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Tools for Community Self-determination

Colorado Plateau & Intermountain Valley Bioregion Local Farm & Food Economy

Highlights of a data compilation
by Ken Meter, Crossroads Resource Center (Minneapolis)
for
New Mexico Bioneers
July 27, 2009

The bioregion described here encompasses McKinley & San Juan Counties in New Mexico.

Note: Bioregional boundaries do not follow county lines, but data used in this report is largely reported by county. This regional report covers McKinley and San Juan Counties in their entirety, which is only an approximation of the bioregion.

Colorado Plateau & Intermountain Valley: (Bureau of Economic Analysis)

192,218 residents receive \$4.9 billion of income annually (2007). Real personal income has increased four-fold since 1969, in part due to a doubling of population. Despite this increase, there has been little public planning to assure a secure and stable food supply.

Issues affecting low-income residents of Colorado Plateau Region:

93,050 residents (50%) 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 earn a combined \$1.2 billion per year, spending \$172 million buying food. Their food purchases are supplemented by SNAP benefits (formerly known as food stamps) and by WIC coupons (these two benefits combined generally amount to about 10-15% of low-income food expenditures). Low-income households alone lost an aggregate total of \$56 million in assets in the year 2007. *Data from Federal Census of 2000, & Bureau of Labor Statistics.*

Food-related health conditions in New Mexico:

One-fifth (20%) of New Mexico residents have no health insurance — the second highest rate in the U.S. Only half of state employers offer health coverage.¹ This lack of insurance carries significant public costs, since both county governments and medical facilities pay for treating customers who are not covered. Costs of this treatment in New Mexico are estimated to be \$6 billion per year.²

¹ Robert Wood Johnson Foundation, State summary for New Mexico, <http://covertheuninsured.org/>, accessed May 24, 2009.

² New Mexico Human Services Department (2007). "Summary of New Mexico's Universal Health Coverage Reform Efforts." SCI/Academy Health Summer Workshop for State Officials, August 2. Viewed May 24, 2009, at www.statecoverage.org/files/2007_SCI_Summer_Meeting_Esquibel.ppt.

Food has become a leading cause of death in the U.S, rivaling tobacco. A high-calorie diet, combined with a lack of exercise, accounts for one-fifth of the annual deaths in the U.S.³ Six of the fifteen leading causes of death are related to poor diet and low physical activity.⁴

60% of New Mexico residents are overweight or obese, with one-third (34%) overweight and more than one-quarter (26%) obese. Nearly four of every five state residents (78%) eat fewer fruits and vegetables that nutritionists recommend (five servings per day), and 22% report they have no physical activity. 7.8% of state residents have been diagnosed with diabetes. *Source: Centers for Disease Control.*

The region's ranches and farms (U.S. Census of Agriculture, 2007)

Agriculture Census data for 2007 were released February 4, 2009. Note that the Census of Agriculture uses the term "farm" to include both ranches and farms.

Since 1987, regional trends in agriculture have been dominated by events in San Juan County, where commodity sales have increased. However, commodity sales in McKinley county have declined, in real dollars, since 1969.

Land:

- 4,521 ranches and farms.
- The Colorado Plateau Intermountain Valley Region has 22% of New Mexico farms.
- 58% of the region's ranches and farms are located in McKinley County.
- The number of farms grew dramatically (372%) from 2002 to 2007. The region held only 958 farms five years earlier. Growth in the number of farms appears to be explained primarily better reporting of small farms owned by Latino/Native residents.
- 138 (3%) of these are 1,000 acres or more.
- 3,570 (79%) farms are less than 50 acres.
- The most prevalent farm size is 1-9 acres, with a total of 2,609 farms (40% of farms).
- Average farm size is 1,063 acres, 51% of New Mexico's average.
- The region has 4.8 million acres of land in ranches and farms.
- This amounts to 11% of the state's farmland.
- 139,000 acres (3%) of the region's farmland is cropland.
- Region farms have 76,000 acres of harvested cropland.
- 1,521 (34%) farms have a total of 82,962 acres of irrigated land.
- Average value of land and buildings per farm is \$203,701. This is 29% of the state average of \$696,000.

Sales (Note that there may be discrepancies between Ag Census data and Bureau of Economic Analysis data, below):

- \$65 million of crops and livestock sold (2007), 3% of state farm sales.

