Commonwealth of Pennsylvania
Farm & Food Economy

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for
Pennsylvania Association for Sustainable Agriculture (PASA)

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Data in this report covers all of Pennsylvania unless otherwise stated.

Pennsylvania (Bureau of Economic Analysis, 2012)
12,763,536 residents receive $575 billion of income annually. Personal income doubled from 1969 to 2012, after dollars were adjusted for inflation. The largest source of personal income is transfer payments (from government programs such as pensions), which total $115 billion. Capital income (from interest, rent or dividends) ranks second at $98 billion. Health care jobs rank third, at $58 billion. Government workers earn $57 billion. Manufacturing jobs produce $42 billion of personal income, but this has declined from $60 billion in 1998 (in 2013 dollars). Professional, scientific, and technical workers earned $40 billion. Note that income from public sources makes up 29% of personal income in the state.

Income earned from transfer payments includes $39 billion of retirement and disability insurance benefits; $49 billion of medical benefits; $10 billion of income maintenance benefits; $5 billion of unemployment insurance; and $2.2 billion of veterans’ benefits.

Government income includes $9.4 billion of income earned by federal workers and $46 billion earned by state and local government workers. Military personnel earn $1.5 billion of personal income.

Although population has increased 8% since 1969, there has been only limited public planning to assure a secure and stable food supply.

Issues affecting low-income residents of Pennsylvania:
Over 2.1 million residents (26%) earn less than 185% of federal poverty guidelines. At this level of income, children qualify for free or reduced-price lunch at school. These lower-income residents spend about $7 billion each year buying food, including $2.8 billion of SNAP benefits (formerly known as food stamps) and additional WIC coupons. 16,000 of the Commonwealth’s 59,309 farmers receive an annual combined total of $108 million in subsidies (24-year average, 1989-2012), mostly to raise crops such as corn or soybeans that are sold as commodities, not to feed local

1 Considerable research assistance provided by Nick Wojciak.

7% percent of the state’s households (more than 340,000 residents) earn less than $10,000 per year. Source: Federal Census of 2008-2012.

14% of all adults aged 18-64 in the Commonwealth carried no health insurance in 2010. Source: Centers for Disease Control.

Food-related health conditions:
24% of the state’s residents reported in 2009 that they eat five or more servings of fruit or vegetables each day. 76% do not. This level of adequate consumption is the same as in 1996. This is a key indicator of health, since proper fruit and vegetable consumption has been connected to better health outcomes. Source: Centers for Disease Control.

50% of Pennsylvania adults reported in 2009 that they have at least 30 minutes of moderate physical activity five or more days per week, or vigorous physical activity for 20 or more minutes three or more days per week. This is a slight increase over 2001 levels. Source: Centers for Disease Control.

10% of the Commonwealth’s residents have been diagnosed with diabetes as of 2010. This is an increase from 8% in 2004. Source: Centers for Disease Control. Direct and indirect medical costs for treating overweightness, diabetes, and related conditions in the Commonwealth are estimated at $10.2 billion per year. This ranks as fifth among all states. Source: American Diabetes Association.

66% of Pennsylvania residents are overweight (37%) or obese (29%) as of 2010. The obesity rate increased dramatically from 16% in 1995. Source: Centers for Disease Control.

The Commonwealth's farms (Agricultural Census, 2012)
Agriculture Census data for 2012 were released May 2, 2014

The Census of Agriculture defines a “farm” as “an operation that produces, or would normally produce and sell, $1,000 or more of agricultural products per year.”

Land:
- 59,309 farms.
- This is a decline of 6% in the number of farms.
- 654 (1%) of these are 1,000 acres or more in size.
- 23,000 (39%) farms are less than 50 acres.
- Average farm size is 130 acres.
- The Commonwealth has 7.7 million acres of land in farms.
- Pennsylvania holds 4 million acres of harvested cropland.
- 39,000 of these acres are irrigated.
• Average value of land and buildings per farm was $705,000.

