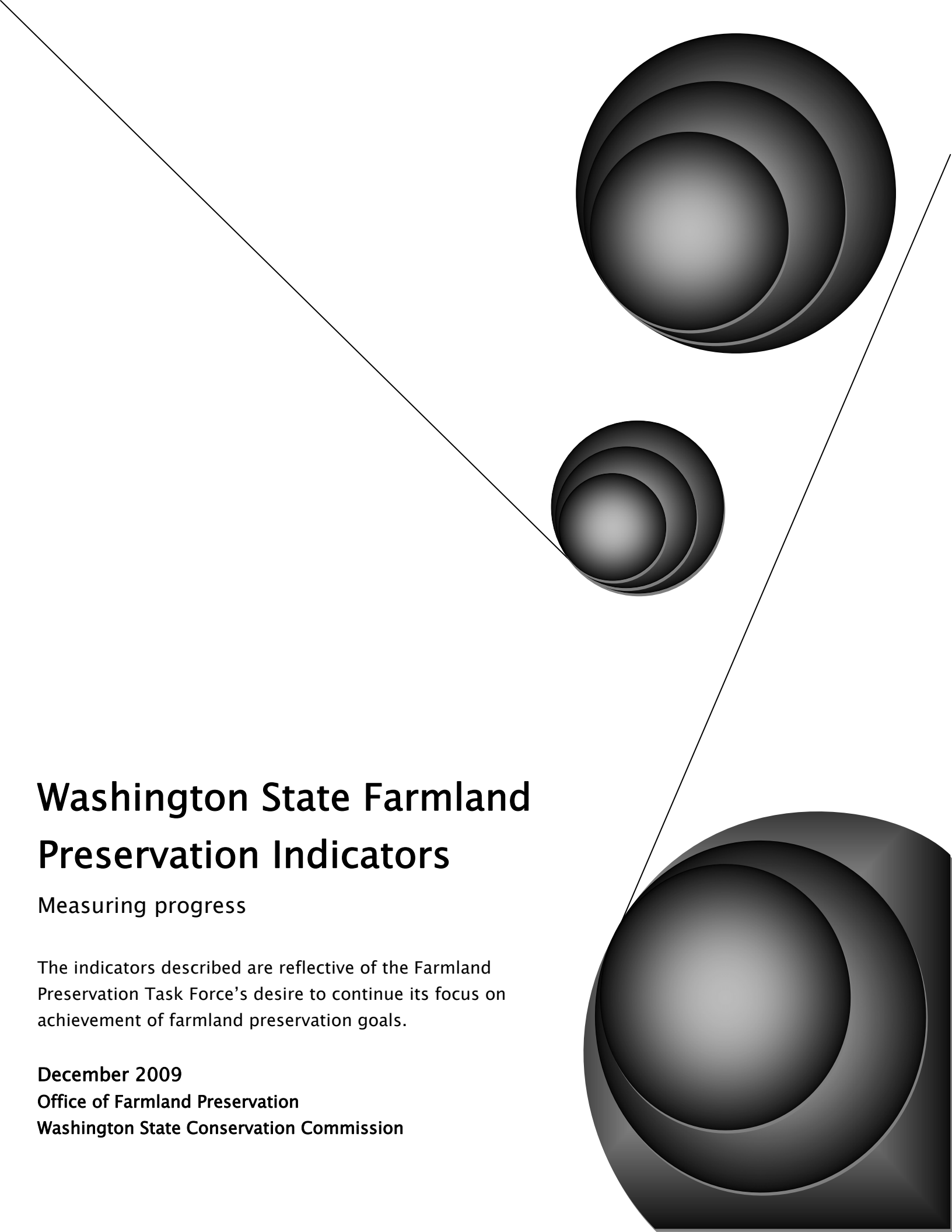

Washington State Farmland Preservation Indicators

Measuring progress

The indicators described are reflective of the Farmland Preservation Task Force's desire to continue its focus on achievement of farmland preservation goals.

December 2009
Office of Farmland Preservation
Washington State Conservation Commission

OFFICE OF FARMLAND PRESERVATION

2009 INDICATORS REPORT

Washington State Conservation Commission
PO Box 47721
Olympia, WA 98504
Phone 360.407.6200 • Fax 360.407.6215

If you need this publication in an alternate format, please contact the Office of Farmland Preservation at (360) 407-7474.

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INTRODUCTION

In 2007 when the Office of Farmland Preservation was created, the legislature codified their findings regarding the preservation of farmland to say that:

…there is a finite quantity of high quality agricultural land and that often this agricultural land is mistakenly viewed as an expendable resource. The legislature finds that the retention of agricultural land is desirable, not only to produce food, livestock, and other agricultural products, but also to maintain our state economy and preferable environmental conditions. For these reasons, and because it is essential that agricultural production be sufficient to meet the needs of our growing population, commitment to the retention of agricultural land should be reflected at the state policy level by the creation of an office of farmland preservation to support the retention of farmland and the viability of farming for future generations.

The Farmland Preservation Task Force identified several indicators to begin charting the overall condition of agriculture as it relates to farmland preservation.

An indicator is a tool that helps you know how far your project is from achieving your goals and whether you are headed in the right direction. Choosing the right indicator is essential for effectively evaluating your progress. The right indicator should:

1. Be relevant to the project.
2. Be easily understandable to everyone interested in your project.
3. Be easily measured.
4. Provide reliable information.

These farmland indicators deal with the current state of our area's resources. They help us answer the question, "Are our activities helping to improve the condition and availability of farmland in Washington?" These indicators target specific concerns that affect the viability and future of agriculture.

The data used for these indicators come from a wide variety of places, including local government agencies, state government agencies, academic institutions, trade groups, and large government databases.

The indicators found in this report are categorized to reflect the structure and layout of the 2008 Future of Farming report published by the Washington State Department of Agriculture:

- Making Agriculture a Priority
- Regulatory Barriers
- Resource Availability and Access
- Strengthen Competiveness
- Emerging Opportunities

WASHINGTON STATE FARMLAND PRESERVATION

Indicator: Competition of Land Use and Conversion

MEASURE: The number of farms and the acreage of land in farms for Washington from 2000-2008.

BACKGROUND: Competition of land refers to the danger of farmland loss due to changes in surrounding land uses. Historical and modern improvements continue to change the dynamics and profitability of agriculture. Advances in technology have allowed fewer farms and farmers to manage a larger amount of land.

Nationally, the 2007 Census of Agriculture showed a significant increase in the number of farms, and reversed the downward trend that was shown in the annual estimates of farm numbers since the 2002 Census of Agriculture.

The estimated number of farms in the U.S. in 2007 was revised from 2,088,790 to 2,204,950. The largest revisions occurred in the $1,000-$9,999 and $500,000 and over economic classes.

TRENDS & FINDINGS:

- Between 2000 and 2008, the numbers of farms has increased 6%.
- During the same period, the numbers of acres has dropped 4%
- Between 2006 and 2008, the number of farms has increased 16%.
- Average farm size has decreased from 420 acres (2000) to 375 acres (2008)
- Since 2000, the average price per acre of farm real estate has climbed 69%.
- Since 1980, the average price per acre of farm real estate has climbed 164%.

Sources:

Farms, Land in Farms, and Livestock Operations 2007 Summary: Released February 2008, by the National Agricultural Statistics Service.

Publication

URL: http://www.nass.usda.gov/Statistics_by_State/Washington/Publications/Annual_Statistical_Bulletin/annual2009.pdf

http://www.nass.usda.gov/Statistics_by_State/Washington/Historic_Data/economics/landinfm.pdf

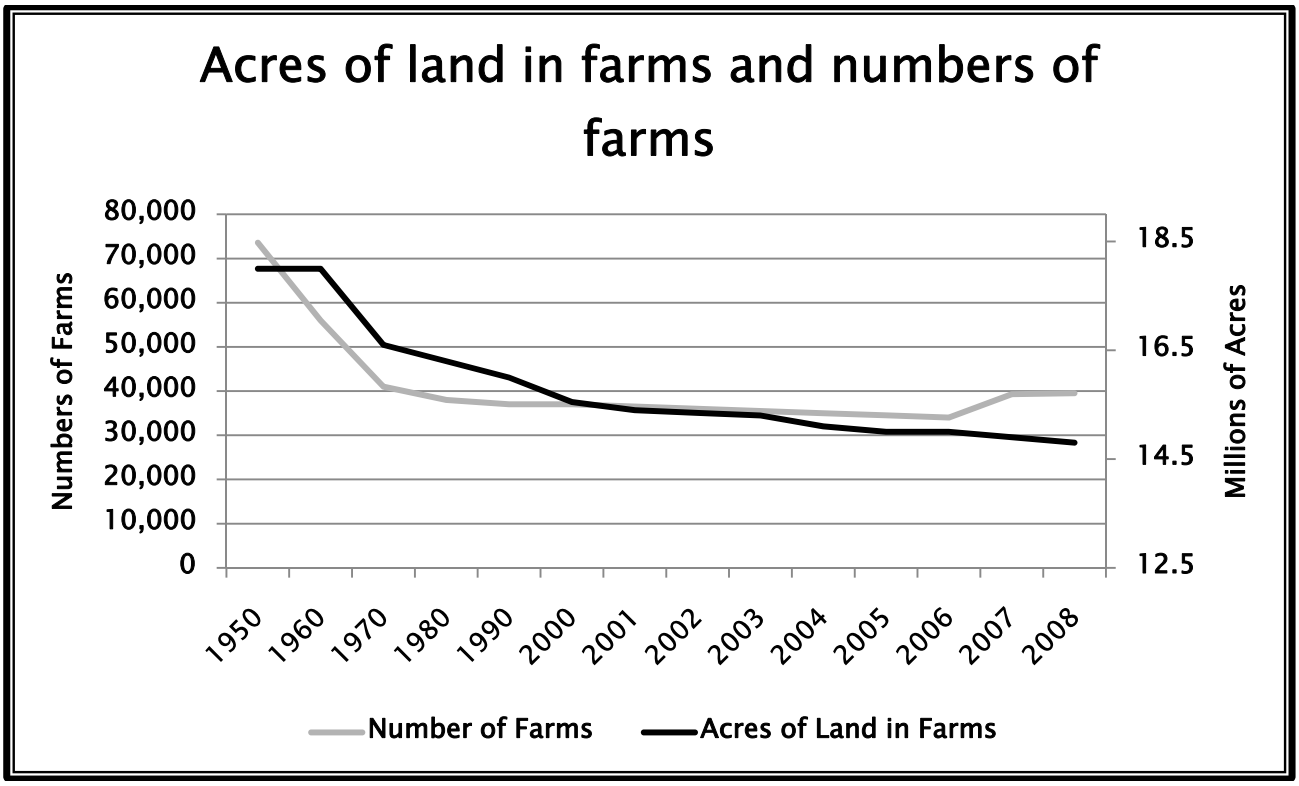


FIGURE 1

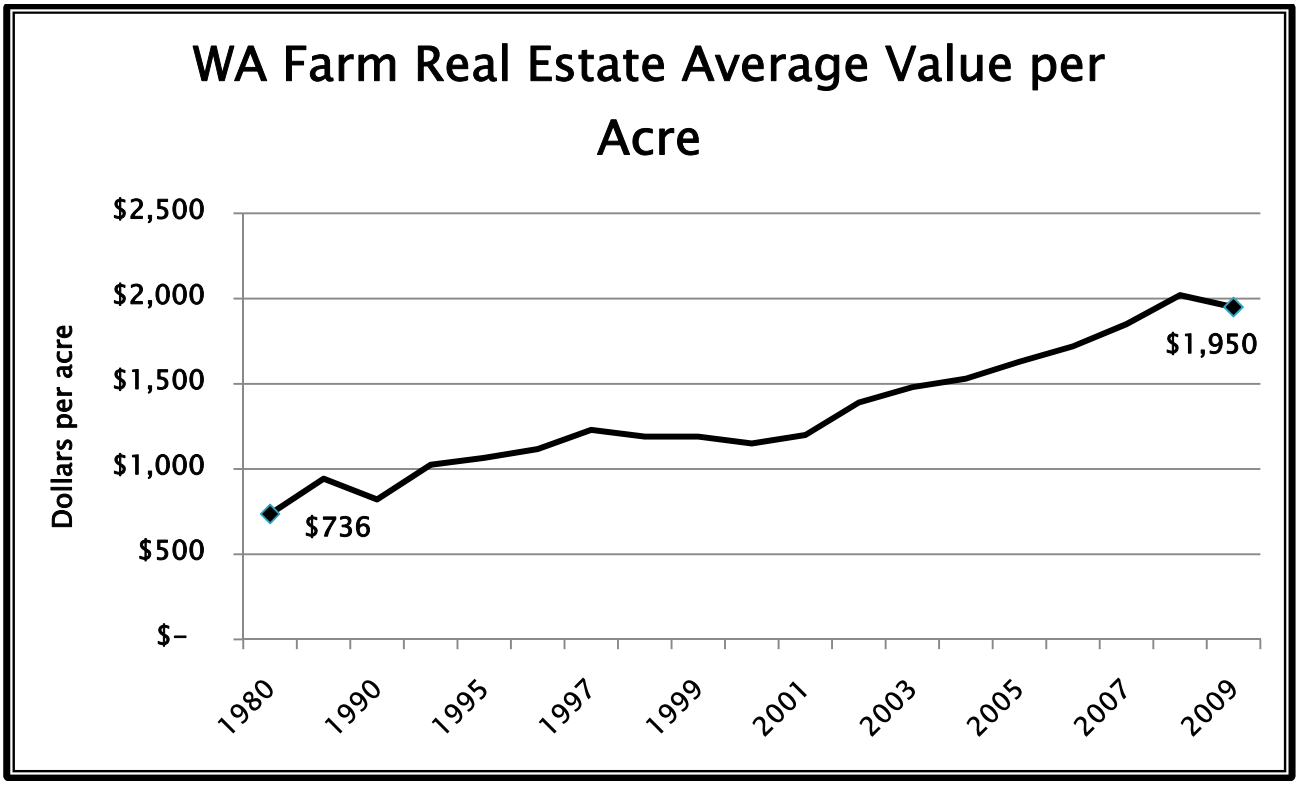


FIGURE 2

WASHINGTON STATE FARMLAND PRESERVATION

Indicator: CHARACTERISTICS OF PRINCIPAL FARM OWNERS

MEASURE: Average age, principal occupation, minority.

BACKGROUND: Significant amounts of land will be changing hands in the next 20 years in Washington as the average age of the principal operator has been steadily increasing upward. These farmers will be looking at options as they transition out of farming. This trend continues to illustrate the importance for transitional training for professionals and transition education and outreach to interested farms.

Many issues will influence the transition including but not limited to land prices, a generation to take over management and ownership, environmental and regulatory pressures, and profitability. If current farm is a second job, may indicate the farm is not producing a living wage income.

TRENDS & FINDINGS:

- Minority farmers are the fastest growing segment of farmers in Washington having doubled in less than 10 years from under 5,000 in 1997 to 10,000 in 2007.
- Average age of Washington farmers continues to climb, mirroring what is occurring nationally.
- The number of farmers under the age of 35 has been declining since 1985.

