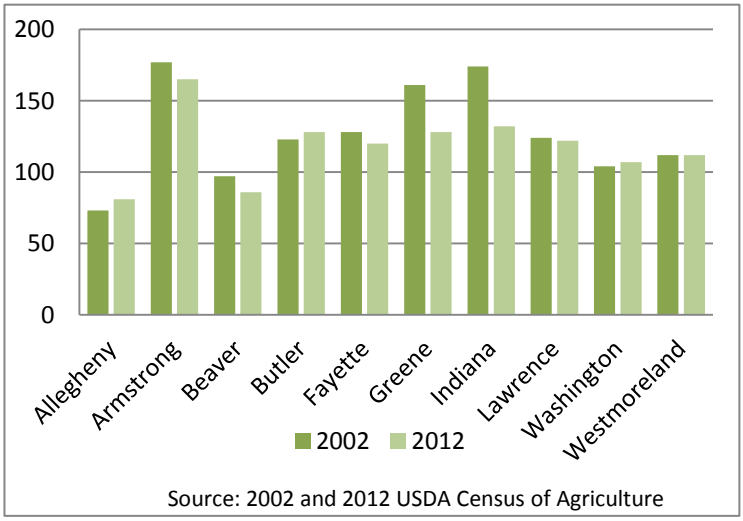
Figure 2-3 gives an overall picture of the regional trends in the farming sector in the past decade, 2002-2012. While the number of farms and the amount of land in farms has dropped, the average value of agricultural products sold per farm has increased for most of the counties in the region.

The following pages describe the regional trends in detail.

Farms and Agricultural Product Sales in Southwestern Pennsylvania Current Data

Commodity crops and livestock are the primary source of farm income in Southwestern Pennsylvania. Produce and fruits are high margin crops that can be grown on smaller acreage and in wind tunnels helping farms diversify sources of income.

Figure 2-4: Average Size of Farms (acres) by County in 2002 and 2012



Between 2002 and 2012, the number of farms in the Southwestern Pennsylvania region declined, following the trend in the United States. As shown in Figure 2-5 each county, with the exception of Indiana, saw a decline in the number of farms in the past decade.

Figure 2-4 shows the differences in the average size of farms by county in the Southwestern Pennsylvania region. Some counties like Armstrong, Greene, and Indiana saw a decline, while others saw a slight increase or a consistent number of farms in the past decade.

Indiana County saw an increase of over 200 farms between 2002 and 2012; but the county also saw a 24% decrease in the average size of the farms in the past decade.

Figure 2-5: Number of Farms by County in 2002 and 2012

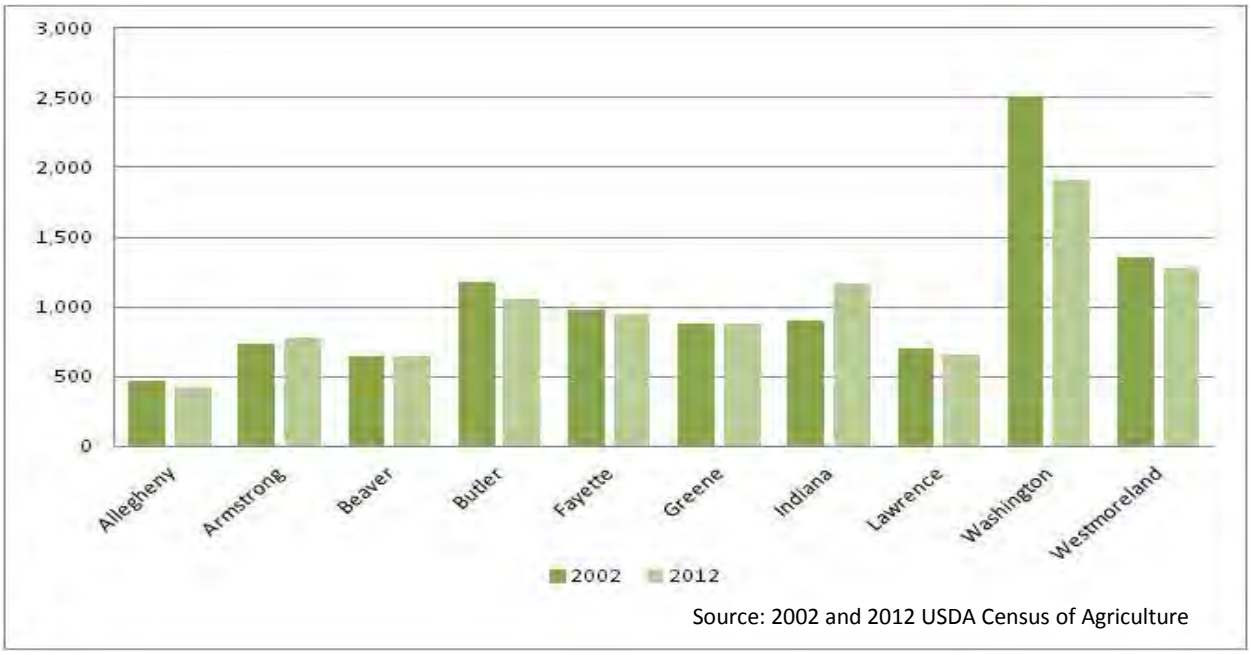
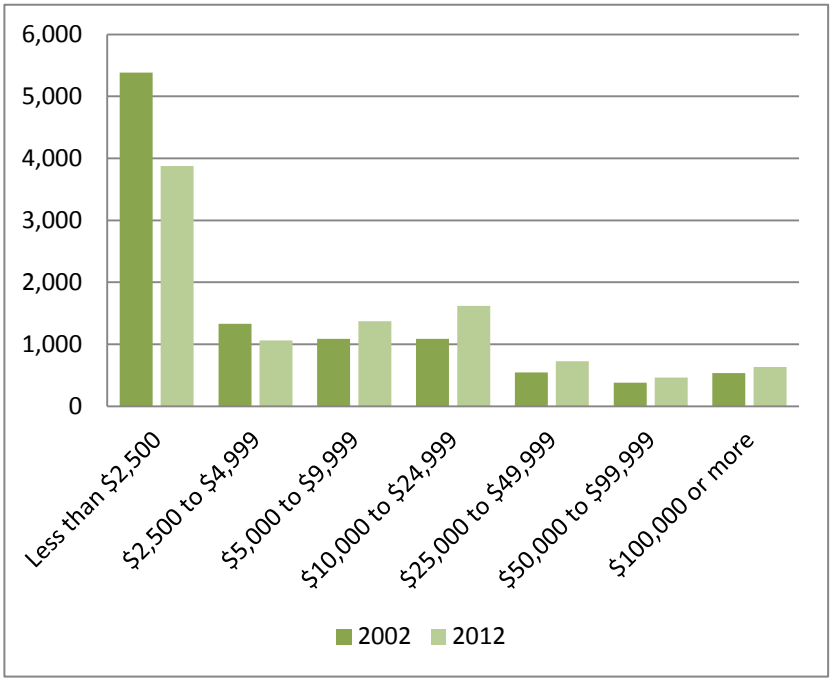


Figure 2-6: Number of Farms by the Value of Sales in 2002 and 2012

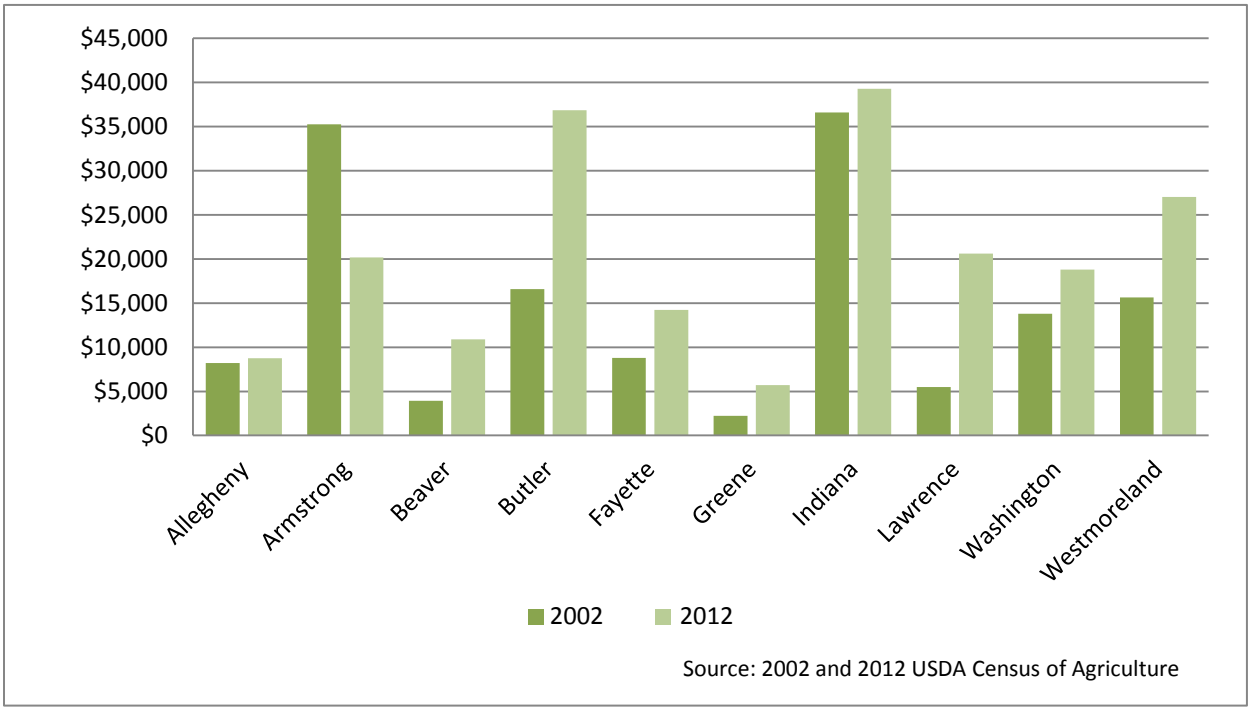


According to the USDA national census data, 2012 farm sales of agricultural products reached a record high. [1] In Southwestern Pennsylvania, the number of farms with sales over $5,000 increased about 32% since the 2002 Census.

Figure 2-6 shows the number of farms by the value of their sales between 2002 and 2012 in the Southwestern Pennsylvania region. As noted in the chart, more farms had sales over $5,000 in 2012.

In Figure 2-7, the differences in the market value of crops sold in the past decade are shown. With the exception of Armstrong County, each county in Southwestern Pennsylvania saw an increase in the value of their crops sold. Armstrong County experienced a decline in the market value of crops sold of about 42%, while some of the other counties experienced an increase of over 100%.

Figure 2-7: Market Value of Crops Sold ($1,000) in 2002 and 2012



[1] http://www.agcensus.usda.gov/Newsroom/2014/05_02_2014.php

The market value of livestock, shown in Figure 2-8, has increased in all counties, with the highest increase being in Greene County at 78%.

The market value for agricultural products, especially livestock, has increased faster than the cost of living in the United States during the ten year time frame.

Figure 2-8: Market Value of Livestock, Poultry, and their Products Sold ($1,000) in 2002 and 2012

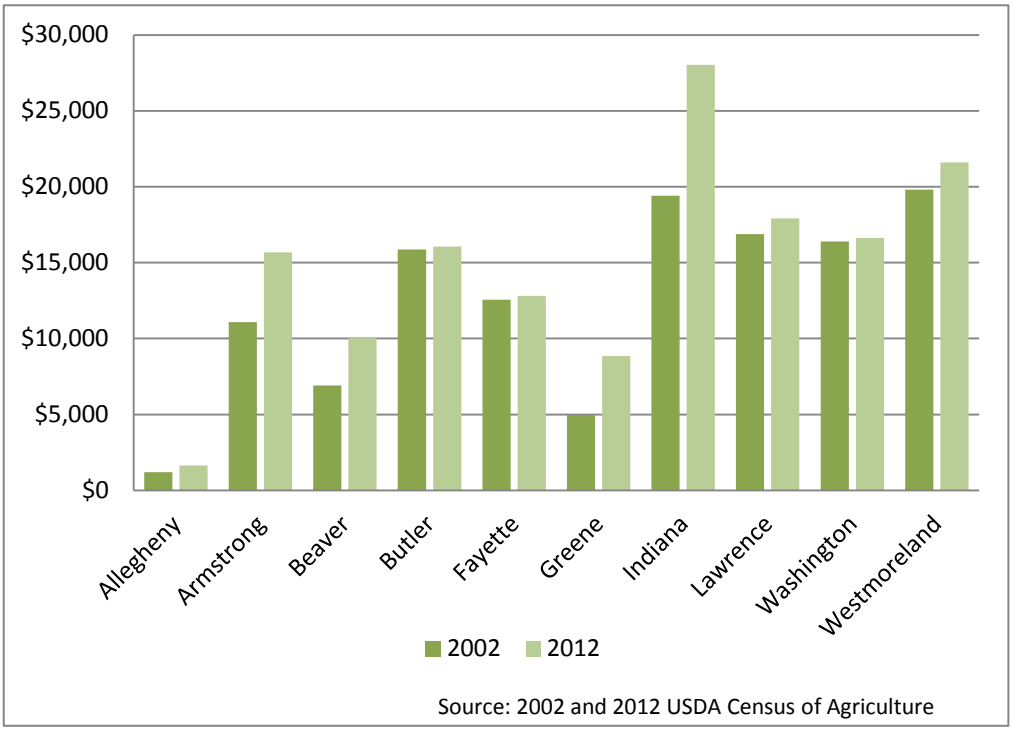


Figure 2-9 illustrates the breakdown and changes in livestock, poultry, and products sales between 2002 and 2012. In most instances, sales went up in each of the counties. Figure 2-9 indicates the top five industry sales. The *green and red* represent sales of cattle and calves and the milk from cows. These two sales categories make up the majority of the sales for livestock in the region.

Figure 2-9: Market Value of Sales - Livestock, poultry, and their products ($1,000) for 2002 and 2012

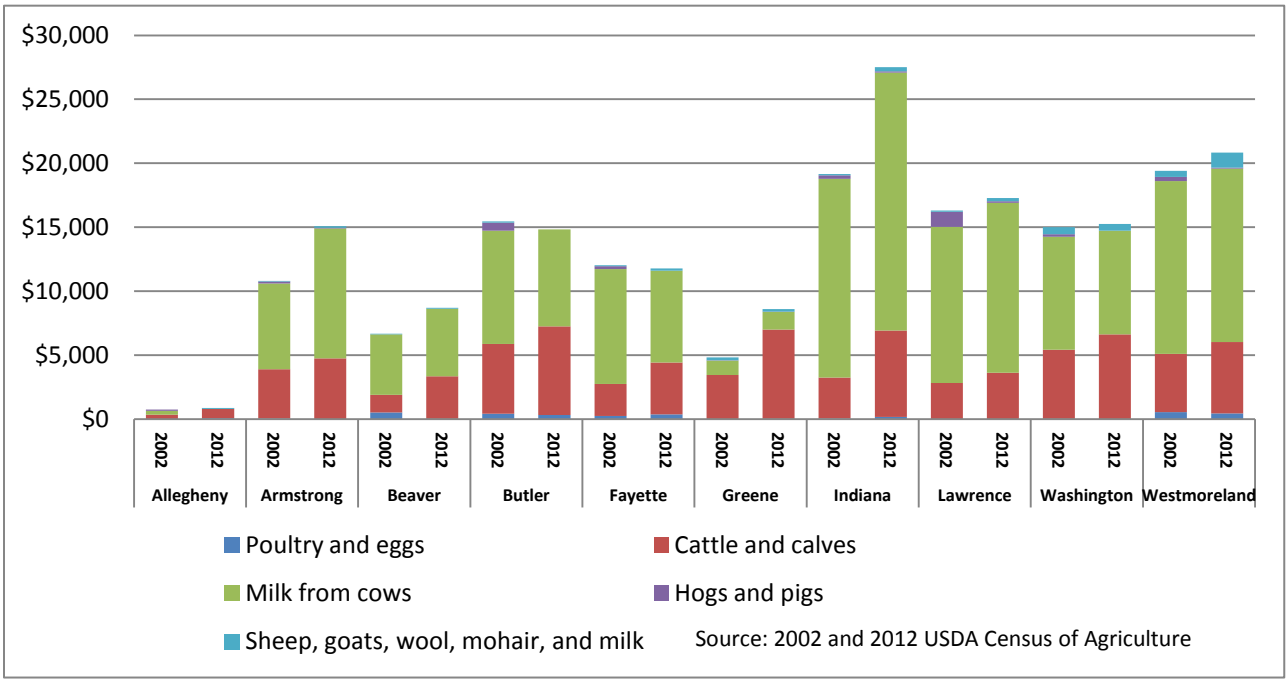
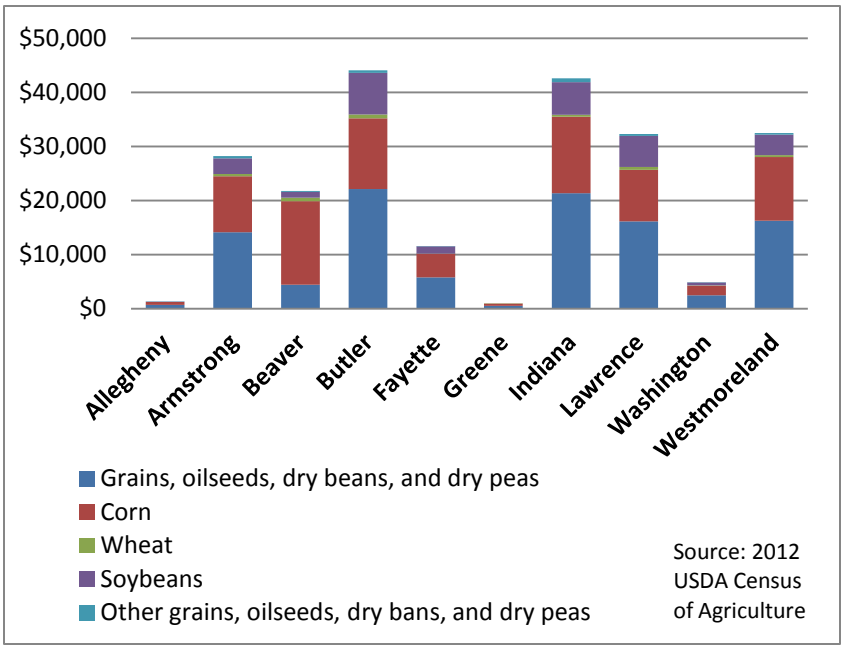


Figure 2-10: Market Value of Sales - Crops, including Nursery and Greenhouse Crop ($1,000) in 2012



Similar to Figure 2-9, Figure 2-10 shows the breakdown in the market value of sales for crops in the region. The *blue* represents grains, oilseeds, dry beans, dry peas, and the *red* represents corn, which makes up most of the production in each of the 10 counties.

The region has a variety of farms in the livestock and crop industries. According to 2012 USDA Census data, 61% of the top 10 products sold in the region are commodity crops. That 61% represents products that are highly prone to drought and blight. The differences can be seen in Figure 2-11, which breaks down the top five livestock and top five crop products in the region.

Figure 2-11:
Top 5 Livestock, Poultry, and their Products vs Top 5 Crops by Value of Sales in 2012 in the SWPA Region

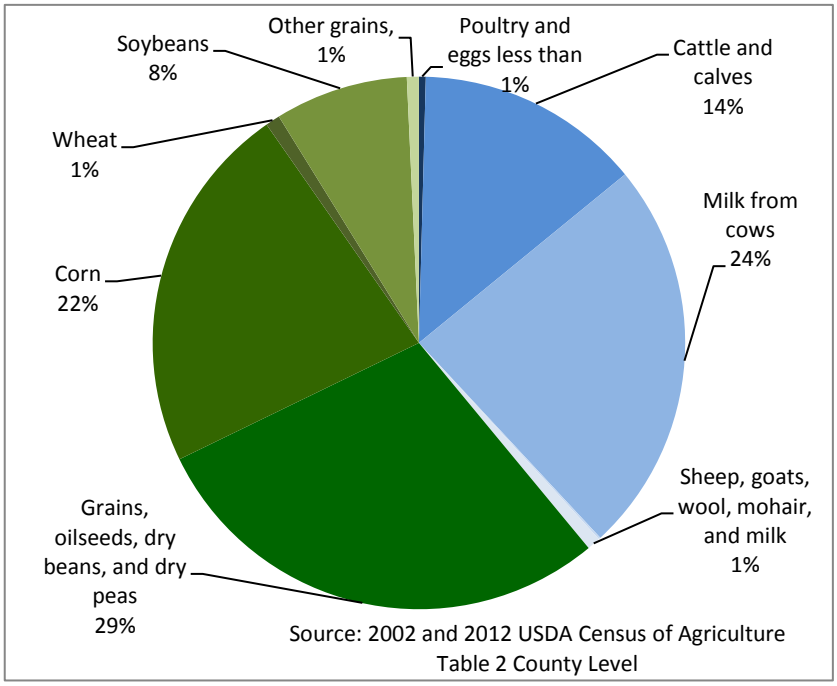
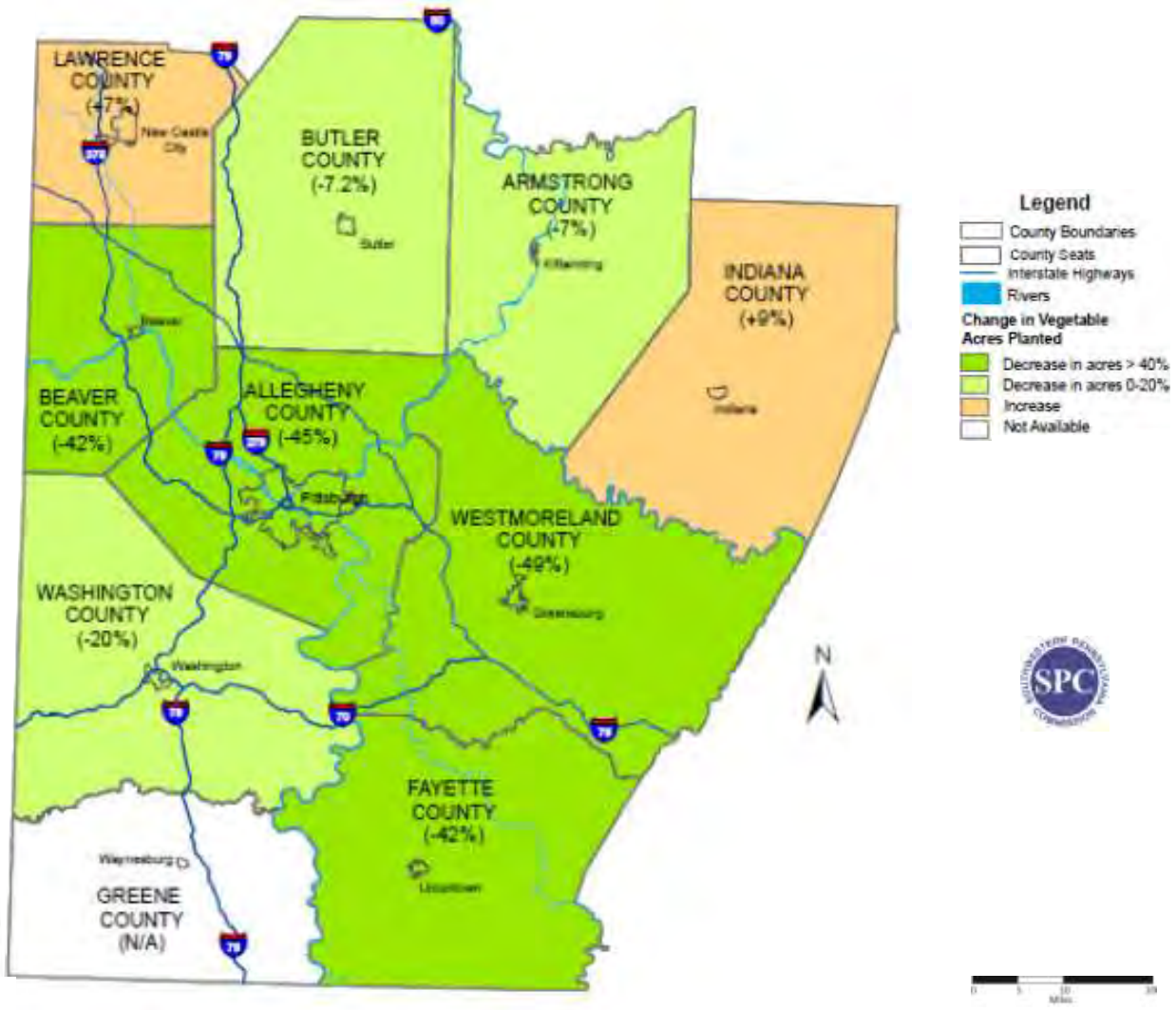


Figure 2-12 **Vegetables: Change in Acres Planted 2007-2012**



While the interest in local foods, particularly products sold in farmers markets, is increasing in the region, the total acreage harvested in vegetables and melons in Southwestern Pennsylvania declined by 24% between 2007 and 2012 (Figure 2-12). Most of the vegetable acreage in Southwestern Pennsylvania is harvested for the fresh market. The number of farms planting vegetables harvested for sale declined by 35% during the same five-year time period. [2] Specific causes of the decline are not known. The barriers described in the stakeholder meeting may explain some of the changes. The barriers are shown in Chapter 1 of this report.