³ McGinnis, J.M. & W.H. Foege (1993). "Actual causes of death in the United States." *JAMA* 270(18):2207-12; and Mokdad, A.H, J.S. Marks, D.F. Stroup, & J.I. Gerberding (2000). "Actual causes of death in the United States." *JAMA* 291(10):1238-45 [with published corrections in *JAMA* (2005), 293(3), 293-294.]

⁴ Heron M., D.L. Hoyert, J. Xu, C. Scott, & B. Tejada (2008). *Deaths: preliminary data for 2006*. National Vital Statistics Report 56:16. http://www.cdc.gov/nchs/data/nvsr/nvsr56/nvsr56_16.pdf.

- This is a 50% increase in sales over 2002 sales of \$43 million.
- Total farm production expenses were \$72 million.
- This results in a net loss of \$7 million from farm production in 2007.
- Production costs rose 58%, from \$46 million in 2002 to the 2007 level of \$72 million.
- The largest production expense item was feed, totaling \$18.9 million. Costs for purchasing gasoline, fuels and oils were second, at \$9.6 million. The region's farmers also spent \$6 million on supplies, repair and maintenance, \$6 million on labor, and \$5.8 million on livestock.
- \$48.4 million of crops were sold (74% of sales), 79% more than the \$27 million sold in 2002.
- \$16.7 million of livestock and products were sold (26% of sales). It is not possible to compare this figure with 2002 sales since data from McKinley County were suppressed to protect confidentiality.
- 4,236 (94%) of the region's farms sold less than \$10,000 of products in 2007. Their aggregate sales of \$7.2 million amounted to 11% of the region's farm product sales. Increases were especially large in San Juan County, where the number of farms selling, for example, between \$5,000 and \$9,999 of products rose from 87 in 2002 to 317 in 2007.
- 30 farms (0.7%) sold more than \$100,000 of products, an aggregate total of \$50 million, or 78% of the region's farm product sales. Growth was especially strong in San Juan County, where sales of the largest farms rose \$17 million, from \$30 million to \$47 million, from 2002 to 2007, with only one new net farm (from six to seven farms) added.
- 225 farms received \$971,000 of federal subsidies in 2007, mostly in San Juan County. [*Note that Agriculture Census data differ from Bureau of Economic Analysis data; see below.*]
- 80% (3,611) of region's farms reported net losses in 2007, even after subsidies are taken into account. This is far higher than the New Mexico average of 65% (13,526 of 20,930 farms). 88% of McKinley County farms and 69% of San Juan County farms reported net losses.

Principal Products sold in 2007 (*data may be estimated or incomplete due to confidentiality*):

	\$ millions
Cattle	<i>suppressed</i>
Forage	15
Vegetables	14
Edible Beans	5

Grains, Dry Edible Beans, Oil Crops, and others:

- 8 farms in the Colorado Plateau region (mostly in San Juan County) raised corn in 2007.
- Corn production and sales were not reported in 2002, to protect confidentiality.
- 5 of the region's farmers sold wheat.
- The region's wheat sales were not reported, to protect confidentiality.
- 14 farms raised 655 bushels of oats on 40 acres in San Juan County.
- 89 farms, mostly in McKinley County, produced over 1,065 hundredweight of dry edible beans worth \$5 million.

Cattle & Dairy:

- 2,226 ranches and farms hold an inventory of 56,245 cattle and calves.

- 27,236 cattle were sold from 1,138 ranches and farms in 2007 (\$8.7 million of cattle were sold from San Juan County farms; McKinley County sales data were suppressed by USDA to protect confidentiality). This represents a sharp rise (331%) in the number of farms selling cattle since 2002.
- 8 farms hold a combined inventory of 42 dairy cows.
- 1 farm was reported as selling milk or dairy products in both 2002 and 2007.
- Milk and dairy sales were not reported in 2002 for confidentiality reasons.
- 727 farms produced 147,734 dry tons of forage crops (hay, etc.) on 30,114 acres of cropland, selling \$15 million worth.