Sources:
USDA Census of Agriculture Historical
Data: http://www.nass.usda.gov/Statistics_by_State/Washington/Historic_Data/index.asp
USDA Census of Agriculture: Table 54. Selected Farm Characteristics by Race of Principal Operator: 2007 and
2002 http://www.agcensus.usda.gov/Publications/2007/Full_Report/Volume_1,_Chapter_1_US/st99_1_054_054.pdf

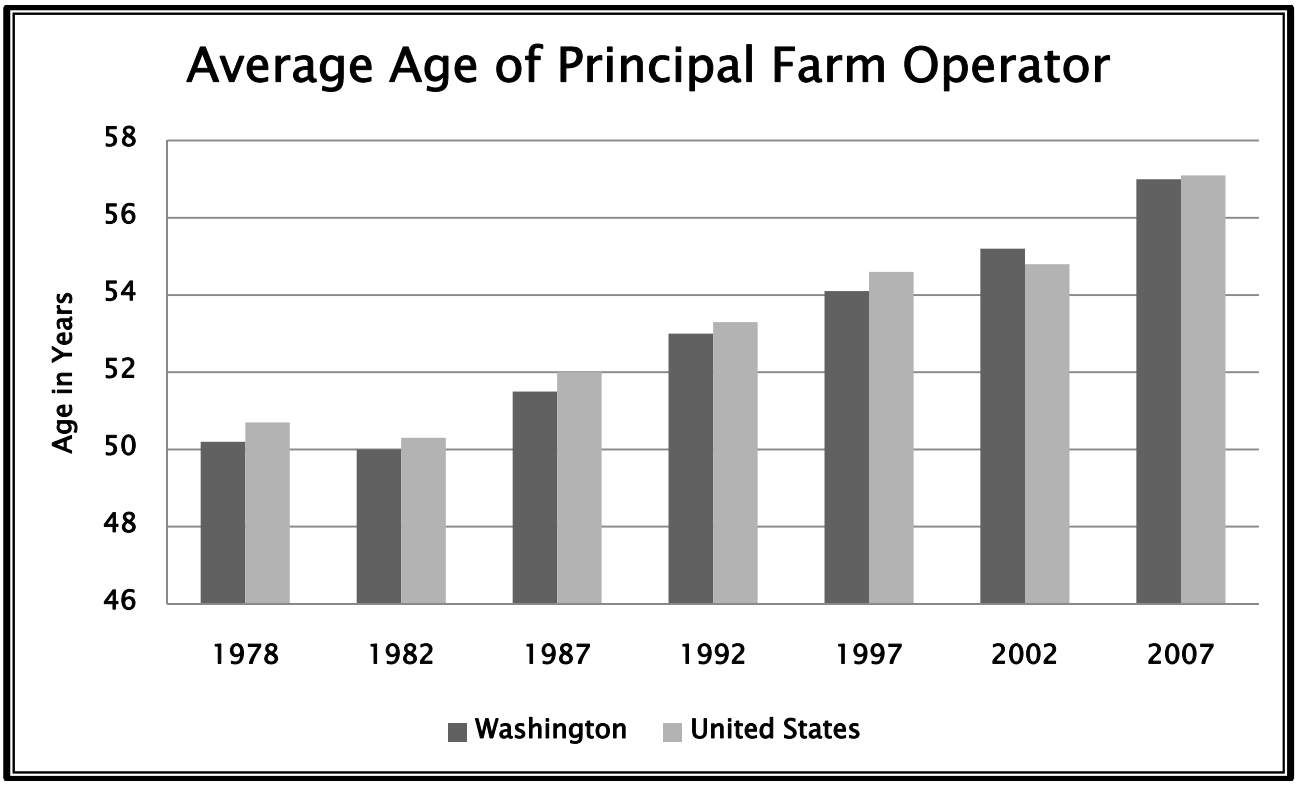


FIGURE 3

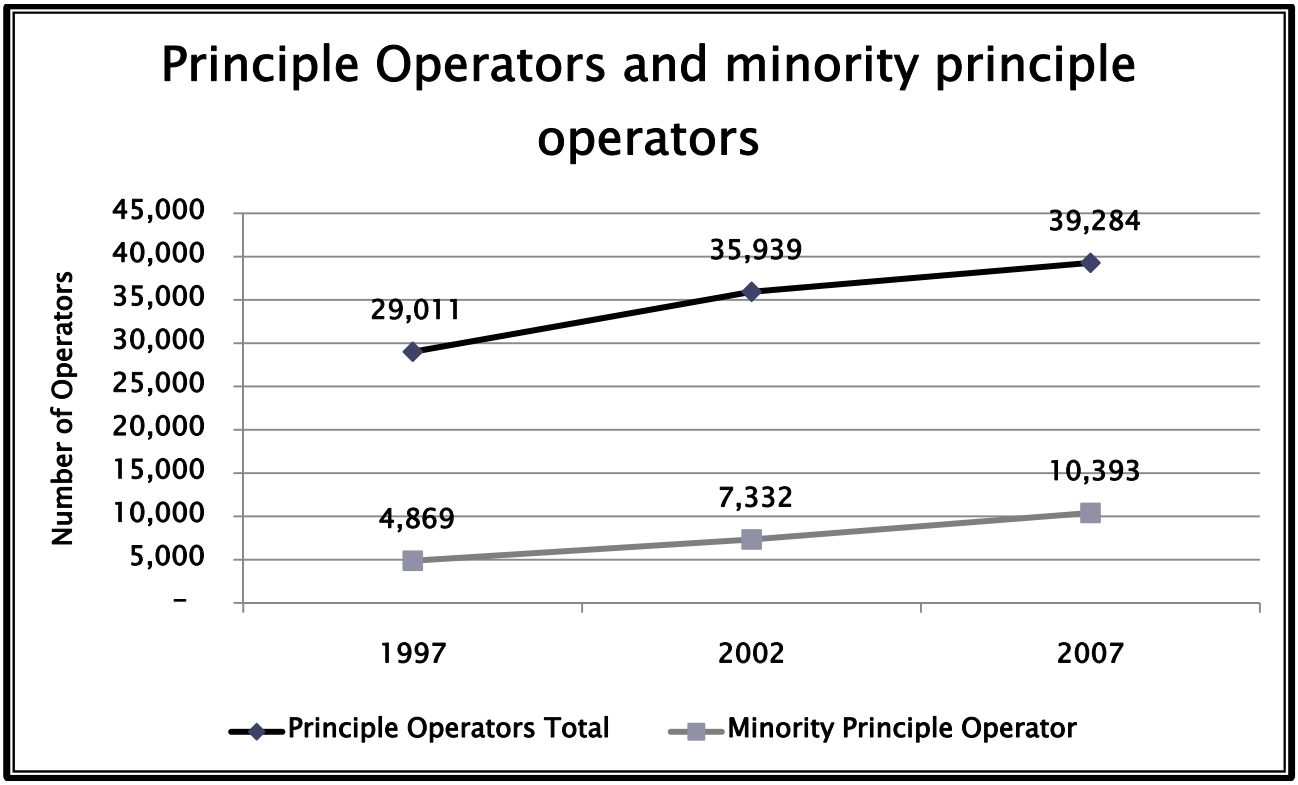


FIGURE 4

Indicator: NUMBER OF FOOD PROCESSORS

MEASURE: Number of Food Manufacturers. The measure used is number of food manufactures as tabulated by Workforce Explorer with the WA State Employment Security Division (NAICS Code 311).

BACKGROUND: The more access a farmer has to processors, the lower the transportation costs and increased potential for viability. The Census Bureau defines food manufacturing establishments as industries in the Food Manufacturing subsector that transform livestock and agricultural products into products for intermediate or final consumption.

The food products manufactured in these establishments are typically sold to wholesalers or retailers for distribution to consumers, but establishments primarily engaged in retailing bakery and candy products made on the premises not for immediate consumption are included.

TRENDS & FINDINGS:

- The number of food manufacturing plants in Washington has increased from 737 in 2002 to 771 in 2007.
- In 2006, the estimated value added by food processors was $10.12 billion in Idaho, Oregon, and Washington.
- In 2008, the industry contributed over 33,995 jobs to residents in Washington.
- In 2008, the average wage paid to food manufacturing employees in Washington was $41,236.
- In 2002, the value of shipments from food processors was $9,015,499,000.

Sources:

United States Census Bureau: County Business Patterns
http://www.census.gov/econ/cbp/index.html
NW Food Processing Association Spring 2009 NW Report
http://www.nwfpa.org/sites/default/files/NWFPA%20NW%20Reports%20Spring%202009.pdf
Workforce Explorer - WA Employment Security Department: QCEW Annual Data 2002-2008 http://www.workforceexplorer.com/cgi/dataanalysis/?PAGEID=94&SUBID=149
2002 Economic Census
http://www.census.gov/econ/census02/data/wa/WA000_31.HTM

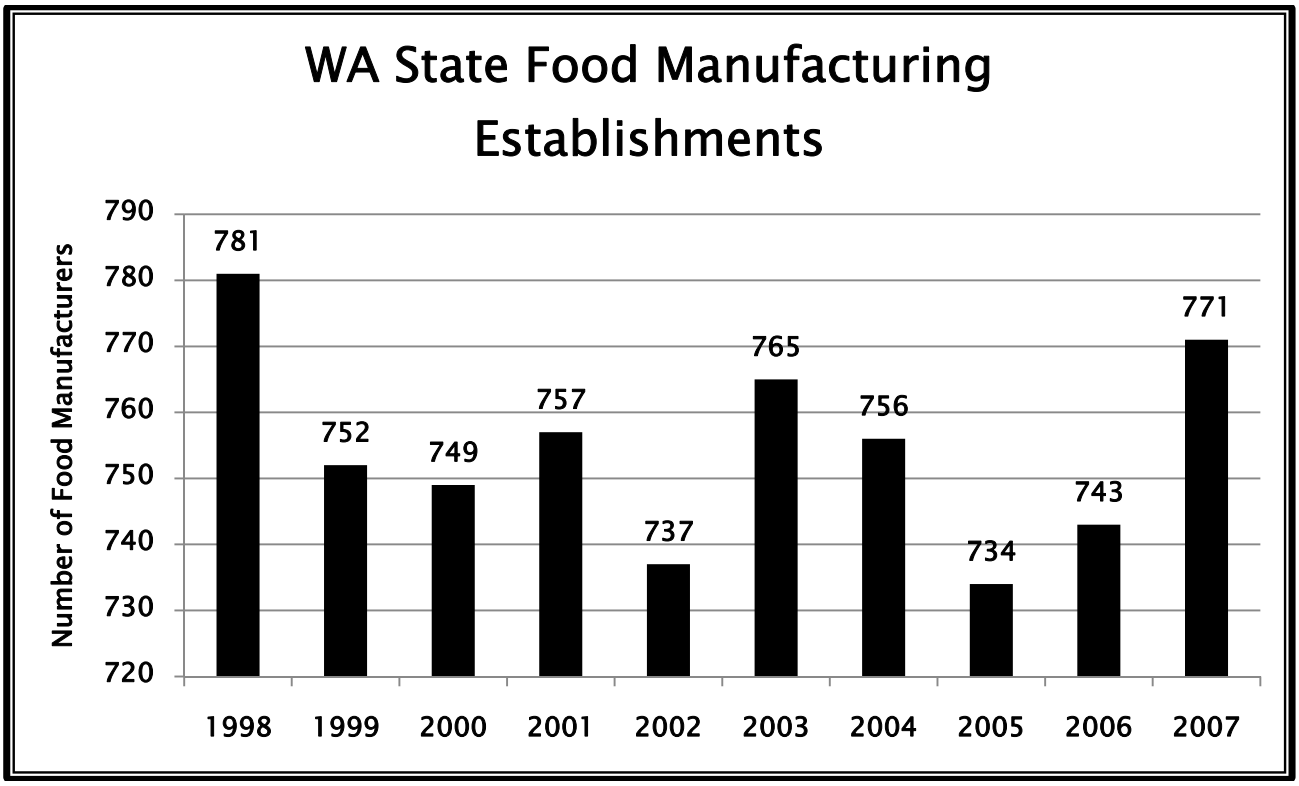


FIGURE 5

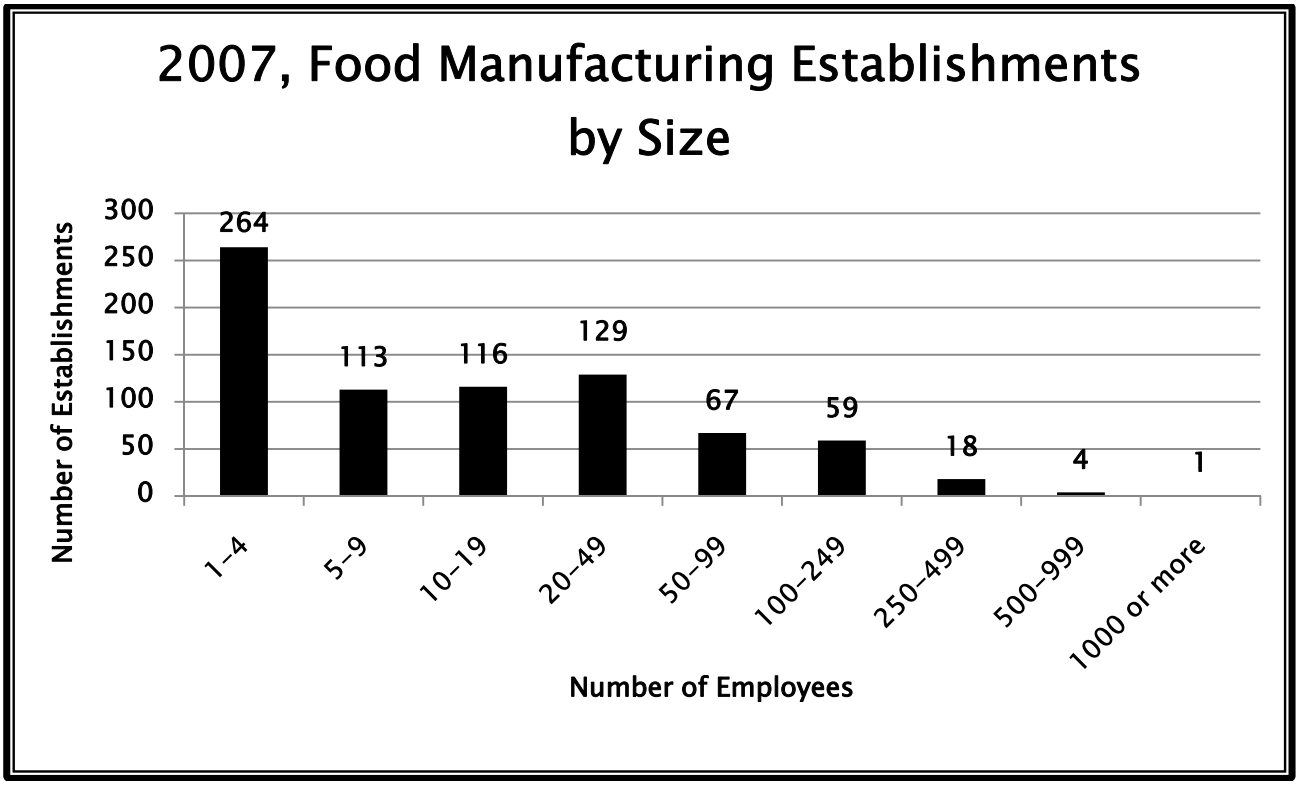


FIGURE 6

WASHINGTON STATE FARMLAND PRESERVATION

Indicator: FARM AND FARM RELATED EMPLOYMENT

MEASURE: Employment numbers in farm and farm-related industries from 2002-2008

BACKGROUND: Number of workers engaged in farm related industries may indicate the general health of the industry. Farm employment is the number of workers engaged in the direct production of agricultural commodities, either livestock or crops; whether as a sole proprietor, partner, or hired laborer as defined by the Bureau of Economic Analysis. Farm employment is affected by a variety of economic factors including technological change, industry structure, and international trade. Nationwide, farm employment has experienced a long-term decline with overall increases in pay.

Nationally, there were 1,238,000 hired workers on the Nation's farms and ranches during the week of July 12-18, 2009, up 6 percent from a year ago. Of these hired workers, 875,000 workers were hired directly by farm operators. Agricultural service employees on farms and ranches made up the remaining 363,000 workers.

Farm operators paid their hired workers an average wage of $10.64 per hour during the July 2009 reference week, up 30 cents from a year earlier.

TRENDS & FINDINGS:

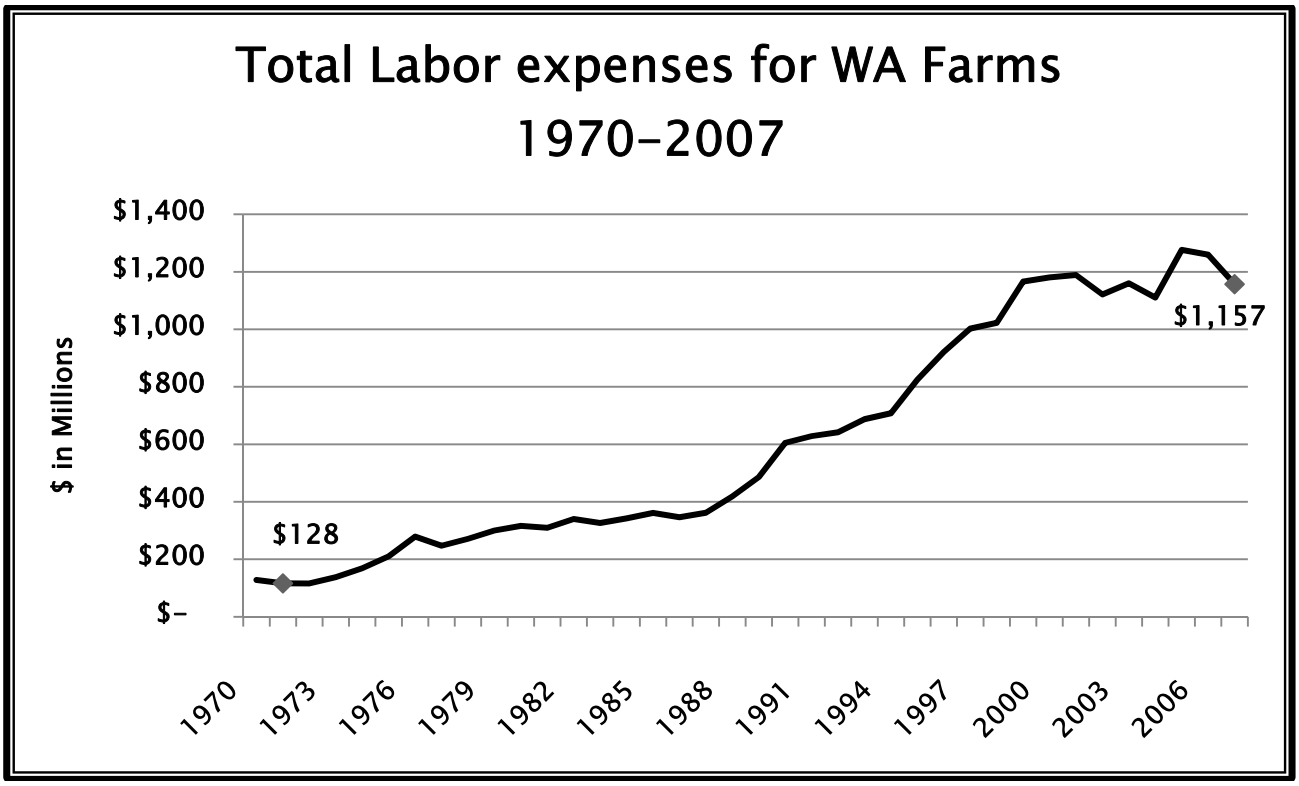
- Nationally, the largest increases in the number of hired workers from 2008 occurred in several key agricultural producing regions including Oregon and Washington.
- In 2000, wages averaged $8 an hour. In 2009, the average was over $10.
- Wages have increased from 32% over the 2002/2008 time span.