Sales:
With the exception of foods sold directly to consumers (see below), farmers typically sell commodities to wholesalers, brokers or manufacturers that require further processing or handling to become consumer items. The word “commodities” is used in this report to mean the crops and livestock sold by farmers through these wholesale channels. The term “products” encompasses commodity sales, direct sales, and any other sales.

• Pennsylvania's farmers sold $7.4 billion of crops and livestock in 2012.
• Farm product sales increased by 27% from 2007 to 2012.
• $2.8 billion of crops were sold.
• $4.6 billion of livestock and products were sold.
• 31,000 (52%) of the Commonwealth’s farms sold less than $10,000 of products in 2012.
• Total sales from these small farms were $71 million, 1% of the Commonwealth's farm product sales.
• 12,000 (20%) of the Commonwealth’s farms sold more than $100,000 of products.
• Total sales from these larger farms were $7 billion, 95% of the Commonwealth’s farm product sales.
• 52% of the Commonwealth's farms (31,000 of 59,000) reported net losses in 2012.
• 16,000 (27%) of Pennsylvania farmers collected a combined total of $86 million of federal subsidies in 2012.

Production Expenses:
• Feed purchases were the largest single expense for Pennsylvania farmers in 2012, totaling $1.8 billion (30% of production expenses).
• Hired farm labor ranked as the second most important expense, at $672 million (11%).
• Farmers charged $515 million (9%) to depreciation.
• Livestock and poultry purchases totaled $502 million (8%).
• Repairs, supplies, and maintenance costs were $453 million (7%).
• Fertilizer, lime, and soil conditioner expenses were $351 million (6%).
• Gasoline, fuels, and oil purchases totaled $312 million (5%).

Cattle & Dairy:
• 25,000 farms hold an inventory of 1.6 million cattle.
• 880,000 cattle were sold by farmers in 2012 for total sales of $717 million.
• 12,000 farms raise beef cows.
• 7,829 farms raise milk cows.
• 9,752 farms produced corn for silage.
• 33,000 farms produced 4.5 million tons of forage crops (hay, etc.) on 1.7 million acres.

Other Livestock & Animal Products:
• 3,097 farms hold an inventory of 1.1 million hogs and pigs.
• 2,672 farms sold 4.7 million hogs and pigs in 2012.
• 3,590 farms hold an inventory of 97,000 sheep and lambs.
• 4,035 farms sold $16 million worth of sheep, goats, and lambs in 2012.
• 9,539 farms hold an inventory of 25 million laying hens.
• 1,395 farms sold 167 million broiler chickens.
• 223 farms engage in aquaculture.
• 3,174 farms raise horses and ponies.

Grains, Oil Seeds, & Edible Beans:
• 19,000 farms produced $1.2 billion of grains, oil seeds, and edible beans in 2012.
• 17,000 farms produced 126 million bushels of corn on 998,000 acres, worth $801 million.
• This amounts to an average price per bushel of corn of $6.36. Note that this price is an approximation, and does not necessarily represent an actual price at which corn was sold.
• 7,718 farms produced 25 million bushels of soybeans on 520,000 acres, worth $310 million.
• This amounts to an average price per bushel of soybeans of $12.40. Note that this price is an approximation, and does not necessarily represent an actual price at which soybeans was sold.
• The total value of corn and soybeans amounted to 15% of all farm product sales in 2012.
• 4,053 farms produced 9 million bushels of wheat on 145,000 acres, worth $64 million.
• This amounts to an average price per bushel of wheat of $7.11. Note that this price is an approximation, and does not necessarily represent an actual price at which wheat was sold.
• 4,524 farms produced 3.8 million bushels of oats on 65,000 acres.

Vegetables & Melons (some farmers state that Ag Census data does not fully represent vegetable production):
• 3,968 farms worked 49,000 acres to produce vegetables, worth $141 million.
• This represents a 8% decrease in the number of farms (from 4,300) and a 12% increase in sales (from $126 million) over 2007 levels.
• 1,330 farms raised potatoes.