Other livestock & animal products:

- 227 farms sold a total of \$632,000 of horses. The number of farms selling horses rose 76% from 129 in 2002, while sales increased 44% over the 2002 level of \$440,000.
- 1,984 farms held an inventory of 55,322 sheep, lambs, and goats, with 1,620 farms selling \$616,000 worth, primarily from San Juan County. While the number of farms raising these small livestock rose dramatically (1,488% over the 2002 count of 102 farms), sales decreased (-72%) from \$2.2 million in sales in 2002.
- 353 farms raise laying hens.
- Inventory of layers is 4,659. Half of these are raised in San Juan County.
- 137 farms sold \$59,000 of poultry and products in 2007. In 2002, 43 farms sold \$5,000 of poultry or poultry products. Thus, the number of farms rose 219% and sales increased 1,080%.
- 45 farms sold 399 hogs and pigs for total sales of \$45,000. This is an 80% increase in the number of farms (from 25), and a \$19,000 increase (73%) in sales, over the past five years.
- 47 farms hold an inventory of 248 hogs and pigs.

Nursery, Landscape and Ornamental Crops:

- 13 farms sold ornamental and nursery crops. By contrast, in 2002, 15 farms sold ornamentals. Sales figures were not reported.

Vegetables & Melons (some farmers state that Ag Census data does not fully represent vegetable production):

- Vegetable and potato sales totaled \$14 million.
- 948 farms produced vegetables on 10,903 acres of land, primarily in San Juan County.
- Only 35 farms raised vegetables in 2002; growth in vegetable farms from 2002 to 2007 was a dramatic 2,597%.
- 72 farms raised potatoes.
- The Colorado Plateau region hosts 54% of New Mexico's vegetable farmers, and 16% of state vegetable sales.
- Specific vegetables produced and reported to the Agriculture Census are listed below:

Note: (D) means data suppressed by USDA to protect confidentiality; (Z) means less than half of an acre.

McKinley County

	Farms	Harvested acres
Cabbage, Head	7	2
Cantaloupes	10	8

Carrots	1	(D)	
Garlic	1	(D)	
Herbs, Fresh Cut	1	(D)	
Honeydew Melons	3	(D)	
Onions, Dry	-	-	
Onions, Green	7		2
Peppers, Bell	-	-	
Peppers, Chile	13		10
Potatoes	35		103
Pumpkins	39		35
Radishes	4		5
Squash, all	260		271
Squash, Summer	259	(D)	
Squash, Winter	1	(D)	
Sweet Corn	444		827
Tomatoes in open	8		10
Vegetables, other	25		20
Watermelons	58		50

San Juan County

	Farms	Harvested acres	
Asparagus	-	-	
Beans, Green Lima	1	(D)	
Beans, Snap	8	(D)	
Beets	-	-	
Broccoli	-	-	
Cabbage, Head	-	-	
Cantaloupes	96	(D)	
Carrots	2	(D)	
Cauliflower	-	-	
Collards	2	(D)	
Cucumbers & Pickles	35		13
Eggplant	-	-	
Garlic	6		1
Herbs, Fresh Cut	1	(D)	
Honeydew Melons	23		24
Lettuce, all	5		1
Lettuce, Leaf	5		1
Okra	1	(D)	
Onions, Dry	2	(D)	
Onions, Green	8		5
Peas, Green	1	(D)	
Peas, Southern	3		2
Peppers, Bell	4		1
Peppers, Chile	39		36
Potatoes	37	(D)	

Pumpkins	17	(D)	
Radishes	4	(D)	
Spinach	1	(D)	
Squash, all	122		82
Squash, Summer	117	(D)	
Squash, Winter	11	(D)	
Sweet Corn	425	(D)	
Tomatoes in open	57		29
Vegetables, other	35		50
Watermelons	226	(D)	

Fruits & Nuts

(some farmers state that Ag Census data does not fully represent fruit production):

- The region has 114 fruit farms with 288 acres of orchards, mostly in San Juan County. This compares to 39 fruit farms in 2002.
- Sales of fruits and nuts from San Juan County were not reported in 2007 to protect confidentiality; so sales figures for 2007 are incomplete. McKinley County farmers sold \$24,000 of fruits and nuts.
- Fruit and nut sales in San Juan County in 2002 totaled \$713,000.
- Specific fruits and nuts produced and reported to the Agriculture Censuses are listed below:

Note: (D) means data suppressed by USDA to protect confidentiality; (Z) means less than half of an acre.