As the reported acreage planted in vegetables declined in the region, the number of farms planting vegetables under glass or cover increased between 2007 and 2012. Overall numbers show 61 farms in the region plant crops under cover, up from 38 with around 163,584 square feet under glass or cover in 2007, an increase of around 60,000 square feet. Forty-one farms planted greenhouse tomatoes, an increase of 14 from the previous reporting period.

[2] USDA 2012 Farm Census, Table 29

Fruits and nuts are also local crops important to the local food value chain. According to data from the USDA, 273 farms grow fruits/nuts in the region, which is an 11% decline from the number of farms reporting these crops in 2002.[3] Cash values for the crops were not available.

Summary

Commodity crops and livestock are the primary source of farm income in Southwestern Pennsylvania. Produce and fruits are high margin crops that can be grown on smaller acreage and in wind tunnels helping farms diversify sources of income. The value of agricultural products produced in Southwestern Pennsylvania increased between 2007 and 2012.

[3] USDA 2012 Farm Census, Table 31

3 Agricultural Production

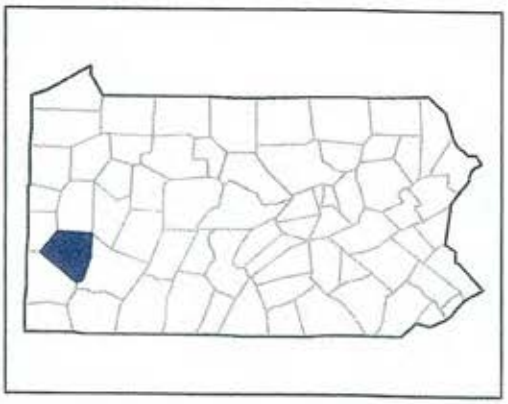
The local food supply chain in the SPC region encompasses a large number of businesses employing over 184,000 people. However, when people in the region discuss local food, they often mean local producers, retail establishments, distributors, etc. The US Department of Agriculture in a 2012 report describes a local food value chain as "the establishment of strong relationships between the different actors involved in growing/raising crops; processing crops; and marketing food to retailers, institutions, restaurants, and other food buyers. The phrases 'values based value chains' and 'food value chains' refer to emergent supply chains emphasizing vertical coordination rather than integration throughout the supply chain."[1]

United States Department of Agriculture
National Agricultural Statistics Service

[1] Moving Food Along the Value Chain: Innovations in Regional Food Distribution, Marketing Services Division, United States Department of Agriculture, March 2012, p.3

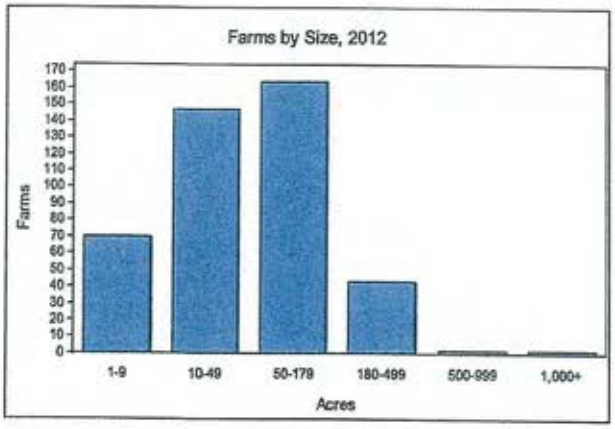
2012 CENSUS OF AGRICULTURE

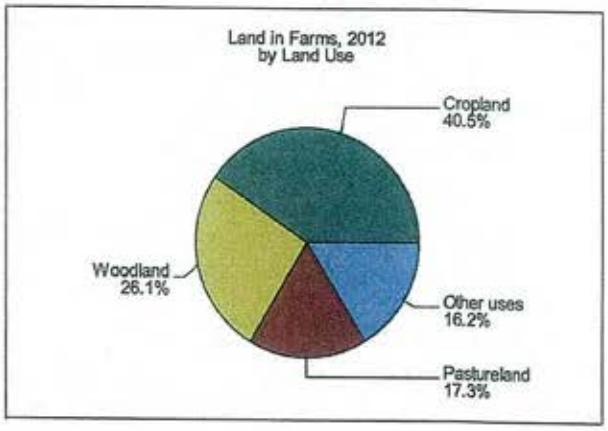
COUNTY PROFILE



Allegheny County
Pennsylvania

	2012	2007	% change
Number of Farms	428	534	- 20
Land in Farms	34,837 acres	38,023 acres	- 8
Average Size of Farm	81 acres	71 acres	+ 14
Market Value of Products Sold	$10,397,000	$9,514,000	+ 9
Crop Sales $8,755,000 (84 percent) Livestock Sales $1,642,000 (16 percent)			
Average Per Farm	$24,291	$17,817	+ 36
Government Payments	$41,000	$57,000	- 28
Average Per Farm Receiving Payments	$1,195	$1,623	- 26





USDA US Department of Agriculture
National Agricultural Statistics Service
www.agcensus.usda.gov

2012 CENSUS OF AGRICULTURE
COUNTY PROFILE

Allegheny County – Pennsylvania

Ranked items among the 67 state counties and 3,079 U.S. counties, 2012

Item	Quantity	State Rank	Universe [1]	U.S. Rank	Universe [1]
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD ($1,000)					
Total value of agricultural products sold	10,397	58	67	2,661	3,077
Value of crops including nursery and greenhouse	8,755	53	67	2,162	3,072
Value of livestock, poultry, and their products	1,642	61	67	2,799	3,076
VALUE OF SALES BY COMMODITY GROUP ($1,000)					
Grains, oilseeds, dry beans, and dry peas	700	59	66	2,316	2,926
Tobacco	(D)	19	22	373	436
Cotton and cottonseed	-	-	-	-	635
Vegetables, melons, potatoes, and sweet potatoes	2,406	19	66	556	2,802
Fruits, tree nuts, and berries	801	23	66	547	2,724
Nursery, greenhouse, floriculture, and sod	3,464	24	66	557	2,678
Cut Christmas trees and short rotation woody crops	(D)	(D)	64	(D)	1,530
Other crops and hay	1,348	53	66	1,663	3,049
Poultry and eggs	72	48	67	1,493	3,013
Cattle and calves	734	56	67	2,697	3,056
Milk from cows	(D)	62	64	(D)	2,038
Hogs and pigs	(D)	(D)	65	(D)	2,827
Sheep, goats, wool, mohair, and milk	83	49	66	1,507	2,988
Horses, ponies, mules, burros, and donkeys	90	48	67	1,918	3,011
Aquaculture	-	-	54	-	1,366
Other animals and other animal products	411	19	67	484	2,924
TOP CROP ITEMS (acres)					
Forage-land used for all hay and haylage, grass silage, and greenchop	7,607	57	67	1,883	3,057
Corn for grain	661	60	66	2,019	2,638
Vegetables harvested, all	445	30	67	726	2,801
Oats for grain	251	53	64	808	1,825
Sweet corn	204	25	66	292	2,416
TOP LIVESTOCK INVENTORY ITEMS (number)					
Layers	4,124	35	66	881	3,040
Cattle and calves	2,435	59	67	2,679	3,063
Horses and ponies	1,365	29	67	822	3,072
Sheep and lambs	910	41	66	962	2,897
Turkeys	(D)	27	65	(D)	2,416

Other County Highlights, 2012

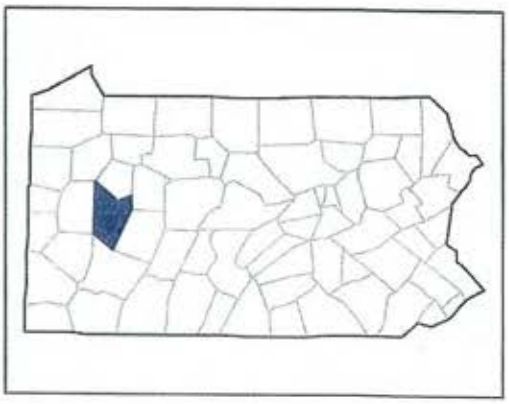
Economic Characteristics	Quantity
Farms by value of sales:	
Less than $1,000	167
$1,000 to $2,499	37
$2,500 to $4,999	40
$5,000 to $9,999	50
$10,000 to $19,999	34
$20,000 to $24,999	21
$25,000 to $39,999	28
$40,000 to $49,999	15
$50,000 to $99,999	14
$100,000 to $249,999	13
$250,000 to $499,999	6
$500,000 or more	3
Total farm production expenses ($1,000)	11,892
Average per farm ($)	27,784
Net cash farm income of operation ($1,000)	360
Average per farm ($)	841

Operator Characteristics	Quantity
Principal operators by primary occupation:	
Farming	178
Other	250
Principal operators by sex:	
Male	326
Female	102
Average age of principal operator (years)	60.3
All operators by race [2]:	
American Indian or Alaska Native	2
Asian	-
Black or African American	-
Native Hawaiian or Other Pacific Islander	-
White	666
More than one race	-
All operators of Spanish, Hispanic, or Latino Origin [2]	8

See "Census of Agriculture, Volume 1, Geographic Area Series" for complete footnotes, explanations, definitions, and methodology.
- Represents zero. (D) Withheld to avoid disclosing data for individual operations.
[1] Universe is number of counties in state or U.S. with item. [2] Data were collected for a maximum of three operators per farm.

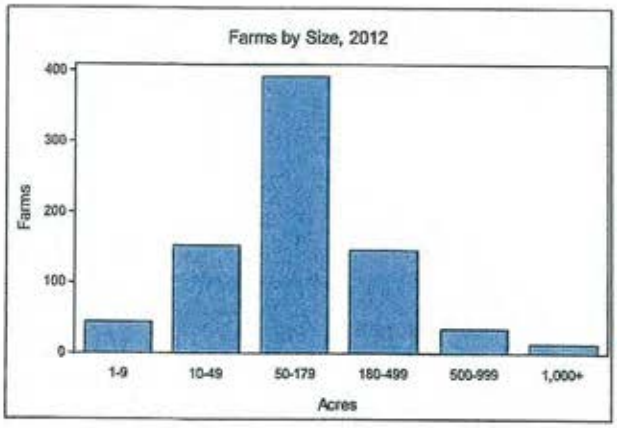
2012 CENSUS OF AGRICULTURE

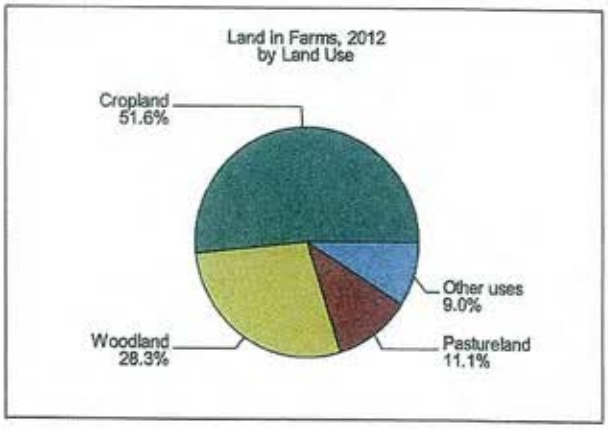
COUNTY PROFILE



Armstrong County
Pennsylvania

	2012	2007	% change
Number of Farms	783	794	- 1
Land in Farms	129,090 acres	122,275 acres	+ 6
Average Size of Farm	165 acres	154 acres	+ 7
Market Value of Products Sold	$35,861,000	$51,976,000	- 31
Crop Sales $20,185,000 (56 percent) Livestock Sales $15,676,000 (44 percent)			
Average Per Farm	$45,799	$65,461	- 30
Government Payments	$924,000	$587,000	+ 57
Average Per Farm Receiving Payments	$4,762	$3,297	+ 44





2012 CENSUS OF AGRICULTURE

COUNTY PROFILE

Armstrong County – Pennsylvania

Ranked items among the 67 state counties and 3,079 U.S. counties, 2012

Item	Quantity	State Rank	Universe [1]	U.S. Rank	Universe [1]
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD ($1,000)					
Total value of agricultural products sold	35,861	41	67	2,016	3,077
Value of crops including nursery and greenhouse	20,185	33	67	1,693	3,072
Value of livestock, poultry, and their products	15,676	42	67	1,823	3,076
VALUE OF SALES BY COMMODITY GROUP ($1,000)					
Grains, oilseeds, dry beans, and dry peas	14,149	29	66	1,371	2,926
Tobacco	-	-	22	-	436
Cotton and cottonseed	-	-	-	-	635
Vegetables, melons, potatoes, and sweet potatoes	723	44	66	960	2,802
Fruits, tree nuts, and berries	239	55	66	1,004	2,724
Nursery, greenhouse, floriculture, and sod	662	52	66	1,236	2,678
Cut Christmas trees and short rotation woody crops	79	38	64	348	1,530
Other crops and hay	4,334	19	66	679	3,049
Poultry and eggs	(D)	32	67	(D)	3,013
Cattle and calves	4,758	37	67	1,852	3,056
Milk from cows	10,145	37	64	492	2,038
Hogs and pigs	61	48	65	1,389	2,827
Sheep, goats, wool, mohair, and milk	121	40	66	1,201	2,988
Horses, ponies, mules, burros, and donkeys	114	41	67	1,715	3,011
Aquaculture	(D)	(D)	54	(D)	1,366
Other animals and other animal products	27	60	67	1,748	2,924
TOP CROP ITEMS (acres)					
Forage-land used for all hay and haylage, grass silage, and greenchop	28,840	21	67	636	3,057
Corn for grain	13,035	33	66	1,115	2,638
Soybeans for beans	5,121	31	66	1,279	2,162
Corn for silage	2,854	35	64	614	2,237
Oats for grain	2,211	7	64	108	1,825
TOP LIVESTOCK INVENTORY ITEMS (number)					
Pheasants	(D)	3	47	10	983
Cattle and calves	14,506	34	67	1,628	3,063
Layers	2,538	44	66	1,137	3,040
Horses and ponies	1,191	36	67	983	3,072
Sheep and lambs	758	44	66	1,106	2,897

Other County Highlights, 2012

Economic Characteristics	Quantity
Farms by value of sales:	
Less than $1,000	234
$1,000 to $2,499	62
$2,500 to $4,999	67
$5,000 to $9,999	90
$10,000 to $19,999	114
$20,000 to $24,999	35
$25,000 to $39,999	54
$40,000 to $49,999	22
$50,000 to $99,999	33
$100,000 to $249,999	37
$250,000 to $499,999	21
$500,000 or more	14
Total farm production expenses ($1,000)	29,299
Average per farm ($)	37,419
Net cash farm income of operation ($1,000)	8,565
Average per farm ($)	10,939

Operator Characteristics	Quantity
Principal operators by primary occupation:	
Farming	329
Other	454
Principal operators by sex:	
Male	686
Female	97
Average age of principal operator (years)	58.0
All operators by race [2]:	
American Indian or Alaska Native	-
Asian	-
Black or African American	-
Native Hawaiian or Other Pacific Islander	-
White	1,217
More than one race	1
All operators of Spanish, Hispanic, or Latino Origin [2]	3

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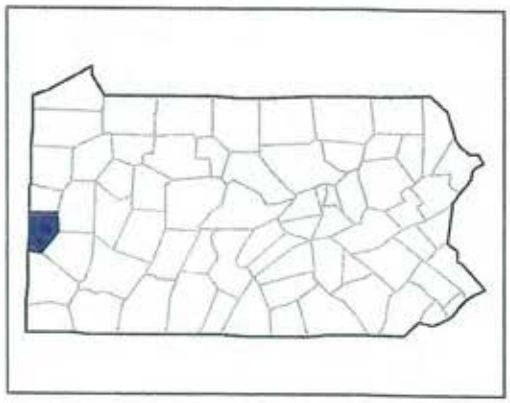
- Represents zero. (D) Withheld to avoid disclosing data for individual operations.
[1] Universe is number of counties in state or U.S. with item. [2] Data were collected for a maximum of three operators per farm.