Fruits (some farmers state that Ag Census data does not fully represent fruit production):
• 2,282 farms in the Commonwealth hold 41,000 acres of orchards.
• 3,147 farms sold $161 million of fruits, nuts, and berries.

Nursery & Greenhouse Plants:
• 3,012 farms sold $945 million worth of ornamentals in 2012.
• This represents an increase of 11% in the number of farms (from 2,719) and an increase of 6% in the number of sales over 2007.
• 1,055 farms sold Christmas trees.
Direct & Organic Sales:
- 7,577 farms sell $86 million of food products directly to consumers. This is a 20-farm increase of number of farms selling direct, and a 13% increase in direct sales over 2007, when $76 million were sold.
- This amounts to 1.2% of farm product sales, four times the national average of 0.3%.
- 600 farms in the Commonwealth sold $79 million of organic products.
- 551 farms market through community supported agriculture (CSA).
- 3,145 farms produce and sell value-added products.
- 2,379 farms marketed products directly to retail outlets.
- 1,124 farms had on-farm packing facilities.

Conservation Practices:
- 9,280 farms practice rotational or management intensive grazing.
- 141 farms practiced alley cropping or silvopasture.
- 247 farms harvested biomass for use in renewable energy.

Other Crops:
- 1,312 farms produced 22 million pounds of tobacco on 9,532 acres, worth $40 million.
Operations by Legal Status for Tax Purposes in the Commonwealth of Pennsylvania  
(Census of Agriculture, 2012)

<table>
<thead>
<tr>
<th>Legal Status</th>
<th>Farms</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family or individual</td>
<td>52,390</td>
<td>5,928,144</td>
</tr>
<tr>
<td>Partnership</td>
<td>3,808</td>
<td>1,052,558</td>
</tr>
<tr>
<td>Corporation (family held)</td>
<td>2,054</td>
<td>490,771</td>
</tr>
<tr>
<td>Corporation (other than family held)</td>
<td>240</td>
<td>53,591</td>
</tr>
<tr>
<td>Other – cooperative, estate or trust, institutional, etc.</td>
<td>817</td>
<td>179,380</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>59,309</strong></td>
<td><strong>7,704,444</strong></td>
</tr>
</tbody>
</table>
Commonwealth of Pennsylvania highlights (Agriculture Census 2012)

- 59,309 farms, 6% less than in 2007.
- Pennsylvania has 7.7 million acres of land in farms.
- Farmers sold $7.4 billion of products in 2012.
- $2.8 billion (38%) of these sales were crops.
- $4.6 billion (62%) of these sales was livestock.
- The most prevalent farm size is 50 to 179 acres, with 25,000 farms (42%) in this category.
- The next most prevalent is 10 to 49 acres, with 18,000 (30%) farms.
- 654 farms (1%) are 1,000 acres or more.
- 23,000 farms (39%) are less than 50 acres.
- 31,000 farms (52%) sold less than $10,000 in farm products.
- 12,000 farms (20%) sold more than $100,000 in farm products.
- 7,577 farms sell $86 million of food products directly to consumers. This is a 20-farm increase of number of farms selling direct, and a 13% increase in direct sales over 2007 sales of $76 million.
- This amounts to 1.2% of farm product sales, 4 times the national average of 0.3%.
- 600 farms in the Commonwealth sold $79 million of organic products.
- 159 farms are converting acreage to organic production.
- 551 farms market through community supported agriculture (CSA).
- 3,145 farms produce and sell value-added products.
- 2,379 farms marketed products directly to retail outlets.
- 1,124 farms had on-farm packing facilities.
- 9,280 farms practice rotational or management intensive grazing.
- 141 farms practiced alley cropping or silvopasture.
- 247 farms harvested biomass for use in renewable energy.
Pennsylvania's top farm products in 2012 (Economic Research Service)

See chart on next page.