Sources:

Workforce Explorer - WA Employment Security Department: QCEW Annual Data 2002-2008 http://www.workforceexplorer.com/cgi/dataanalysis/?PAGEID=94&SUBID=149

Farm Labor Release - Released August 21, 2009, by the National Agricultural Statistics Service (NASS), Agricultural Statistics Board, U.S. Department of Agriculture. http://usda.mannlib.cornell.edu/usda/current/FarmLabo/FarmLabo-08-21-2009_new_format.pdf

Farm Labor: Workers and Wage Rates by Decade, US - http://www.nass.usda.gov/Charts_and_Maps/Farm_Labor/fl_hired.asp



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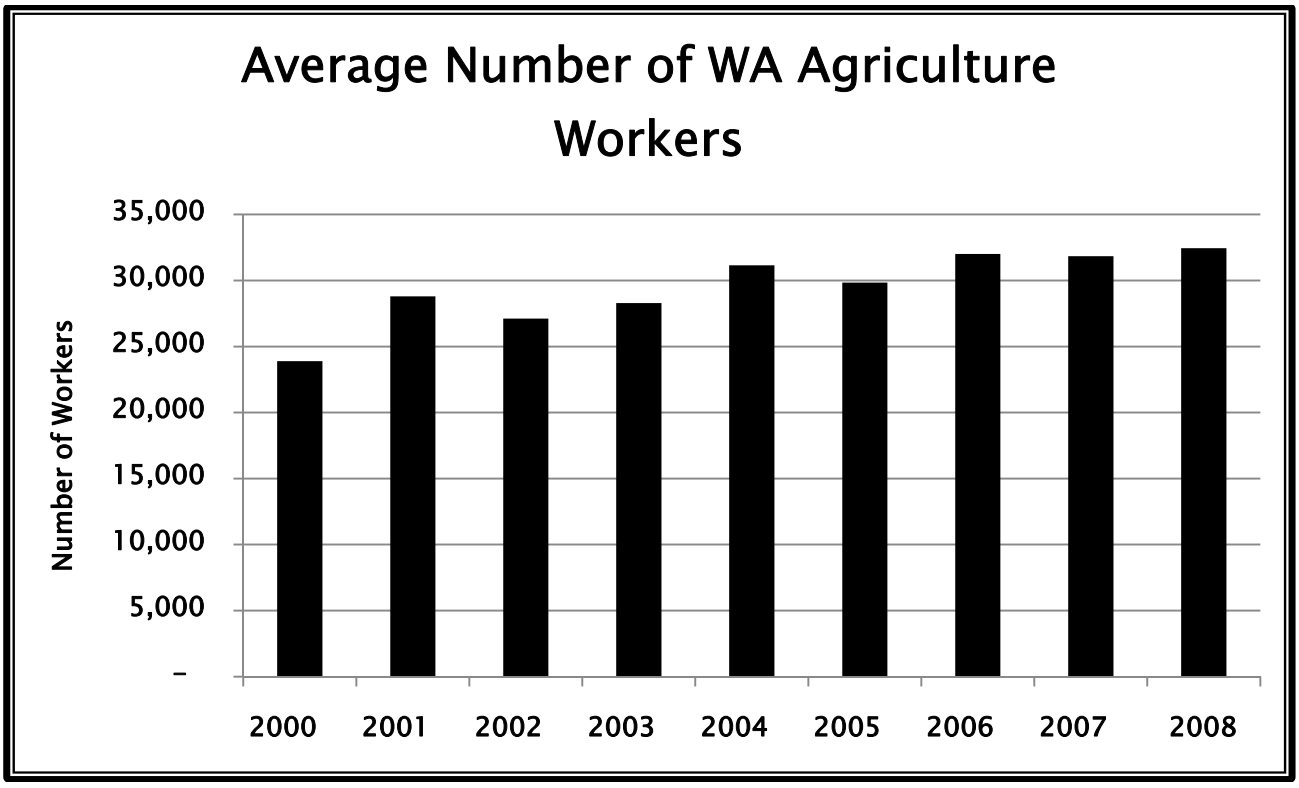


FIGURE 8

Indicator: WATER USE

MEASURE: Water use by use category and source.

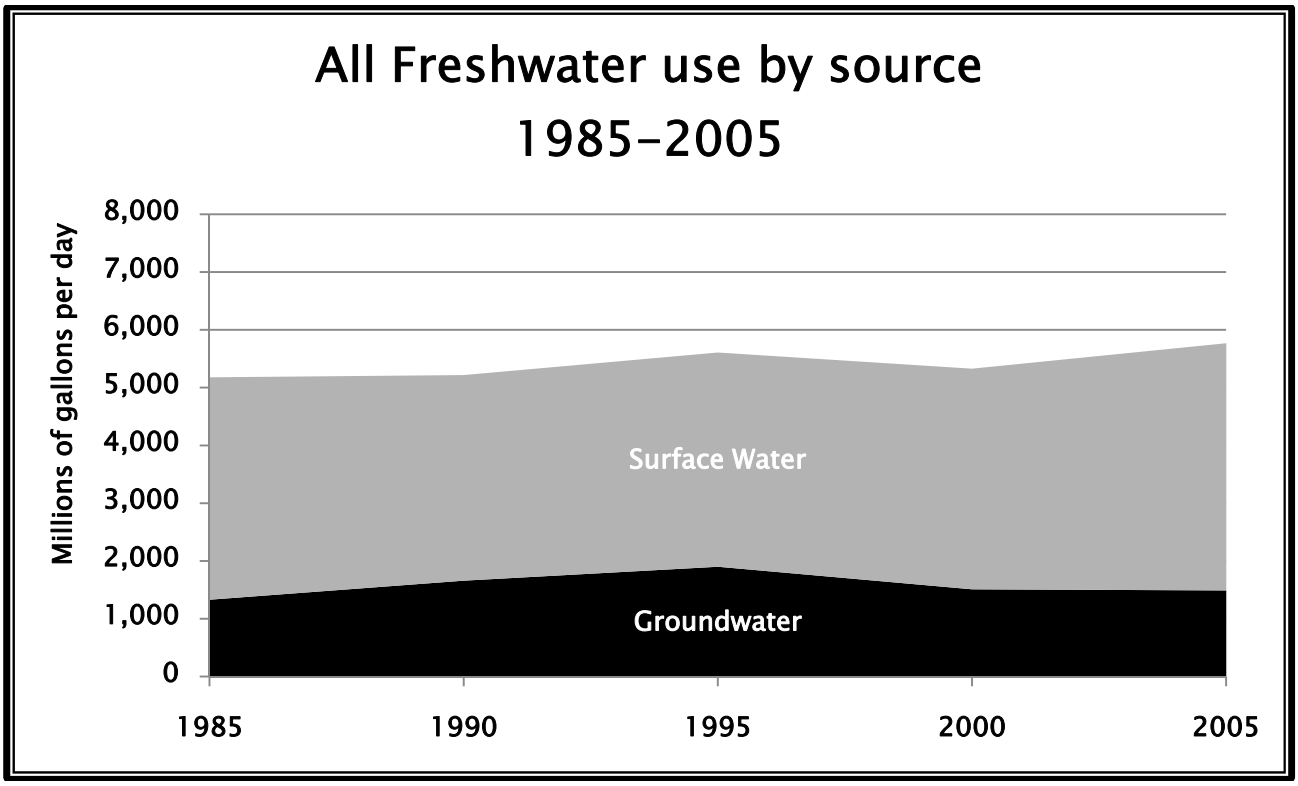
BACKGROUND: Measure includes estimated withdrawals from groundwater and surface sources for a variety of uses, including irrigation, public supply, and industry. Since 1950, the U.S. Geological Survey (USGS) has, at 5-year intervals, compiled data on the amount of water used in homes, businesses, industries, and on farms throughout the State. This water-use data, combined with other related USGS information, has facilitated a unique understanding of the effects of human activity on the State's water resources.

TRENDS & FINDINGS:

- In 2005, domestic water use was 2% of the total, down 3.8% from 2000.
- In 2005, irrigation water use was estimated to be 61% of the total freshwater use.
- In 2005, industrial freshwater use was down 23% from 2000 to 8%.
- Washington's ratio of surface to groundwater withdrawals has remained relatively constant.
- Per capita water consumption in Washington decreased 25% from 1985-2005.

SOURCES:

USGS Estimated Domestic, Irrigation, and Industrial Water Use in Washington, 1985, 1990, 1995, 2000, 2005 http://wa.water.usgs.gov/data/wuse/



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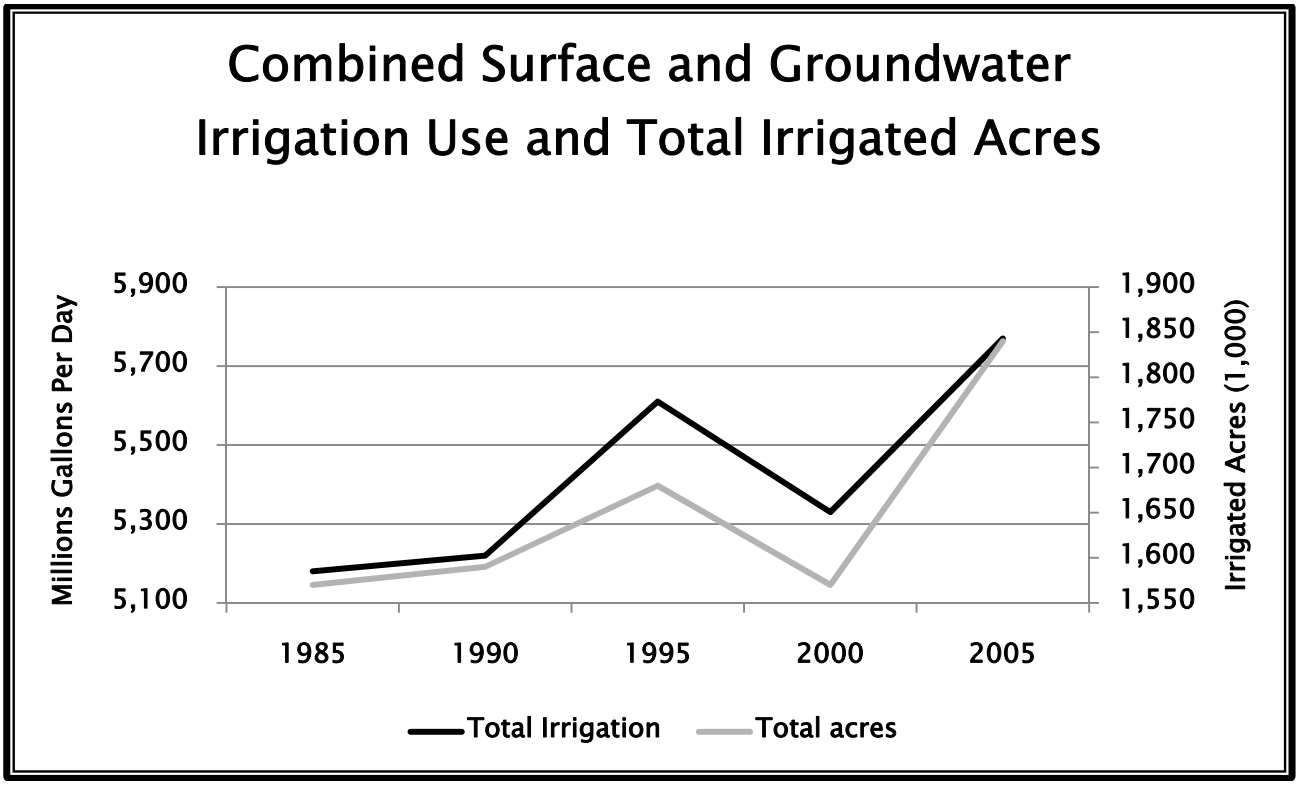

FIGURE 10

WASHINGTON STATE FARMLAND PRESERVATION

Indicator: OPEN SPACE ENROLLMENT

MEASURE: Acres enrolled in open space agriculture and acres coming out of open space agriculture.

BACKGROUND: New acres are those identified as lands not currently in current use and may reflect a desire to continue farming. Acres coming out may indicate the potential for conversion.

Current use classification lowers the taxable value of farm and agricultural lands and other resource lands relative to other land uses. Land that would be assessed at $10,000 an acre for its "highest and best use" would be valued at perhaps $1,000 an acre as farm land. The effect of this lower valuation is to lower the tax assessed on lands classified as "current use."

TRENDS & FINDINGS:

- Overall, acres enrolled in Current Use have remained relatively constant.
- In 1990 there were 11.507 million acres enrolled, presently there are 11.073 million acres.
- Peak enrollment since 1990 was in 2003 at 12.172 million acres.
- The lowest enrollment is presently occurring in 2009 with 11.073 acres enrolled.
- 2009 Highest and best use valuation is currently 75% above enrolled value.
- Value of enrolled land has increased 101% since 1990.
- Highest and Best Use Value has increased 181% over the same period of time.

SOURCES:

WA Department of Revenue Property Tax Statistics.
http://dor.wa.gov/docs/reports/2009/Property_Tax_Statistics_2009/Current_Use_Assessments-2009.pdf

