West Virginia
Farm & Food Economy

Highlights of a data compilation
by Ken Meter, Crossroads Resource Center (Minneapolis) for

Greenbrier Valley Economic Development Corporation (GVEDC)
West Virginia Community Development Hub
West Virginia Food and Farm Coalition

With support from the
Central Appalachian Network and the
Claude Worthington Benedum Foundation

March 15, 2011

Covers the entire state of West Virginia

West Virginia (Bureau of Economic Analysis, 2008)
1,814,873 residents receive $57 billion of income annually. The largest source of personal income is transfer payments (from government programs such as pensions), which account for $14 billion (25%) of personal income. Government jobs rank second, with $9.6 billion. Capital income (from interest, rent or dividends) accounts for $7.5 billion of personal income. Health care workers earn a total of $5.1 billion. Manufacturing jobs produce $3.6 billion of personal income. Miners earn $2.9 billion of personal income. Retail jobs rank next, at $2.8 billion. Construction workers earn $2.6 billion. Note that income from public sources makes up 42% of all personal income in the state; 47% is earned as wages and salaries.

The West Virginia population peaked in 1980, fell markedly, and leveled off ten years later. All told, the state’s population was only 4% higher in 2008 than it had been in 1969. Despite this limited growth, personal income doubled from 1969 – 2008 (in inflation adjusted dollars). During that time, there has been little if any public planning to assure a secure and stable food supply.

Issues affecting low-income residents of West Virginia:
Nearly 655,000 residents (37%) 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 $1.3 billion each year buying food, including $314 million of SNAP benefits (Supplemental Nutrition Assistance Program, formerly known as food stamps) and additional WIC (Women, Infants, and Children) coupons. The state’s 23,618 farmers receive an annual combined total of $12 million in subsidies (40-year average, 1969-2008), mostly to raise crops such as corn or soybeans that
are sold as commodities, not to feed West Virginia residents. Data from Federal Census of 2000, Bureau of Labor Statistics, & Bureau of Economic Analysis.

15% percent of the state’s households (over 279,000 residents) earn less than $10,000 per year. Source: Federal Census of 2000.

17% of all adults aged 18-64 in Metro Charleston carry no health insurance. Source: Centers for Disease Control. Note: this data is only compiled for metro areas; Charleston was selected since that metro area contains the state Capitol.

**Food-related health conditions:**
18% of Metro Charleston residents reported in 2009 that they eat five or more servings of fruit or vegetables each day. 82% do not. 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.

35% of Metro Charleston adults report 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. Source: Centers for Disease Control.

13% of Metro Charleston residents have been diagnosed with diabetes. Source: Centers for Disease Control. Medical costs for treating diabetes and related conditions in the state of West Virginia total $1 billion. Source: American Diabetes Association cost calculator.

70% of Metro Charleston residents are overweight (37%) or obese (33%). Source: Centers for Disease Control.

**The state’s farms (Agricultural Census, 2007)**
Agriculture Census data for 2007 were released February 4, 2009

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:**
- The state has 23,618 farms, 13% more than in 2002.
- West Virginia has 3.7 million acres of land in farms, 24% of the state’s land area.
- Average farm size is 157 acres.
- Average value of land and buildings per farm is $373,435.
- The most prevalent farm size is 50-179 acres, with 10,739 farms (45%) in this category.
- Next most prevalent farm size is 10-49 acres, with 5,749 (24%) farms.
- 334 farms (1.4%) are 1,000 acres or more.
- 6,956 (29%) farms are less than 50 acres.
- 457 farms have a total of 2,189 acres under irrigation.

**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.

- The state ranks 43rd in the nation in farm product sales.
- Farmers sold $591 million of farm products in 2007, 19% more than in 2002.
- $78 million (13%) of these sales were crops.
- $513 million (87%) of these sales were livestock.
- 18,877 farms (80%) sold less than $10,000 of farm products.
- These smaller farms sold $42 million (7%) of farm products.
- 749 farms (5%) sold more than $100,000 of farm products.
- These larger farms sold $445 million of farm products, 75% of the state’s farm sales.
- 64% of the state’s farms (15,123 of 23,618) reported net losses in 2007, even after federal subsidies are taken into account.
- West Virginia farmers collected a combined total of $15.2 million of federal commodity support payments in 2007.