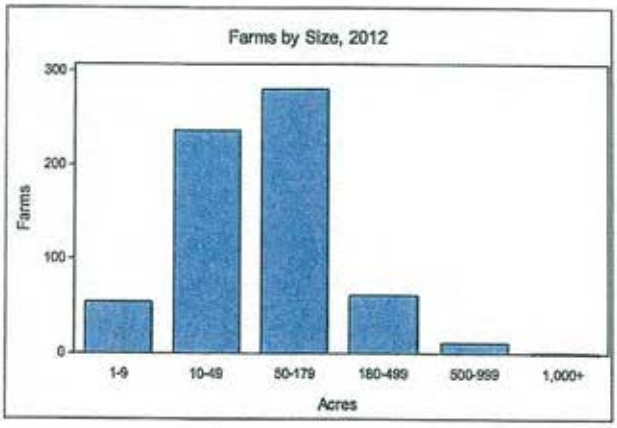
2012 CENSUS OF AGRICULTURE

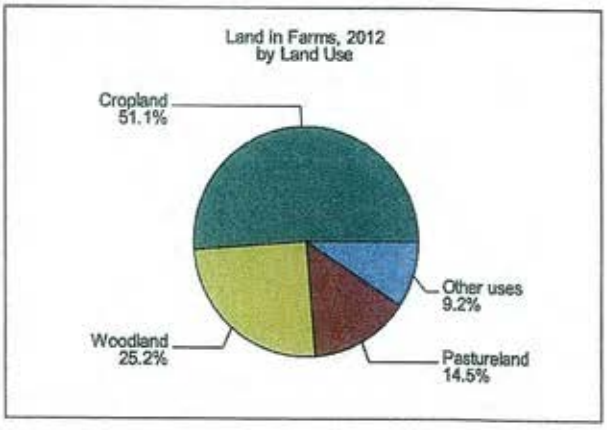
COUNTY PROFILE



Beaver County
Pennsylvania

	2012	2007	% change
Number of Farms	646	824	- 22
Land in Farms	55,795 acres	67,075 acres	- 17
Average Size of Farm	86 acres	81 acres	+ 6
Market Value of Products Sold	$20,913,000	$15,187,000	+ 38
Crop Sales $10,879,000 (52 percent) Livestock Sales $10,035,000 (48 percent)			
Average Per Farm	$32,374	$18,431	+ 76
Government Payments	$500,000	$276,000	+ 81
Average Per Farm Receiving Payments	$4,803	$2,761	+ 74





2012 CENSUS OF AGRICULTURE

COUNTY PROFILE

Beaver County – Pennsylvania

Ranked items among the 67 state counties and 3,079 U.S. counties, 2012

Item	Quantity	State Rank	Universe [1]	U.S. Rank	Universe [1]
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD ($1,000)					
Total value of agricultural products sold	20,913	50	67	2,355	3,077
Value of crops including nursery and greenhouse	10,879	48	67	2,042	3,072
Value of livestock, poultry, and their products	10,035	48	67	2,107	3,076
VALUE OF SALES BY COMMODITY GROUP ($1,000)					
Grains, oilseeds, dry beans, and dry peas	4,419	46	66	1,792	2,926
Tobacco	(D)	20	22	380	436
Cotton and cottonseed	-	-	-	-	635
Vegetables, melons, potatoes, and sweet potatoes	826	41	66	908	2,802
Fruits, tree nuts, and berries	(D)	32	66	(D)	2,724
Nursery, greenhouse, floriculture, and sod	1,989	32	66	773	2,678
Cut Christmas trees and short rotation woody crops	(D)	12	64	(D)	1,530
Other crops and hay	2,673	42	66	1,080	3,049
Poultry and eggs	38	55	67	1,726	3,013
Cattle and calves	3,331	44	67	2,063	3,056
Milk from cows	5,271	47	64	696	2,036
Hogs and pigs	(D)	(D)	65	(D)	2,827
Sheep, goats, wool, mohair, and milk	59	51	66	1,796	2,988
Horses, ponies, mules, burros, and donkeys	(D)	(D)	67	(D)	3,011
Aquaculture	-	-	54	-	1,366
Other animals and other animal products	89	45	67	1,154	2,924
TOP CROP ITEMS (acres)					
Forage-land used for all hay and haylage, grass silage, and greenchop	13,498	47	67	1,351	3,057
Corn for grain	4,186	47	66	1,470	2,638
Soybeans for beans	1,969	42	66	1,534	2,162
Corn for silage	1,545	46	64	911	2,237
Oats for grain	779	33	64	372	1,825
TOP LIVESTOCK INVENTORY ITEMS (number)					
Cattle and calves	7,374	46	67	2,163	3,063
Layers	2,175	47	66	1,229	3,040
Horses and ponies	1,674	23	67	630	3,072
Sheep and lambs	1,097	35	66	818	2,897
Hogs and pigs	(D)	(D)	66	(D)	2,889

Other County Highlights, 2012

Economic Characteristics	Quantity
Farms by value of sales:	
Less than $1,000	215
$1,000 to $2,499	62
$2,500 to $4,999	66
$5,000 to $9,999	91
$10,000 to $19,999	82
$20,000 to $24,999	13
$25,000 to $39,999	34
$40,000 to $49,999	16
$50,000 to $99,999	28
$100,000 to $249,999	18
$250,000 to $499,999	14
$500,000 or more	7
Total farm production expenses ($1,000)	19,075
Average per farm ($)	29,527
Net cash farm income of operation ($1,000)	3,670
Average per farm ($)	5,681

Operator Characteristics	Quantity
Principal operators by primary occupation:	
Farming	307
Other	339
Principal operators by sex:	
Male	526
Female	120
Average age of principal operator (years)	58.9
All operators by race [2]:	
American Indian or Alaska Native	3
Asian	-
Black or African American	-
Native Hawaiian or Other Pacific Islander	3
White	1,025
More than one race	1
All operators of Spanish, Hispanic, or Latino Origin [2]	14

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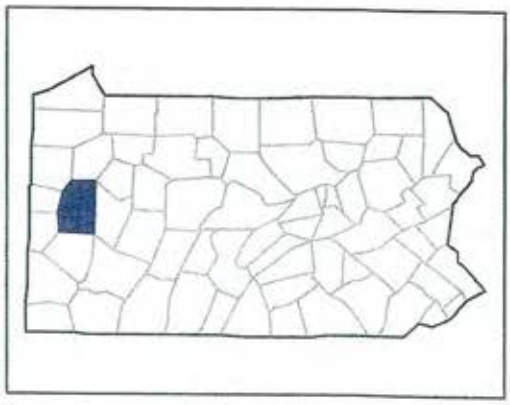
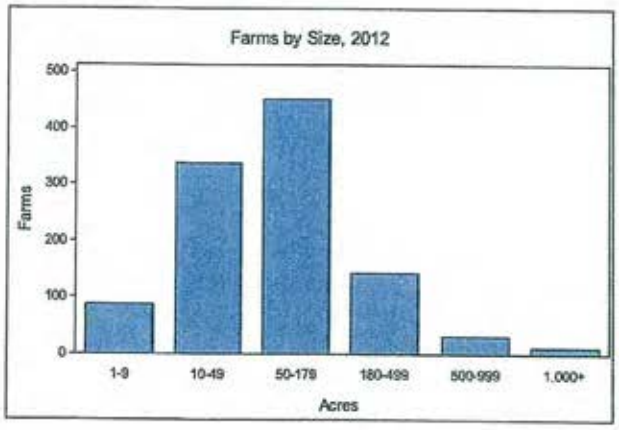
2012 CENSUS OF AGRICULTURE

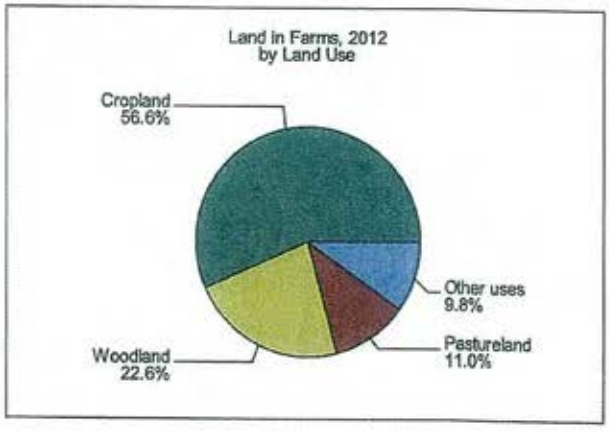
COUNTY PROFILE

Butler County
Pennsylvania



	2012	2007	% change
Number of Farms	1,061	1,116	- 5
Land in Farms	136,237 acres	129,850 acres	+ 5
Average Size of Farm	128 acres	116 acres	+ 10
Market Value of Products Sold	$52,905,000	$38,664,000	+ 37
Crop Sales $36,846,000 (70 percent) Livestock Sales $16,059,000 (30 percent)			
Average Per Farm	$49,863	$34,645	+ 44
Government Payments	$1,502,000	$860,000	+ 75
Average Per Farm Receiving Payments	$5,324	$2,605	+ 104





USDA US Department of Agriculture
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2012 CENSUS OF AGRICULTURE
COUNTY PROFILE

Butler County – Pennsylvania

Ranked items among the 67 state counties and 3,079 U.S. counties, 2012

Item	Quantity	State Rank	Universe [1]	U.S. Rank	Universe [1]
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD ($1,000)					
Total value of agricultural products sold	52,905	34	67	1,732	3,077
Value of crops including nursery and greenhouse	36,846	19	67	1,347	3,072
Value of livestock, poultry, and their products	16,059	40	67	1,802	3,076
VALUE OF SALES BY COMMODITY GROUP ($1,000)					
Grains, oilseeds, dry beans, and dry peas	22,114	17	66	1,191	2,926
Tobacco	-	-	22	-	436
Cotton and cottonseed	-	-	-	-	635
Vegetables, melons, potatoes, and sweet potatoes	3,557	12	66	449	2,802
Fruits, tree nuts, and berries	(D)	28	66	609	2,724
Nursery, greenhouse, floriculture, and sod	6,449	15	66	368	2,678
Cut Christmas trees and short rotation woody crops	(D)	50	64	(D)	1,530
Other crops and hay	4,033	28	66	742	3,049
Poultry and eggs	342	35	67	1,152	3,013
Cattle and calves	6,926	28	67	1,569	3,056
Milk from cows	7,579	43	64	583	2,038
Hogs and pigs	(D)	36	65	(D)	2,827
Sheep, goats, wool, mohair, and milk	(D)	39	66	1,120	2,988
Horses, ponies, mules, burros, and donkeys	384	20	67	726	3,011
Aquaculture	-	-	54	-	1,366
Other animals and other animal products	554	17	67	391	2,924
TOP CROP ITEMS (acres)					
Forage-land used for all hay and haylage, grass silage, and greenchop	26,709	26	67	711	3,057
Corn for grain	16,245	25	66	1,038	2,638
Soybeans for beans	11,999	16	66	1,066	2,162
Corn for silage	2,902	34	64	606	2,237
Oats for grain	2,647	5	64	84	1,825
TOP LIVESTOCK INVENTORY ITEMS (number)					
Cattle and calves	14,573	33	67	1,622	3,063
Layers	3,768	36	66	919	3,040
Broilers and other meat-type chickens	2,452	25	66	734	2,723
Horses and ponies	1,746	21	67	584	3,072
Turkeys	(D)	22	65	(D)	2,416

Other County Highlights, 2012

Economic Characteristics	Quantity
Farms by value of sales:	
Less than $1,000	286
$1,000 to $2,499	107
$2,500 to $4,999	97
$5,000 to $9,999	133
$10,000 to $19,999	151
$20,000 to $24,999	45
$25,000 to $39,999	62
$40,000 to $49,999	22
$50,000 to $99,999	52
$100,000 to $249,999	59
$250,000 to $499,999	25
$500,000 or more	22
Total farm production expenses ($1,000)	43,977
Average per farm ($)	41,449
Net cash farm income of operation ($1,000)	14,002
Average per farm ($)	13,197

Operator Characteristics	Quantity
Principal operators by primary occupation:	
Farming	484
Other	577
Principal operators by sex:	
Male	901
Female	160
Average age of principal operator (years)	58.4
All operators by race [2]:	
American Indian or Alaska Native	-
Asian	-
Black or African American	-
Native Hawaiian or Other Pacific Islander	-
White	1,591
More than one race	4
All operators of Spanish, Hispanic, or Latino Origin [2]	14

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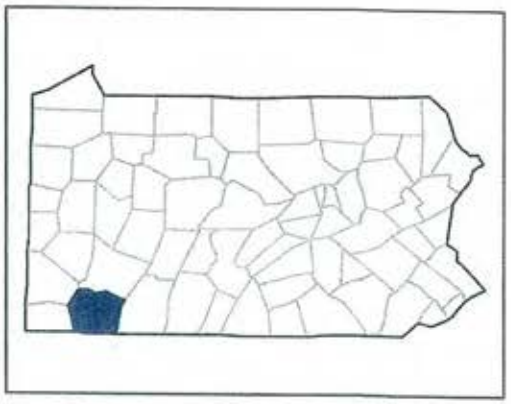
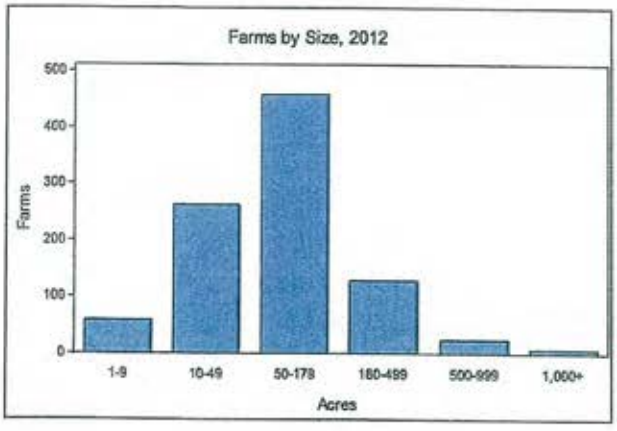
2012 CENSUS OF AGRICULTURE

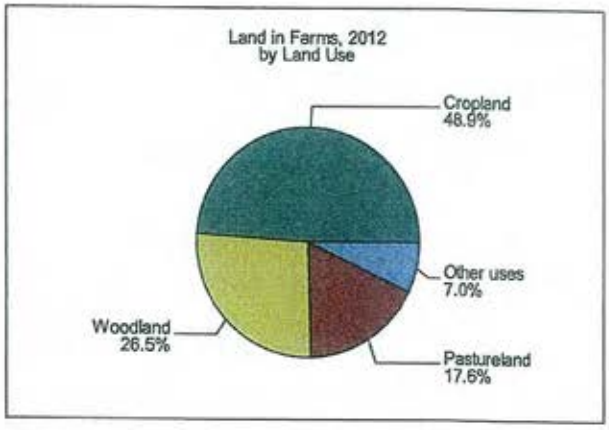
COUNTY PROFILE

Fayette County
Pennsylvania



	2012	2007	% change
Number of Farms	941	1,220	- 23
Land in Farms	112,871 acres	140,688 acres	- 20
Average Size of Farm	120 acres	115 acres	+ 4
Market Value of Products Sold	$27,023,000	$25,974,000	+ 4
Crop Sales $14,221,000 (53 percent) Livestock Sales $12,802,000 (47 percent)			
Average Per Farm	$28,717	$21,290	+ 35
Government Payments	$588,000	$556,000	+ 6
Average Per Farm Receiving Payments	$3,523	$2,779	+ 27





2012 CENSUS OF AGRICULTURE

COUNTY PROFILE

Fayette County – Pennsylvania

Ranked items among the 67 state counties and 3,079 U.S. counties, 2012

Item	Quantity	State Rank	Universe [1]	U.S. Rank	Universe [1]
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD ($1,000)					
Total value of agricultural products sold	27,023	47	67	2,207	3,077
Value of crops including nursery and greenhouse	14,221	43	67	1,904	3,072
Value of livestock, poultry, and their products	12,802	47	67	1,943	3,076
VALUE OF SALES BY COMMODITY GROUP ($1,000)					
Grains, oilseeds, dry beans, and dry peas	5,823	45	66	1,698	2,926
Tobacco	-	-	22	-	436
Cotton and cottonseed	-	-	-	-	635
Vegetables, melons, potatoes, and sweet potatoes	1,217	32	66	773	2,802
Fruits, tree nuts, and berries	(D)	(D)	66	(D)	2,724
Nursery, greenhouse, floriculture, and sod	3,075	26	66	596	2,678
Cut Christmas trees and short rotation woody crops	(D)	45	64	(D)	1,530
Other crops and hay	3,761	29	66	788	3,049
Poultry and eggs	382	34	67	1,133	3,013
Cattle and calves	4,048	40	67	1,950	3,056
Milk from cows	7,181	44	64	599	2,038
Hogs and pigs	(D)	38	65	(D)	2,827
Sheep, goats, wool, mohair, and milk	185	31	66	865	2,988
Horses, ponies, mules, burros, and donkeys	498	16	67	561	3,011
Aquaculture	(D)	(D)	54	(D)	1,366
Other animals and other animal products	261	23	67	646	2,924
TOP CROP ITEMS (acres)					
Forage-land used for all hay and haylage, grass silage, and greenchop	26,951	20	67	631	3,057
Corn for grain	5,605	45	66	1,384	2,638
Soybeans for beans	2,920	41	66	1,421	2,162
Corn for silage	1,493	47	64	926	2,237
Oats for grain	358	48	64	656	1,825
TOP LIVESTOCK INVENTORY ITEMS (number)					
Pheasants	(D)	4	47	28	963
Cattle and calves	13,038	39	67	1,726	3,063
Chukars	(D)	6	30	16	338
Layers	3,442	38	66	962	3,040
Horses and ponies	1,955	18	67	475	3,072

Other County Highlights, 2012

Economic Characteristics	Quantity
Farms by value of sales:	
Less than $1,000	266
$1,000 to $2,499	102
$2,500 to $4,999	130
$5,000 to $9,999	146
$10,000 to $19,999	138
$20,000 to $24,999	22
$25,000 to $39,999	28
$40,000 to $49,999	20
$50,000 to $99,999	39
$100,000 to $249,999	25
$250,000 to $499,999	14
$500,000 or more	11
Total farm production expenses ($1,000)	24,763
Average per farm ($)	26,316
Net cash farm income of operation ($1,000)	4,976
Average per farm ($)	5,290

Operator Characteristics	Quantity
Principal operators by primary occupation:	
Farming	450
Other	491
Principal operators by sex:	
Male	785
Female	156
Average age of principal operator (years)	58.4
All operators by race [2]:	
American Indian or Alaska Native	-
Asian	-
Black or African American	6
Native Hawaiian or Other Pacific Islander	-
White	1,393
More than one race	4
All operators of Spanish, Hispanic, or Latino Origin [2]	4

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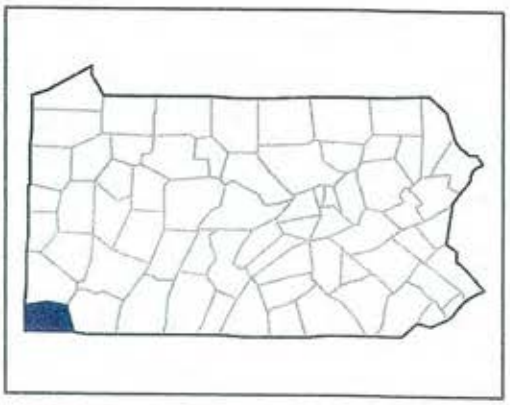
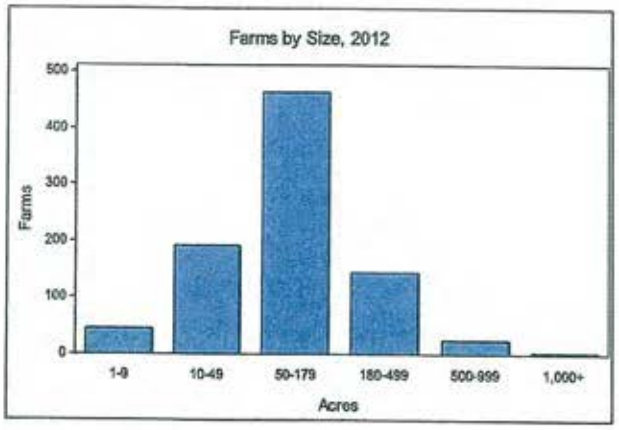
2012 CENSUS OF AGRICULTURE

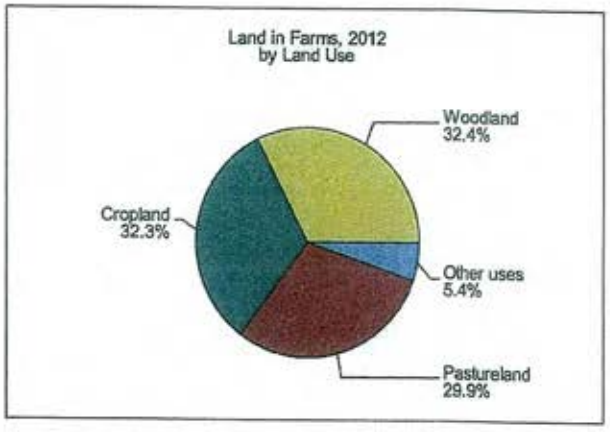
COUNTY PROFILE

Greene County
Pennsylvania



	2012	2007	% change
Number of Farms	876	1,245	- 30
Land in Farms	112,358 acres	150,203 acres	- 25
Average Size of Farm	128 acres	121 acres	+ 6
Market Value of Products Sold	$14,574,000	$9,316,000	+ 56
Crop Sales $5,722,000 (39 percent) Livestock Sales $8,852,000 (61 percent)			
Average Per Farm	$16,637	$7,483	+ 122
Government Payments	$189,000	$141,000	+ 34
Average Per Farm Receiving Payments	$2,999	$2,272	+ 32





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2012 CENSUS OF AGRICULTURE

COUNTY PROFILE

Greene County – Pennsylvania

Ranked items among the 67 state counties and 3,079 U.S. counties, 2012

Item	Quantity	State Rank	Universe [1]	U.S. Rank	Universe [1]
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD ($1,000)					
Total value of agricultural products sold	14,574	54	67	2,525	3,077
Value of crops including nursery and greenhouse	5,722	60	67	2,363	3,072
Value of livestock, poultry, and their products	8,852	49	67	2,184	3,076
VALUE OF SALES BY COMMODITY GROUP ($1,000)					
Grains, oilseeds, dry beans, and dry peas	551	61	66	2,377	2,926
Tobacco	-	-	22	-	436
Cotton and cottonseed	-	-	-	-	635
Vegetables, melons, potatoes, and sweet potatoes	(D)	65	66	(D)	2,802
Fruits, tree nuts, and berries	344	45	66	852	2,724
Nursery, greenhouse, floriculture, and sod	367	57	66	1,500	2,678
Cut Christmas trees and short rotation woody crops	(D)	59	64	(D)	1,530
Other crops and hay	4,410	17	66	666	3,049
Poultry and eggs	26	58	67	1,926	3,013
Cattle and calves	6,992	25	67	1,560	3,056
Milk from cows	1,370	59	64	1,148	2,038
Hogs and pigs	21	57	65	1,790	2,827
Sheep, goats, wool, mohair, and milk	206	28	66	777	2,988
Horses, ponies, mules, burros, and donkeys	150	37	67	1,501	3,011
Aquaculture	-	-	54	-	1,366
Other animals and other animal products	87	46	67	1,173	2,924
TOP CROP ITEMS (acres)					
Forage-land used for all hay and haylage, grass silage, and greenchop	27,320	25	67	695	3,057
Corn for grain	629	61	66	2,030	2,638
Corn for silage	395	59	64	1,474	2,237
Soybeans for beans	(D)	(D)	66	(D)	2,162
Wheat for grain, all	120	51	62	2,212	2,537
TOP LIVESTOCK INVENTORY ITEMS (number)					
Cattle and calves	11,818	42	67	1,801	3,063
Sheep and lambs	2,091	14	66	440	2,897
Layers	1,786	56	66	1,390	3,040
Horses and ponies	842	46	67	1,416	3,072
Goats, all	781	24	65	753	2,996

Other County Highlights, 2012

Economic Characteristics	Quantity
Farms by value of sales:	
Less than $1,000	252
$1,000 to $2,499	116
$2,500 to $4,999	113
$5,000 to $9,999	147
$10,000 to $19,999	122
$20,000 to $24,999	25
$25,000 to $39,999	37
$40,000 to $49,999	16
$50,000 to $99,999	29
$100,000 to $249,999	10
$250,000 to $499,999	5
$500,000 or more	4
Total farm production expenses ($1,000)	16,215
Average per farm ($)	18,510
Net cash farm income of operation ($1,000)	-1,049
Average per farm ($)	-1,197

Operator Characteristics	Quantity
Principal operators by primary occupation:	
Farming	354
Other	522
Principal operators by sex:	
Male	763
Female	113
Average age of principal operator (years)	59.9
All operators by race [2]:	
American Indian or Alaska Native	2
Asian	-
Black or African American	-
Native Hawaiian or Other Pacific Islander	-
White	1,334
More than one race	2
All operators of Spanish, Hispanic, or Latino Origin [2]	9

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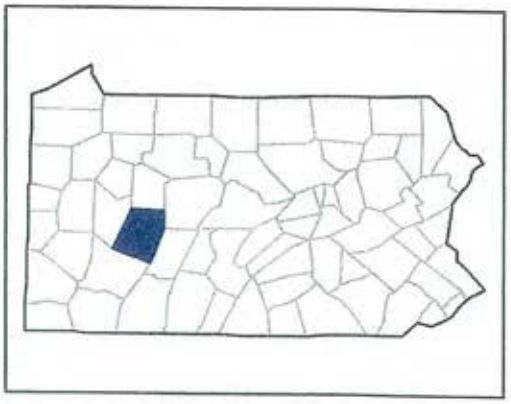
- Represents zero. (D) Withheld to avoid disclosing data for individual operations.
[1] Universe is number of counties in state or U.S. with item. [2] Data were collected for a maximum of three operators per farm.