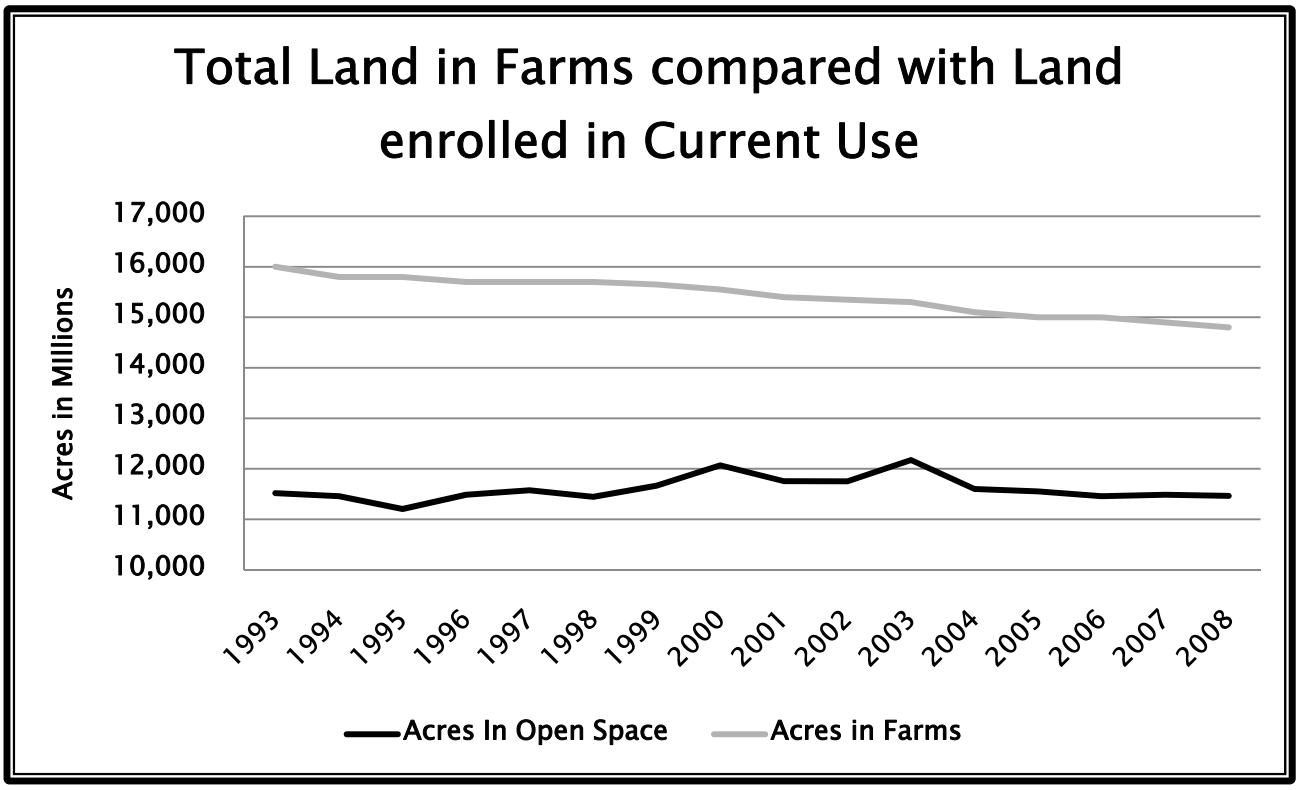

FIGURE 11

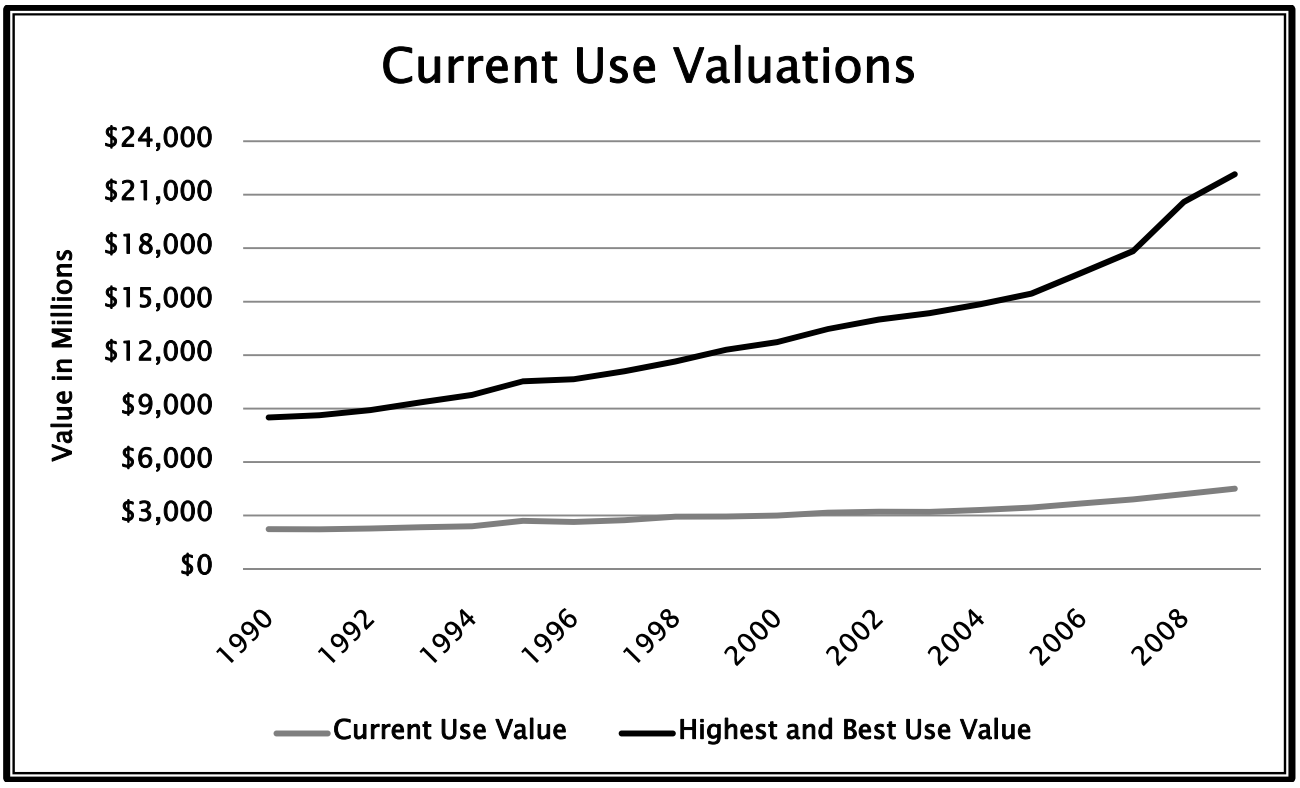

FIGURE 12

WASHINGTON STATE FARMLAND PRESERVATION

Indicator: FARM SIZE DIVERSITY

MEASURE: Size diversity indicator is based on the number of farms in the difference ranges/categories. There are 5 broad scales (1-99 acres, 100-449, 500-999, 1000-1999, and 2000+ Acres) and the degree of disbursement (variation) of farms over all five categories provides a measurement of size diversity. A high score indicates that there is a high diversity of farm size in the county.

BACKGROUND: Diversity in farm size indicates a flexibility and resiliency of a county's agriculture. Flexibility can meet different kinds of demand; resiliency can survive different types of hardships as a county.

TRENDS & FINDINGS:

- In 2004, the average size of a farm making $1,000-$9,999 was 52 acres. In 2008 that acreage increased to 53.
- In 2004, the average size of a farm making $1,000-$9,999 represents over 55% of the total farms in Washington. In 2008, this increased to over 61%.
- Between 2004-2008, farms making $1,000-$9,999 increased over 26%.
- Since 2004, farms earning over $100,000 have decreased by 700. The average size of this farm is 1,667, relatively unchanged since 2004. The land in farms for this category has decreased 1.1 million acres.
- Overall, between 2004-2008, Washington decreased its total land in farms by 3 million acres.

Sources:

2009 Washington Annual Agricultural Bulletin: http://www.nass.usda.gov/Statistics_by_State/Washington/Publications/Annual_Statistical_Bulletin/index.asp

USDA Census of Agriculture Historical Data: http://www.nass.usda.gov/Statistics_by_State/Washington/Historic_Data/index.asp

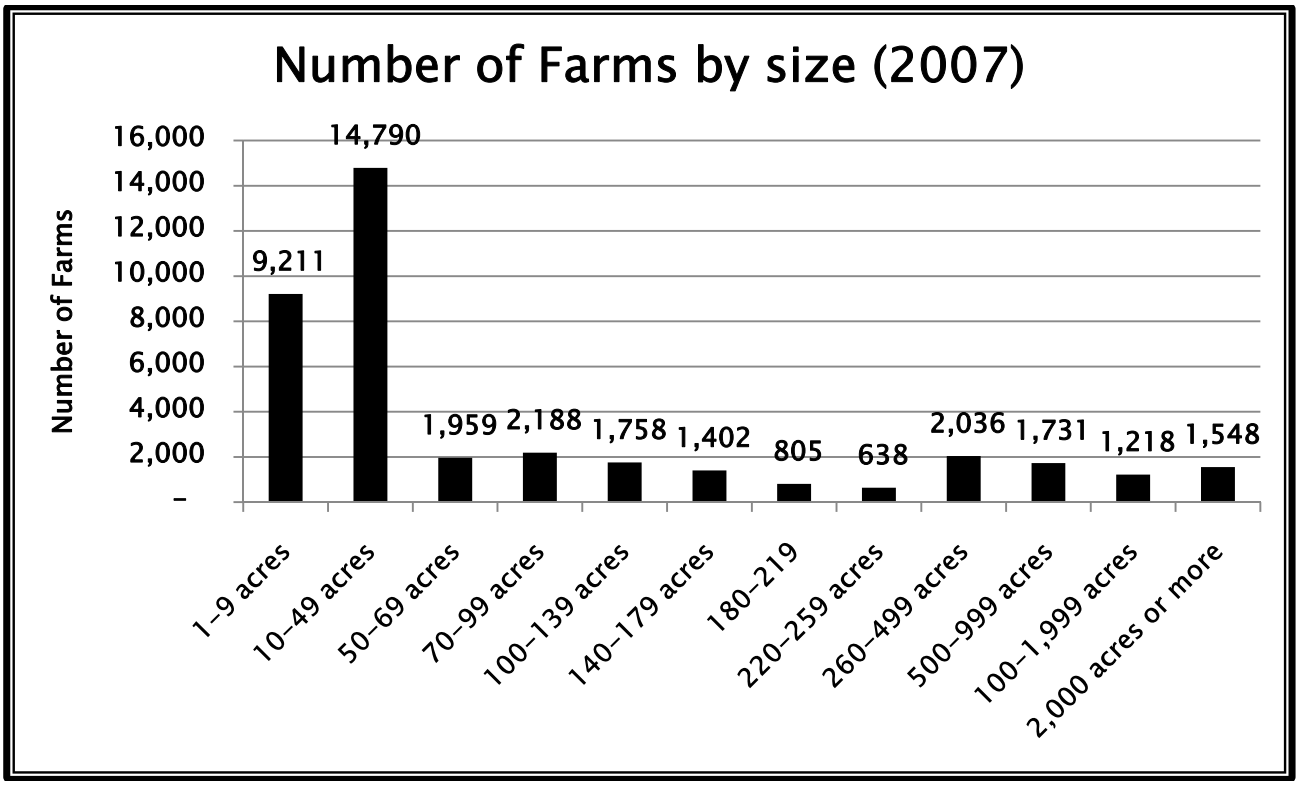

FIGURE 13

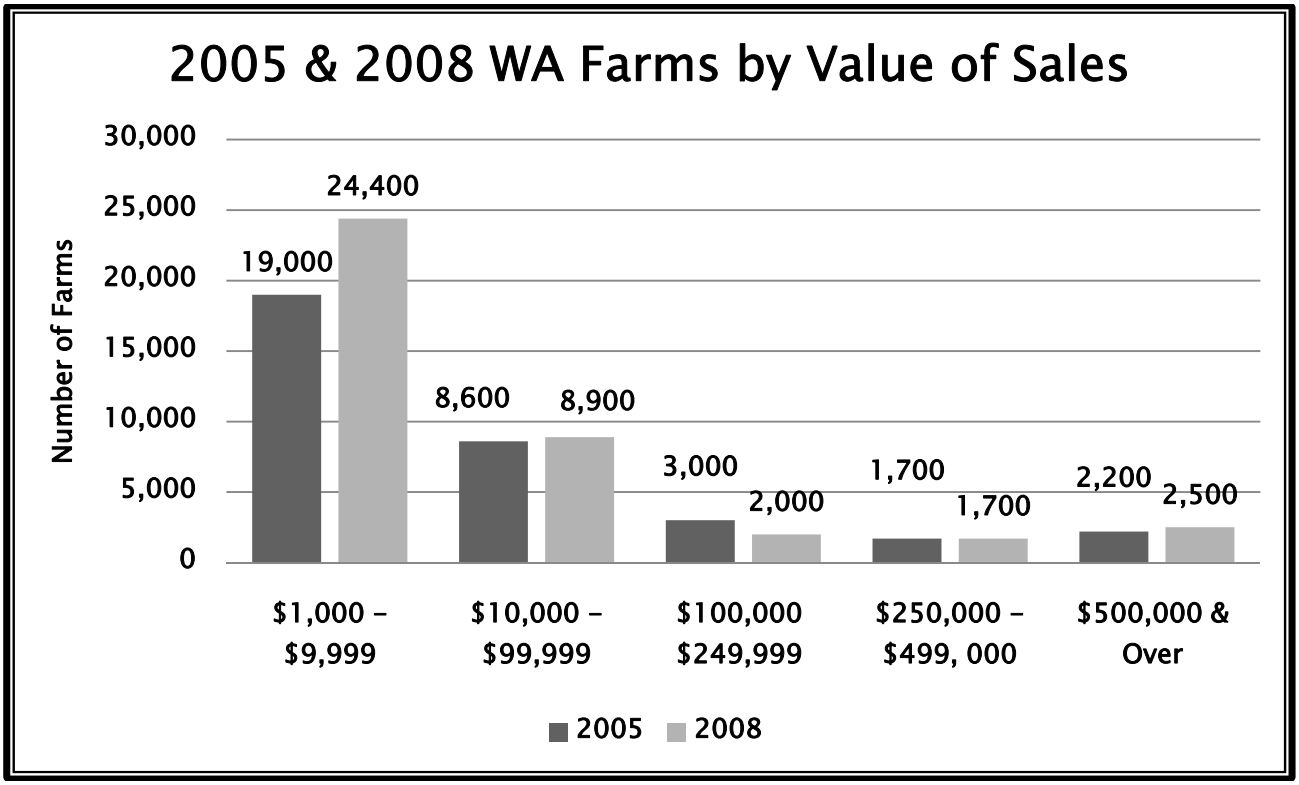

FIGURE 14

WASHINGTON STATE FARMLAND PRESERVATION

Indicator: FARM CONTIGUITY

MEASURE: Contiguous parcels zoned agriculture: Washington State Forestland Database developed by the University Of Washington College Of Forest Resources.

BACKGROUND: The more contiguous farm acreage is the better farmers are able to access inputs, share labor and machinery and avoid right-to-farm conflicts, improving agricultural resiliency. Quantification of farm contiguity involves the characterization of the spatial clustering between farm parcels.

The Washington State Forestland Database combines land ownership, land use and assessment information with physical characteristics of the land to develop economic, social and environmental metrics about the forest land base. The spatially-explicit information in the database allows for analysis at the watershed, county and state level. This high-resolution dataset can produce maps, statistics and models at multiple scales. Over time it will become a comprehensive platform for understanding how forest land ownership and land use is changing, thereby enabling new science and research to inform public policy analysis, debate and action.

To map and quantify the location and features of forestlands, parcel data and assessor's attributes from the state's 39 counties are collected and normalized into a common statewide format. In counties where no GIS parcel data exists, GIS "pseudo-parcels" are developed from assessor's legal descriptions. The three million individual parcels in the normalized database are then compared to forestland cover maps developed from Landsat satellite imagery as part of the National Land Cover Dataset. In addition to the land-cover assessments, assessor's tax-rolls are used to identify forested land uses as well as participation in forestland tax programs.

TRENDS & FINDINGS:

Current data is being gathered at the University of Washington. Projected start of this portion of data will be in spring or summer of 2010.

Sources:
The 2007 Washington State Forestland Database Final
Report: http://www.ruraltech.org/projects/wrl/fldb/2009_report/index.asp

Resource Availability and Access

Indicator: ACTUAL ACREAGE IN PRODUCTION

MEASURE: Actual acreage in production matched with WSDA Crop Mapping.

BACKGROUND: Track the trends in planting to gauge the productivity of agriculture. WSDA 2008 Crop Geodatabase, which best represents the 2007 you have. Before 2007, the WSDA data was not complete enough to give statewide estimates. WSDA made assumptions when putting this together: 1) Cropland includes all land used for crop production, including CRP and crops grown for wildlife feed, but not including pasture or developed properties. 2) Production acres does not include wheat fallow or fallow (idle land).

In addition, data for Pend Oreille County was considered 100% cropland for the 2008 WSDA cropland report, as WSDA has only field borders and no crop data for that county. This may skew the production acres a bit high, as many of the fields in that county will likely be pasture. WSDA should soon get that data, so the 2009 crop database should be a very good representation. This data will be ready sometime after the first of the year.

TRENDS & FINDINGS:

- WSDA 2008 Crop Geodatabase shows cropland at 7,381,952 acres
- WSDA 2008 Crop Geodatabase shows Production acres at 5,912,513 acres
- Acreage in cropland production has decreased 8% between 1997 and 2007.
- Land in homes, roads, wasteland, etc… increased 12% between 1997 and 2007.
- Total value of cropland production has increased 54% since 2004.
- Total value of livestock has increased 13% since 2004.

Sources:

2009 Washington Annual Agricultural Bulletin: http://www.nass.usda.gov/Statistics_by_State/Washington/Publications/Annual_Statistical_Bulletin/index.asp