McKinley County

	Farms	Acres
Apples	12	7
Apricots	7	3
Peaches, all	11	10

San Juan County

	Farms	Acres
Apples	52	161
Apricots	50	39
Cherries, Sweet	7	(D)
Cherries, Tart	2	(D)
Grapes	20	21
Peaches, all	41	22
Pears, all	26	8
Plums & Prunes	8	(D)

Detailed list of berry acreage in 2007, as recorded by the Agriculture Census (if a given county in the region is not listed as producing berries, the county is not named below):

Note: (D) means data suppressed by USDA to protect confidentiality; (Z) means less than half of an acre.

McKinley County

(no berry production reported)

San Juan County

	Farms	Acres
Blackberries	1	(D)
Other berries	4	(D)
Strawberries	2	(D)

Direct & organic sales:

- 366 ranches and farms sell at least \$279,000 of food directly to consumers (direct sales were not reported for McKinley County farms to protect confidentiality). This is a 321% increase in the number of farms selling direct (87 in 2002), and a 33% increase in direct sales, over \$209,000 in 2002. Direct sales account for 0.4% of region farm sales, same as the national average.
- Region farmers make up 24% of the state's ranches and farms selling direct, and account for 2% of New Mexico's direct sales (\$11.2 million of direct sales in New Mexico in 2007, a substantial 70% increase over \$6.6 million direct sales in 2002).
- The New Mexico Organic Commodities Commission reports there are two farms, both in San Juan County, that are certified organic. They operate 527 acres of certified farmland. This amounts to 1% of New Mexico's 166 organic farms, and 0.5% of the state's certified acreage (105,551 acres).
- According to the U.S. Census of Agriculture, 7 of the region's farms sold organic foods, with over \$319,000 in sales. This is 3% of the New Mexico farms (269) selling organic.
- Organic production is more present in nearby Taos County.
- Local lists of Community Supported Agriculture (CSA) farms show no CSA farms in the region.
- According to the U.S. Census of Agriculture, 11 farms market through CSA arrangements. This is one of every five CSA farms in New Mexico. *[Analysts have pointed out that Census reports of CSA farming may overstate actual number of farms.]*
- 74 farms produce added-value products on the farm.

Conservation practices:

- 222 farms use rotational management or intensive grazing.
- 111 farms use conservation practices.
- 32 farms generate some electricity on the farm.
- 193 farms obtain irrigation water from the Bureau of Reclamation.

State of New Mexico Highlights (Agriculture Census 2007)

- New Mexico has 20,930 farms, 38% more than the 15,170 farms in 2002.
- Nevertheless, the number of acres in farms decreased 4%, to 43 million acres in 2007.
- 8,904 farm operators are Latino.
- 6,611 farm operators are Native American.
- The state has 24,214 White farm operators.
- There are 43 Asian-American, 66 African-American, and 26 Pacific Islander farm operators.
- New Mexico farmers sold \$2.2 billion of crops and livestock in 2007, up 28% from \$1.7 billion in sales five years before.
- This includes \$1.6 billion of livestock, and \$553 million in crops.
- The Agriculture Census lists production expenses as \$1.9 billion for all state farms.
- Government payments to farmers decreased 14%, to \$43 million in 2007 from \$50 million in 2002.
- The most prevalent farm size is 1-9 acres, with 6,400 farms.
- The next most prevalent size is 10-49 acres, with 4,300 farms.
- 3,600 farms are more than 1,000 acres.
- New Mexico ranks 9th in the U.S. for dairy sales, with \$1 billion. This is also the most important farm commodity sold in the state, in terms of sales.
- Second most important product in New Mexico is cattle, with \$576 million in sales.
- The state's farms held an inventory of 1.5 million cattle, down from 1.7 million in 1997.
- The most important single crop raised is forage, with \$139 million sold from 366,000 acres.
- 302,000 acres are devoted to wheat production.
- New Mexico farms sell \$105 million of fruits and nuts, and \$89 million of vegetables.