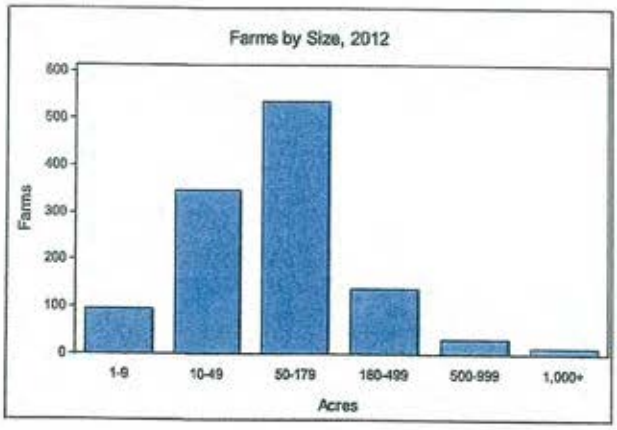
2012 CENSUS OF AGRICULTURE

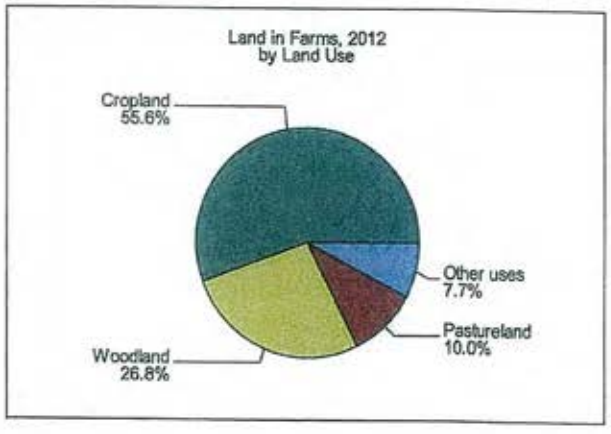
COUNTY PROFILE

Indiana County
Pennsylvania



	2012	2007	% change
Number of Farms	1,166	1,544	- 24
Land in Farms	153,752 acres	187,711 acres	- 18
Average Size of Farm	132 acres	122 acres	+ 8
Market Value of Products Sold	$67,307,000	$76,428,000	- 12
Crop Sales $39,276,000 (58 percent) Livestock Sales $28,031,000 (42 percent)			
Average Per Farm	$57,725	$49,500	+ 17
Government Payments	$1,078,000	$1,140,000	- 5
Average Per Farm Receiving Payments	$4,067	$3,813	+ 7





USDA US Department of Agriculture
National Agricultural Statistics Service
www.agcensus.usda.gov

2012 CENSUS OF AGRICULTURE

COUNTY PROFILE

Indiana County – Pennsylvania

Ranked items among the 67 state counties and 3,079 U.S. counties, 2012

Item	Quantity	State Rank	Universe [1]	U.S. Rank	Universe [1]
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD ($1,000)					
Total value of agricultural products sold	67,307	30	67	1,527	3,077
Value of crops including nursery and greenhouse	39,276	17	67	1,303	3,072
Value of livestock, poultry, and their products	28,031	30	67	1,351	3,076
VALUE OF SALES BY COMMODITY GROUP ($1,000)					
Grains, oilseeds, dry beans, and dry peas	21,335	20	66	1,204	2,928
Tobacco	-	-	22	-	436
Cotton and cottonseed	-	-	-	-	635
Vegetables, melons, potatoes, and sweet potatoes	3,538	13	66	451	2,802
Fruits, tree nuts, and berries	398	38	66	796	2,724
Nursery, greenhouse, floriculture, and sod	9,730	11	66	267	2,678
Cut Christmas trees and short rotation woody crops	967	5	64	36	1,530
Other crops and hay	3,309	32	66	887	3,049
Poultry and eggs	182	41	67	1,247	3,013
Cattle and calves	6,746	31	67	1,592	3,056
Milk from cows	20,158	25	64	331	2,038
Hogs and pigs	113	39	65	1,221	2,827
Sheep, goats, wool, mohair, and milk	318	13	66	526	2,988
Horses, ponies, mules, burros, and donkeys	456	17	67	616	3,011
Aquaculture	(D)	(D)	54	(D)	1,366
Other animals and other animal products	(D)	(D)	67	(D)	2,924
TOP CROP ITEMS (acres)					
Forage-land used for all hay and haylage, grass silage, and greenchop	24,908	29	67	766	3,057
Corn for grain	19,260	17	66	987	2,638
Soybeans for beans	11,214	19	66	1,089	2,162
Corn for silage	4,898	23	64	374	2,237
Oats for grain	2,877	4	64	75	1,825
TOP LIVESTOCK INVENTORY ITEMS (number)					
Cattle and calves	18,923	28	67	1,394	3,063
Layers	5,116	32	66	800	3,040
Horses and ponies	3,275	6	67	163	3,072
Turkeys	3,056	23	65	304	2,416
Sheep and lambs	1,719	24	66	552	2,897

Other County Highlights, 2012

Economic Characteristics	Quantity
Farms by value of sales:	
Less than $1,000	360
$1,000 to $2,499	122
$2,500 to $4,999	112
$5,000 to $9,999	125
$10,000 to $19,999	140
$20,000 to $24,999	39
$25,000 to $39,999	56
$40,000 to $49,999	24
$50,000 to $99,999	73
$100,000 to $249,999	55
$250,000 to $499,999	31
$500,000 or more	29
Total farm production expenses ($1,000)	52,202
Average per farm ($)	44,771
Net cash farm income of operation ($1,000)	19,023
Average per farm ($)	16,315

Operator Characteristics	Quantity
Principal operators by primary occupation:	
Farming	585
Other	581
Principal operators by sex:	
Male	1,016
Female	150
Average age of principal operator (years)	57.2
All operators by race [2]:	
American Indian or Alaska Native	8
Asian	2
Black or African American	-
Native Hawaiian or Other Pacific Islander	-
White	1,694
More than one race	8
All operators of Spanish, Hispanic, or Latino Origin [2]	9

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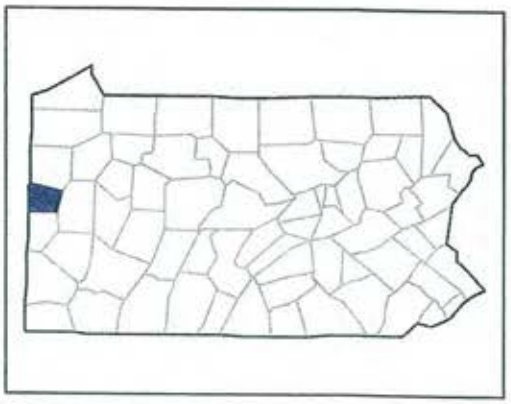
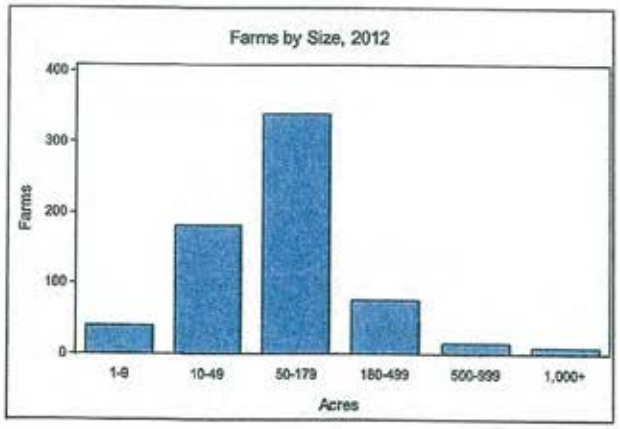
2012 CENSUS OF AGRICULTURE

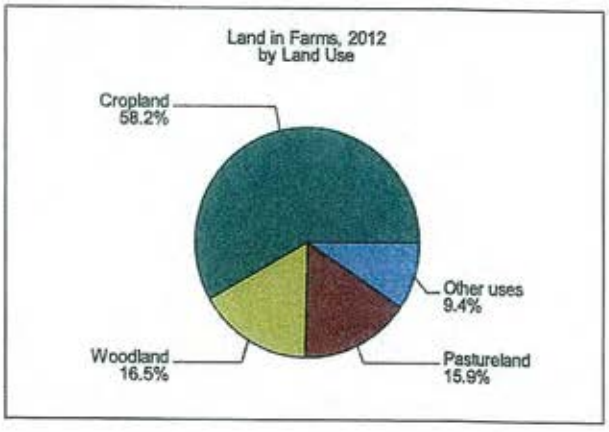
COUNTY PROFILE



Lawrence County
Pennsylvania

	2012	2007	% change
Number of Farms	659	708	- 7
Land in Farms	80,468 acres	92,391 acres	- 13
Average Size of Farm	122 acres	130 acres	- 6
Market Value of Products Sold	$38,519,000	$35,639,000	+ 8
Crop Sales $20,607,000 (53 percent) Livestock Sales $17,912,000 (47 percent)			
Average Per Farm	$58,450	$50,338	+ 16
Government Payments	$652,000	$841,000	- 22
Average Per Farm Receiving Payments	$3,811	$3,823	0





2012 CENSUS OF AGRICULTURE

COUNTY PROFILE

Lawrence County – Pennsylvania

Ranked items among the 67 state counties and 3,079 U.S. counties, 2012

Item	Quantity	State Rank	Universe [1]	U.S. Rank	Universe [1]
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD ($1,000)					
Total value of agricultural products sold	38,519	39	67	1,964	3,077
Value of crops including nursery and greenhouse	20,607	32	67	1,685	3,072
Value of livestock, poultry, and their products	17,912	38	67	1,696	3,076
VALUE OF SALES BY COMMODITY GROUP ($1,000)					
Grains, oilseeds, dry beans, and dry peas	16,160	28	66	1,319	2,926
Tobacco	-	-	22	-	436
Cotton and cottonseed	-	-	-	-	635
Vegetables, melons, potatoes, and sweet potatoes	672	45	66	989	2,802
Fruits, tree nuts, and berries	781	25	66	554	2,724
Nursery, greenhouse, floriculture, and sod	517	55	66	1,334	2,678
Cut Christmas trees and short rotation woody crops	71	41	64	381	1,530
Other crops and hay	2,406	45	66	1,178	3,049
Poultry and eggs	(D)	53	67	(D)	3,013
Cattle and calves	3,636	41	67	2,014	3,056
Milk from cows	13,271	34	64	431	2,038
Hogs and pigs	132	37	65	1,187	2,827
Sheep, goats, wool, mohair, and milk	256	22	66	660	2,968
Horses, ponies, mules, burros, and donkeys	327	23	67	846	3,011
Aquaculture	(D)	50	54	(D)	1,366
Other animals and other animal products	226	28	67	713	2,924
TOP CROP ITEMS (acres)					
Forage-land used for all hay and haylage, grass silage, and greenchop	15,032	45	67	1,248	3,057
Corn for grain	11,054	34	66	1,154	2,638
Soybeans for beans	9,323	24	66	1,129	2,162
Corn for silage	3,240	31	64	549	2,237
Wheat for grain, all	1,415	28	62	1,503	2,537
TOP LIVESTOCK INVENTORY ITEMS (number)					
Cattle and calves	14,934	32	67	1,593	3,063
Layers	2,099	49	66	1,260	3,040
Sheep and lambs	1,924	17	66	479	2,897
Horses and ponies	1,524	26	67	705	3,072
Hogs and pigs	758	38	66	1,106	2,889

Other County Highlights, 2012

Economic Characteristics	Quantity
Farms by value of sales:	
Less than $1,000	144
$1,000 to $2,499	46
$2,500 to $4,999	63
$5,000 to $9,999	85
$10,000 to $19,999	89
$20,000 to $24,999	36
$25,000 to $39,999	42
$40,000 to $49,999	25
$50,000 to $99,999	61
$100,000 to $249,999	37
$250,000 to $499,999	12
$500,000 or more	19
Total farm production expenses ($1,000)	31,945
Average per farm ($)	48,475
Net cash farm income of operation ($1,000)	10,659
Average per farm ($)	16,175

Operator Characteristics	Quantity
Principal operators by primary occupation:	
Farming	332
Other	327
Principal operators by sex:	
Male	579
Female	80
Average age of principal operator (years)	57.1
All operators by race [2]:	
American Indian or Alaska Native	-
Asian	1
Black or African American	3
Native Hawaiian or Other Pacific Islander	-
White	979
More than one race	9
All operators of Spanish, Hispanic, or Latino Origin [2]	6

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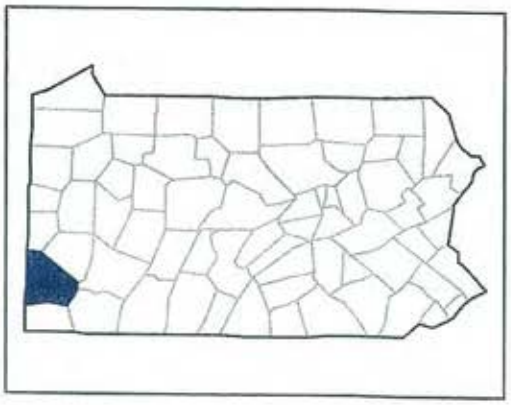
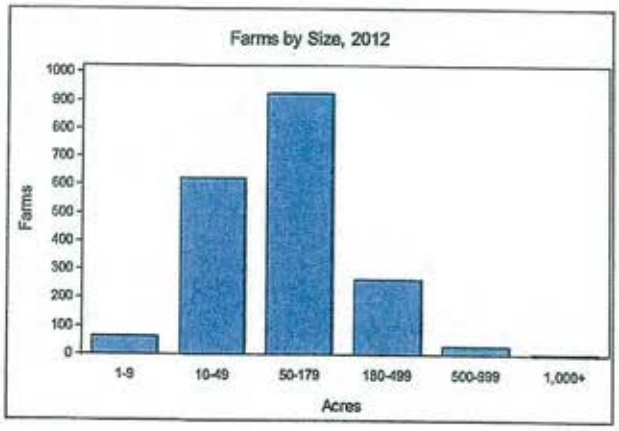
2012 CENSUS OF AGRICULTURE

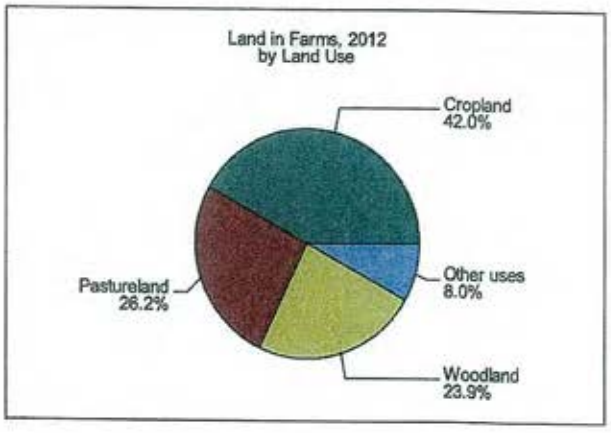
COUNTY PROFILE

Washington County
Pennsylvania



	2012	2007	% change
Number of Farms	1,915	2,023	- 5
Land in Farms	205,821 acres	211,053 acres	- 2
Average Size of Farm	107 acres	104 acres	+ 3
Market Value of Products Sold	$35,412,000	$28,649,000	+ 24
Crop Sales $18,787,000 (53 percent) Livestock Sales $16,625,000 (47 percent)			
Average Per Farm	$18,492	$14,161	+ 31
Government Payments	$841,000	$836,000	+ 1
Average Per Farm Receiving Payments	$4,025	$3,439	+ 17





2012 CENSUS OF AGRICULTURE

COUNTY PROFILE

Washington County – Pennsylvania

Ranked items among the 67 state counties and 3,079 U.S. counties, 2012

Item	Quantity	State Rank	Universe [1]	U.S. Rank	Universe [1]
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD ($1,000)					
Total value of agricultural products sold	35,412	43	67	2,027	3,077
Value of crops including nursery and greenhouse	18,787	35	67	1,741	3,072
Value of livestock, poultry, and their products	16,625	39	67	1,774	3,076
VALUE OF SALES BY COMMODITY GROUP ($1,000)					
Grains, oilseeds, dry beans, and dry peas	2,493	53	66	1,981	2,926
Tobacco	-	-	22	-	436
Cotton and cottonseed	-	-	-	-	635
Vegetables, melons, potatoes, and sweet potatoes	2,120	22	66	588	2,802
Fruits, tree nuts, and berries	(D)	20	66	539	2,724
Nursery, greenhouse, floriculture, and sod	4,969	18	66	441	2,678
Cut Christmas trees and short rotation woody crops	(D)	30	64	233	1,530
Other crops and hay	8,249	8	66	351	3,049
Poultry and eggs	(D)	39	67	(D)	3,013
Cattle and calves	6,639	32	67	1,605	3,056
Milk from cows	8,084	42	64	564	2,038
Hogs and pigs	(D)	45	65	(D)	2,827
Sheep, goats, wool, mohair, and milk	537	5	66	311	2,988
Horses, ponies, mules, burros, and donkeys	889	9	67	287	3,011
Aquaculture	-	-	54	-	1,366
Other animals and other animal products	198	34	67	768	2,924
TOP CROP ITEMS (acres)					
Forage-land used for all hay and haylage, grass silage, and greenchop	60,044	5	67	121	3,057
Corn for grain	3,141	51	66	1,570	2,638
Corn for silage	1,838	43	64	831	2,237
Soybeans for beans	1,294	47	66	1,635	2,162
Vegetables harvested, all	530	27	67	675	2,801
TOP LIVESTOCK INVENTORY ITEMS (number)					
Cattle and calves	21,787	24	67	1,268	3,063
Sheep and lambs	7,508	1	66	120	2,697
Layers	6,085	30	66	760	3,040
Horses and ponies	5,431	3	67	51	3,072
Pheasants	(D)	15	47	(D)	963

Other County Highlights, 2012

Economic Characteristics	Quantity
Farms by value of sales:	
Less than $1,000	566
$1,000 to $2,499	205
$2,500 to $4,999	257
$5,000 to $9,999	348
$10,000 to $19,999	224
$20,000 to $24,999	68
$25,000 to $39,999	119
$40,000 to $49,999	24
$50,000 to $99,999	52
$100,000 to $249,999	31
$250,000 to $499,999	9
$500,000 or more	12
Total farm production expenses ($1,000)	42,123
Average per farm ($)	21,996
Net cash farm income of operation ($1,000)	-448
Average per farm ($)	-234

Operator Characteristics	Quantity
Principal operators by primary occupation:	
Farming	854
Other	1,061
Principal operators by sex:	
Male	1,575
Female	340
Average age of principal operator (years)	60.4
All operators by race [2]:	
American Indian or Alaska Native	8
Asian	-
Black or African American	19
Native Hawaiian or Other Pacific Islander	-
White	2,945
More than one race	5
All operators of Spanish, Hispanic, or Latino Origin [2]	19

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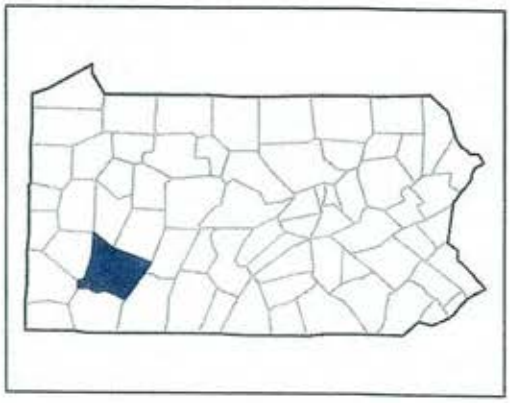
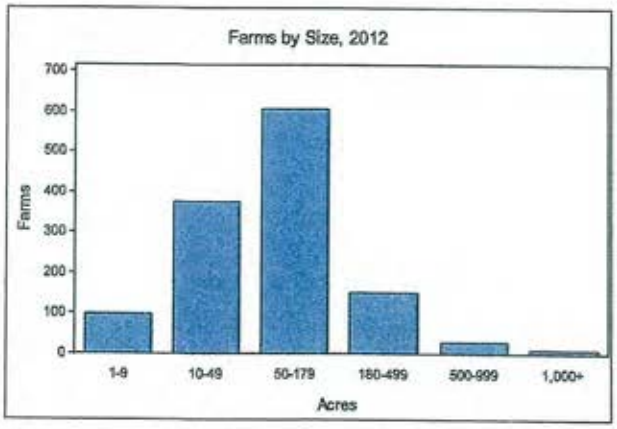
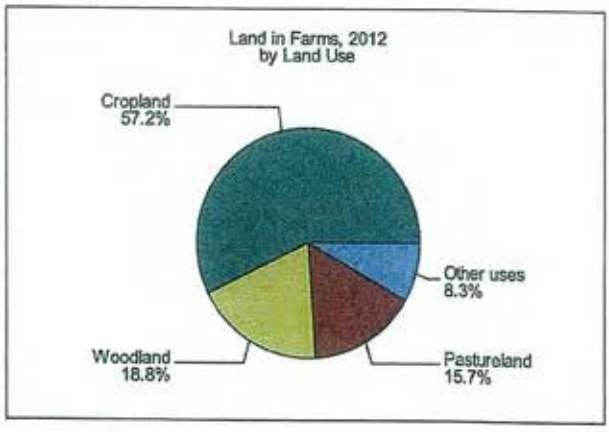
2012 CENSUS OF AGRICULTURE
COUNTY PROFILE



Westmoreland County
Pennsylvania

	2012	2007	% change
Number of Farms	1,274	1,415	- 10
Land in Farms	143,062 acres	167,489 acres	- 15
Average Size of Farm	112 acres	118 acres	- 5
Market Value of Products Sold	$48,610,000	$58,437,000	- 17
Crop Sales $27,006,000 (56 percent) Livestock Sales $21,605,000 (44 percent)			
Average Per Farm	$38,156	$41,298	- 8
Government Payments	$1,118,000	$1,346,000	- 17
Average Per Farm Receiving Payments	$3,472	$3,891	- 11