USDA Economic Research Service: http://www.ers.usda.gov/statefacts/

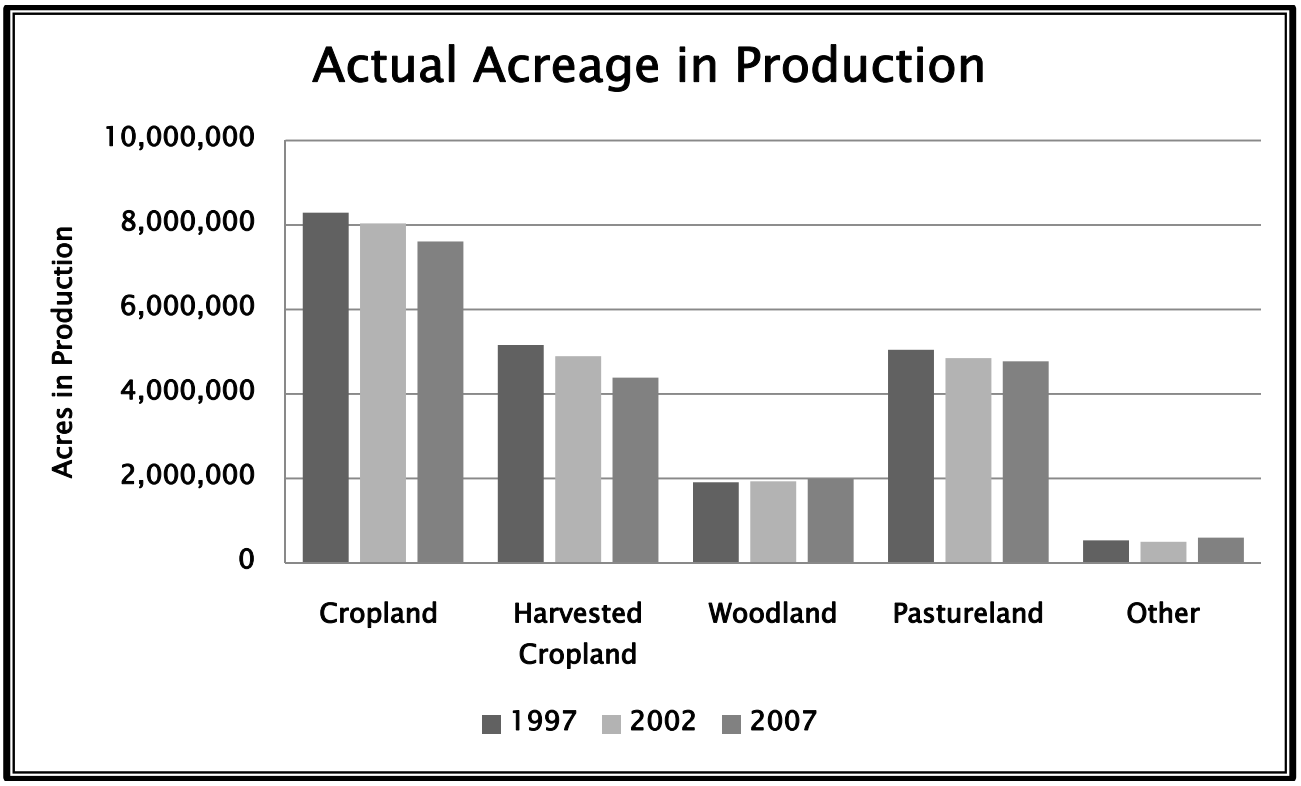

FIGURE 15

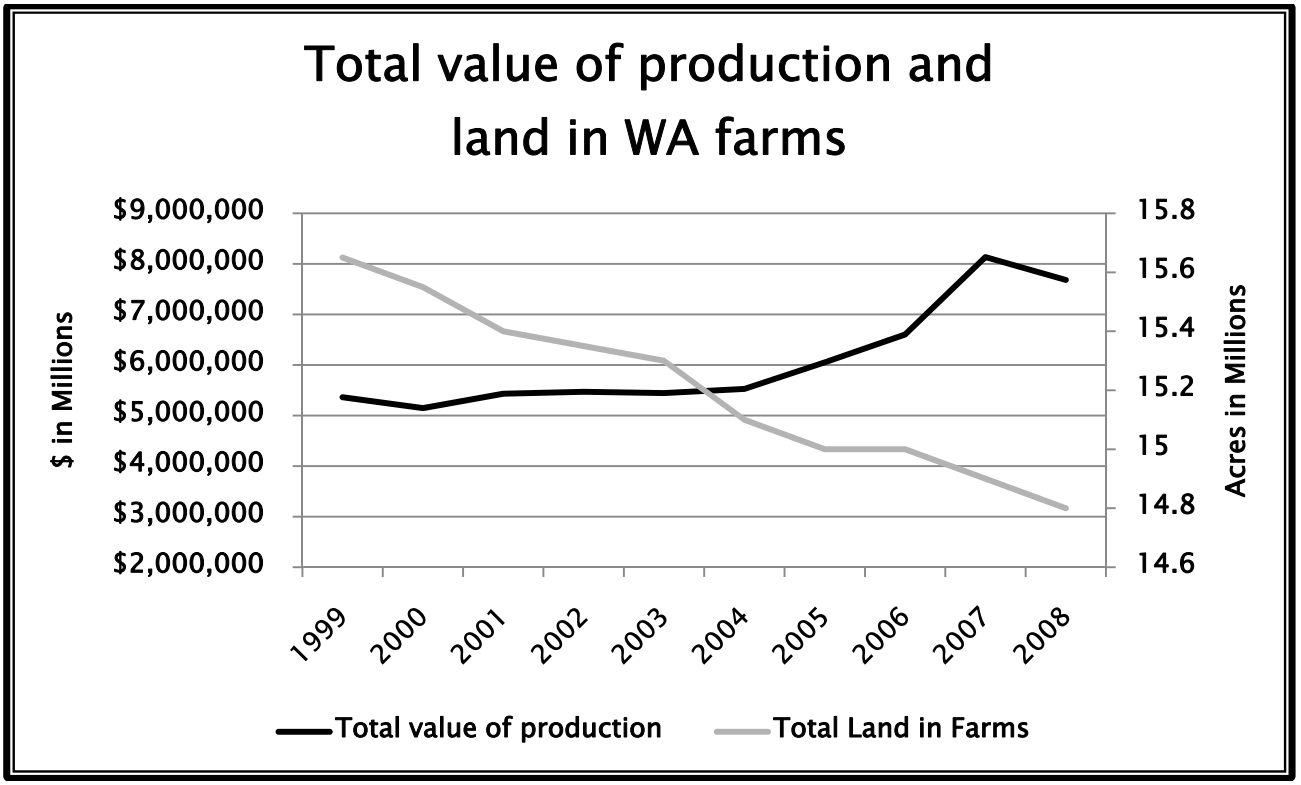

FIGURE 16

Indicator: PUBLIC OWNERSHIP OF LAND

MEASURE: Number of acres of land in state, local, and federal ownership.

BACKGROUND: Maintains a concurrent accounting of ownership trends in Washington. 2009 statewide ownership is provided by the Bureau of Land Management. No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data.

BLM compiled data from various sources and may be updated without notification. This data is updated annually, and as data becomes available. Future indicator reports will use this data as a baseline from which to determine trends and findings.

TRENDS & FINDINGS:

- Approximately 20,098 acres of WDFW-owned lands had an agriculture reservation that was established at the time of acquisition
- WDFW currently has 79,856 acres under grazing permits and 14,506 acres under agricultural leases.
- DNR leases and permits about one million trust acres for agricultural and grazing.

Sources:

Bureau of Land Management: Washington Surface Management Ownership
http://www.blm.gov/or/gis/data-details.php?data=ds000011
WA Department of Natural Resources Agricultural
Program: http://www.dnr.wa.gov/BusinessPermits/Topics/LandLeasing/Pages/psl_leasing_agriculture_lands.aspx
WDFW: Report on the Inventory of Department Purchased or Leased Lands (2008)

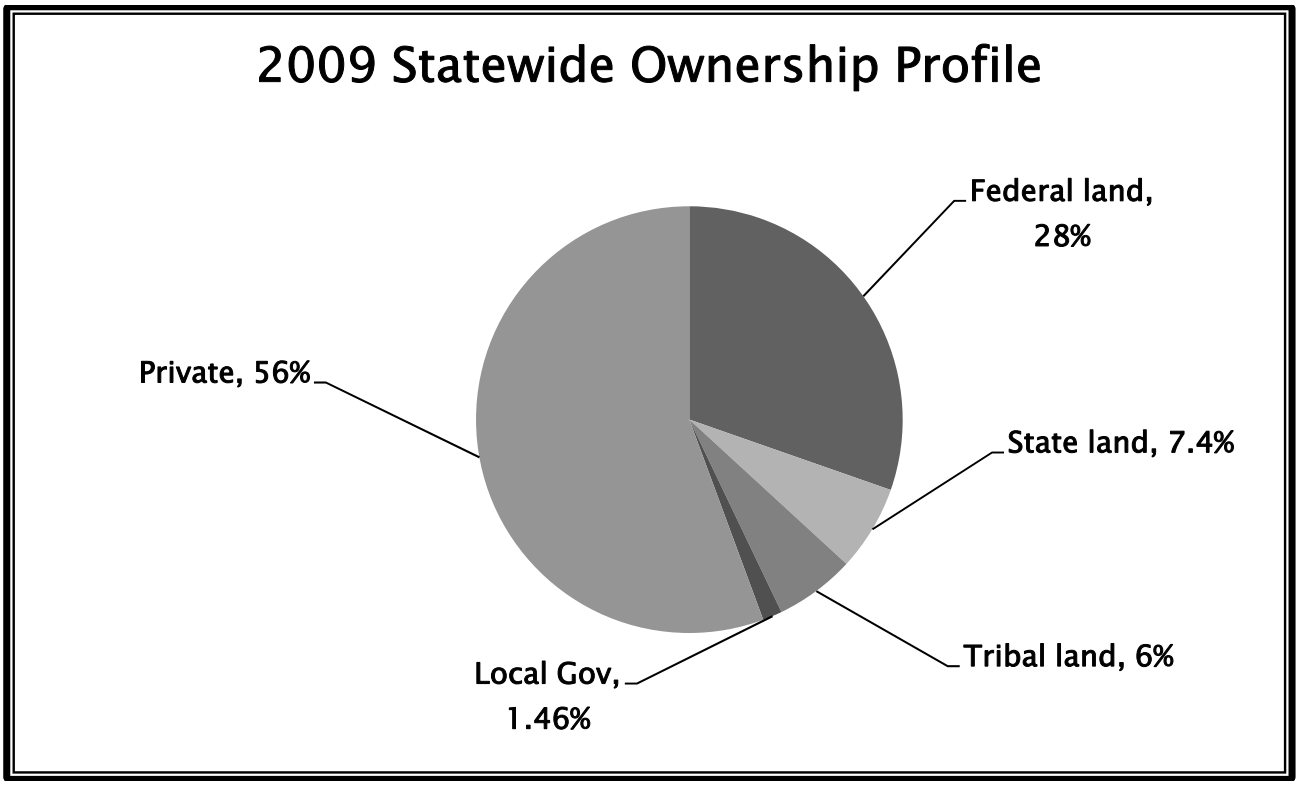

FIGURE 17

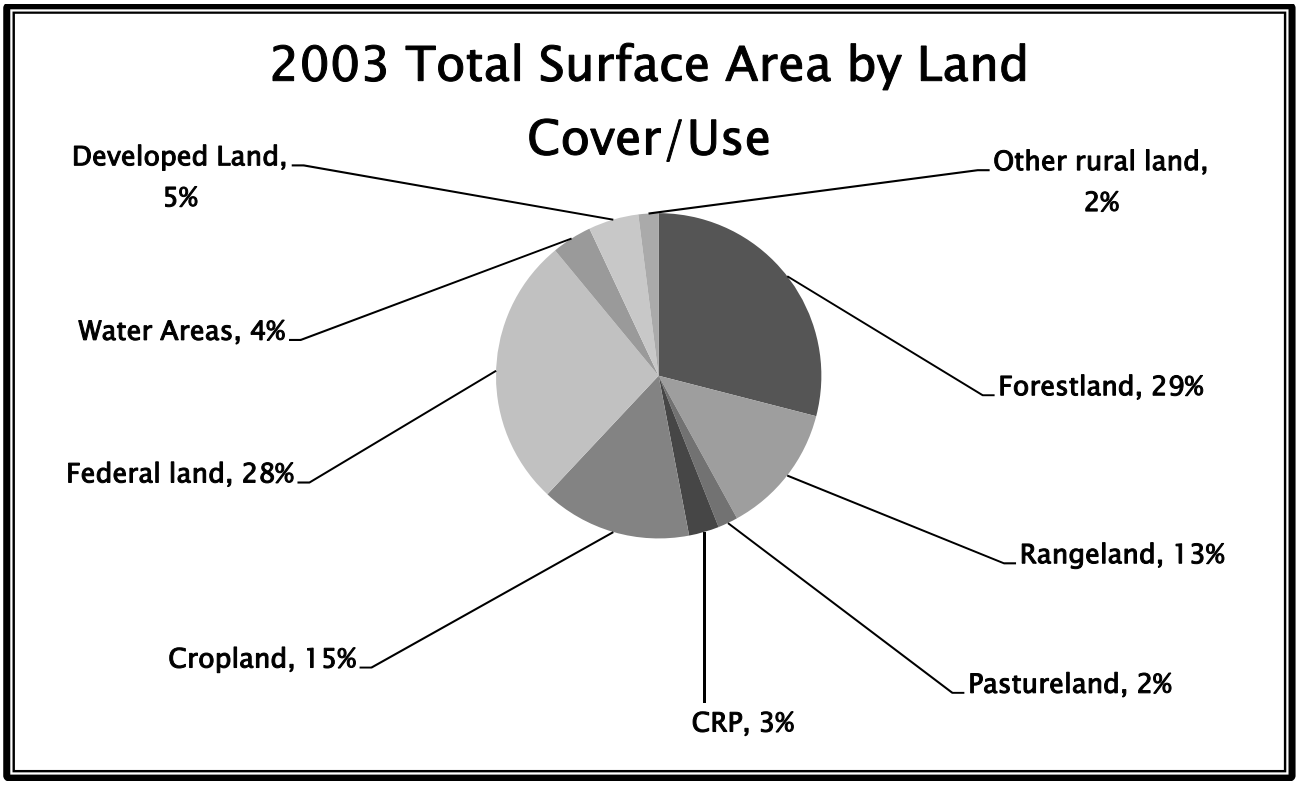

FIGURE 18

Indicator: CURRENT OR POTENTIAL WORKING LAND CONVERTED TO NON WORKING PUBLIC LAND

MEASURE: Agricultural Impact Statement

BACKGROUND: Working land converted to non working land has a net decrease on available farmable land now and into the future.

An agricultural impact statement would identify where working lands are being converted to other uses. Over time, agricultural impact statements will allow policy makers to monitor the effect of land use and land protection policy on working lands in Washington. The intent would be to direct all state agencies to evaluate and consider the impacts of agriculture on their land policy decisions.

Currently, no process exists for evaluating impacts to agriculture. The Farmland Preservation Task Force has identified this as a tool to consider and thus included it as a possible indicator in monitoring farmland conversion by government entities.

Should agricultural impact statements become an available tool, data will be annually downloaded, at that point, relevant data will be used to determine any trends or findings.

TRENDS & FINDINGS:

Sources:

Resource Availability and Access

Indicator: PRIME AGRICULTURAL SOILS

MEASURE: 1997 prime farmland, by land cover/use from the National Resources Inventory. The most current NRI data is for 1997. The Agency is currently working on another data release for 2002 & 2007 scheduled for early 2010. What will be released will most likely be state level data. The elements being released has not yet been made public.

BACKGROUND: NRCS defines prime farmland as land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is also **available** for these uses.

Prime farmlands have decreased more in western Washington, primarily in Clark, Lewis, Pierce and Thurston counties than in any other region of the State. In eastern Washington, the Columbia Basin region has offset most losses of prime farmland by developing additional irrigation water for dry cropland. Only Grant County has had a net gain in prime farmland as irrigated acres have increased.

Trends indicate that prime farmland will continue to decrease in western Washington and gains and losses in the Columbia Basin will balance depending on the availability of water and agricultural commodity prices.

TRENDS & FINDINGS:

- There are substantial amounts of prime farmland soils devoted to pasture production in Lewis, Clark, King and Skagit counties. These counties have about 140,000 acres of pasture that could be converted to the production of annual crops.
- Between 1982 and 1997, prime farmland soils used for agriculture (cropland and pastureland) has declined approximately 140,000 acres as a result of land use changes.
- Prime farmlands have decreased about 4.8% in the 1982 to 1997 time period.

Sources: Prime farmland, by land cover/use Summary Report, 1997 National Resources Inventory, Revised December
2000 http://www.nrcs.usda.gov/technical/NRI/1997/summary_report/table9.html