New Mexico's top 25 farm products in 2007 (Economic Research Service)

See chart on next page

1	Dairy products	1,353.8
2	Cattle and calves	951.8
3	Hay	195.4
4	Pecans	96.2
5	Onions	63.4
6	Greenhouse/nursery	62.4
7	Wheat	38.5
8	Cotton	35.0
9	Peppers, chile	32.9
10	Corn	23.9
11	Potatoes	14.3
12	Sorghum grain	9.9
13	Peanuts	7.0
14	Dry beans	6.1
15	Sheep and lambs	5.4
16	Wool	1.3
17	Apples	1.0
18	Honey	0.5
19	Hogs	0.2
20	Mohair	0.2

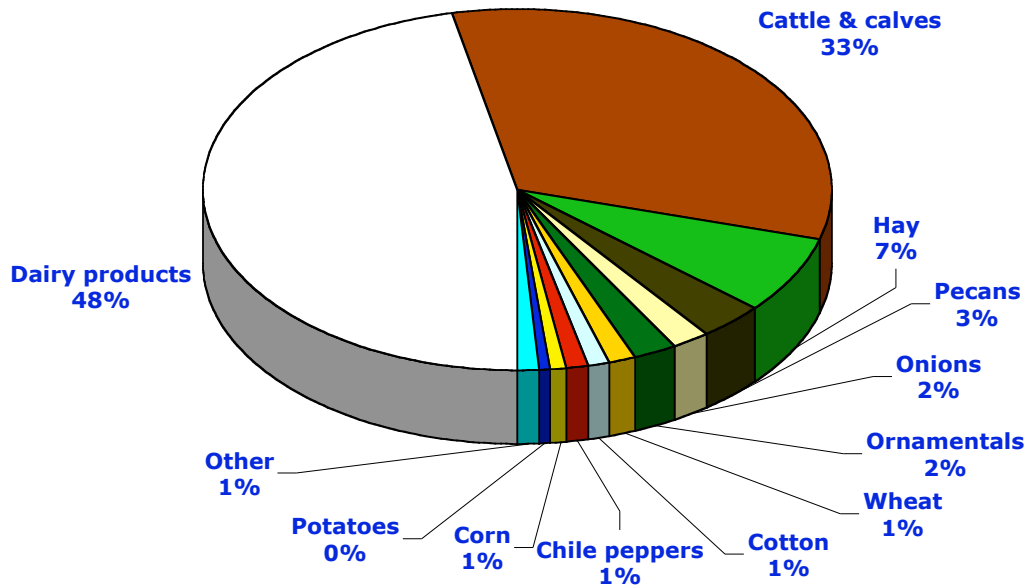
Note: chicken eggs and farm chickens were also listed among New Mexico's top 25 products, but sales figures for these products were not released by ERS.

Note also that at \$11 million, direct sales from farmers to consumers amount to more than the value of the 12th ranking product, sorghum grain.

New Mexico's top 25 farm products in 2007 (Economic Research Service)