<table>
<thead>
<tr>
<th></th>
<th>Product</th>
<th>$ millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dairy</td>
<td>2,087</td>
</tr>
<tr>
<td>2</td>
<td>Corn</td>
<td>714</td>
</tr>
<tr>
<td>3</td>
<td>Cattle &amp; calves</td>
<td>706</td>
</tr>
<tr>
<td>4</td>
<td>Chicken eggs</td>
<td>525</td>
</tr>
<tr>
<td>5</td>
<td>Broilers</td>
<td>433</td>
</tr>
<tr>
<td>6</td>
<td>Greenhouse &amp; nursery</td>
<td>374</td>
</tr>
<tr>
<td>7</td>
<td>Hogs</td>
<td>340</td>
</tr>
<tr>
<td>8</td>
<td>Soybeans</td>
<td>301</td>
</tr>
<tr>
<td>9</td>
<td>Hay</td>
<td>130</td>
</tr>
<tr>
<td>10</td>
<td>Apples</td>
<td>128</td>
</tr>
<tr>
<td>11</td>
<td>Turkeys</td>
<td>120</td>
</tr>
<tr>
<td>12</td>
<td>Wheat</td>
<td>67</td>
</tr>
<tr>
<td>13</td>
<td>Other livestock</td>
<td>54</td>
</tr>
<tr>
<td>14</td>
<td>Misc. vegetables</td>
<td>51</td>
</tr>
<tr>
<td>15</td>
<td>Tobacco</td>
<td>35</td>
</tr>
<tr>
<td>16</td>
<td>Potatoes</td>
<td>30</td>
</tr>
<tr>
<td>17</td>
<td>Tomatoes</td>
<td>23</td>
</tr>
<tr>
<td>18</td>
<td>Peaches</td>
<td>22</td>
</tr>
<tr>
<td>19</td>
<td>Grapes</td>
<td>21</td>
</tr>
<tr>
<td>20</td>
<td>Beans, Snap</td>
<td>15</td>
</tr>
<tr>
<td>21</td>
<td>Barley</td>
<td>14</td>
</tr>
<tr>
<td>22</td>
<td>Oats</td>
<td>9</td>
</tr>
<tr>
<td>23</td>
<td>Strawberries</td>
<td>7</td>
</tr>
<tr>
<td>24</td>
<td>Mink Pelts</td>
<td>7</td>
</tr>
<tr>
<td>25</td>
<td>Cabbage</td>
<td>5</td>
</tr>
</tbody>
</table>

Note also that at $86 million, direct sales from farmers to consumers amount to more value than the 12th-ranking product, wheat.
Pennsylvania's top farm products in 2012 (Economic Research Service)

See table on previous page

Source: USDA Economic Research Service
Balance of Cash Receipts and Production Costs (BEA):
59,309 Pennsylvania farmers sell $6.3 billion of food commodities per year (1989-2012 average), spending $5.8 billion to raise them, for an average gain of about $500 million each year. This is an average net cash income of $7,700 per farm. Note that these sales figures compiled by the BEA may differ from cash receipts recorded by the USDA Agriculture Census (above).

Overall, farm producers earned a surplus of $11 billion by selling crops and livestock over the years 1989 to 2012. Yet farm production costs exceeded cash receipts for two years of that 24-year period. Moreover, 52% of the state's farms reported that they lost money in 2012 (Ag Census), and Pennsylvania farmers and ranchers earned $920 million less by selling commodities in 2012 than they earned in 1969 (in 2012 dollars).

Farmers and ranchers earn another $296 million per year of farm-related income — primarily custom work, and rental income (24-year average for 1989-2012). Federal farm support payments averaged $108 million per year for the state for the same years.

The Commonwealth's consumers:
See also information covering low-income food consumption and food-related health conditions, page 1-2 above.
Pennsylvania consumers spend $36 billion buying food each year, including $22 billion for home use. Most of this food is produced outside the state, so Pennsylvania consumers spend about $33 billion per year buying food sourced outside of Pennsylvania. Only $86 million of food products (1.2% of farm cash receipts and 0.2% of the state’s consumer market) are sold by farmers directly to consumers.