Production Expenses:
- Feed purchases were the largest single expense for West Virginia farmers in 2007, totaling $178 million (33% of all production expenses).
- Purchases of livestock ranked as the second most important expense, at $97 million (18%).
- Farmers charged $57 million (10%) to depreciation.
- Supplies, repairs, and maintenance costs totaled $48 million (9%) for state farmers.
- Gasoline, fuels, and oil costs totaled $38 million (7%).
- Farmers spent $33 million to hire laborers (6%).
- Interest expenses totaled $28 million (5%).
- Farmers paid nearly $20 million in property taxes (4%).
- Chemical fertilizer costs totaled $19 million (4%).

Cattle & Dairy:
- 12,792 ranches and farms hold an inventory of 411,028 cattle and calves.
- 249,845 cattle were sold in 2007 by 10,474 farms, for total sales of $165 million.
- 370 farms have 11,744 milk cows.
- Farm sales of milk and dairy products totaled $31 million.
- 550 farms produced 272,039 tons of corn for silage on 19,408 acres.
- 23 farms raised 2,539 tons of sorghum for silage on 409 acres.
- 16,449 farms produced 986,097 tons of forage crops (hay, etc.) on 614,794 acres.
- 7,771 farms sold $21 million of forage.

Other livestock & animal products:
- 955 farms hold an inventory of 8,948 hogs and pigs.
- 1,042 farms sold 19,588 hogs and pigs in 2007, worth $2 million.
- 1,259 farms hold an inventory of 38,338 sheep, goats, and lambs.
- 1,860 farms sold $3.2 million of sheep, goats, and lambs in 2007.
- 2,580 farms hold an inventory of 1.2 million laying hens.
- Sales of poultry and eggs totaled $302 million.
- 216 farms raise broiler chickens, selling 88.8 million birds in 2007.
• 39 farms engage in aquaculture, selling $3.5 million of fish.
• 1,291 farms sold $4.5 million of horses and ponies.

Grains, oil seeds, and edible beans:
• 686 farms raised 2.9 million bushels of corn on 26,618 acres, worth $6.5 million.
• 115 farms raised 480,186 bushels of soybeans in 2007 on 13,717 acres, worth $3.4 million.
• 122 farms raised 336,553 bushels of winter wheat on 5,960 acres, worth $1.8 million.
• 121 farms produced 74,953 bushels of oats on 1,494 acres.
• 61 farmers raised 92,942 bushels of barley on 1,328 acres.

Vegetables & Melons (some farmers state that Ag Census data does not fully represent vegetable production):
• 726 farms work 2,210 acres to sell $5.8 million of vegetables.
• This represents a 73% increase in the number of farms (from 411) and a 26% increase in sales of vegetables (from $4.6 million) over 2002 levels.
• 277 farms raise 275 acres of potatoes.
• 7 farms produced sweet potatoes on a total of about one acre of land.

Fruits (some farmers state that Ag Census data does not fully represent fruit production):
• The state has 613 farms with a total of 6,909 acres of orchards.
• 365 West Virginia fruit and nut farms sold $14 million of products in 2007.
• This represents a 9.7% decrease in the number of farms (from 404) and a 24% increase in sales of fruits (from $11 million) over 2002 levels.

Nursery and Greenhouse plants
• 323 farms sold $23 million of nursery and ornamentals in 2007.
• This represents a decline of 13% in the number of farms (from 371) and a decrease of 13% in sales (from $26 million), since 2002.
• 173 farms sold $935,000 of Christmas trees.

Other crops:
• 68 farms raised 478,054 pounds of tobacco on 248 acres.
• This is a decrease of 89% in tobacco farms, from 530 in 2002.
• Tobacco sales totaled $748,000, down 78% from the 2002 level of $3.4 million.