2012 CENSUS OF AGRICULTURE
COUNTY PROFILE

Westmoreland County – Pennsylvania

Ranked items among the 67 state counties and 3,079 U.S. counties, 2012

Item	Quantity	State Rank	Universe [1]	U.S. Rank	Universe [1]
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD ($1,000)					
Total value of agricultural products sold	48,610	35	67	1,783	3,077
Value of crops including nursery and greenhouse	27,006	29	67	1,550	3,072
Value of livestock, poultry, and their products	21,605	35	67	1,560	3,076
VALUE OF SALES BY COMMODITY GROUP ($1,000)					
Grains, oilseeds, dry beans, and dry peas	16,288	27	66	1,318	2,926
Tobacco	-	-	22	-	436
Cotton and cottonseed	-	-	-	-	635
Vegetables, melons, potatoes, and sweet potatoes	1,013	36	66	827	2,802
Fruits, tree nuts, and berries	342	46	66	855	2,724
Nursery, greenhouse, floriculture, and sod	5,044	17	66	434	2,678
Cut Christmas trees and short rotation woody crops	58	44	64	437	1,530
Other crops and hay	4,260	22	66	699	3,049
Poultry and eggs	452	30	67	1,100	3,013
Cattle and calves	5,592	34	67	1,733	3,056
Milk from cows	13,538	33	64	421	2,038
Hogs and pigs	88	44	65	1,299	2,827
Sheep, goats, wool, mohair, and milk	1,172	2	66	140	2,988
Horses, ponies, mules, burros, and donkeys	595	14	67	454	3,011
Aquaculture	39	33	54	772	1,366
Other animals and other animal products	129	38	67	960	2,924
TOP CROP ITEMS (acres)					
Forage-land used for all hay and haylage, grass silage, and greenchop	33,727	16	67	509	3,057
Corn for grain	16,989	22	66	1,024	2,638
Soybeans for beans	8,525	26	66	1,150	2,162
Corn for silage	3,711	29	64	488	2,237
Oats for grain	1,792	10	64	159	1,825
TOP LIVESTOCK INVENTORY ITEMS (number)					
Cattle and calves	19,901	27	67	1,349	3,063
Layers	6,030	31	66	762	3,040
Horses and ponies	3,164	10	67	181	3,072
Sheep and lambs	3,132	5	66	277	2,897
Deer	1,286	1	54	30	1,034

Other County Highlights, 2012

Economic Characteristics	Quantity
Farms by value of sales:	
Less than $1,000	402
$1,000 to $2,499	123
$2,500 to $4,999	118
$5,000 to $9,999	158
$10,000 to $19,999	178
$20,000 to $24,999	42
$25,000 to $39,999	65
$40,000 to $49,999	19
$50,000 to $99,999	79
$100,000 to $249,999	50
$250,000 to $499,999	19
$500,000 or more	21
Total farm production expenses ($1,000)	48,491
Average per farm ($)	38,062
Net cash farm income of operation ($1,000)	5,207
Average per farm ($)	4,087

Operator Characteristics	Quantity
Principal operators by primary occupation:	
Farming	588
Other	686
Principal operators by sex:	
Male	1,060
Female	214
Average age of principal operator (years)	59.3
All operators by race [2]:	
American Indian or Alaska Native	3
Asian	-
Black or African American	5
Native Hawaiian or Other Pacific Islander	-
White	2,001
More than one race	7
All operators of Spanish, Hispanic, or Latino Origin [2]	9

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- Represents zero.
[1] Universe is number of counties in state or U.S. with item. [2] Data were collected for a maximum of three operators per farm.

4 The Food Supply Chain in the Regional Economy

The food supply chain stretches across many industry sectors and encompasses numerous services.

In the food supply chain, food moves from producer to consumer via the processes of production, processing, distribution, retailing and consumption; thus, food moves from farmer to consumer. [1]

The local food supply chain includes specialized services such as: accountants, attorneys, veterinarians, farm management companies, software developers, refrigeration companies, and fleets. There are about 14,000 businesses in the food supply chain in Southwestern Pennsylvania employing 85,000 workers.

The following charts show the scope of the businesses and employment in the food supply chain in Southwestern Pennsylvania. Figure 4-1 shows how a food dollar is divided across the supply chain.

[1] http://www.chgeharvard.org/sites/default/files/lesson-plan-files/lesson_4.pdf

Supply Chain Costs Distributed Per Dollar

How are the costs of each industry group distributed among primary factors?

Figure 4-1	Primary Factors				
Industry Group	Total	Imports	Output Taxes	Property Income	Salary & Benefits
All industries	100¢	6.4¢	8.9¢	35.8¢	48.9¢
Agribusiness	2.4¢	0.5¢	0.1¢	1.1¢	0.6¢
Farm production	9.7¢	0.9¢	0.2¢	7¢	1.7¢
Food processing	15.8¢	0.9¢	1¢	6¢	7.9¢
Packaging	2.7¢	0.8¢	0.1¢	0.7¢	1.1¢
Transportation	3.3¢	0.2¢	0.1¢	1.2¢	1.9¢
Wholesale trade	9.3¢	-0.1¢	1.6¢	3.1¢	4.7¢
Retail trade	13¢	0.3¢	2.2¢	3.6¢	7¢
Foodservices	31.1¢	0.6¢	3.1¢	7.9¢	19.5¢
Energy	5.6¢	2¢	0.5¢	2.2¢	1¢
Finance & Insurance	3.3¢	0.2¢	0.2¢	1.2¢	1.8¢
Advertising	2.5¢	0.2¢	0.1¢	1.1¢	1.1¢
Legal & accounting	1.3¢	0¢	0.1¢	0.5¢	0.7¢

Values may not sum to totals due to rounding
Source: ERS/USDA

This table is a cross-tabulation of industry group value added (costs) by primary factors of production.

Supply Chain Business Locations in the Region

The supply chain chart created by the US Department of Agriculture shows how a dollar spent on food is distributed along the supply chain. Producers and agri-business earn about 12 cents of each dollar spent on food. The other 89% is spread across other activities in the food supply chain. For example, food processing earns 15.8 cents of the every dollar spent on food. Many food–related businesses in our region are increasing earnings by increasing their presence in the supply chain. They incorporate more activities, like processing, into their operations (Figure 4-2).

Figure 4-2

Supply Chain Business Locations within the Region

NUMBER OF SITES by 4-digit NAICS and Pittsburgh/county

4-digit Primary NAICS	Description of 4-digit NAICS code*	Allegheny	Pittsburgh City	Allegheny inc Pittsburgh	Armstrong	Beaver	Butler	Fayette	Greene	Indiana	Lawrence	Washington	Westmoreland	Total
1131	Timber Tract Operations			0				1	1		1			3
1132	Forest Nurseries and Gathering of Forest Products	1	1	2				1				1		4
1133	Logging	2		2	4	2	5	8	2	5	6	4	3	41
1142	Hunting and Trapping	3	1	4					1			2	2	9
1151	Support Activities for Crop Production	7	1	8		1	4	4			1	2	2	22
1152	Support Activities for Animal Production	24	3	27	1	1	6	3	2	3	3	11	5	62
1153	Support Activities for Forestry	2	2	4							1	3	2	10
3119	Other Food Manufacturing	11	5	16		1	7			1	1	1	6	33
3121	Beverage Manufacturing	13	5	18	2	2	9	3		3		3	15	55
3331	Agriculture, Construction, and Mining Machinery Manufacturing	2		2					1		1		2	6
3332	Industrial Machinery Manufacturing	4		4		1					1			6
3352	Household Appliance Manufacturing	2		2										2
4238	Machinery, Equipment, and Supplies Merchant Wholesalers	15	1	16	2	3	10	3	1	2		4	9	50
4244	Grocery and Related Product Merchant Wholesalers	200	72	272	4	25	39	20	5	6	18	52	75	516
4245	Farm Product Raw Material Merchant Wholesalers	20	9	29	7	3	14	8	4	5	5	12	21	108
4248	Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers	35	14	49	5	6	5	7	2	3	7	9	17	110
4249	Miscellaneous Nondurable Goods Merchant Wholesalers	21	10	31	7	3	21	4	2	5	5	15	13	106
4442	Lawn and Garden Equipment and Supplies Stores	61	6	67	7	11	19	9	1	6	5	13	27	165
4451	Grocery Stores	448	223	671	39	89	106	91	22	49	61	104	174	1,406
4452	Specialty Food Stores	201	101	302	14	31	54	28	10	14	22	46	78	599
4453	Beer, Wine, and Liquor Stores	136	37	173	8	18	28	18	4	11	12	30	48	350
4461	Health and Personal Care Stores	104	29	133	9	15	24	13	2	10	8	22	33	269
4521	Department Stores	88	15	103	2	15	18	9	1	8	7	12	36	211
4529	Other General Merchandise Stores	115	26	141	11	25	23	22	8	15	14	22	51	332
4542	Vending Machine Operators	61	15	76		8	11	8	3	3	3	14	34	160
4931	Warehousing and Storage	3	3	6		1	1			2				10
5621	Waste Collection	6	2	8	2	1	2	2	2	2		2	9	30
5629	Remediation and Other Waste Management Services	35	13	48	2	3	8	3		5	4	12	10	95
6242	Community Food and Housing, and Emergency and Other Relief Services	7	3	10			1	1				1	4	17
7211	Traveler Accommodation	190	66	256	8	22	34	34	8	17	20	49	70	518
7213	Rooming and Boarding Houses	3	5	8	5		2			8		1	3	27
7221	Full-Service Restaurants	509	272	781	26	69	75	60	15	42	33	90	166	1,357
7222	Limited-Service Eating Places	558	228	786	28	98	86	62	16	43	49	121	218	1,507
7223	Special Food Services	81	29	110	5	17	14	13	1	9	5	13	25	212
7224	Drinking Places (Alcoholic Beverages)	373	211	584	35	77	47	68	11	27	21	81	127	1,078
8133	Social Advocacy Organizations	81	103	184	11	19	12	13	7	7	6	29	23	311
8134	Civic and Social Organizations	832	1,821	2,653	61	124	91	95	31	81	50	214	337	3,737
8139	Business, Professional, Labor, Political, and Similar Organizations	87	44	131	7	10	7	9	8	6	5	25	30	238
Total		4,341	3,376	7,717	312	701	783	620	171	398	375	1,020	1,675	13,772

Source: Dunn & Bradstreet Data

Grocery and retail stores, civic/social organizations, and restaurants/hotels/hospitality had the largest presence. Remediation and waste collection had a large presence in the region as well, followed by grocery merchant and other wholesalers.

Supply Chain Employment in the Region

The number of employees in the food chain in the region is shown in Figure 4-3. The businesses that employ the largest number of workers in the supply chain are grocery and retail stores, civic/social organizations, and restaurants/hotels/hospitality.

Key Components of the Local Food Supply Chain

Retail

Information from a report [2] published in 2011 notes that national food retailers account for 68% of sales and 35% of the total number of stores indicating a highly fragmented industry. Overall annual sales in the grocery industry in 2010 were over a trillion dollars.

The region has 1,406 grocery stores with 26,686 employees.[3]

Distribution

A 2014 report from the consulting firm Grant Thorton describes the food distribution industry:

— "The U.S. wholesale market is a remarkably large and complex universe. It represents $6TRN of sales from over 300,000 distributors as of May, 2014

— Sales are most broadly segregated between nondurable (54%) and durable (46%) goods

— In the U.S., the industry is highly fragmented with the 50 largest distributors generating approximately 25 % of the industry revenues."[4]

Walmart Distribution

"Our Grocery Merchandise network consists of 40 Grocery Distribution Centers throughout the U.S. We support by Dry, Frozen, and perishable merchandise for these locations. Our Grocery fleet consists of over 2,000 trucks, 5,000 reefer trailers and 51,000 dry van trailers."

http://walmartprivatefleet.com/Services/NetworkMaps.aspx *2014*

[2] Financing Healthy Food Options: implementation Handbook, Understanding the Grocery Industry, The Reinvestment Fund, September 30, 2011

[3] Dunn & Bradstreet Database 2013

[4] Melville, Paul, Grant Thorton, *Wholesale and Dstribution Industry Key Performance Indicators (KPIs),* June, 2014, http://www.naw.org/files/events/bdcfojun14_Grant_Thornton.pdf

Figure 4-3

Supply Chain Employment in the Region

SUM OF EMPLOYMENT AT SITES by 4-digit NAICS and Pittsburgh/county

4-digit Primary NAICS	Description of 4-digit NAICS code*	Allegheny	Pittsburgh City	Allegheny inc Pittsburgh	Armstrong	Beaver	Butler	Fayette	Greene	Indiana	Lawrence	Washington	Westmoreland	Total
1131	Timber Tract Operations			0				2	2		8			12
1132	Forest Nurseries and Gathering of Forest Products	2	2	4				10				2		16
1133	Logging	4		4	13	13	10	28	7	30	26	13	6	150
1142	Hunting and Trapping	9	3	12					2			14	1	29
1151	Support Activities for Crop Production	35	3	38		1	4	32			2	4	4	85
1152	Support Activities for Animal Production	97	8	105	4	12	16	9	4	5	5	41	11	212
1153	Support Activities for Forestry	6	14	20							15	7	6	48
3119	Other Food Manufacturing	121	27	148		8	83			2	5	50	36	332
3121	Beverage Manufacturing	216	284	500	3	28	65	11		24		19	350	1,000
3331	Agriculture, Construction, and Mining Machinery Manufacturing	8		8					4		3		4	19
3332	Industrial Machinery Manufacturing	24		24		2					5			31
3352	Household Appliance Manufacturing	4		4										4
4238	Machinery, Equipment, and Supplies Merchant Wholesalers	74	2	76	50	7	16	14	1	4		7	54	229
4244	Grocery and Related Product Merchant Wholesalers	2,040	836	2,876	10	158	661	139	58	31	155	298	1,861	6,247
4245	Farm Product Raw Material Merchant Wholesalers	50	18	68	26	6	30	17	24	9	19	31	43	273
4248	Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers	280	402	682	21	22	28	38	11	22	28	70	117	1,039
4249	Miscellaneous Nondurable Goods Merchant Wholesalers	98	154	252	14	7	100	143	14	22	14	57	72	695
4442	Lawn and Garden Equipment and Supplies Stores	331	16	347	38	40	50	35	2	24	19	126	123	804
4451	Grocery Stores	10,309	2,616	12,925	581	1,445	2,513	1,622	439	815	659	1,625	4,062	26,686
4452	Specialty Food Stores	1,325	519	1,844	58	139	252	142	32	54	169	238	390	3,318
4453	Beer, Wine, and Liquor Stores	640	262	902	19	83	102	41	8	43	39	140	188	1,565
4461	Health and Personal Care Stores	718	2,933	3,651	105	41	101	31	8	30	40	82	165	4,254
4521	Department Stores	11,183	531	11,714	363	2,060	2,137	1,410	150	1,012	422	1,626	4,097	24,991
4529	Other General Merchandise Stores	2,387	125	2,512	101	186	417	157	66	88	112	321	674	4,634
4542	Vending Machine Operators	366	577	943		26	130	104	11	6	9	36	138	1,403
4931	Warehousing and Storage	7	22	29		6	35			3				73
5621	Waste Collection	25	40	65	4	8	10	10	5	9		24	71	206
5629	Remediation and Other Waste Management Services	436	326	762	8	10	69	47		30	159	154	32	1,271
6242	Community Food and Housing, and Emergency and Other Relief Services	36	24	60			5	3				3	210	281
7211	Traveler Accommodation	4,911	3,149	8,060	91	237	509	1,123	76	243	271	749	1,139	12,498
7213	Rooming and Boarding Houses	12	55	67	42		18			42		23	6	198
7221	Full-Service Restaurants	15,171	5,657	20,828	423	1,253	2,381	1,177	202	1,134	718	2,880	4,253	35,249
7222	Limited-Service Eating Places	9,154	3,289	12,443	433	1,484	1,569	953	288	785	689	1,949	3,444	24,037
7223	Special Food Services	1,114	837	1,951	45	170	94	80	6	560	88	214	260	3,468
7224	Drinking Places (Alcoholic Beverages)	2,398	1,440	3,838	181	380	379	346	75	163	106	518	776	6,762
8133	Social Advocacy Organizations	1,100	1,168	2,268	234	119	105	437	50	32	36	462	107	3,850
8134	Civic and Social Organizations	3,645	7,582	11,227	298	598	553	439	245	461	212	970	1,773	16,776
8139	Business, Professional, Labor, Political, and Similar Organizations	460	848	1,308	22	20	45	33	21	46	12	86	92	1,685
Total		68,796	33,769	102,565	3,187	8,569	12,487	8,633	1,811	5,729	4,045	12,839	24,565	184,430

Source: Dunn & Bradstreet Data

Distribution companies serve as hubs for the industry and offer numerous services to restaurants, stores, and institutions. In Southwestern Pennsylvania, there are 516 establishments categorized as food distributors with 6,247 employees.[5]

Many large food retailers own their distribution system. Giant Eagle, headquartered in Southwestern Pennsylvania, operates two distribution centers serving 400 stores in four states.

Employing 3,600 workers and earning $9.3 billion annually, Giant Eagle is ranked number 27 by Forbes on their list of privately held companies.[6] The food retailer operates a private fleet of 232 power units and approximately 700 trailers (350 dry vans and 350 refrigerated vehicles).

"FOOD AND BEVERAGE MANUFACTURING PLANTS TRANSFORM RAW AGRICULTURAL MATERIALS INTO PRODUCTS FOR INTERMEDIATE OR FINAL CONSUMPTION BY APPLYING LABOR, MACHINERY, ENERGY, AND SCIENTIFIC KNOWLEDGE."
USDA , ERS, PROCESSING & MARKETING:MANUFACTURING, P.1

Food Production

Agriculture is a large part of the regional economy with over 9,700 farms. Consumers in the ten-county region spend $6.2 billion dollars annually on food.

Food Manufacturing and Processing

According to a US Department of Commerce report, Pennsylvania ranks in the top five states for employment in food manufacturing.[7] The report identifies issues affecting food manufacturing as:

- Rising Commodity Price
- Food Safety
- Energy Costs
- Corporate Responsibility
- Environmental Sustainability

Data compiled by SPC from a Dunn & Bradstreet database shows 414 food manufacturers, employing 6,478 people in the region. However, this database may not reflect the true size of the section. Discussions with stakeholders in the region indicated that many local food manufacturers are smaller operations and not registered with Dunn & Bradstreet. As such, the exact number of food processing operations in the region is not known. Since these operations play an important role in the local food supply chain, it important to pursue more accurate data. See Section 1, Figure 1-1.

[5] Dunn & Bradstreet, 2013
[6] Giant Eagle website 2014 www.gianteagle.com
[7] US Department of Commerce Industry Report, Food Manufacturing NAICS 311

Food Service

The International Foodservice Distributors Association (IFDA) is a professional association serving the food distribution industry. According to IFDA, the national industry "includes more than 15,000 companies operating warehouses and transportation fleets. A typical broadline foodservice distributor may serve anywhere from 1,000 to 6,000 accounts from a single distribution center and offer their customers more than 10,000 items to meet specific operator needs. In 2014, estimated distributor annual sales in North America exceeded $235 billion".[8] It will remain the nation's second largest private employer. A survey completed by the American Customer Service Index (June17, 2014) [9] found that "the average American went to a fast-food chain or restaurant four times per week last year, a 60 percent increase since the end of the Great Recession." Sales are expected to continue to grow.

Food service employment figures for our region show 2,864 restaurants and eating places employing 59,286 people.

Three of the top five trends for restaurants in 2014 were locally sourced meat, locally grown produce and environmental sustainability.[10]

"modern food markets are responding to consumer preferences at a local level, even as the food industry becomes more global. " New Directions in Global Food Markets / AIB-794 Economic Research Service/USDA

Top Trends for 2014
(from the National Restaurant Association)

1. **Locally sourced meats and seafood**
2. **Locally grown produce**
3. **Environmental sustainability**
4. **Healthful kids' meals**
5. **Gluten-free cuisine**
6. **Hyper-local sourcing (e.g., restaurant-gardens)**
7. **Children's nutrition**
8. **Non-wheatnoodles/pasta (e.g., quinoa, rice, buckwheat)**
9. **Sustainable seafood**
10. **Farm/estate branded items**

National Restaurant Association, 2015

http://www.restaurant.org/Downloads/PDFs/News-Research/research/ForecastExecSummary2015-FINAL.pdf

Trends in the Food Industry

Looking forward, several sources have identified major trends in the food industry that will impact the industry and companies in Southwestern Pennsylvania.

A summary of changing trends in consumer behavior includes:

- ✓ Increasing consumer demand for locally produced foods.
- ✓ Increasing consumer interest in and demand for organic foods.
- ✓ Growing number of food producers using non-traditional methods. to sell directly to consumers or end customers.
- ✓ Consumer interest in grass-fed livestock.
- ✓ Expanding Interest in sustainable farming practices.
- ✓ Increasing use of processed foods that offer convenience.

[8] http://nrn.com/latest-headlines/nra-foodservice-sales-hit-record-660b-2013
[9] American Customer Index Service, June 2014
[10] Op cit

Beverage Enterprises

Approximately 1,000 people are employed at 55 locations across the region in beverage manufacturing. One hundred ten beverage wholesalers employ an additional 1039 workers. Specialty retail outlets employ 1565 in 350 stores across the region.

In the spring, local craft beers are celebrated with Craft Beer Week in Pittsburgh. Approximately 25 wineries add flavor to this sector of the local supply chain. The region celebrates Pennsylvania wines with a weekend event in August.[11] Three distilleries operate in the region.[12]

Waste Collection and Remediation

The region has 40 sites employing 125 people that collect and/or remediate waste. Two businesses, AgRecycle and the Neshannock Soil Builders Cooperative, deal specifically with food waste by collecting food waste and processing it into compost.