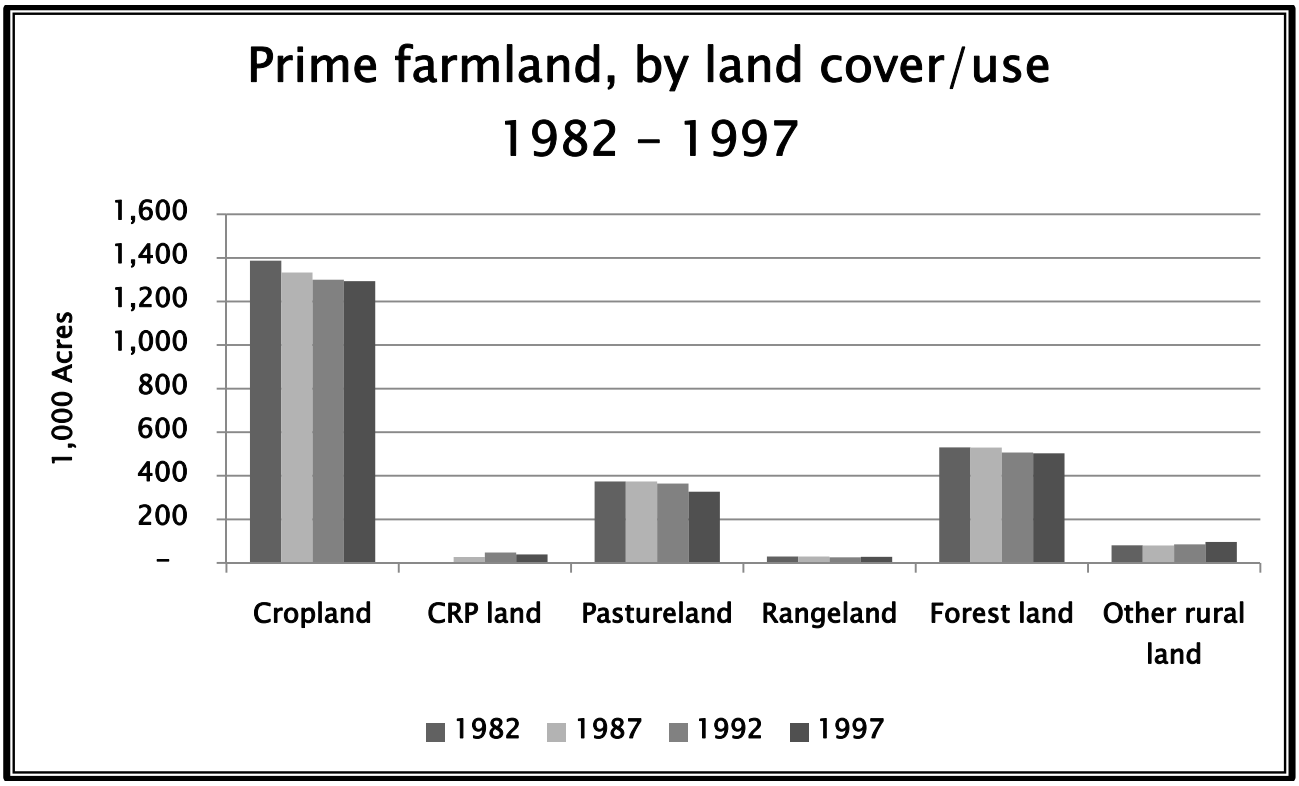

FIGURE 19

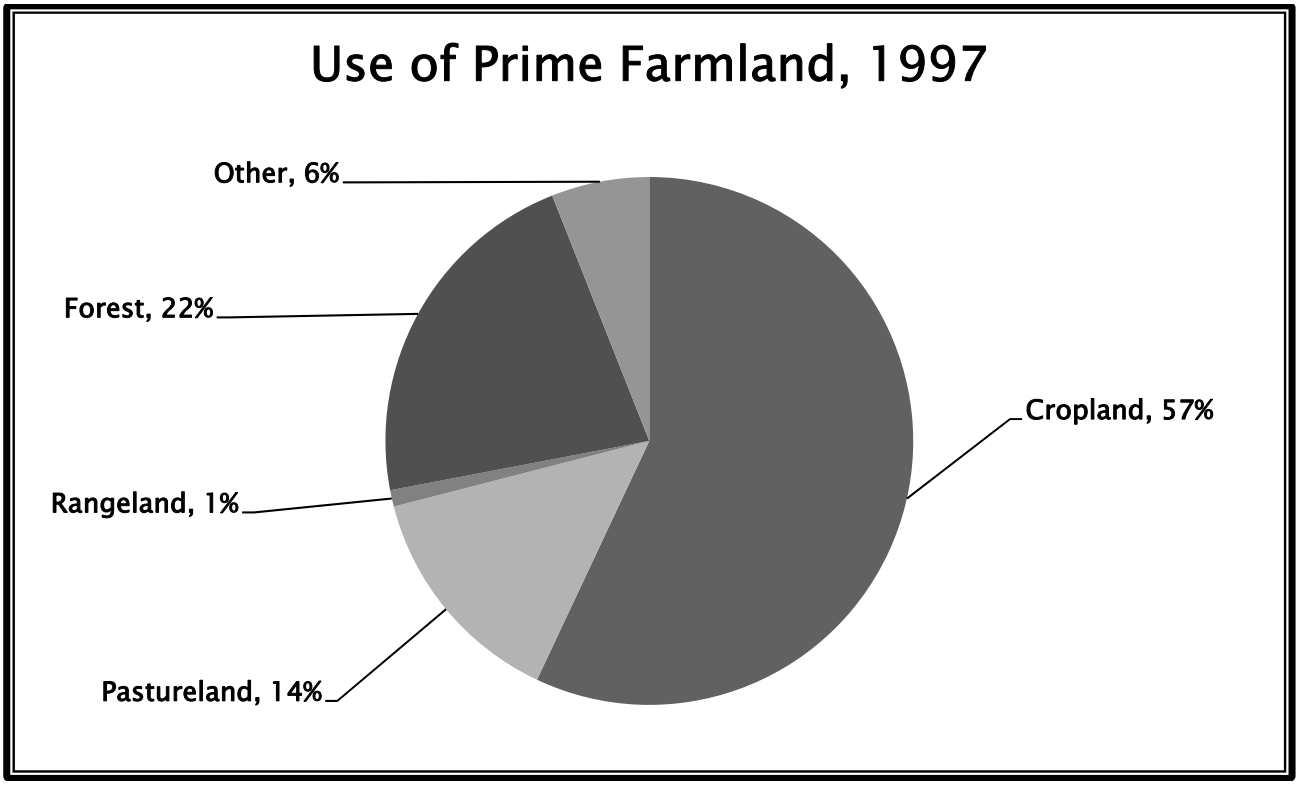

FIGURE 20

Indicator: FARM VIABILITY

MEASURE: Net cash return from agricultural sales divided by total number of harvested acres in the county. High per acres indicates average farm in county is economically viable. Data is from 2007 NASS Census of Agriculture.

BACKGROUND: The ability to generate an adequate income from farming enables farmers to devote resources to quality food production and to land stewardship that is essential to maintaining the value of natural capital in agriculture.

An insufficient return on investment can produce a wide range of negative social and environmental effects, each of which carries significant costs. In extreme cases, when farmers cannot make ends meet, prime agricultural land may be sold and converted to other uses, resulting in the loss of a valuable natural capital asset and a decline in food security for future generations.

TRENDS & FINDINGS:

- Total market value of agricultural products sold increased 37% between 1997 and 2007.
- During the same period of time, farms with sales less than $2,500 increased 13%.
- Farms with sales over $100,000 decreased 15% from 7,090 farms in 1997 to 5,965 in 2007.
- Overall, in 2007, the market value of production increased for 28 of the 39 counties.
- Average value of production per farm increased 40% between 1997 and 2007.
- In Washington, 18 counties had a per farm increase in value of production. Of the 18, all but two are located in Eastern Washington.
- 19 counties saw an overall per farm decrease in value of production. Of these 19, 13 are located in Western Washington.
- Total farm production expenses has increased 42% since 1997.

Sources:

USDA 2007 Census of Agriculture Washington State Summary
http://www.agcensus.usda.gov/Publications/2007/Full_Report/Volume_1,_Chapter_1_State_Level/Washington/st53_1_001_001.pdf

County	Land in Farms	Market Value of Production	Market Value of production % Change from 2002	Average $ per acre	Average $ per farm	Average per farm % change from 2002
Adams	825,863	$344,130,000	70%	**$417**	$440,064	56%
Asotin	273,860	$13,376,000	47%	**$49**	$69,668	38%
Benton	632,636	$525,918,000	31%	**$831**	$322,649	6%
Chelan	93,883	$208,800,000	23%	**$2,224**	$213,278	50%
Clallam	22,822	$10,767,000	(39%)	**$472**	$21,030	(46%)
Clark	78,359	$52,691,000	(3%)	**$672**	$25,079	(26%)
Columbia	313,307	$39,819,000	50%	**$127**	$140,702	35%
Cowlitz	30,702	$26,458,000	(13%)	**$862**	$55,007	(4%)
Douglas	883,094	$193,367,000	56%	**$219**	$202,479	54%
Ferry	749,452	$2,913,000	(33%)	**$4**	$12,555	(40%)
Franklin	609,046	$467,014,000	33%	**$767**	$524,145	41%
Garfield	308,212	$26,440,000	34%	**$86**	$110,629	11%
Grant	1,087,952	$1,190,191,000	35%	**$1,094**	$640,576	31%
Grays Harbor	119,267	$32,821,000	9%	**$275**	$52,263	(11%)
Island	17,699	$14,344,000	46%	**$810**	$31,319	11%
Jefferson	12,717	$8,689,000	30%	**$683**	$41,179	28%
King	49,285	$127,269,000	6%	**$2,582**	$71,100	(8%)
Kitsap	15,294	$6,985,000	(77%)	**$457**	$10,520	(80%)
Kittitas	191,087	$60,949,000	8%	**$319**	$58,717	(3%)
Klickitat	601,216	$57,298,000	9%	**$95**	$64,163	(14%)
Lewis	131,554	$109,996,000	23%	**$836**	$64,063	0%
Lincoln	1,090,178	$126,216,000	35%	**$116**	$158,165	26%
Mason	25,185	$36,963,000	(29%)	**$1,468**	$78,478	(52%)
Okanogan	1,205,229	$208,758,000	52%	**$173**	$125,606	36%
Pacific	61,749	$34,996,000	14%	**$567**	$89,734	0%
Pend Oreille	55,109	$2,818,000	(16%)	**$51**	$8,917	(30%)
Pierce	47,677	$83,402,000	(11%)	**$1,749**	$57,598	(10%)
San Juan	21,472	$3,617,000	16%	**$168**	$12,431	(10%)
Skagit	108,541	$256,248,000	18%	**$2,361**	$210,904	(15%)
Skamania	5,472	$2,661,000	(77%)	**$486**	$21,635	(81%)
Snohomish	76,837	$125,619,000	(1%)	**$1,635**	$75,221	(7%)
Spokane	626,329	$117,065,000	25%	**$187**	$46,789	11%
Stevens	531,082	$24,530,000	(13%)	**$46**	$19,499	(12%)
Thurston	80,617	$117,885,000	3%	**$1,462**	$91,525	(8%)
Wahkiakum	12,025	$3,067,000	3%	**$255**	$25,773	8%
Walla Walla	682,350	$344,489,000	2%	**$505**	$370,818	(3%)
Whatcom	102,584	$326,450,000	13%	**$3,182**	$220,128	14%
Whitman	1,271,141	$254,031,000	56%	**$200**	$203,714	36%
Yakima	1,649,281	$1,203,806,000	43%	**$730**	$340,058	50%

FIGURE 21

Indicator: VALUE ADDED POTENTIAL

MEASURE: Net Value Added as defined by USDA Economic Research Service (ERS).

BACKGROUND: *Net value added* represents the total value of the farm sector's production of goods and services, less payments to other (nonfarm) sectors of the economy.

Net farm income is that portion of *net value added* earned by farm operators (defined as those individuals who share in the risks of production). Farm operators typically benefit most from the increases and assimilate most of the declines arising from short term, unanticipated weather and market conditions.

Net farm income is a value of production measure, indicating the farm operators' share of the net value added to the national economy within a calendar year, independent of whether it is received in cash or a noncash form such as increases/decreases in inventories and imputed rental for the farm operator's dwelling.

TRENDS & FINDINGS:

- Net farm income has increased since a 28 year low in 1999 by 192%.
- Net Value Added has increased during the same period 59%.

Sources:
USDA ERS Farm Income Data:
http://www.ers.usda.gov/Data/farmincome/FinfidmuXls.htm

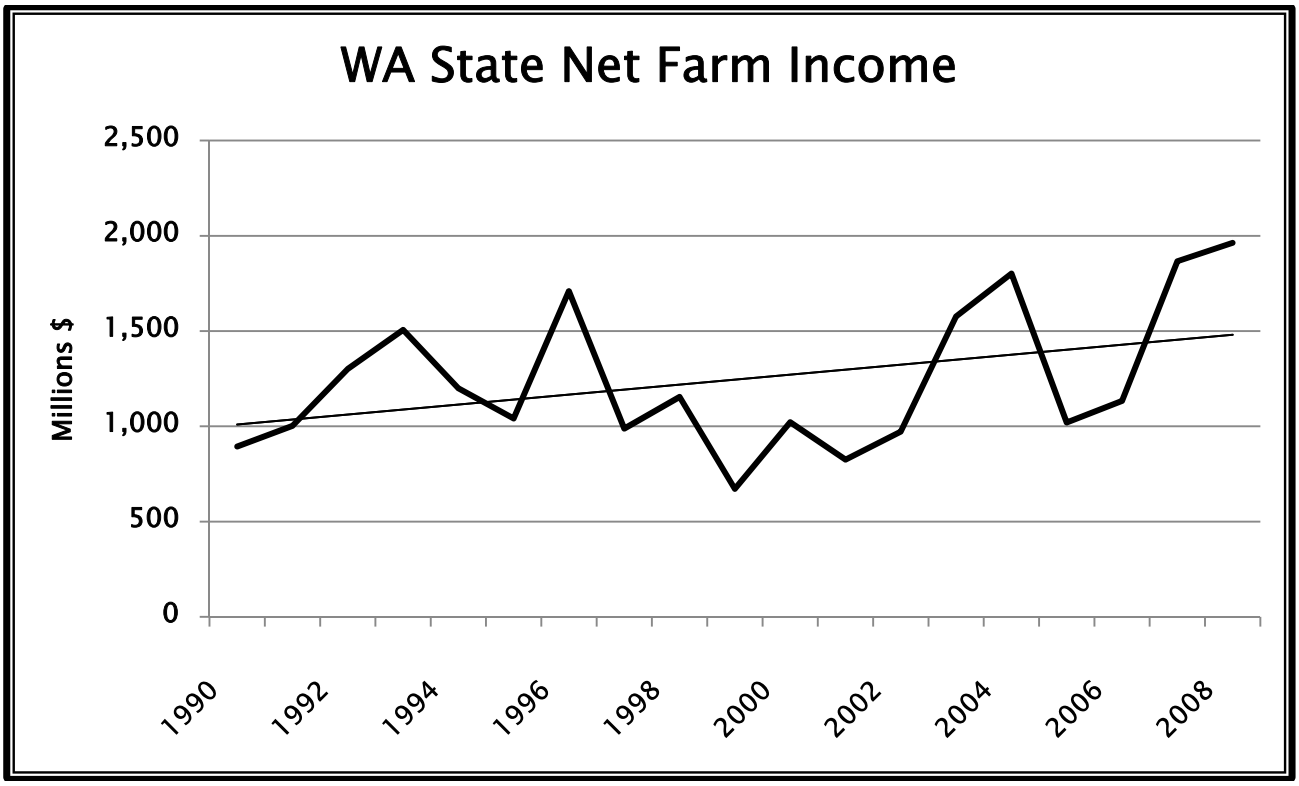

FIGURE 22

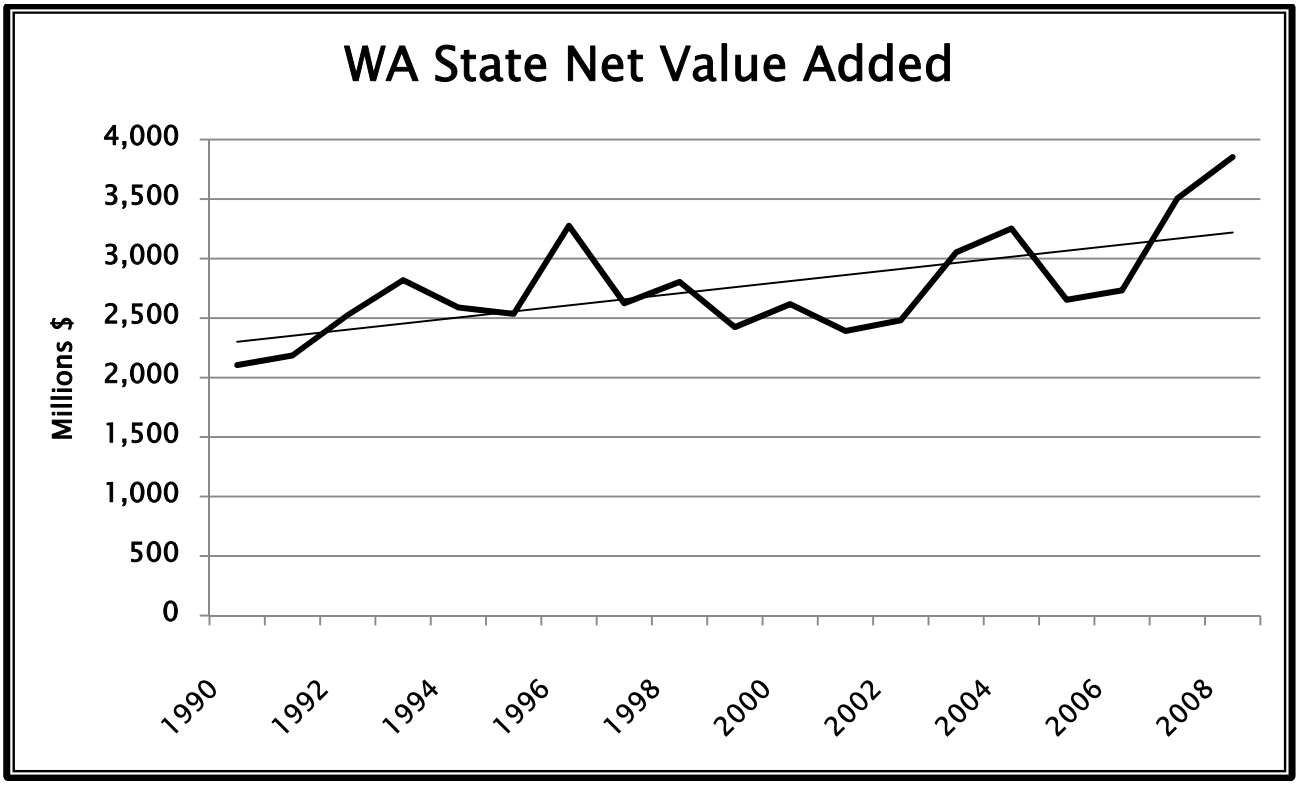

FIGURE 23

Indicator: NUMBER OF FARMERS MARKETS

MEASURE: Number of new farmers markets entering and leaving the market as reported by the WA State Farmers Market Association (WSFMA) and the WSDA.

BACKGROUND: The greater the market potential, the better for a farmer to market fresh produce, lower transportation costs, and enable better access to customers, all of which can increase profitability. Farmers markets are critical to the survival of many small family farms and the preservation of farmland around the country. Selling directly to consumers allows farmers to become more profitable by obtaining retail rather than wholesale prices and developing a loyal customer base.

During last ten years, the USDA estimates that the number of farmers markets nationwide has doubled. Money spent in farmers markets goes directly to the farmers and can be re-circulated to support other local jobs and businesses.

Statewide, farmers markets reported $55 million sales in 2008, up from $38 million in 2006. Most of these dollars go directly to Washington family farmers.