Direct and organic sales:
• 1,990 farms sold $7.1 million of food directly to consumers. This is a 39% increase in the number of farms (1,434 in 2002) selling direct, and a 55% increase in direct sales over 2002 sales of $4.6 million.
• This amounted to 1.2% of farm product sales, three times the national average of 0.4%.
• If direct food sales made up a single commodity, the value of these sales would outrank the state’s 11th most important product, peaches.
• 84 farms farm organically, with a total of 783 acres of harvested cropland, and 804 acres of pastureland.
• 3,805 acres on 132 farms are undergoing organic conversion.
• 62 farms in West Virginia sold $260,000 of organic food products, including $222,000 of crops (this may include ornamental and greenhouse crops), $35,000 of livestock and poultry, and $3,000 of products from livestock and poultry (such as milk or eggs).
• 163 farms market through community supported agriculture (CSA).
• 1,011 state farms produce value-added products.

Conservation practices:
• 2,625 farms use conservation methods such as no-till, limited tilling, filtering field runoff to remove chemicals, fencing animals to prevent them from entering streams, etc.
• 5,455 farms practice rotational management or intensive grazing.
• 163 farms generate energy or electricity on the farm.
West Virginia's top farm products in 2009 (Economic Research Service)

See chart on next page

<table>
<thead>
<tr>
<th>Rank</th>
<th>Product</th>
<th>Sales (in $ millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Broilers</td>
<td>151.2</td>
</tr>
<tr>
<td>2</td>
<td>Cattle and calves</td>
<td>132.4</td>
</tr>
<tr>
<td>3</td>
<td>Turkeys</td>
<td>46.4</td>
</tr>
<tr>
<td>4</td>
<td>Hay</td>
<td>26.7</td>
</tr>
<tr>
<td>5</td>
<td>Chicken eggs</td>
<td>25.7</td>
</tr>
<tr>
<td>6</td>
<td>Ornaments</td>
<td>21.0</td>
</tr>
<tr>
<td>7</td>
<td>Dairy products</td>
<td>20.6</td>
</tr>
<tr>
<td>8</td>
<td>Apples</td>
<td>10.7</td>
</tr>
<tr>
<td>9</td>
<td>Corn</td>
<td>10.7</td>
</tr>
<tr>
<td>10</td>
<td>Soybeans</td>
<td>7.7</td>
</tr>
<tr>
<td>11</td>
<td>Peaches</td>
<td>3.9</td>
</tr>
<tr>
<td>12</td>
<td>Sheep and lambs</td>
<td>2.2</td>
</tr>
<tr>
<td>13</td>
<td>Aquaculture</td>
<td>1.7</td>
</tr>
<tr>
<td>14</td>
<td>Wheat</td>
<td>1.5</td>
</tr>
<tr>
<td>15</td>
<td>Farm chickens</td>
<td>1.0</td>
</tr>
<tr>
<td>16</td>
<td>Hogs</td>
<td>0.8</td>
</tr>
<tr>
<td>17</td>
<td>Honey</td>
<td>0.5</td>
</tr>
<tr>
<td>18</td>
<td>Wool</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Note: mushrooms were also listed among West Virginia's top 25 products, but sales figures for these products were not released by ERS, in an effort to protect confidentiality.

Note also that at $7 million, direct sales from farmers to consumers amount to more than the value of the state’s 11th-ranking product, peaches.
West Virginia’s top farm products in 2009 (Economic Research Service)
See table on previous page

Top farm commodities in West Virginia, 2009

Source: USDA Economic Research Service
Balance of Cash Receipts and Production Costs (BEA):
West Virginia ranchers and farmers sell $585 million of food commodities per year (1969-2008 average), spending $681 million to raise them, for an average loss of $96 million each year. Note that these sales figures compiled by the BEA may differ from cash receipts recorded by the USDA Agriculture Census (above).

Overall, farm producers spent $3.8 billion more producing crops and livestock than they have earned by selling these commodities from 1969 to 2008. Farm production costs have exceeded cash receipts in thirty-seven of the forty years in that period. Moreover, 64% of the state's farms and ranches reported a net loss in 2007 (Ag Census). West Virginia farmers and ranchers earned $212 million less by selling commodities in 2008 than they earned in 1969 (in 2008 dollars).

Farmers and ranchers earn another $67 million per year of farm-related income — primarily custom work, and rental income (forty-year average for 1969-2008). Federal farm support payments are relatively small, averaging $12 million per year for all West Virginia farmers, over the same years.