The Local Food Value Chain

The local food supply chain in the SPC region encompasses a large number of businesses employing over 184,000 people. However, when people in the region discuss local food, they usually mean local producers, retail establishments, distributors, etc. A 2012 US Department of Agriculture report describes a local food value chain as "the establishment of strong relationships between the different actors involved in growing/raising crops; processing crops; and marketing food to retailers, institutions, restaurants, and other food buyers. The phrases 'values based value chains' and 'food value chains' refer to emergent supply chains emphasizing vertical coordination rather than integration throughout the supply chain." [13]

"Crafting local beers and spirits has grown in Pennsylvania, as it has in other Appalachian states. In Pittsburgh, an artisan whiskey distillery opened in 2011, named Wigle Whiskey for one of two men convicted of treason and sentenced to hang for his role in the Whiskey Rebellion of 1794. A similar venture in the area is Pennsylvania Pure Distilleries which makes Boyd & Blair vodka in Glenshaw. Pennsylvania also boasts significant wine production, producing over 195,000 gallons annually, making Pennsylvania the fourth largest wine growing state in the country."

Assessing the Landscape of Local Food In Appalachia, The Appalachian Regional Commission, Jean Haskell,Ph.D., 2012, p.64

Distinguishing Features of the Local Food Value Chain

A recent report from the USDA Economic Research Service [14] compared the performance and size of local and mainstream value chains. The authors found that "[l]ocal foods are increasingly

[11] Directory of Wineries Touring Guide, 2015 http://www.pennsylvaniawine.com/sites/all/assets/PAWineGuide_WebVersionPDF.pdf

[12] Pennsylvania Distillers, August 2015, http: www. bottlesociety.com/states/PA

[13] Moving Food Along the Value Chain: Innovations in Regional Food Distribution, Marketing Services Division, United States Department of Agriculture, March 2012, p.3

[14] Comparing the Structure, Size, and Performance of Local and Mainstream Food Supply Chains, ERS, USDA, June 2010, www.ers.usda.gov

incorporated in programs designed to reduce food insecurity, support small farmers and rural economies, encourage more healthful eating habits, and foster closer connections between farmers and consumers."

According to the report, while local value chains move a fairly small portion of total product demand, they can offer unique market niche as a differentiated product.

Findings for Local Food Value Chains

1. A common feature among farms that participate in local food value chains is a diverse portfolio of products and market outlets.
2. Local supply-and-demand relationships and product differentiation based on attributes other than local origin, such as organic or grass-fed production, appear to be the primary influences on prices in local value chains.
3. Nearly all wage and proprietor income in the local supply chains is retained locally, but local areas also retain a large share of wage and proprietor income from the mainstream value chains.
4. Producers receive a greater share of retail prices in local food value chains than they do in mainstream chains. [15]

Penn's Corner Farm Alliance is a farmer-owned cooperative in Southwestern Pennsylvania. A group of more than 30 member farms delivers fruits, vegetables, and other farm foods to customers in the Pittsburgh area through Community Supported Agriculture subscriptions, online Farm Stands and wholesale restaurant deliveries.

www.pennscorner.com

Direct Marketing to End Users

According to the USDA National Agricultural Statistics Service, direct marketing of all types was worth $1.2 billion in 2007, having grown 105 percent in value from 1997 to 2007, compared to a 48-percent increase in total farm sales for the same period (Diamond & Soto, 2009)." Local producers have several options to choose from to market their locally grown products.

Businesses and producers in the region have successfully developed direct marketing opportunities to help smaller local food producers to participate more fully in the supply chain. "USDA's National Farmers Market Directory now lists 8,268 markets, an increase of 76 percent since 2008. The data reflects continued demand and growth of farmers markets in every region of the country."[16] One hundred seventy-five farmers markets in the SPC region promote direct retails sales. Farmers markets are very popular in local communities where they offer connection and a sense of community in addition to locally grown products. During summer months, farm stands and markets are found throughout the rural areas of the region.

Community Supported Agriculture (CSA), is a venture where customers in the community contract with producers for a share of the harvest and pay for it in advance of receiving the product. Products are delivered throughout the growing season. Generally, customers receive fixed

[15] Excerpts, Op cit, p v
[16] USDA Press Release, 8/5/14

amounts on a set schedule; however, if nature does not cooperate, then the shares and products returned to the customer may be smaller than planned. In this model, the customer shares the risk with the producer. There are 26 CSAs located in the region. Generally organized by producers, CSAs are popular in many areas across the country but are not as prevalent in Southwestern Pennsylvania as elsewhere.

Producers are successfully using marketing cooperatives in the SPC region to boost return to producers. These cooperatives jointly market their products to restaurants and individual households. Privately-operated produce auctions are held at several locations in the region and offer another opportunity for producer to sell directly to consumers.

The Pennsylvania Department of Agriculture maintains a website to connect wholesale buyers and sellers. Wholesale produce buyers who want a whole truckload or a few cases of Pennsylvania vegetables can ordinarily use the Pennsylvania Department of Agriculture's online searchable directory of wholesale growers. Producers in all ten counties in the SPC region are represented on the website.

A number of counties in the SPC region have used agri-tourism as a means to increase direct sales and farm income. Local groups organize "open farms" and invite the public to tour and visit the farms. Local produce and products are sold during the visits. The farms' day tours have been very popular but require special preparatory work by the hosting farms.

5 SPC Survey Results from Stakeholder Meetings

SPC held nine stakeholder meetings during 2014 to learn more about businesses in the local food supply chain.

To kick off the process, SPC met with the planning or economic development groups in all of the counties. They agreed to host the local meetings and invite stakeholders.

SPC presented the program using the meeting agenda shown below. The bulk of time in the meeting was devoted to group discussions.

Meeting Agenda

Stakeholder Meetings for the Local Food Supply Chain Analysis

Enjoy Refreshments

PART I **20 minutes**

Introductions

County Representative
SPC Team
Audience introductions

1. Explain current data
2. SPC's and others interest in regional food system
3. Show maps of region: food manufacturing
    a. ask participants to update map by adding known food manufacturers

PART II **15minutes**

Electronic voting to identify key issues.

Part III **65 minutes**

Table discussion

Using the results of the survey, each table will have an SPC discussion leader: Please take notes

4. Are there barriers to increased production and value added sales?
5. Is capital available to expand existing food enterprises or start new ones?
6. Can the County expand farmers markets and other direct marketing programs.
7. Do you need to develop local food incubators and local food hubs to increase value-added processing?
8. Have you educated consumers on the value of buying locally?
9. Do you need to build warehouses that a group of producers could use to aggregate product and facilitate supplying larger customers?
10. Is a regional coordination/marketing mechanism needed?
11. Expand the size of community gardens. Revise zoning ordinances to allow gardeners to grow produce to sell in farmers markets.
12. Would you increase production if other markets or channels were available?
13. What is needed?
14. How does FSMA affect you?

Thank you !

SPC Survey Results from Stakeholder Meetings

To jump-start discussion at the meeting, participants were asked a few questions via an electronic survey and the results from the meeting were available immediately. Results from all nine meetings are presented below.

Figure 5-1

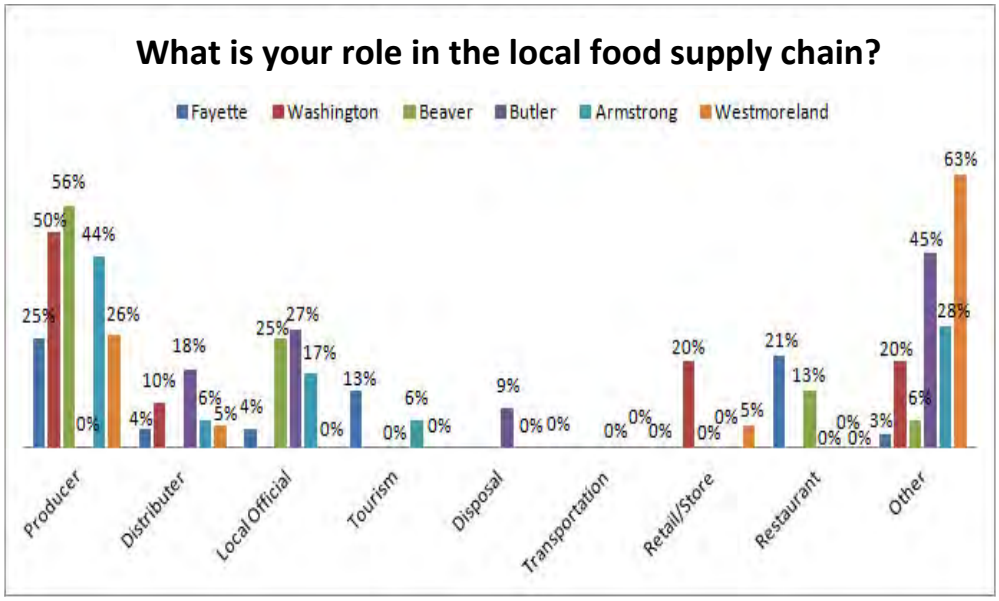


Figure 5-1 shows the composition of the participants in attendance at each of the meetings. Typically, the "Other" category was a nonprofit or government organization. The meetings presented a good distribution of individuals representing the supply chain.

Figure 5-2

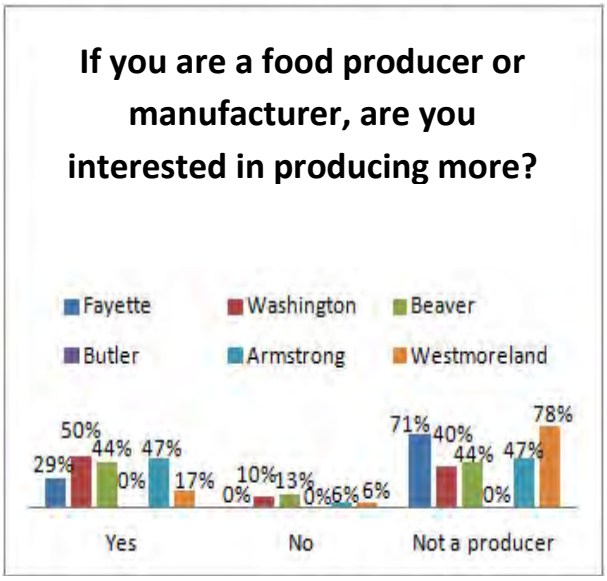
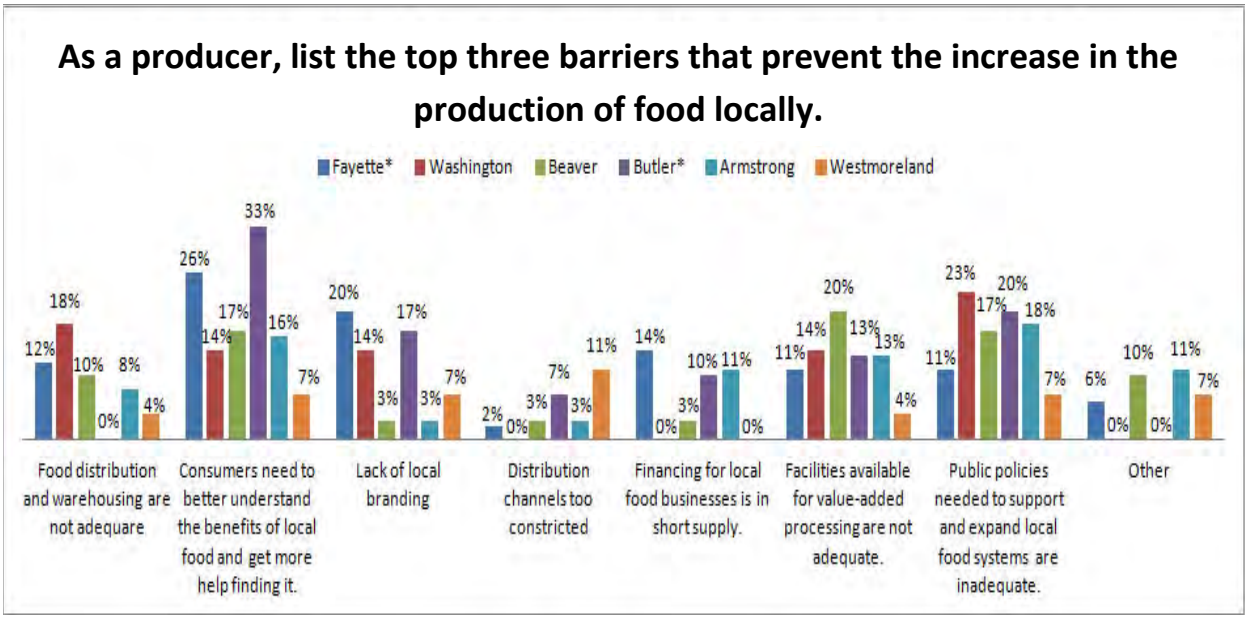


Figure 5-3

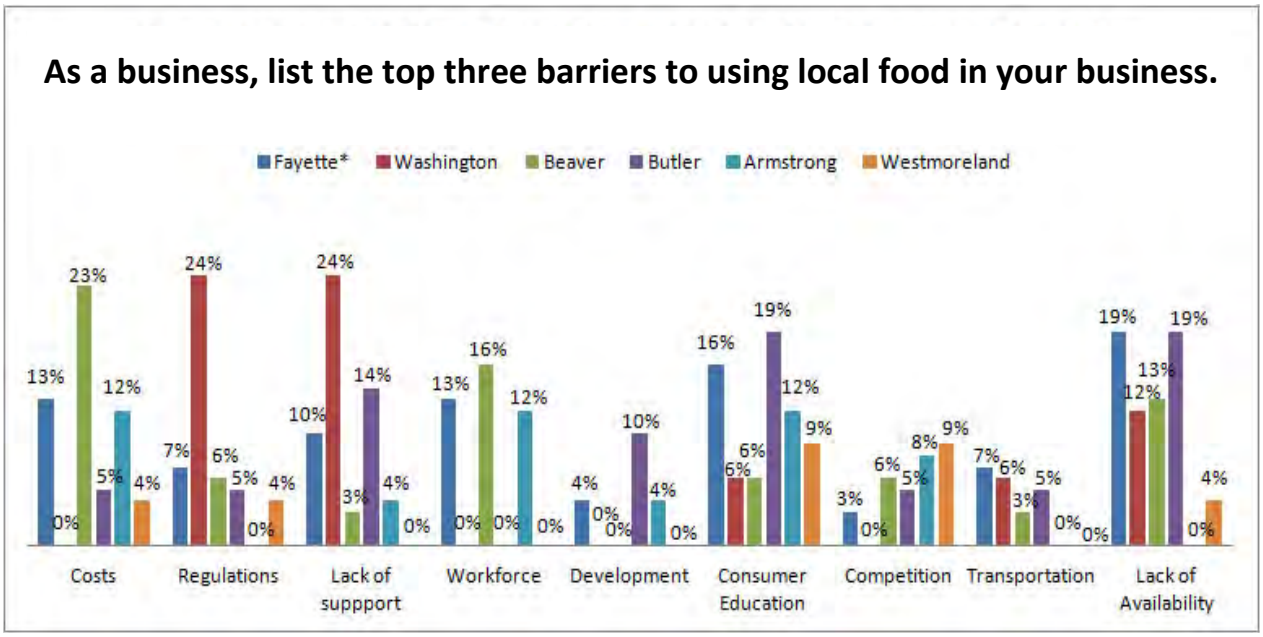
Figures 5-2 and 5-3 illustrate the results of a question that was posed to the participants in the meeting regarding the potential future of their markets. Seeing both ends of the market will help predict what the future demand could hold. It should be noted that the missing percentage are from participants that are not producers, manufacturers, retailers, or restaurants. As seen in the figure, in most cases both the producing and receiving ends would like to produce and purchase more.

Figure 5- 4



To understand the barriers that producers face, SPC queried producers regarding the top three barriers affecting the production of local food. As seen in Figure 5-4, regulations and consumer education were ranked the biggest barriers in most instances. Facilities available, lack of local branding, and food distribution and warehousing are also areas that are barriers for local producers throughout our region.

Figure 5-5



Not only do producers have barriers when it comes to accessing the local food supply, but local businesses do as well. Figure 5-5 shows that their barriers aren't much different from those of the producers. Regulations, lack of support from the public, and consumer education tend to be issues for businesses as well. Unlike producers however, businesses have an issue of lack of

availability. They are unable to find local food as easily as they would hope, which creates a difficult system for both the producers and businesses.

Barriers Identified in Stakeholder Meetings

After the brief survey results were viewed, participants were split into groups to discuss the barriers that they encounter that hinder their operations in the local food supply chain. The most common answer throughout each of the meetings was the issue of regulations, which was also highlighted throughout the survey questions.

Regulations make it very difficult for producers to do business.

> When new regulations are imposed, more time and money has to come out of the producer's pocket which makes producing less affordable. The new labeling regulations seem to be a large barrier for small farmers because they are unable to compete with the larger farms that have the finances and professional support to maintain the new regulations.

Immigration Limits were identified as a barrier.

> Immigration policies and laws limit the available workforce for the farms, which limits the output. According to meeting participants, local residents "do not want to spend many hours a day picking produce in the hot sun." Some farmers have solved the labor shortage by hiring migrant workers to work on their farm. Regulations can make it difficult to hire migrant workers, as paperwork requirements and laws change. These actions affect the producers directly, which then ultimately affects their production. Many producers at the meetings stated that migrant workers "not only work harder but are able to work hard in the sun whereas, in past experience, those not used to the sun had a shorter tenure with the farm."

Retirement/Next Generation Interest

> Also tied to the issue of workforce is the question of how and by whom local food will be produced. Meeting participants noted a lack of interest in the next generation to undertake the business of farming. Some schools no longer offer programs on farming and agriculture. This then limits the potential workforce for the farms and potential farm owners. Children of farm owners are also not taking over the farms like in the past. They go to school and pursue a different career unrelated to their farm childhood. With the increasing average age of producers, this could be a huge barrier in the near future for our local food supply chain.

Consumer/Public Education

> Meeting participants stated that the general public doesn't always understand the value of buying locally produced products. The lack of home economics classes in schools was brought up as a reason for a lack of interest and education. Introducing seasonal products to uninformed customers can also be difficult. Many individuals in the public don't know how to prepare or use fresh food and they also don't know how to preserve the product or freeze it for the off season. Meeting participants stated that the public needs to know where to find locally produced food and how it benefits them so that the region can protect the local food supply chain.

Marketing

Marketing has become an issue because smaller farms do not have the capacity or the money to reach the big markets. One local producer said that "the bigger markets already have contracts with businesses and the businesses aren't concerned with buying locally grown food from a small farmer." Some producers felt that other producers needed to better understand marketing and advertising their products. One point that was made that is often forgotten is that marketers understand marketing and farmers understand farming. It may be easy for marketers to market but it isn't for farmers.

Farmers Markets

Farmers markets, although viewed by many as an opportunity, were also labeled as a barrier in the regional meetings. Most of the producers said that there are more markets than vendors in the county. Some meeting participants stated that the farmers markets affect the business of the existing retailers that sell produce year-round or operate farm stands.

Many producers feel that they don't need any more farmers markets in their counties and that the actual issue is the placement of the markets and their proximity to other markets and retailers. In contrast, one producer said that "people from her town want to stay in her town and that they don't want to drive to neighboring towns to frequent a farmers market." In her opinion, that town "needs a market in the town to benefit the residents." This balancing act can make it difficult for the producers to see any benefits.

Many producers said that with a long waiting list for the farmers market for the City of Pittsburgh, producers do not have access to markets outside of their county.

Another issue with farmers markets is that many producers stated that some of the sellers were not farmers/producers. Rather, they were people who would go to produce auctions, buy produce, and then sell it at the market.

Other Barriers Identified at Stakeholder Meetings

- Eleven percent said capital start up costs for new potential producers are high, which limits the entry of new producers into the market
- Lack of processers, machinery, seed producers, butchers
- Producers aren't sure how to approach potential buyers/Entry into local stores/ Stores ask growers to buy shelf space/Producers don't know who to talk to
- No communication - Producers also aren't sure on how to start a CSA or how to get involved with a farmers market or how to reach out to more customers/Consumers and growers aren't aware of each other/Planners aren't sure how to reach out
- Land availability and affordability
- Cost to become to become certified as an organic farm
- Distribution channels are difficult
- Foreign imports
- Schools do not have the capacity to cook and use local products
- Producer education
- Lack of support or hesitancy of farmers to adapt
- Battle of keeping things affordable
- Costs of production
- What do you do with leftover produce?
- Consumers struggle with the cost of local produce and the convenience factor of other products

- Lack of aggregating and distributing facilities
- Mechanism needed for exporting
- Farmers can't access the EBT program

Summaries of County Meetings

Fayette County

Fayette County stakeholders discussed many issues with the current regulations that were similar to concerns voiced at other meetings. The producers said that the new labeling regulations make it difficult for the farmers to market their products because the question of what fresh really is comes into play. They felt that a product could be labeled "fresh" but actually the product was frozen for many weeks. That concept of fresh, while fresh under regulations, isn't what they would consider to be fresh. The farmers can't compete with the lower prices offered by the frozen "fresh" food.

The availability and accessibility of workers and especially migrant workers is a huge barrier for the Fayette County producers. One producer said that there is "a catch-22 with hiring migrant workers because they are the only ones that want to do the work but customers won't patronize farms that have migrant workers." This presents a difficult decision for the farmers. According to the producers, there are also new regulations that restrict farms from hiring high school students as employees for the summer, which limits a vital workforce that was there in the past.

Consumers said that there were barriers to buying locally grown food. The customers at the meeting stated that the cost and convenience of the local products stalled any purchases. Larger families make buying local food less feasible and many smaller families stated that they couldn't find local products or they were unsure of how to prepare some of the seasonally grown food. A buyer from a local university said that he would like to buy more food from local farmers but he is unable to find the local farmers.

Washington County

Washington County also experienced issues with regulations. Many of the producers were concerned about proposed new federal regulations that will govern how crops are handled. They voiced concern over proposed water tests under FSMA. FSMA will add new costs for producers with each new regulation. The farmers at this meeting stated that they stress over getting through inspections and spend a lot of time and money in the process. Potential buyers are also restricted by regulations. There are certain products that distributers cannot sell to certain retailers because of different retail regulations. Many universities work with food management companies that also have strict regulations on the food they buy and feed the students, which makes it difficult to buy from local producers.

Beaver County

Similar to Fayette and Washington County, Beaver County stakeholders also listed concerns over regulation and marketing barriers. In addition to those, Beaver County producers felt that there is a lack of value-added processing in their area. There is very little local processing and machinery in Beaver County. Producers from the area have to go to Ohio to get the necessary machinery. There is also a lack of meat processors in the area. There are local butchers in New Wilmington and in Westmoreland County, but none closer to home for them.