TRENDS & FINDINGS:

- Between 1998 and 2009, Washington farmers markets more than doubled, adding 80 markets.
- Statewide, farmers markets reported $55 million sales in 2008, up from $38 million in 2006
- According to the WSFMA, farmers markets are located in more than 30 counties

Sources:

Washington State Farmers Market Association: www.wafarmersmarkets.com
WSDA Farmers Market Manual: http://agr.wa.gov/Marketing/SmallFarm/docs/FMM1.pdf

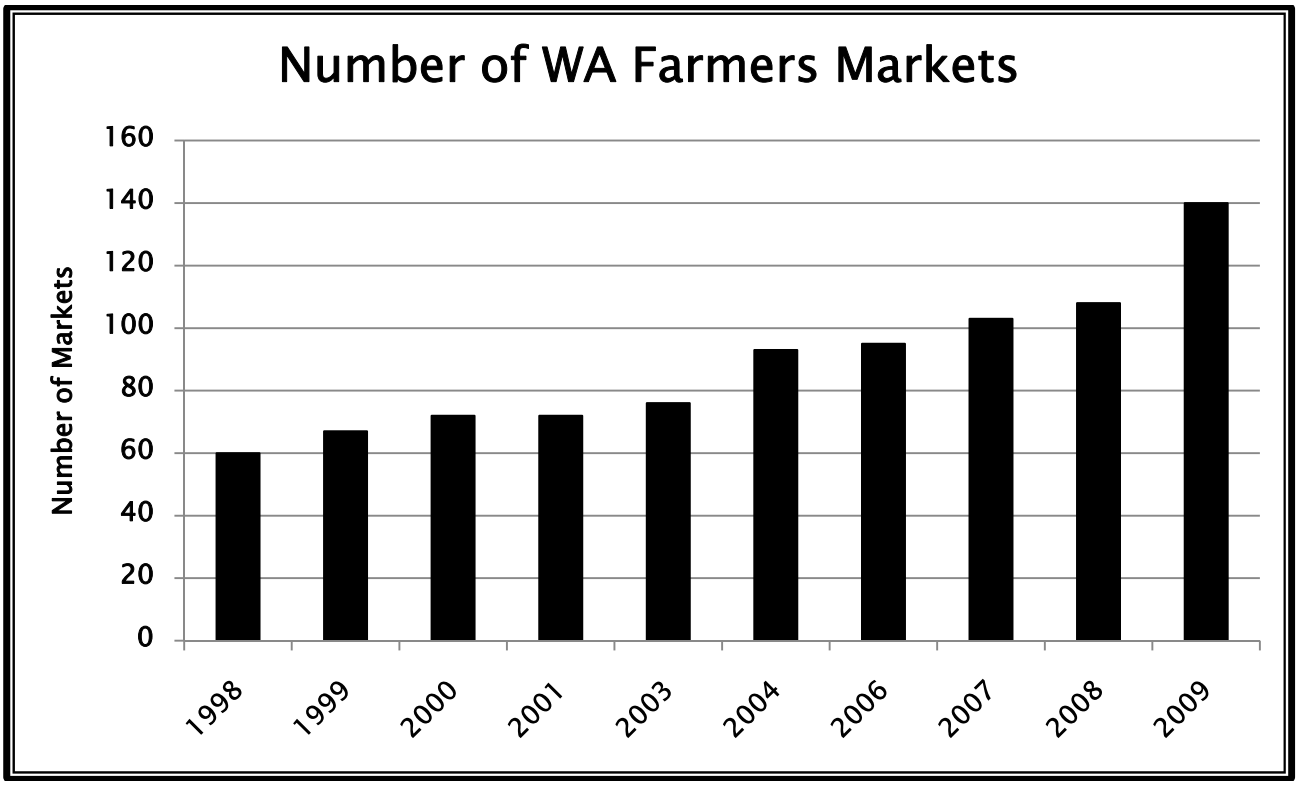
Number of WA Farmers Markets
Number of Markets
160
140
120
100
80
60
40
20
0
1998
1999
2000
2001
2003
2004
2006
2007
2008
2009

FIGURE 24

Indicator: ENERGY USE ON FARMS

MEASURE: Value of petroleum products and electricity purchased by farms.

BACKGROUND: Agriculture is one of the most energy intensive industries, consuming about 2 percent of total energy consumed in the U.S. Recent rising costs for diesel and gas, and trends towards increasing electricity costs, are adding to the expenses and decreasing economic viability.

Petroleum fuel and oil expenditures for farm business purposes are a cash component of expenses in all of the farm income accounts. Personal and family expenditures for petroleum fuel and oil are not included in any farm income accounts.

As summarized by ERS, 2008 production expenses rose, led by expenditures for feed, fuel, and fertilizer. Fuel prices were up significantly as the price of crude oil spiked at about $150 a barrel before tailing off in the 4th quarter of the year by which time farmers had completed most of their fuel purchases and use for the year.

The higher prices for petroleum-based fuels increased the demand for natural gas and propane as producers and consumers in all sectors of the U.S. economy sought alternative sources of fuel. Nitrogen comprises a significant share of expenditures for fertilizer, and nitrogen prices are heavily influenced by the price of natural gas. With nitrogen application levels and prices for fertilizer ingredients both up, fertilizer expenditures increased in 2008.

TRENDS & FINDINGS:

- Combined, Fuel, Oil, Electricity, fertilizer, and pesticide expenses increased 109% between 1990 and 2007.
- Fuel and Oil expenses rose 131% between 1990 and 2007.
- Fertilizer expenses increases 103% during the same period.

Sources:
USDA ERS Farm Income Data:
http://www.ers.usda.gov/Data/farmincome/FinfidmuXls.htm

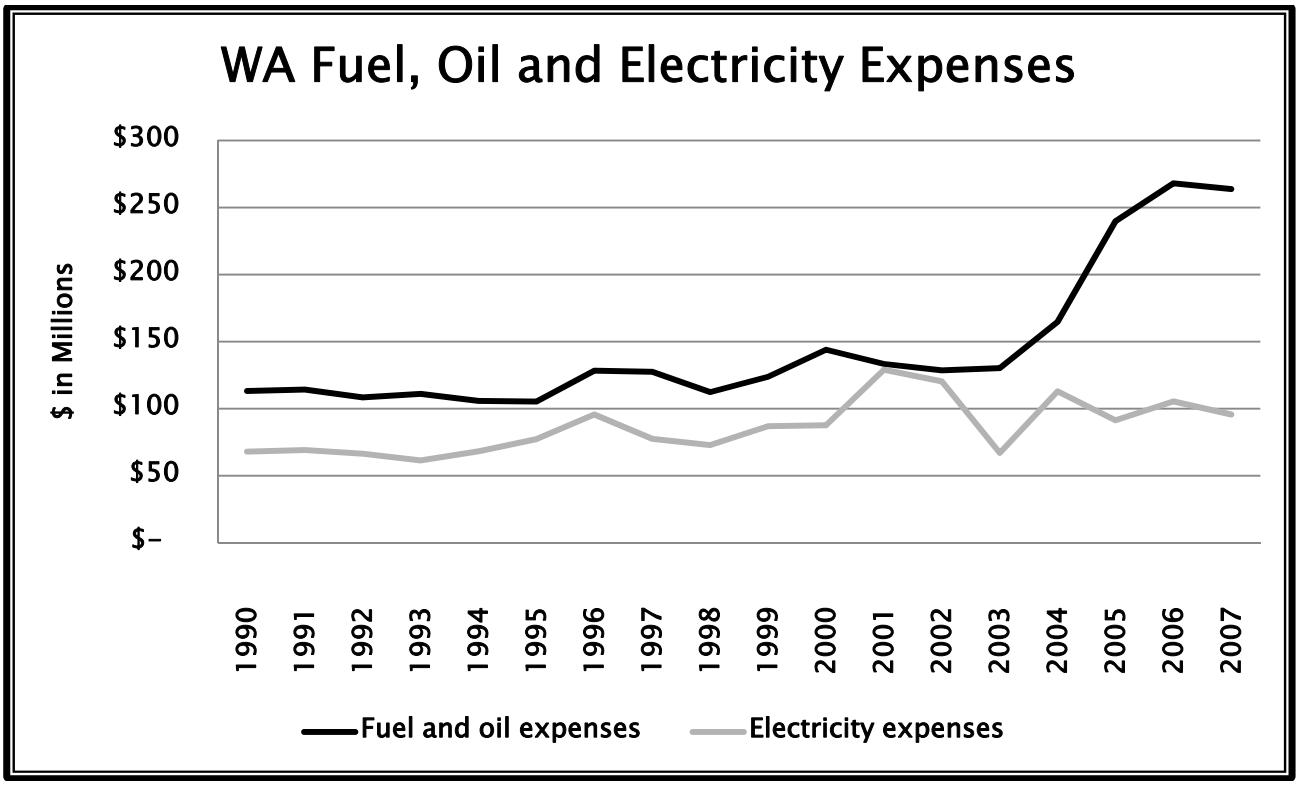

FIGURE 25

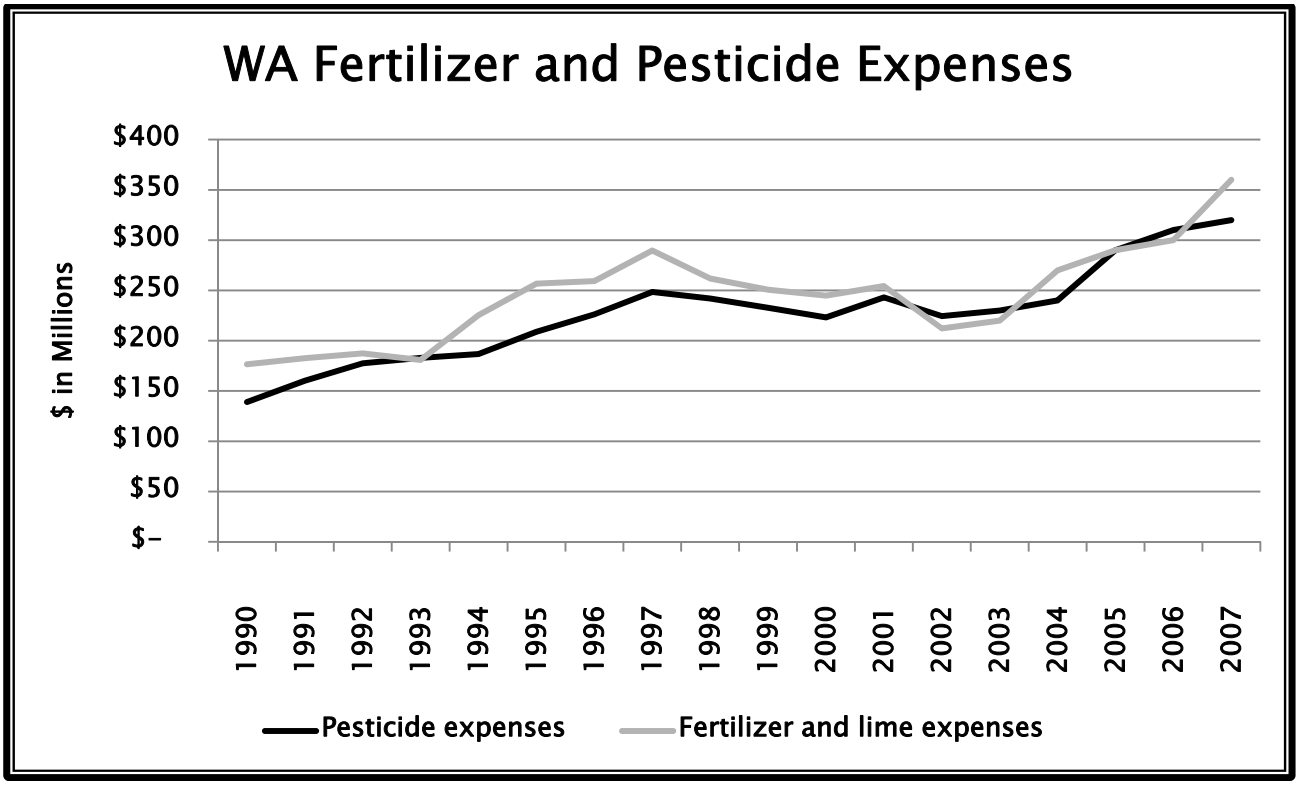

FIGURE 26

Indicator: CONSUMER PRICE INDEX FOR FOOD

MEASURE: Consumer Price Index for Food

BACKGROUND:

The trend in cheap imports and food prices directly impacts the economic viability of farms.

The Bureau of Labor Statistics, which started the statistic in 1919, publishes the CPI on a monthly basis. The CPI is calculated by observing price changes among a wide array of products in urban areas and weighing these price changes by the share of income consumers spend purchasing them. The resulting statistic, measured as of the end of the month for which it is published, serves as one of the most popular measures of United States inflation; however, the CPI focuses on approximating a cost-of-living index not a general price index.

The Consumer Price Index (CPI) for food is a component of the all-items CPI. The CPI measures the average change over time in the prices paid by urban consumers for a representative market basket of consumer goods and services. While the all-items CPI measures the price changes for all consumer goods and services, including food, the CPI for food measures the changes in the retail prices of food items only.

TRENDS & FINDINGS:

- (CPI) for all food increased 5.5 percent in 2008, the highest annual increase since 1990
- Forecast to increase 2.0 to 3.0 percent in 2009 as lower commodity and energy costs combine with weaker domestic and global economies to pull inflation down from 2008 levels.
- Pressure on retail food prices has subsided, resulting in low-to-moderate food price inflation in 2009.

SOURCES:

USDA-ERS Consumer Price Index for Food: http://www.ers.usda.gov/Briefing/cpifoodandexpenditures/consumerpriceindex.htm

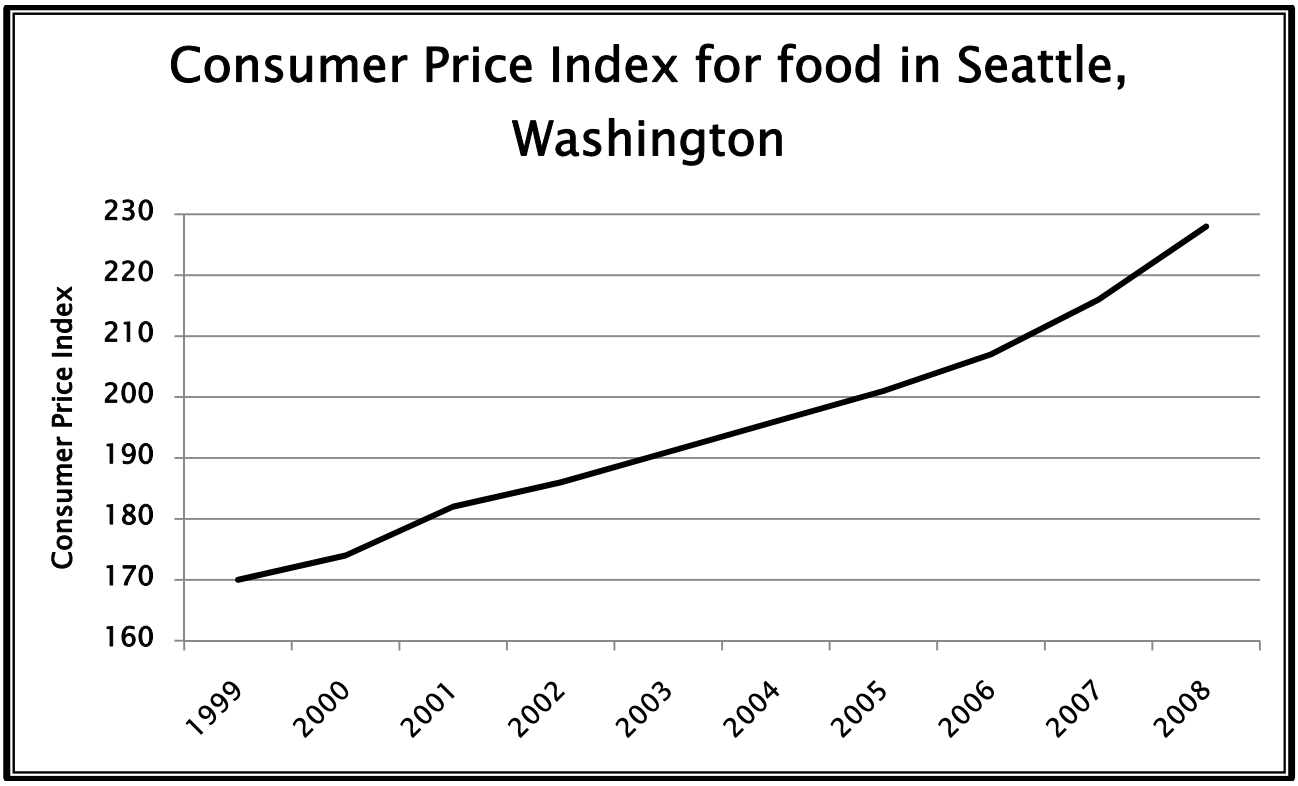
Consumer Price Index for food in Seattle, Washington
Consumer Price Index
230
220
210
200
190
180
170
160
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008

FIGURE 27

Indicator: WORKING LANDS WITH EASEMENTS

MEASURE: Aggregate of working lands under a form of working land easement.