Estimated change in net assets (that is, assets minus liabilities) for all Pennsylvania households combined was a loss of $36 billion in 2011 alone (BLS). This places additional pressure on Pennsylvania consumers trying to buy food.

Farm and food economy summary:
Farmers earn $500 million each year producing food commodities, receive $108 million in subsidies, and spend $3.2 billion buying inputs sourced outside of the state. Even when farmers make money, these input purchases result in substantial losses to the Commonwealth as a whole. Overall, farm production creates a loss of $2.6 billion to the Commonwealth.

Meanwhile, consumers spend $33 billion buying food from outside. Thus, total loss to the Commonwealth is $36 billion of potential wealth each year. This loss amounts to nearly six times the value of all food commodities raised in the Commonwealth.
Pennsylvania: markets for food eaten at home (2011):
Pennsylvania residents purchase $36 billion of food each year, including $22 billion to eat at home. Home purchases break down in the following way:

<table>
<thead>
<tr>
<th>Item</th>
<th>Billions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meats, poultry, fish, and eggs</td>
<td>$ 4.7</td>
</tr>
<tr>
<td>Fruits &amp; vegetables</td>
<td>4.3</td>
</tr>
<tr>
<td>Cereals and bakery products</td>
<td>3.2</td>
</tr>
<tr>
<td>Dairy products</td>
<td>2.4</td>
</tr>
<tr>
<td>“Other,” incl. Sweets, fats, &amp; oils</td>
<td>7.2</td>
</tr>
</tbody>
</table>

If each Pennsylvania resident purchased $5 of food each week directly from farmers in the Commonwealth, these farms would earn $3.3 billion of new farm revenue.

Philadelphia metro area: markets for food eaten at home (2011):
Metro Philadelphia residents purchase $17 billion of food each year, including $10 billion to eat at home. Home purchases break down in the following way:

<table>
<thead>
<tr>
<th>Item</th>
<th>Billions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meats, poultry, fish, and eggs</td>
<td>$ 2.2</td>
</tr>
<tr>
<td>Fruits &amp; vegetables</td>
<td>2.0</td>
</tr>
<tr>
<td>Cereals and bakery products</td>
<td>1.5</td>
</tr>
<tr>
<td>Dairy products</td>
<td>1.1</td>
</tr>
<tr>
<td>“Other,” incl. Sweets, fats, &amp; oils</td>
<td>3.4</td>
</tr>
</tbody>
</table>

Pittsburgh metro region: markets for food eaten at home (2011):
Pittsburgh metro residents purchase $6.7 billion of food each year, including $4 billion to eat at home. Home purchases break down in the following way:

<table>
<thead>
<tr>
<th>Item</th>
<th>Millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meats, poultry, fish, and eggs</td>
<td>$ 868</td>
</tr>
<tr>
<td>Fruits &amp; vegetables</td>
<td>798</td>
</tr>
<tr>
<td>Cereals and bakery products</td>
<td>600</td>
</tr>
<tr>
<td>Dairy products</td>
<td>437</td>
</tr>
<tr>
<td>“Other,” incl. Sweets, fats, &amp; oils</td>
<td>1,329</td>
</tr>
</tbody>
</table>
Key data sources:

Bureau of Economic Analysis data on farm production balance  
http://www.bea.doc.gov/bea/regional/reis/

Food consumption estimates from Bureau of Labor Statistics Consumer Expenditure Survey  
http://www.bls.gov/cex/home.htm

U.S. Census of Agriculture  
http://www.nass.usda.gov/census/

USDA/Economic Research Service food consumption data:  
http://www.ers.usda.gov/data/foodconsumption/

USDA/ Economic Research Service farm income data:  
http://ers.usda.gov/Data/FarmIncome/finfidmu.htm

For more information:

To see results from Finding Food in Farm Country studies in other regions of the U.S.: http://www.crcworks.org/?submit=fffc

To read the original Finding Food in Farm Country study from Southeast Minnesota (written for the Experiment in Rural Cooperation): http://www.crcworks.org/ff.pdf


For further information: http://www.crcworks.org/

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