Butler County

As shown in Figure 5-1, attendees at the Butler County meeting represented different parts of the local food supply chain, which gave a different perspective. County planners attending the Butler County meeting voiced concern over lack of communication between the planners and the producers. The planners stated that they weren't sure how to reach out to the producers. One person stated that the Fruit and Vegetable Association, which is similar to Beaver's, helps with reaching out and contacting individuals and groups outside of their producer circle. The group decided that vendors, consumers, producers, and planners all need to have more communication to help local producers succeed.

Armstrong County

In discussions regarding the local food supply chain, consumer education comes up a lot, but it is not so common for producers to state that producers themselves need to be more educated. At the Armstrong County meeting and some of the other meetings, this issue came up. In previous meetings the issues of websites and social media was something that the producers realized that they needed to learn more about. In Armstrong County, the producers felt that they didn't know how to approach potential buyers. The producers aren't sure what protocol is and what exactly they should do to see if a potential buyer will stock their shelves with their produce. Even once a producer does connect with a local buyer, the stores ask producers to buy shelf space and purchase insurance which makes it difficult for the producers to branch out.

Lawrence County

Stakeholders in Lawrence County were not as concerned about workforce issues. Participants voiced concern over educating consumers about food, especially locally produced food, and discussed the success of farm tours in other areas. It was noted that the county has a produce auction in New Wilmington that provides a sales outlet for local producers and a single point of purchase for businesses and consumers. A participant was concerned about the pervasive use of GMOs in food and animal feed items. Generally, the local food system and local commerce was perceived to be working fairly well in Lawrence County.

Indiana County

Indiana County has been working to develop consumer education throughout the years. The Farm Bureau operates an Agriculture Lab, which is a mobile lab and it is taken to different school districts to educate the children. Participants noted that "money and regulations can be a barrier when it comes to getting into the school system, but the kids apparently love it when they have the opportunity to use it." Indiana University of Pennsylvania also operates a community garden. The Indiana Community Garden is operated throughout the year by college students. During the summer, when the students are gone, a local restaurant maintains the garden and uses the produce for their restaurant. When the students come back in the fall, the restaurant gives the students food vouchers for the fall term.

A local insurance agent in attendance gave a different perspective on the food supply chain. One producer stated that insurance was the largest bill in his business because of the commercial liability needed. Insurance for food is more expensive because of everything that can go wrong with producing, manufacturing or processing. There is also a price difference between hobby farms and larger producing farms. Hobby farms have high insurance rates because they aren't large enough to receive the discounts that the large farms receive. Larger farms have higher premiums and more opportunity, therefore they have a larger discount. Many crops don't qualify for crop insurance in Indiana County. Because of that and the high

costs of insurance for the crops that insurance does cover, the agent stated only 10% of her clients actually carry crop insurance and the rest chance it.

Another issue participants brought up that wasn't mentioned in previous meetings was how far a producer has to travel to get parts for their equipment and other infrastructure. The producers stated that there are no agriculture support businesses within Indiana County. Producers must go to other counties to get the kind of support and parts that they need. Many of the larger companies that previously provided this support have consolidated to meet their specific sales points.

Allegheny County

The Allegheny County meeting had an array of representatives from nonprofits and local restaurants that are involved in the local food business in Pittsburgh. Two main issues were discussed that the participants felt needed to be addressed: composting and produce seconds distribution (produce seconds are fruits and vegetables that do not meet consumers' cosmetic expectations). The restaurants stated that it is too pricey for them to compost all the time, but that other places, such as universities, could do it at a more cost-effective rate. Cities like Seattle and New York either have or are on their way to providing composting as a municipal service. There also appears to be a lack of produce seconds markets for waste in the region. With the pounds of waste in the billions, these organizations would like an outlet for their produce seconds.

Westmoreland County

A focal point of this meeting was the discussion among stakeholders that market forces cannot sustain demand. The participants explained that the cost of labor versus the profit of a vegetable farm does not yield a profit for the producer. The cost of land continues to increase and there is a lack of supply due to much of the land turning over into development. For large institutional purchasers, product seasonality is a problem as school districts do not need produce during the summer when the product is available. Rather, school districts and universities need local products during the winter and spring when local products are expensive or not available.

Another point was made regarding business expansion to meet the demand for local food. One local producer pointed out that the changes needed to grow to meet demands are not incremental. New land has to be acquired, more equipment must be bought and there must be more labor to meet the demand. When it comes to financing, organizations and nonprofits have an advantage over small farmers, which results in an inability to purchase the needed equipment and therefore creates an inability to grow. This also leads into an issue of marketing and engagement. It is a financial and personal investment for farmers to market their goods and they are unsure as to whether the investment is justified. Community help is needed to help support the marketing and advertising of these local farmers to be sure to engage the viable consumers in their community.

6 Assessing Regional Competitiveness in Food Manufacturing

Food producing, manufacturers and processing companies have a large presence in Southwestern Pennsylvania, with over 400 businesses. However, the region does not have a complete picture of the size, scope or impact of the sector since no analysis on this industry has been completed. One way to assess our food-related sector is to complete a cluster analysis for the food sector in the Southwestern Pennsylvania region.

The Pennsylvania Department of Labor and Industry has included agriculture and food production in their listing of "high priority" clusters with "potential for growth or their overall importance to the stability of Pennsylvania's economy."[1] In addition, the Pennsylvania Targeted Industry Program from the Pennsylvania Higher Education Assistance Agency included agriculture and food production in their state grant program for students, further demonstrating the importance of the sector to the state and to the economy.

Generally, industry clusters like agribusiness, food processing and technology have been identified as important for regions with large rural areas like Southwestern Pennsylvania. [2] But little analysis has been done on the sector in Southwestern Pennsylvania. Preliminary data suggest that the Southwestern Pennsylvania region has many of the key components important for cluster development. A complete analysis of the agriculture and food cluster in the region is needed to address the current workforce challenges and the future growth of this sector.

An Industry Cluster is:

> A geographically concentrated group of interconnected companies and associated institutions in a particular field. [3]

What is Cluster Analysis?

In the past decade, economic developers have focused on the regional context of industry groups, called clusters, as a means of strengthening the regional economy and encouraging economic growth. The methodology recognizes that many factors play a role in the growth and success of regional businesses. Clusters and sub-clusters of industries generally represent a piece of a supply chain.

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[1] Pennsylvania Department of Labor & Industry, *High Priority Occupations Policy*, July 2012, p. 7.
Unlocking Rural Competitiveness: The Role of Regional Clusters, January 2007, Purdue Center for Regional Development,

[2] www.ibrc.indiana.edu/innovation, www.purdue.edu/dp/pcrd/innovation

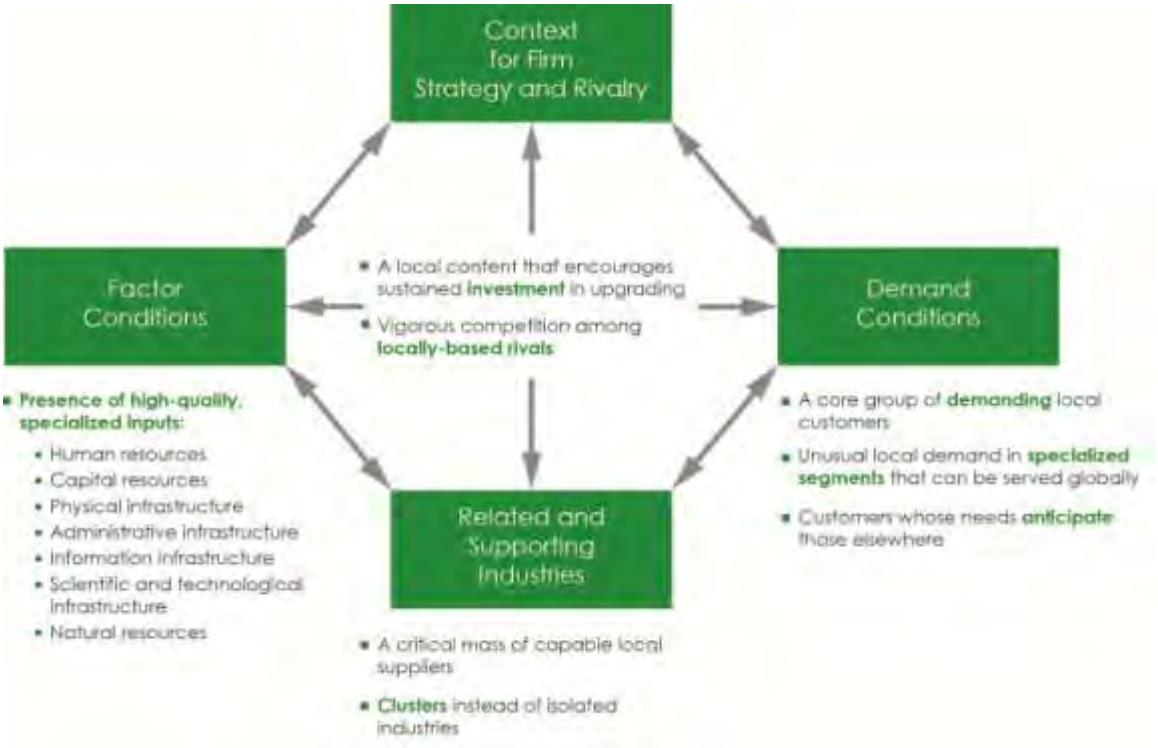
[3] "Pennsylvania Competitiveness: Creating a State Economic Strategy", Professor Michael E. Porter, Harvard Business School, March 28, 2012

The World Bank discusses the benefits of using cluster analysis because it is[4]:

- **Market-driven** -- focusing on bringing the demand and supply side of the economy together to work more effectively.
- **Inclusive** -- reaching out to companies large and small as well as suppliers and supporting economic institutions.
- **Collaborative** -- placing great emphasis on collaborative solutions to regional issues by participants, motivated by self-interest.
- **Strategic** -- helping stakeholders create a strategic vision of their region's next generation economy shared by many different constituencies and providing motivation and commitment to action.
- **Value-creating** -- improving depth (more suppliers) and breadth (attracting more industries) to increase regional income.
  (Excerpted from Doing Cluster Analysis, The World Bank, 2011)

Professor Michael Porter from Harvard University developed the methodology as a means of analyzing the competitiveness of industries and later applied the concept to nations and regions. Figure 6-1 below shows how regional businesses and the public sector interact to create a competitive regional environment.

Figure 6 -1 **Determinants of Regional Productivity**



"Pennsylvania Competitiveness: Creating a State Economic Strategy", Professor Michael E. Porter, Harvard Business School, March 28, 2012

[4] Doing Cluster Analysis, The World Bank, 2011, http://go.worldbank.org/S8CZ3T18S1

The Agriculture and Food Processing Cluster

Pennsylvania ranks fifth in the nation on high employment in specialized sub-clusters. **Pennsylvania's Targeted Industry Clusters**[5] report identified agriculture and food production as a top industry cluster, with the top industries (by employment) in the sector being:

- Veterinary Services
- General Line Grocery Merchant Wholesalers
- Commercial Bakeries
- Other Grocery Product Merchant Wholesalers
- Mushroom Production
- Other Snack Food Manufacturing
- Confectionery Manufacturing from Purchased Chocolate
- Meat Processed from Carcasses
- Animal (except poultry) Slaughtering
- Poultry Processing

The same report showed competitive industries based on concentrations in the state as [6]:

- Mushroom Production
- Confectionery Manufacturing from Cacao Beans
- Other Snack Food Manufacturing
- Confectionery Manufacturing from Purchased Chocolate
- Other Tobacco Product Manufacturing
- Frozen Cakes and Other Pastries
- Other Poultry Production
- Creamery Butter Manufacturing
- Non-Chocolate Confectionery Manufacturing

Summary

Increased knowledge of the agriculture and food production industry cluster will enable the region to create better links between the key sectors to enhance economic competitiveness and sustain local food jobs.

SPC is proposing to conduct an analysis to answer the following:

- How can the region increase economic activity (jobs and investments) by supporting the local food system and value-added components of the system?
- What is the economic impact of increasing local food consumption?
- How can increased activity and/or producing value-added products increase incomes for people involved in the local food system?
- How large is the food supply chain in the region and what are the components?
- What regional actions and policies are needed to promote the local food supply chain?

[5] Pennsylvania's Targeted Industry Clusters, October, 2008, Center for Workforce Information & Analysis, Pennsylvania Department of Labor and Industry
[6] Op cit. p.15

7 Growing Jobs and Investments

What would be the regional impact of a ten percent increase in production and sales in the food supply chain? SPC used the *MIG IMPLAN* software system to determine the impact of the increase. *IMPLAN* is economic analysis software that uses a core method of looking at Social Accounting Matrices (SAM) to captures dollar amount transactions reported by businesses and governmental agencies throughout counties and regions. With the use of the SAMs, Multiplier Models can be applied to estimate the extent and distribution of economic impacts. The Multiplier Models reflect three types of effects to a specific industry:

- **Direct Effects** are effects directly tied to the original number and the multiplier. For employment, the direct effect is the combination of the current employment and the addition of the 10% multiplier.

- **Indirect Effects** are the effects of what goods and services were bought from other local industries, such as what was spent on supplies, services, labor and taxes.

- **Induced Effects** are the result of the additional money that is re-spent in the local economy as a result of the money spent and distributed through the indirect effects. This effect takes into account the additional income and spending patterns of households outside of the examined industry that create economic activity.

IMPLAN also evaluates four categories in each industry to better understand the multiplier effect across multiple levels:

- **Employment/Jobs** in *IMPLAN* represent the annual average of monthly jobs in a specific industry. The Quarterly Census of Employment and Wages, Bureau of Labor Statistics and Bureau of Economic Analysis also use this definition in their employment numbers. The jobs represented could be full time or part time jobs.

- **Value Added** totals represent the difference in an industry's total output (sales and other operating income) and the cost of its intermediate inputs (goods and services consumed from other industries).

- **Labor Income** is a total of all forms of employment income, which includes wages and benefits for employees as well as proprietor income.

- **Output** shows the value of the industry production. This is different depending on the industry:

    - In manufacturing, output is sales plus/minus the change in inventory.

    - For service sectors, output equals the total number of sales.

    - For retail and wholesale trade, output is the gross margin.

Figure 7-1: *IMPLAN* Predicted Total Effects in Food Related Sectors after a 10% Increase

Crop Production (NAICS: 111)	**Direct**	**Indirect**	**Induced**	**Total**
Employment	514	95	83	693
Value Added	$7,829,734.29	$5,401,472.91	$6,920,501.65	$20,151,708.85
Labor Income	$10,023,812.04	$3,204,086.32	$3,935,466.26	$17,163,364.63
Output	$21,602,505.22	$10,079,799.11	$10,866,235.53	$42,548,539.85
Animal Production (NAICS: 112)	**Direct**	**Indirect**	**Induced**	**Total**
Employment	551	151	54	755
Value Added	$10,264,672.18	$5,608,417.92	$4,467,770.99	$20,340,861.09
Labor Income	$5,045,962.73	$3,424,371.31	$2,539,285.98	$11,009,620.02
Output	$28,800,491.08	$15,562,981.51	$7,014,137.32	$51,377,609.91
Food Manufacturing (NAICS: 311)	**Direct**	**Indirect**	**Induced**	**Total**
Employment Added	621	1,220	591	2,432
Value Added	$58,331,684.42	$86,578,762.62	$44,500,534.37	$189,410,981.42
Labor Income	$29,635,918.36	$54,054,666.46	$25,276,971.61	$108,967,556.43
Output	$359,351,301.17	$193,055,876.47	$69,853,014.81	$622,260,192.46
Beverage and Tobacco Product Manufacturing (NAICS: 312)	**Direct**	**Indirect**	**Induced**	**Total**
Employment	41	75	46	162
Value Added	$11,781,422.78	$13,653,553.21	$8,589,352.58	$34,024,328.57
Labor Income	$6,878,390.50	$9,248,789.40	$4,879,144.82	$21,006,324.72
Output	$68,442,588.77	$25,855,057.84	$13,482,956.76	$107,780,603.37
Retail, Restaurants, and Consumer Service (NAICS: 424, 444, 445, 722)	**Direct**	**Indirect**	**Induced**	**Total**
Employment	19,150	3,889	6,814	29,853
Value Added	$1,259,612,616.50	$375,173,457.10	$568,063,235.58	$2,202,849,309.18
Labor Income	$827,735,263.20	$239,294,129.14	$322,644,122.05	$1,389,673,514.39
Output	$1,946,330,950.26	$589,409,238.80	$891,679,048.20	$3,427,419,237.26

Source: *IMPLAN* 2012 data projected for 2014

Figure 7-1 shows the total effects for each of the main food categories in the region. The categories are formed based on the NAICS codes for the selected food industries. Between these NAICS categories the "retail, restaurants, and consumer services" industries produce the most jobs throughout the region. Outside of those NAICS codes, the Food Manufacturing industry would ultimately create the most jobs at around 2,400 more jobs, with the greatest impact in the indirect effects. A more summarized version of this information can be seen in Figure 7-2.

The 10% increase reflected in Figure 7-1 can be found broken down into the industry sectors in Figures 7-3, 7-4, and 7-5. These illustrate a more detailed explanation of the impact that a 10% increase in the food supply chain would have on the industry and outside industries.

Figure 7-2: Impacts in Employment after a 10% Increase in Food Supply Chain

Crop Production	Direct	Indirect	Induced	Total
Oilseed farming	72	9	8	89
Grain Farming	277	33	14	324
Vegetable and Melon Farming	26	9	13	48
Fruit Farming	19	7	9	35
*Tree Nut Farming**	*0*	*0*	*0*	*0*
Greenhouse, Nursery, and Floriculture Production	41	4	16	61
*Tobacco Farming**	*0*	*0*	*0*	*0*
All Other Crop Farming	79	32	23	134
Subtotal	**514**	**95**	**83**	**693**
Animal Production	**Direct**	**Indirect**	**Induced**	**Total**
Cattle Ranching and Farming	157	88	15	260
Dairy Cattle and Milk Production	210	41	23	273
Poultry and Egg Production	24	16	11	50
Animal production, except cattle, poultry, and eggs	160	7	4	171
Subtotal	**551**	**151**	**54**	**755**
Food Manufacturing	**Direct**	**Indirect**	**Induced**	**Total**
Other animal food manufacturing	8	53	13	74
Fats and Oils Refining and Blending	14	140	55	209
Confectionery Manufacturing from Purchased Chocolate	83	61	57	201
*Nonchocolate Confectionery Manufacturing**	*0*	*0*	*0*	*1*
Frozen Food Manufacturing	12	13	7	32
Fruit and Vegetable Canning, Pickling, and Drying	121	131	113	366
Fluid Milk and Butter Manufacturing	62	336	111	508
Cheese Manufacturing	31	110	41	182
Animal (except poultry) slaughtering, rendering, and processing	47	184	31	262
Bread and Bakery Product Manufacturing	147	76	63	286
Cookie, Cracker, and Pasta Manufacturing	25	25	20	70
Snack Food Manufacturing	8	16	9	34
Coffee and Tea Manufacturing	2	4	3	9
Seasoning and Dressing Manufacturing	5	7	5	17
All Other Food Manufacturing	9	10	5	25
Soft Drink and Ice Manufacturing	46	52	57	156
Subtotal	**621**	**1,220**	**591**	**2,432**
Beverage and Tobacco Product Manufacturing	**Direct**	**Indirect**	**Induced**	**Total**
Breweries	31	67	40	139
Wineries	9	6	5	20
Distilleries	1	1	1	3
*Tobacco Product Manufacturing**	*0*	*0*	*0*	*1*
Subtotal	**41**	**75**	**46**	**162**
Retail, Restaurants, and Consumer Service	**Direct**	**Indirect**	**Induced**	**Total**
Wholesale Trade Businesses	5,044	2,325	3,981	11,351
Retail Stores - Building Material and Garden Supply	1,018	152	326	1,496
Retail Stores - Food and Beverage	3,013	328	732	4,073
Food Services and Drinking Place	10,075	1,084	1,774	12,933
Subtotal	**19,150**	**3,889**	**6,814**	**29,853**

Source: *IMPLAN* 2012 data projected for 2014

*Note: The categories in italics are industries in the region but where a 10% increase would have little to no impact in the industry because of the small existing industry size.