BACKGROUND: Working land easements are an estate planning tool where farmers and ranchers can preserve the family farm for future generations. Land owners who place an easement on a parcel can still sell it, will it to children or grandchildren, change the type of farming and encumber it as collateral. They just cannot convert it to a non-agricultural use. Working land easements are somewhat similar to conservation easements which are created to protect wildlife habitat or open space. With working land easements, there usually is no reference to wildlife, wetlands or open space. The focus is on keeping the land in production. The farm or ranch continues to be managed as before the easement was placed on it.

In Washington, these types of easements have been implemented in many areas across the state, primarily in the western part of Washington. Many counties and land trusts have successfully negotiated working land easements with landowners, assuring the land remains in a working condition, while allowing the farm and family to remain connected.

TRENDS & FINDINGS:

- Awaiting full results from inquiry to land trusts.
- Reference list is only partial.

Sources:
Survey to all Washington land trusts

Entity	Acres	Number of Easements
PCC Farmland Trust	845	8
Chelan-Douglas Land Trust	65	1
NRCS-FRPP	7,695.7	94
King County Farmland Program	13,337	197
Okanogan Valley Land Council	409	3
Blue Mountain Land Trust	75	?
Skagit County Farmland Preservation	7,000	115

FIGURE 28

WASHINGTON STATE FARMLAND PRESERVATION

Indicator: AGRICULTURE RELATED DEGREES

MEASURE: Calculate the number of agriculture related degrees over time.

BACKGROUND: A college trained workforce may indicate the interest and potential for new farmers. An important indicator is the amount of degrees Washington students earn each year. An increase in the number of degrees indicates a desire to learn more about farming and begin their own farm or take a larger share of the management on the family farm.

At the K-12 level, there are 52 Agriculture Education courses School Districts may chose from when offering an Agriculture Education program. According to OSPI, there has been a gradual increase in districts offering agricultural education offerings. Finding certified educators to teach is a part of what holds back increased participation.

TRENDS & FINDINGS:

- Total number of agriculture related degrees including Associate, Bachelor, Master, and Doctorate has nearly doubled since 1994/1995 from 162 degrees to 307 degrees in 2007-2008.
- Associate degrees have remained fairly stable from 1994-2008 (124-167), while bachelor degrees have increased from 23 in 1994/1995 to 134 in 2007/2008.
- Between 2003-2006, Washington State University, Walla Walla Community College, and Spokane Community College awarded the most agricultural related degrees.
- In 2009, of the 296 school districts in Washington, 217 of them offered some sort of agricultural education.

Sources:

Integrated Post-Secondary Education Data System, National Center for Education Statistics. Accessed 10/12/09. Includes 2007-08 Early Release Data.

Office of Superintendent of Public Instruction

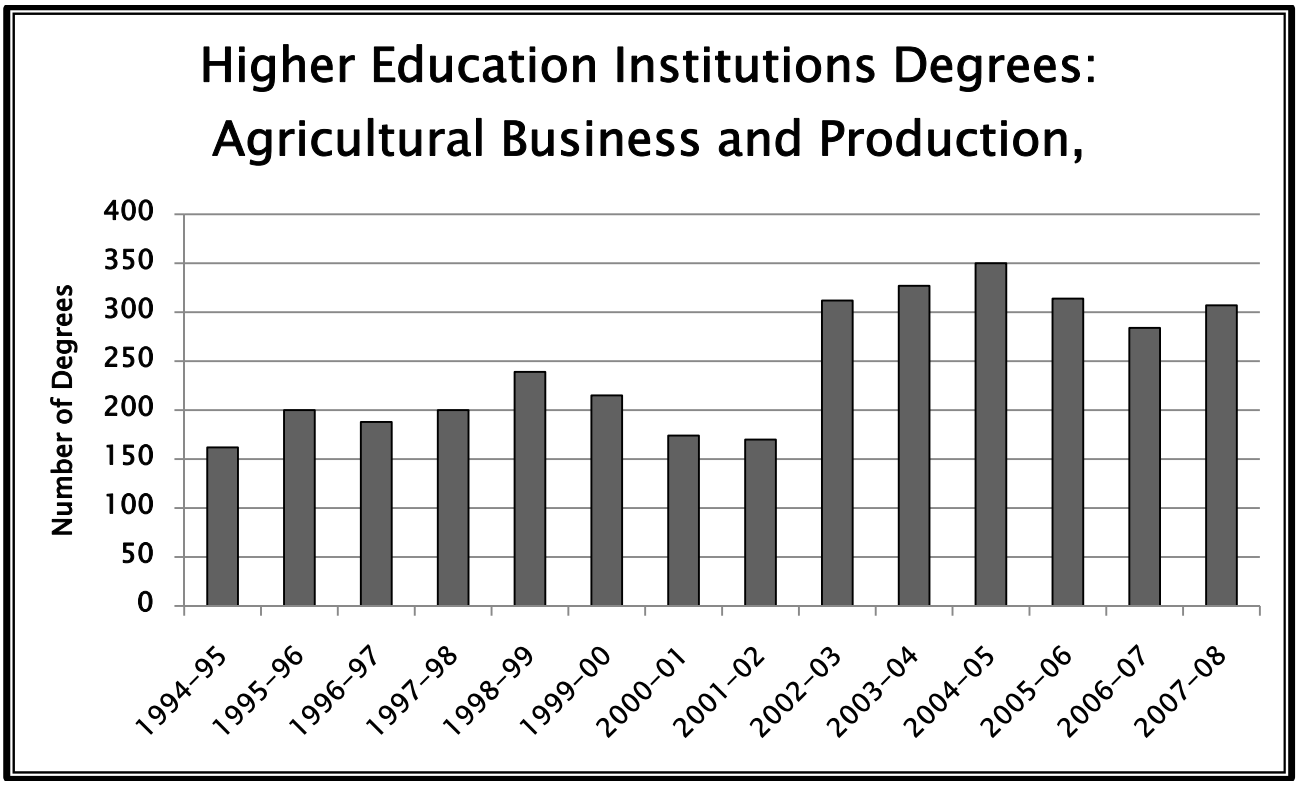

FIGURE 29

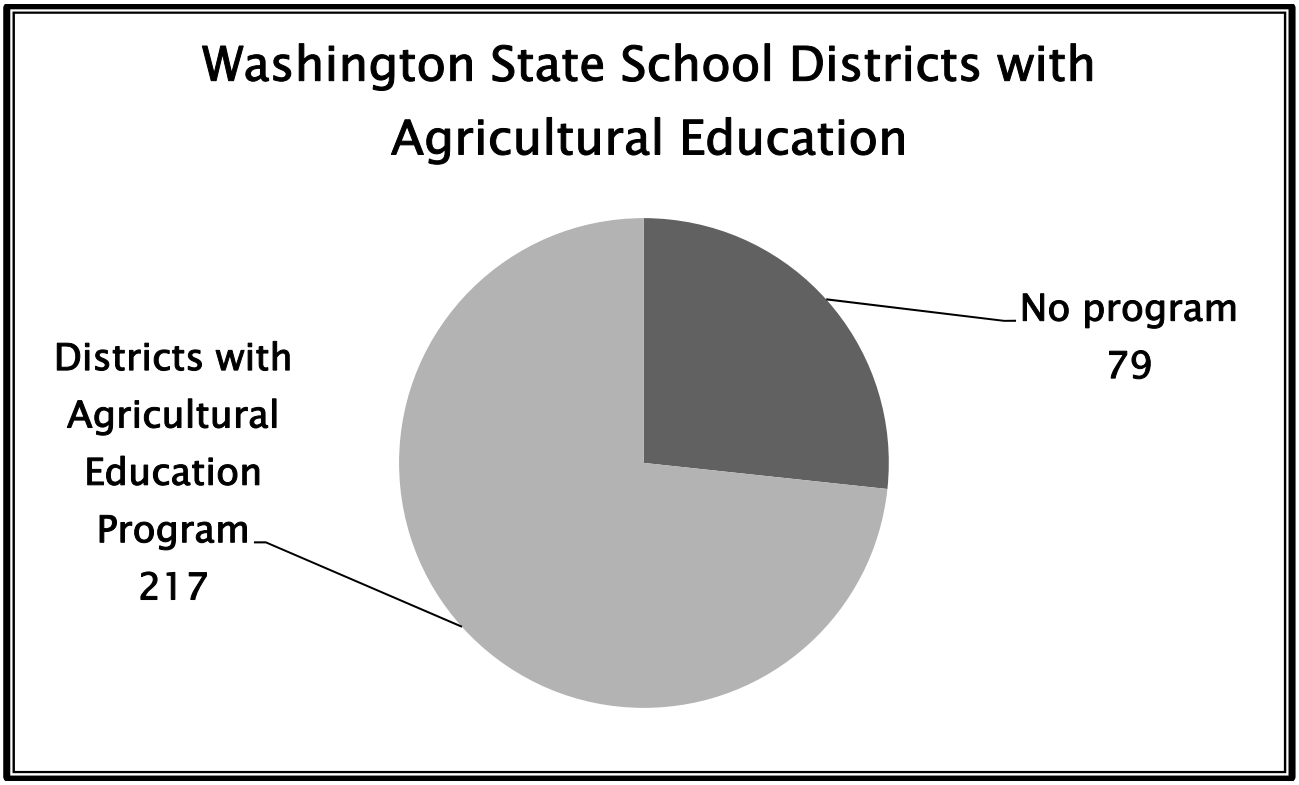

FIGURE 30

WASHINGTON STATE FARMLAND PRESERVATION

Indicator: FARMS BY ORGANIZATION

MEASURE: Percent of total farm acreage and sales by type of organization.

BACKGROUND: Measures are divided into two broad categories: Family and non family entities. The graph breaks them down into: of: non-family corporations partnerships; and family-held corporations; individuals/family, and sole proprietorships.

Washington farms are diverse, ranging from very small retirement and residential farms to enterprises with annual sales in the millions of dollars. Farms are operated by individuals on a full- and part-time basis, by multiple generations of a family, by multiple families, and by managers of nonfamily corporations. Some specialize in a single product, while others produce a wide variety of products. Some have full control over their farming processes while others produce commodities under contract to strict specifications. But despite their diversity, most Washington farms are family farms.

TRENDS & FINDINGS:

- Farms owned by individuals or families accounted for 90% of total farms in Washington in 2007.
- Farms owned by individuals or families accounted for roughly 46% of total farm acreage in Washington in 2002.
- In 2002, farms owned by individuals or families accounted for 41% of total farm sales.
- In 2007, farms owned by individuals or families accounted for 36% of total farm sales.

Sources:

USDA 2007, 2002, 1997 Census of Agriculture
http://www.agcensus.usda.gov/Publications/2007/Full_Report/Volume_1,_Chapter_1_State_Level/Washington/st53_1_061_061.pdf

USDA ERS: America's Diverse Family Farms, 2007 Edition
http://www.ers.usda.gov/publications/EIB26/

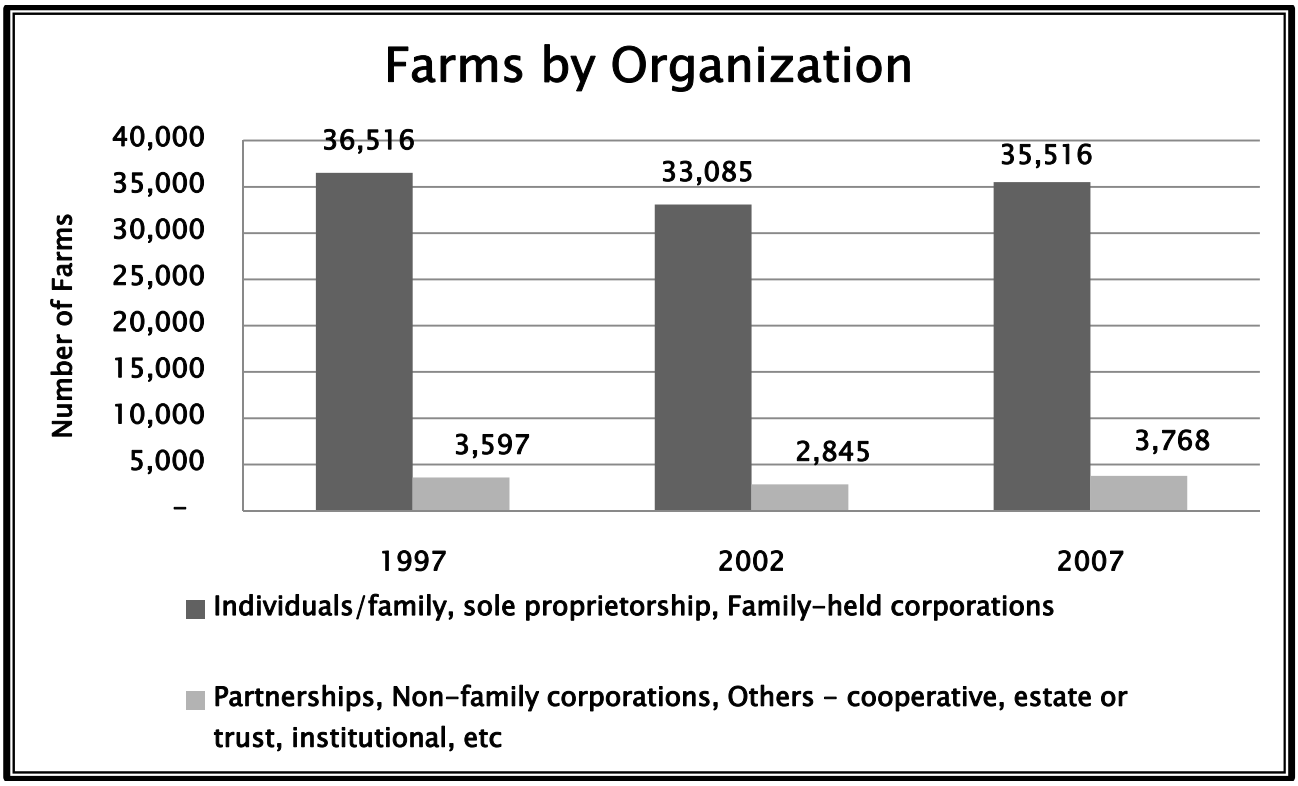

FIGURE 31

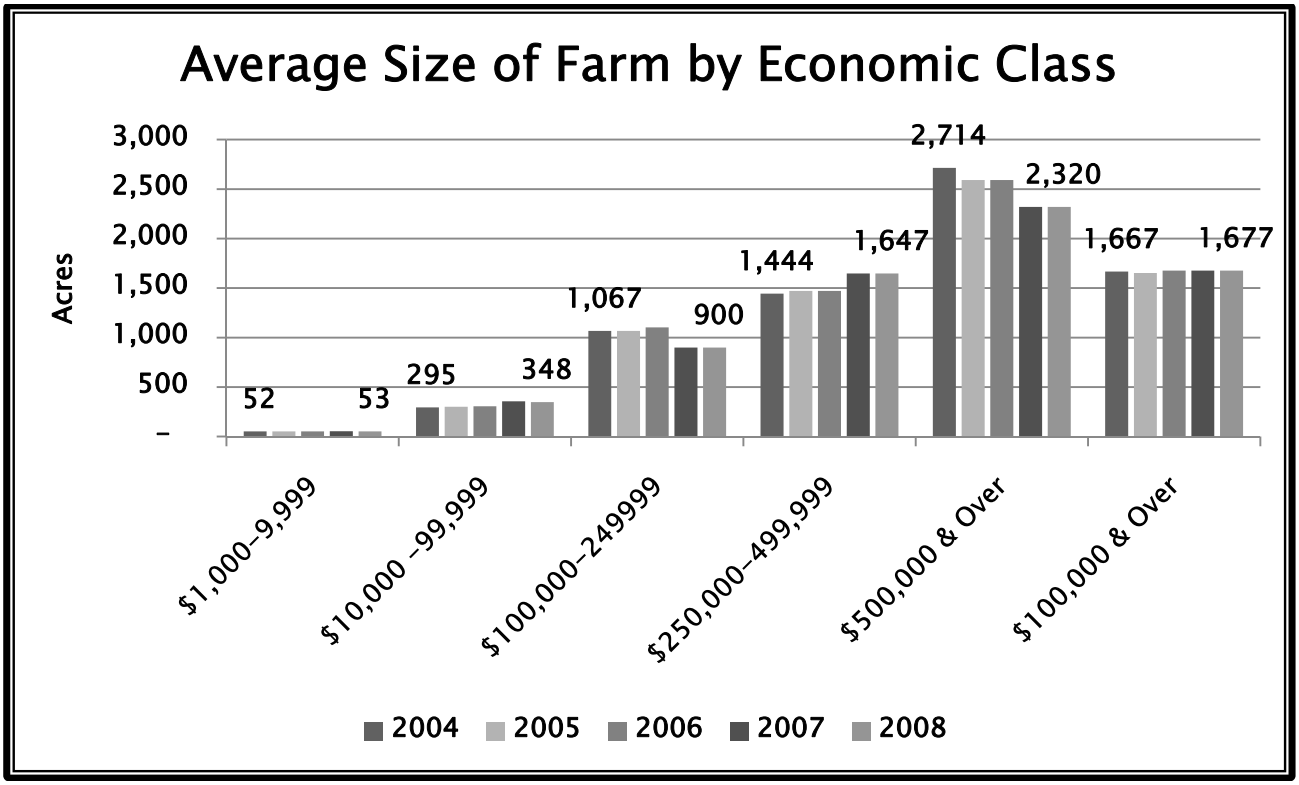

FIGURE 32