The state's consumers:
See also information covering low-income food consumption and food-related health conditions, page 1-2 above.
West Virginia residents purchase $4.4 billion of food each year, including $2.5 billion to eat at home. Most of this food is produced outside the state. Only $7 million of food products (1.2% of farm cash receipts and 0.15% of the state consumer market) are sold by farmers directly to consumers.

Estimated change in net assets (that is, assets less liabilities) for all state households combined was a loss of $772 million in 2008 alone (BLS). This places additional pressure on West Virginia consumers trying to buy food.

Farm and food economy summary:
Farmers lose $96 million each year producing food commodities, and spend an estimated $274 million buying inputs that are sourced outside West Virginia, for a total loss of $370 million to the state. Source: External inputs estimated by author from Census of Agriculture farm production expense data.

Meanwhile, consumers spend $4 billion buying food from outside. Thus, total loss to the state is $4.3 billion of potential wealth each year. This loss amounts to more than eight times the value of all food commodities raised in the state.
Consumer Markets for Food

Greenbrier Valley Region: markets for food eaten at home (2008):
Greenbrier Valley residents purchase $139 million of food each year, including $80 million to eat at home. Home purchases break down in the following way:

<table>
<thead>
<tr>
<th>Product</th>
<th>Millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meats, poultry, fish, and eggs</td>
<td>$ 19</td>
</tr>
<tr>
<td>Fruits &amp; vegetables</td>
<td>13</td>
</tr>
<tr>
<td>Cereals and bakery products</td>
<td>11</td>
</tr>
<tr>
<td>Dairy products</td>
<td>9</td>
</tr>
<tr>
<td>“Other,” incl. sweets, fats, &amp; oils</td>
<td>28</td>
</tr>
</tbody>
</table>

Morgantown metro area: markets for food eaten at home (2008):
Morgantown metro area residents purchase $291 million of food each year, including $166 million to eat at home. Home purchases break down in the following way:

<table>
<thead>
<tr>
<th>Product</th>
<th>Millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meats, poultry, fish, and eggs</td>
<td>$ 40</td>
</tr>
<tr>
<td>Fruits &amp; vegetables</td>
<td>28</td>
</tr>
<tr>
<td>Cereals and bakery products</td>
<td>22</td>
</tr>
<tr>
<td>Dairy products</td>
<td>19</td>
</tr>
<tr>
<td>“Other,” incl. sweets, fats, &amp; oils</td>
<td>57</td>
</tr>
</tbody>
</table>

Wheeling metro area: markets for food eaten at home (2008):
Wheeling metro area residents purchase $354 million of food each year, including $202 million to eat at home. Home purchases break down in the following way:

<table>
<thead>
<tr>
<th>Product</th>
<th>Millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meats, poultry, fish, and eggs</td>
<td>$ 49</td>
</tr>
<tr>
<td>Fruits &amp; vegetables</td>
<td>34</td>
</tr>
<tr>
<td>Cereals and bakery products</td>
<td>27</td>
</tr>
<tr>
<td>Dairy products</td>
<td>23</td>
</tr>
<tr>
<td>“Other,” incl. sweets, fats, &amp; oils</td>
<td>70</td>
</tr>
</tbody>
</table>

Hagerstown/Martinsburg Metro area: markets for food eaten at home (2008):
Hagerstown/Martinsburg MSA residents purchase $646 million of food each year, including $369 million to eat at home. Home purchases break down in the following way:

<table>
<thead>
<tr>
<th>Product</th>
<th>Millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meats, poultry, fish, and eggs</td>
<td>$ 89</td>
</tr>
<tr>
<td>Fruits &amp; vegetables</td>
<td>61</td>
</tr>
<tr>
<td>Cereals and bakery products</td>
<td>50</td>
</tr>
<tr>
<td>Dairy products</td>
<td>41</td>
</tr>
<tr>
<td>“Other,” incl. sweets, fats, &amp; oils</td>
<td>128</td>
</tr>
</tbody>
</table>
Huntington/Ashland Metro region: markets for food eaten at home (2008):
Huntington/Ashland Metro residents purchase $696 million of food each year, including $398 million to eat at home. Home purchases break down in the following way:

<table>
<thead>
<tr>
<th>Category</th>
<th>Million Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meats, poultry, fish, and eggs</td>
<td>$ 96</td>
</tr>
<tr>
<td>Fruits &amp; vegetables</td>
<td>66</td>
</tr>
<tr>
<td>Cereals and bakery products</td>
<td>54</td>
</tr>
<tr>
<td>Dairy products</td>
<td>45</td>
</tr>
<tr>
<td>“Other,” incl. sweets, fats, &amp; oils</td>
<td>138</td>
</tr>
</tbody>
</table>

Metro Charleston: markets for food eaten at home (2008):
Metro Charleston residents purchase $741 million of food each year, including $423 million to eat at home. Home purchases break down in the following way:

<table>
<thead>
<tr>
<th>Category</th>
<th>Million Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meats, poultry, fish, and eggs</td>
<td>$ 102</td>
</tr>
<tr>
<td>Fruits &amp; vegetables</td>
<td>70</td>
</tr>
<tr>
<td>Cereals and bakery products</td>
<td>57</td>
</tr>
<tr>
<td>Dairy products</td>
<td>48</td>
</tr>
<tr>
<td>“Other,” incl. sweets, fats, &amp; oils</td>
<td>146</td>
</tr>
</tbody>
</table>

West Virginia: markets for food eaten at home (2008):
West Virginia residents purchase $4.4 billion of food each year, including $2.5 billion to eat at home. Home purchases break down in the following way:

<table>
<thead>
<tr>
<th>Category</th>
<th>Million Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meats, poultry, fish, and eggs</td>
<td>$ 612</td>
</tr>
<tr>
<td>Fruits &amp; vegetables</td>
<td>421</td>
</tr>
<tr>
<td>Cereals and bakery products</td>
<td>343</td>
</tr>
<tr>
<td>Dairy products</td>
<td>285</td>
</tr>
<tr>
<td>“Other,” incl. sweets, fats, &amp; oils</td>
<td>876</td>
</tr>
</tbody>
</table>

If West Virginia residents purchased 15% of their food for home use directly from state farmers, this would generate $665 million of new farm income for West Virginia.

As stated earlier, lower-income residents in West Virginia spend $1.3 billion each year buying food, including $314 million of SNAP benefits (Supplemental Nutrition Assistance Program, formerly known as food stamps) and additional WIC (Women, Infants, and Children) coupons. Data from Federal Census of 2000, Bureau of Labor Statistics, & Bureau of Economic Analysis.

USDA reports that the average West Virginia resident spent $552 eating at fast-food outlets in 2007. This would be a total of $1 billion, nearly one-quarter of food consumed by state households. Source: USDA Food Environment Atlas.
**Washington, DC, metro area: markets for food eaten at home (2008):**

Washington, DC, metro area residents purchase $13 billion of food each year, including $7.5 billion to eat at home. Home purchases break down in the following way:

<table>
<thead>
<tr>
<th>Category</th>
<th>Millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meats, poultry, fish, and eggs</td>
<td>$1,813</td>
</tr>
<tr>
<td>Fruits &amp; vegetables</td>
<td>1,248</td>
</tr>
<tr>
<td>Cereals and bakery products</td>
<td>1,015</td>
</tr>
<tr>
<td>Dairy products</td>
<td>843</td>
</tr>
<tr>
<td>“Other,” incl. sweets, fats, &amp; oils</td>
<td>2,596</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/locales.html

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

To view a PowerPoint presented in March, 2008, by Ken Meter at Rep. Collin Peterson’s (D-MN) Minnesota agricultural forum, called the “Home Grown Economy”:
http://www.crcworks.org/crcppts/petersonkm08.pdf

To get a brief list of essential food facts, many of which are cited in the presentation above,
http://www.crcworks.org/foodmarkets.pdf

To link to further analysis of farm and food economies in the U.S.:
http://www.crcworks.org/econ.html

Contact Ken Meter at Crossroads Resource Center
<kmeter@crcworks.org>
(612) 869-8664