Figure 7-3: Impacts in Value Added after a 10% Increase in Food Supply Chain

Crop Production	Direct	Indirect	Induced	Total
Oilseed farming	$1,123,585.04	$587,555.03	$699,806.45	$2,410,946.52
Grain Farming	$993,510.47	$1,978,892.18	$1,132,901.29	$4,105,303.94
Vegetable and Melon Farming	$1,178,172.88	$447,593.06	$1,074,413.36	$2,700,179.29
Fruit Farming	$774,775.28	$295,668.96	$771,602.00	$1,842,046.24
Tree Nut Farming	$2,444.78	$716.82	$1,379.97	$4,541.57
Greenhouse, Nursery, and Floriculture Production	$1,586,664.69	$259,943.39	$1,301,104.16	$3,147,712.25
Tobacco Farming	$859.84	$1,115.35	$1,475.88	$3,451.07
All Other Crop Farming	$2,169,721.31	$1,829,988.11	$1,937,818.54	$5,937,527.97
Subtotal	**$7,829,734.29**	**$5,401,472.91**	**$6,920,501.65**	**$20,151,708.85**
Animal Production	**Direct**	**Indirect**	**Induced**	**Total**
Cattle Ranching and Farming	$1,495,516.70	$2,426,907.91	$1,288,443.41	$5,210,868.01
Dairy Cattle and Milk Production	$6,627,774.42	$2,170,292.81	$1,931,128.46	$10,729,195.68
Poultry and Egg Production	$950,874.90	$787,368.59	$908,611.45	$2,646,854.93
Animal production, except cattle, poultry, and eggs	$1,190,506.16	$223,848.62	$339,587.68	$1,753,942.46
Subtotal	**$10,264,672.18**	**$5,608,417.92**	**$4,467,770.99**	**$20,340,861.09**
Food Manufacturing	**Direct**	**Indirect**	**Induced**	**Total**
Other animal food manufacturing	$1,157,474.72	$2,359,126.47	$1,111,405.05	$4,628,006.23
Fats and Oils Refining and Blending	$4,870,984.98	$12,538,183.18	$4,564,503.63	$21,973,671.80
Confectionery Manufacturing from Purchased Chocolate	$9,111,704.00	$7,353,712.33	$4,746,883.73	$21,212,300.06
Nonchocolate Confectionery Manufacturing	$23,010.28	$22,160.99	$14,267.86	$59,439.13
Frozen Food Manufacturing	$690,792.95	$1,010,168.78	$587,637.27	$2,288,599.00
Fruit and Vegetable Canning, Pickling, and Drying	$14,521,919.78	$14,748,783.06	$9,390,058.12	$38,660,760.96
Fluid Milk and Butter Manufacturing	$10,327,907.37	$23,887,618.23	$9,235,063.77	$43,450,589.37
Cheese Manufacturing	$3,476,537.47	$7,568,143.01	$3,448,478.28	$14,493,158.76
Animal (except poultry) slaughtering, rendering, and processing	$1,900,475.75	$3,855,418.56	$2,612,144.66	$8,368,038.98
Bread and Bakery Product Manufacturing	$7,263,808.17	$7,131,555.75	$5,273,080.80	$19,668,444.71
Cookie, Cracker, and Pasta Manufacturing	$2,446,080.19	$2,642,429.11	$1,646,873.33	$6,735,382.62
Snack Food Manufacturing	$1,329,072.93	$1,483,412.73	$774,668.09	$3,587,153.76
Coffee and Tea Manufacturing	$319,145.52	$453,754.92	$258,363.62	$1,031,264.07
Seasoning and Dressing Manufacturing	$385,327.70	$722,697.69	$401,202.82	$1,509,228.22
All Other Food Manufacturing	$507,442.62	$801,597.81	$435,903.35	$1,744,943.78
Subtotal	**$58,331,684.42**	**$86,578,762.62**	**$44,500,534.37**	**$189,410,981.42**

Source: *IMPLAN* 2012 data projected for 2014

Figure 7-3 *continued*: Impacts in Value Added after a 10% Increase in Food Supply Chain

Beverage and Tobacco Product Manufacturing	Direct	Indirect	Induced	Total
Soft Drink and Ice Manufacturing	$5,683,729.97	$6,273,665.89	$4,725,202.76	$16,682,598.62
Breweries	$5,543,367.80	$6,497,075.86	$3,355,283.99	$15,395,727.65
Wineries	$313,424.62	$706,552.20	$410,846.46	$1,430,823.28
Distilleries	$95,770.11	$119,409.15	$67,906.06	$283,085.32
Tobacco Product Manufacturing	$145,130.27	$56,850.11	$30,113.30	$232,093.69
Subtotal	**$11,781,422.78**	**$13,653,553.21**	**$8,589,352.58**	**$34,024,328.57**
Retail, Restaurants, and Consumer Service	**Direct**	**Indirect**	**Induced**	**Total**
Wholesale Trade Businesses	$783,760,195.81	$218,508,145.11	$331,871,300.61	$1,334,139,641.53
Retail Stores - Building Material and Garden Supply	$58,500,574.38	$14,756,509.24	$27,180,476.57	$100,437,560.19
Retail Stores - Food and Beverage	$117,056,102.43	$31,636,646.52	$61,040,188.57	$209,732,937.52
Food Services and Drinking Place	$300,295,743.87	$110,272,156.24	$147,971,269.83	$558,539,169.94
Subtotal	**$1,259,612,616.50**	**$375,173,457.10**	**$568,063,235.58**	**$2,202,849,309.18**

Source: *IMPLAN* 2012 data projected for 2014

Figure 7-4: Impacts in Labor Income after a 10% Increase in Food Supply Chain

Crop Production	Direct Effect	Indirect Effect	Induced Effect	Total Effect
Oilseed farming	$1,019,303.18	$323,061.48	$398,072.67	$1,740,437.34
Grain Farming	$1,058,132.94	$1,097,093.01	$644,054.69	$2,799,280.63
Vegetable and Melon Farming	$1,758,148.53	$299,740.49	$611,064.85	$2,668,953.86
Fruit Farming	$1,256,594.06	$223,767.71	$438,899.81	$1,919,261.58
Tree Nut Farming	$2,098.82	$532.13	$784.57	$3,415.52
Greenhouse, Nursery, & Floriculture Production	$2,315,316.62	$173,391.54	$739,909.41	$3,228,617.57
Tobacco Farming	$2,192.09	$636.98	$839.46	$3,668.54
All Other Crop Farming	$2,612,025.79	$1,085,862.99	$1,101,840.81	$4,799,729.60
Subtotal	**$10,023,812.04**	**$3,204,086.32**	**$3,935,466.26**	**$17,163,364.63**
Animal Production	**Direct Effect**	**Indirect Effect**	**Induced Effect**	**Total Effect**
Cattle Ranching and Farming	$984,814.75	$1,450,942.94	$732,127.88	$3,167,885.57
Dairy Cattle and Milk Production	$2,342,727.81	$1,323,282.03	$1,097,686.02	$4,763,695.87
Poultry and Egg Production	$1,212,387.43	$512,736.47	$516,488.06	$2,241,611.97
Animal production, except cattle, poultry, & eggs	$506,032.74	$137,409.87	$192,984.00	$836,426.62
Subtotal	**$5,045,962.73**	**$3,424,371.31**	**$2,539,285.98**	**$11,009,620.02**
Food Manufacturing	**Direct Effect**	**Indirect Effect**	**Induced Effect**	**Total Effect**
Other animal food manufacturing	$499,026.04	$1,565,042.39	$631,320.01	$2,695,388.44
Fats and Oils Refining and Blending	$924,313.39	$7,661,999.50	$2,592,783.92	$11,179,096.82
Confectionery Manufacturing from Purchased Chocolate	$3,962,725.28	$4,966,742.10	$2,696,131.64	$11,625,599.01
Nonchocolate Confectionery Manufacturing	$11,956.29	$14,812.80	$8,103.57	$34,872.65
Frozen Food Manufacturing	$413,957.99	$691,471.82	$333,777.98	$1,439,207.79
Fruit and Vegetable Canning, Pickling, & Drying	$7,764,943.43	$9,897,141.11	$5,333,586.61	$22,995,671.16
Fluid Milk and Butter Manufacturing	$3,810,094.95	$13,579,484.06	$5,246,045.78	$22,635,624.79
Cheese Manufacturing	$2,151,713.34	$4,333,411.61	$1,958,794.28	$8,443,919.24
Animal (except poultry) slaughtering, rendering, and processing	$2,523,183.38	$2,395,067.15	$1,483,751.14	$6,402,001.67
Bread and Bakery Product Manufacturing	$5,073,240.03	$4,837,325.80	$2,994,948.46	$12,905,514.30
Cookie, Cracker, and Pasta Manufacturing	$1,357,507.87	$1,739,183.78	$935,414.21	$4,032,105.86
Snack Food Manufacturing	$415,378.33	$1,041,948.86	$440,042.26	$1,897,369.45
Coffee and Tea Manufacturing	$167,228.86	$318,561.39	$146,766.76	$632,557.00
Seasoning and Dressing Manufacturing	$258,718.13	$495,545.80	$227,896.01	$982,159.93
All Other Food Manufacturing	$301,931.05	$516,928.28	$247,608.98	$1,066,468.31
Subtotal	**$29,635,918.36**	**$54,054,666.46**	**$25,276,971.61**	**$108,967,556.43**
Beverage and Tobacco Product Manufacturing	**Direct Effect**	**Indirect Effect**	**Induced Effect**	**Total Effect**
Soft Drink and Ice Manufacturing	$4,768,968.74	$4,127,409.89	$2,684,311.16	$11,580,689.79
Breweries	$1,760,039.06	$4,521,889.27	$1,905,801.49	$8,187,729.81
Wineries	$285,579.73	$479,567.01	$233,349.81	$998,496.55
Distilleries	$45,961.65	$81,225.12	$38,575.53	$165,762.31
Tobacco Product Manufacturing	$17,841.33	$38,698.11	$17,106.83	$73,646.27
Subtotal	**$6,878,390.50**	**$9,248,789.40**	**$4,879,144.82**	**$21,006,324.72**
Retail, Restaurants, and Consumer Service	**Direct Effect**	**Indirect Effect**	**Induced Effect**	**Total Effect**
Wholesale Trade Businesses	$476,140,755.52	$146,884,447.51	$188,502,918.14	$811,528,121.16
Retail Stores-Building Material & Garden Supply	$42,568,711.95	$8,607,810.80	$15,438,527.77	$66,615,050.53
Retail Stores - Food and Beverage	$96,240,515.63	$18,469,035.95	$34,665,763.62	$149,375,315.20
Food Services and Drinking Place	$212,785,280.11	$65,332,834.87	$84,036,912.51	$362,155,027.50
Subtotal	**$827,735,263.20**	**$239,294,129.14**	**$322,644,122.05**	**$1,389,673,514.39**

Source: *IMPLAN* 2012 data projected for 2014

Figure 7-5: Impacts in Output after a 10% Increase in Food Supply Chain

Crop Production	Direct	Indirect	Induced	Total
Oilseed farming	$2,599,369.15	$1,044,959.01	$1,098,879.15	$4,743,207.30
Grain Farming	$6,360,647.23	$3,745,004.05	$1,778,697.79	$11,884,349.08
Vegetable and Melon Farming	$2,243,785.00	$817,659.39	$1,687,046.43	$4,748,490.82
Fruit Farming	$1,468,923.63	$539,412.54	$1,211,609.14	$3,219,945.31
Tree Nut Farming	$4,104.26	$1,295.78	$2,166.64	$7,566.69
Greenhouse, Nursey, and Floriculture Production	$2,337,702.98	$505,056.22	$2,042,940.53	$4,885,699.73
Tobacco Farming	$3,647.98	$1,981.06	$2,317.47	$7,946.50
All Other Crop Farming	$6,584,324.99	$3,424,431.05	$3,042,578.38	$13,051,334.42
Subtotal	**$21,602,505.22**	**$10,079,799.11**	**$10,866,235.53**	**$42,548,539.85**
Animal Production	**Direct**	**Indirect**	**Induced**	**Total**
Cattle Ranching and Farming	$8,547,675.86	$6,942,106.15	$2,022,668.31	$17,512,450.32
Dairy Cattle and Milk Production	$13,693,143.39	$5,607,654.13	$3,031,836.37	$22,332,633.89
Poultry and Egg Production	$4,615,748.53	$2,506,411.91	$1,426,514.85	$8,548,675.29
Animal production, except cattle, poultry, and eggs	$1,943,923.29	$506,809.33	$533,117.78	$2,983,850.41
Subtotal	**$28,800,491.08**	**$15,562,981.51**	**$7,014,137.32**	**$51,377,609.91**
Food Manufacturing	**Direct**	**Indirect**	**Induced**	**Total**
Other animal food manufacturing	$11,520,228.70	$5,969,168.89	$1,744,582.09	$19,233,979.67
Fats and Oils Refining and Blending	$64,482,502.34	$40,775,428.50	$7,165,006.04	$112,422,936.87
Confectionery Manufacturing from Purchased Chocolate	$33,797,512.91	$13,867,911.83	$7,451,132.91	$55,116,557.65
Nonchocolate Confectionery Manufacturing	$91,756.31	$40,835.39	$22,395.87	$154,987.58
Frozen Food Manufacturing	$4,046,264.21	$1,877,429.30	$922,415.71	$6,846,109.22
Fruit and Vegetable Canning, Pickling, and Drying	$67,062,834.53	$27,198,021.89	$14,739,619.00	$109,000,475.41
Fluid Milk and Butter Manufacturing	$79,082,425.90	$51,380,964.37	$14,496,653.76	$144,960,044.03
Cheese Manufacturing	$32,268,231.61	$16,541,495.11	$5,413,121.09	$54,222,847.81
Animal (except poultry) slaughtering, rendering, and processing	$15,879,848.90	$11,336,488.72	$4,100,327.38	$31,316,665.00
Bread and Bakery Product Manufacturing	$26,266,945.15	$12,375,103.29	$8,277,059.67	$46,919,108.11
Cookie, Cracker, and Pasta Manufacturing	$11,478,853.17	$5,026,127.69	$2,585,094.06	$19,090,074.92
Snack Food Manufacturing	$6,013,773.66	$3,023,566.52	$1,216,018.19	$10,253,358.36
Coffee and Tea Manufacturing	$1,610,859.88	$768,816.91	$405,564.22	$2,785,241.01
Seasoning and Dressing Manufacturing	$2,853,469.68	$1,476,088.06	$629,776.96	$4,959,334.70
All Other Food Manufacturing	$2,895,794.23	$1,398,430.01	$684,247.88	$4,978,472.11
Subtotal	**$359,351,301.17**	**$193,055,876.47**	**$69,853,014.81**	**$622,260,192.46**

Source: *IMPLAN* 2012 data projected for 2014

Figure 7-5 *continued:* Impacts in Output after a 10% Increase in Food Supply Chain

Beverage and Tobacco Product Manufacturing	Direct	Indirect	Induced	Total
Soft Drink and Ice Manufacturing	$37,180,275.75	$11,837,440.84	$7,417,421.42	$56,435,138.01
Breweries	$27,396,547.95	$12,478,998.72	$5,266,775.93	$45,142,322.60
Wineries	$2,880,599.71	$1,223,012.96	$644,893.95	$4,748,506.62
Distilleries	$487,757.60	$212,274.67	$106,595.03	$806,627.29
Tobacco Product Manufacturing	$497,407.76	$103,330.66	$47,270.43	$648,008.84
Subtotal	**$68,442,588.77**	**$25,855,057.84**	**$13,482,956.76**	**$107,780,603.37**
Retail, Restaurants, and Consumer Service	**Direct**	**Indirect**	**Induced**	**Total**
Wholesale Trade Businesses	$1,132,573,151.46	$338,073,319.86	$520,938,273.65	$1,991,584,744.98
Retail Stores - Building Material and Garden Supply	$81,905,387.40	$22,483,264.14	$42,665,306.75	$147,053,958.29
Retail Stores - Food and Beverage	$167,308,767.63	$48,213,913.83	$95,811,625.80	$311,334,307.26
Food Services and Drinking Place	$564,543,643.77	$180,638,740.97	$232,263,842.00	$977,446,226.74
Subtotal	**$1,946,330,950.26**	**$589,409,238.80**	**$891,679,048.20**	**$3,427,419,237.26**

Source: *IMPLAN* 2012 data projected for 2014

The local food supply chain in Southwestern Pennsylvania is an important economic sector, employing thousands of people and engaging hundreds of businesses.

A ten percent increase in activity along the supply chain would have a strong ripple effect, evidence that this sector could serve as an effective generator for local jobs and businesses.

8 Actions Taken Regarding Food Systems Across the Country

Food as a commodity and an industry touches all 2.6 million residents in the Southwestern Pennsylvania region as sustenance, as a business, as a crop, or as a specialized piece of the logistics and transportation system.

The trends affecting food production in Southwestern Pennsylvania are similar to the U.S. trends:

1. Fewer reported farms
2. Fewer medium-sized farms, but more large farming operations
3. Older farm owners/operators
4. High land prices create a barrier to younger farmers entering the business
5. Shortage of labor

Nationally, over 35 food councils and state plans have been created to examine the topic. The American Planning Association issued a Policy Guide on Community and Regional Food Planning.[1] Many local and regional food plans/strategies have been promulgated. In the areas surrounding Southwestern Pennsylvania, four areas have adopted plans and actions to mitigate their food related challenges.

[1] Policy Guide on Community and Regional Food Planning, American Planning Association, May 11, 2007

"Greater Philadelphia Food System Study" Delaware Regional Planning Commission, 2010.

A description of the complicated regional food system that feeds Greater Philadelphia. DVRPC's food system study focuses on the agricultural resources, distribution infrastructure, regional economy, and stakeholders acting within the regional food shed. Includes barriers and recommendations.

Top Advantages of the Greater Philadelphia Food System:

- Proximity to Markets
- Abundance of Support
- Climate and Soils
- "Critical Mass of Farmers"
- Beneficial "Policies" as one of Greater Philadelphia's Advantages [2]

"Sysco's Journey from Supply Chain to Value Chain: 2008-2009 Final Report", April 1010, Wallace Center, Winrock International.

The report documents the results, lessons, and strategies learned in a pilot study focusing on meeting new consumer demands for diversified foods and sustainable farms.

Lesson: One of the key changes that Sysco has made is the seemingly small but actually big step of labeling products from existing regional suppliers as "local."

Re-branding existing products and suppliers could seem counter to the intent of the Sysco/Wallace partnership, which is largely to make a place in the market for farms and products that the current system excludes. Yet Chicago's Lower Lakes™ brand, Grand Rapids' MIPROD brand, and Kansas City's Buy Fresh/Buy Local offerings are part of realizing that intent. Now, instead of saying "no" when motivated customers ask for local products, the three regions involved in the Sysco/Wallace partnership can say "yes."[3]

"Central Ohio Local Food Assessment and Plan", Mid-Ohio Regional Planning Commission, April 2010.

The Central Ohio Agriculture and Food Systems Working Group is a multi-county team convened by the Mid-Ohio Regional Planning Commission (MORPC) to promote the production, processing, distribution and consumption of food within the region. The 12 county local food assessment and plan is a tool to collect and analyze regional agriculture and food data. Also, the plan is a resource for public policymakers and business leaders to learn about the value of local food to the regional populace and economy.
Barriers listed in the report:

- Producers often do not have the quantity or consistent quality that retailers demand, or labeling that traces food sources and will need training and guidance to meet those demands.

[2] Greater Philadelphia Food System Study" Delaware Regional Planning Commission, 2010, pp.134-137
[3] "Sysco's Journey from Supply Chain to Value Chain: 2008-2009 Final Report", April 1010, Wallace Center, Winrock International.p.9

- Cooperative businesses are one way for small farmers to get a large enough supply to satisfy distributors and retailers, but independent-minded farmers are reluctant to enter such ventures.
- Some farms will need to extend the growing season through such methods as high tunnels/hoop houses in order to make fresh local produce available longer.
- Farmers who diversify into local food production may have new equipment needs, and will have to find financing.
- Newcomers to agriculture will need knowledge to get started and training to be ready for marketing.
- The state needs a program to link prospective new farmers with those who are retiring and don't have heirs interested in the farm.
- Growing and processing food for local consumption will create jobs, but there are challenges in finding and training workers.
- Institutions that incubate new businesses tend to focus on other industries, primarily those viewed as "high tech," whereas food processing facilities, while essential, are typically viewed as low tech and of little or no interest to conventional incubators.[4]

"West Virginia Food System: Opportunities and constraints in local food supply chains", Prepared for West Virginia Food & Farm Coalition, prepared by Downstream Strategies, September, 2012.

The report, the second in a series, outlines the opportunities and constraints of meeting the growing demand for local food products in West Virginia, particularly at levels that extend beyond farm stands or farmers markets. The five most important findings were:

Finding 1: There is significant demand for local food in West Virginia, but increased production and stronger supply chains will be essential to meeting the demand.

Finding 2: New marketing outlets and new local food supply chains are already starting to move more local food to West Virginia consumers

Finding 3: Volume buyers, including restaurants, hospitals, and schools, offer sales opportunities throughout the state

Finding 4: Regulations, certifications, and requirements often impact producers' and other supply chain participants' access to distribution channels and large markets Numerous federal and state regulations impose requirements upon participants in the supply chain.

Finding 5: Expanded food processing infrastructure could help food producers produce more high-value products and access more customers year-round.

[4] Central Ohio Local Food Assessment and Plan, Mid-Ohio Regional Planning Commission, April 2010, p.27

"THE 25% SHIFT, The Benefits of Food Localization for Northeast Ohio & How to Realize Them", sponsored by the Cleveland Foundation and others, December 2010.[5]

The study analyzes the impact of the 16-county Northeast Ohio (NEO) region moving a quarter of the way toward fully meeting local demand for food with local production. It suggests that this 25% shift could create 27,664 new jobs; increase annual regional output by $4.2 billion and expand state and local tax collections by $126 million. The study noted key barriers.

Barriers

What are the key barriers to expanding the NEO region's local food system? Respondents were asked to identify, from a list, the most significant barriers to expanding the local food system. In the top tier of barriers were the following:

- Food distribution and warehousing are not adequate.
- Consumers need to better understand the benefits of local food and get more help finding it (perhaps though local branding or broader distribution).
- Finance for local food businesses is in short supply.
- Facilities available for value-added processing are not adequate"[6]

[5] "West Virginia Food System: Opportunities and constraints in local food supply chains", Prepared for West Virginia Food & Farm Coalition, prepared by Downstream Strategies, September, 2012. pp.ix-xiv.

[6] "THE 25% SHIFT, The Benefits of Food Localization for Northeast Ohio & How to Realize Them", sponsored by the Cleveland Foundation and others, December 2010. p.46

Local Food Systems as Regional Economic Drivers in Southern Minnesota, prepared by Minnesota Institute for Sustainable Agriculture, June 2012 [7]

The Study suggests "that a modest shift in growing choices of farmers and purchasing choices of consumers can result in significant economic impacts on local communities." (page 7) "With the right support, it could mean more profitable family farms, robust value-added food businesses, and increased tax bases for small towns, cities, and counties." (page 5)

Research concluded "that emerging markets such as local food distribution, organics, urban agriculture and alternative farming techniques offer opportunities for small business ownership and employment." (page 7)

Listed Challenges

Rural grocery stores can't compete with large chains on local foods (page 10)

Lack of adequate, farmer-friendly systems to aggregate, store and distribute product (page 14)

Cost of inputs: labor, land, and equipment

Lack of money, time, and sufficient markets

State laws and regulations

Advancing age of vendors,

Lack of interest in expanding [7]

Summary

The examples above from other regions demonstrate what they have learned from analyzing their local food systems. Increased knowledge of the agriculture and food production industry cluster in Southwestern Pennsylvania will enable the region to create better links between the key sectors to enhance economic competitiveness and sustain local food jobs.

SPC is proposing to conduct an analysis to answer the following:

- How can the region increase economic activity (jobs and investments) by supporting the local food system and value-added components of the system?
- What is the economic impact of increasing local food consumption?
- How can increased activity and/or producing value-added products increase incomes for people involved in the local food system?
- How large is the food supply chain in the region and what are the components?
- What regional actions and policies are needed to promote the local food supply chain?

[7] Local Food Systems as Regional Economic Drivers in Southern Minnesota June 2012, pp5,7,10,14,39