See table on previous page

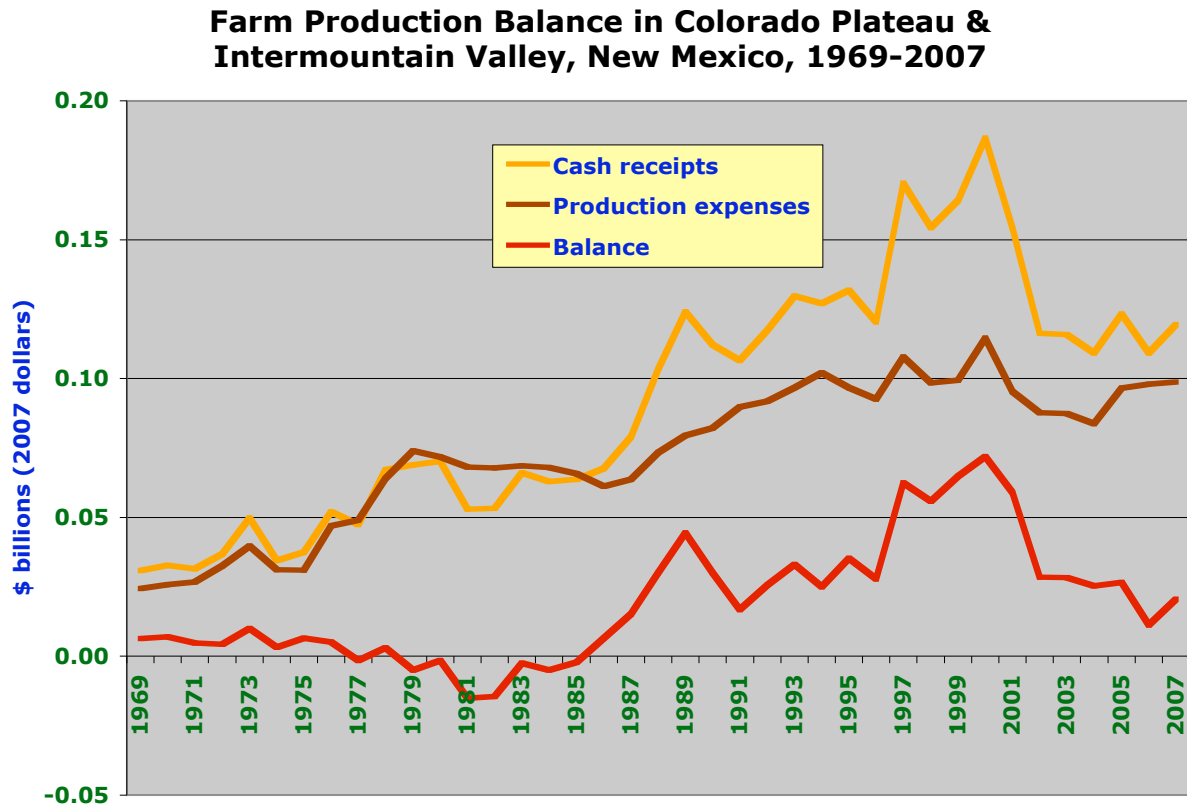
Top 25 commodities sold by New Mexico farms, 2007



Source: USDA Economic Research Service

Balance of Cash Receipts and Production Costs (Bureau of Economic Analysis):

Note: Bureau of Economic Analysis farm income data differ from Agriculture Census data.



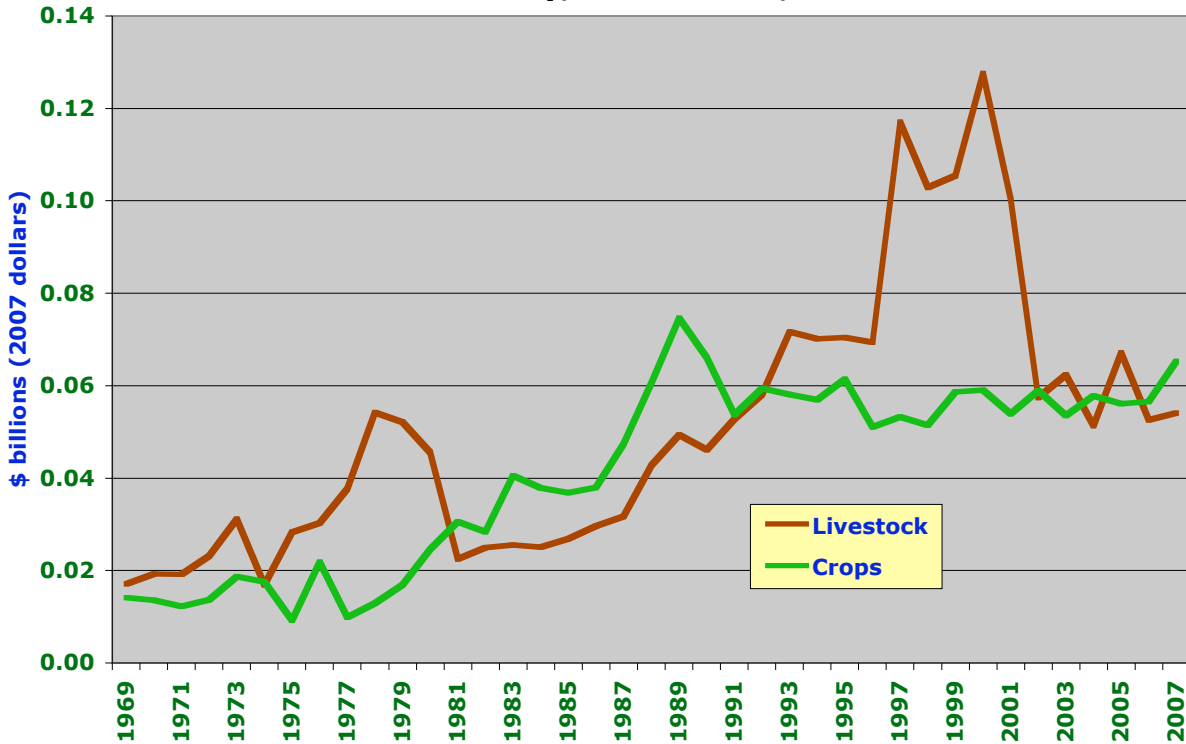
Colorado Plateau Region farmers sell \$110 million of commodities per year (1979-2007 average), spending \$86 million to raise them, for an average gain of \$24 million each year. **This data largely reflects farm sales in San Juan County** — since 1993, farmers in McKinley County have spent more money producing crops and livestock than they earn by selling commodities.

80% of the region's farms and ranches reported a net loss in 2007 (Agriculture Census), after subsidies are taken into account.

Colorado Plateau Region farmers and ranchers earned \$14 million more by selling commodities in 1969 than they earned in 2007 (in 2007 dollars). Sales of livestock and related products rose significantly from 1989 to 2000, peaking at \$128 million, but then fell dramatically to \$57 million in 2002. Crop income has remained fairly constant since 1989. The most steadily increasing costs of production are feed and labor costs.

Farmers and ranchers earn another \$2 million per year of farm-related income — primarily rental income for land (29-year average for 1979-2007). Federal farm support payments averaged \$3 million per year from 2000-2007 (farm subsidy data were incomplete in BEA data sets).

Crop and livestock sales in Colorado Plateau & Intermountain Valley, New Mexico, 1969-2007



Colorado Plateau & Intermountain Valley Region consumers (2007):

Colorado Plateau Region consumers spend \$410 million buying food each year, including \$230 million for home use. Most of this food is produced outside the region. \$279,000 of food products (0.4% of farm cash receipts, and 0.06% of local consumer needs) are sold by 366 farmers directly to consumers — but not always to Colorado Plateau Region consumers, since this includes internet sales. *Note also that these sales figures are low, since direct sales for McKinley County farms were not reported by USDA to protect confidentiality.*

Estimated change in net assets for all region households was a combined loss of \$216 million in 2007 alone (BLS). This places additional pressure on Colorado Plateau Region residents as they pay for food.

Farm and food economy summary:

Farmers earn \$24 million each year producing food commodities, spending \$40 million buying inputs from external suppliers, for a total outflow of \$16 million from the region’s economy.

Meanwhile, consumers spend more than \$370 million buying food from outside. Thus, total loss to the region is \$386 million of potential wealth *each year*. This loss amounts to more than 5 times the value of all commodities raised in the region.

Colorado Plateau & Intermountain Valley region: markets for food eaten at home (2007):

Source: Bureau of Labor Statistics

	<i>millions</i>
Meats, poultry, fish, and eggs	\$ 50
Fruits & vegetables	42
Cereals and bakery products	29
Dairy products	25
“Other,” incl. sweets, fats, & oils	84

If Colorado Plateau region consumers purchased only 15% of the food they need for home use directly from the region’s farmers, this would produce \$35 million of new farm income in the region — an amount equivalent to half of the region’s 2007 farm sales.

State of New Mexico: markets for food eaten at home (2007)

Source: Bureau of Labor Statistics

New Mexicans purchase \$5 billion of food per year, \$2.8 billion of this to eat at home. Home purchases break down in the following way:

	<i>millions</i>
Meats, poultry, fish, and eggs	\$ 620
Fruits & vegetables	518
Cereals and bakery products	358
Dairy products	315
“Other,” incl. sweets, fats, & oils	1,043

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>

Centers for Disease Control: Behavior Risk Factors Surveillance System

BRFSS <http://apps.nccd.cdc.gov/brfss-smart/>

National Association of Region and City Health Officials (NACCHO)

Big Cities Health Inventory <http://www.naccho.org/>

For more information:

To see results from *Finding Food in Farm Country* studies in other counties of the U.S.:

<http://www.crcworks.org/locales.html>

To read the original *Finding Food in Farm Country* study from Southeast Minnesota (written by Ken Meter and Jon Rosales for the Community Design Center and the Southeast Minnesota 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>

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