Data may have been updated since publication. For the most current information, see www.ers.usda.gov/publications/agoutlook/aotables/.

Farm, Rural, and Natural Resources Indicators

	1990	2000	2001	2002	2003	2004	Annual percent change 1990-2000	2002-03	2003-04
Cash receipts ($ billion)	169.5	192.1	200.1	195.1	211.6	235.4 f	1.3	8.5	11.2
Crops	80.3	92.5	93.4	101.3	106.2	113.2 f	1.4	4.8	6.6
Livestock	89.2	99.6	106.7	93.8	105.5	122.2 f	1.1	12.5	15.8
Direct government payments ($ billion)	9.3	22.9	20.7	11.0	15.9	14.5 f	9.4	44.5	-8.8
Gross cash income ($ billion)	186.9	228.7	235.6	222.0	243.9	266.1 f	2.0	9.9	9.1
Net cash income ($ billion)	52.7	56.7	59.5	50.7	68.6	77.8 f	0.7	35.3	13.4
Net value added ($ billion)	80.8	91.9	94.1	78.8	101.4	118.0 f	1.3	28.7	16.4
Farm equity ($ billion)	702.6	1,025.6	1,070.2	1,110.7 f	1,180.8	1,247.0 f	3.9	6.3	5.6
Farm debt-asset ratio	16.4	14.8	14.8	14.8 f	14.4	14.2 f	-1.0	-2.7	-1.4
Farm household income ($/farm household)	38,237	61,947	64,117	65,757	68,506	71,102 f	4.9	4.2	3.8
Farm household income relative to average U.S. household income (%)	103.1	108.6	110.2	113.7	na	na	0.5	na	na
Nonmetro-Metro difference in poverty rate (%)	3.6	2.6	3.1	2.6	2.1	na	-3.2	-19.2	na
Cropland harvested (million acres)	310	314	311	307	315	312 p	0.1	2.6	-1.0

Food and Fiber Sector Indicators

	1990	2000	2001	2002	2003	2004	Annual percent change 1990-2000	2002-03	2003-04
U.S. gross domestic product ($ billion current)[2]	5,803	9,825	10,082	10,446	10,863 f	na	5.4	4.0	na
Food and fiber share (%)	15.1	12.6	12.3	na	na	na	-1.8	na	na
Farm sector share (%)	1.4	0.8	0.8	0.8	na	na	-5.4	na	na
Total agricultural imports ($ billion)[1]	22.7	38.9	39.0	41.0	45.7	52.7	5.5	11.5	15.3
Total agricultural exports ($ billion)[1]	40.3	50.7	52.7	53.3	56.2	62.3	2.3	5.4	10.9
Export share of the volume of U.S. agricultural production (%)	18.2	17.6	17.7	16.5	17.9	na	-0.3	8.5	na
CPI for food (1982-84=100)	132.4	167.9	173.1	176.2	180.0	186.2	2.4	2.2	3.4
Share of U.S. disposable income spent on food (%)	11.2	10.1	10.2	10.1	10.1	na	-1.0	0.0	na
Share of total food expenditures for at-home consumption (%)	55.4	53.3	53.9	53.8	53.1	na	-0.4	-1.3	na
Farm-to-retail price spread (1982-84=100)	144.5	210.3	215.4	221.2	na	na	3.8	na	na
Total USDA food and nutrition assistance spending ($ billion)[1]	24.9	32.6	34.2	38.0	41.8	46.1	2.7	10.0	10.3

f = Forecast. p = Preliminary. na = Not available.

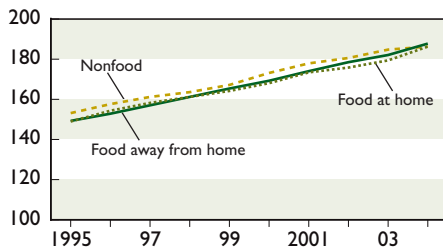### Prices paid and received by farmers
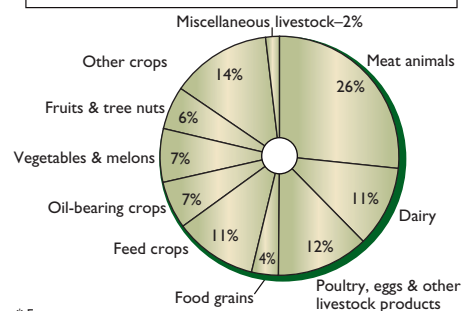
1990-92=100
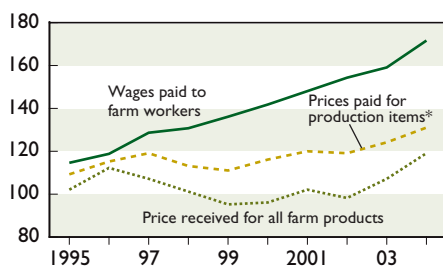
* Seed, fertilizer, fuel, chemicals, etc.

Consumer price indexes for food and nonfood items

1982-84=100

Cash receipts from farming in 2005*

* Forecast.

For more information, see www.ers.usda.gov/amberwaves/
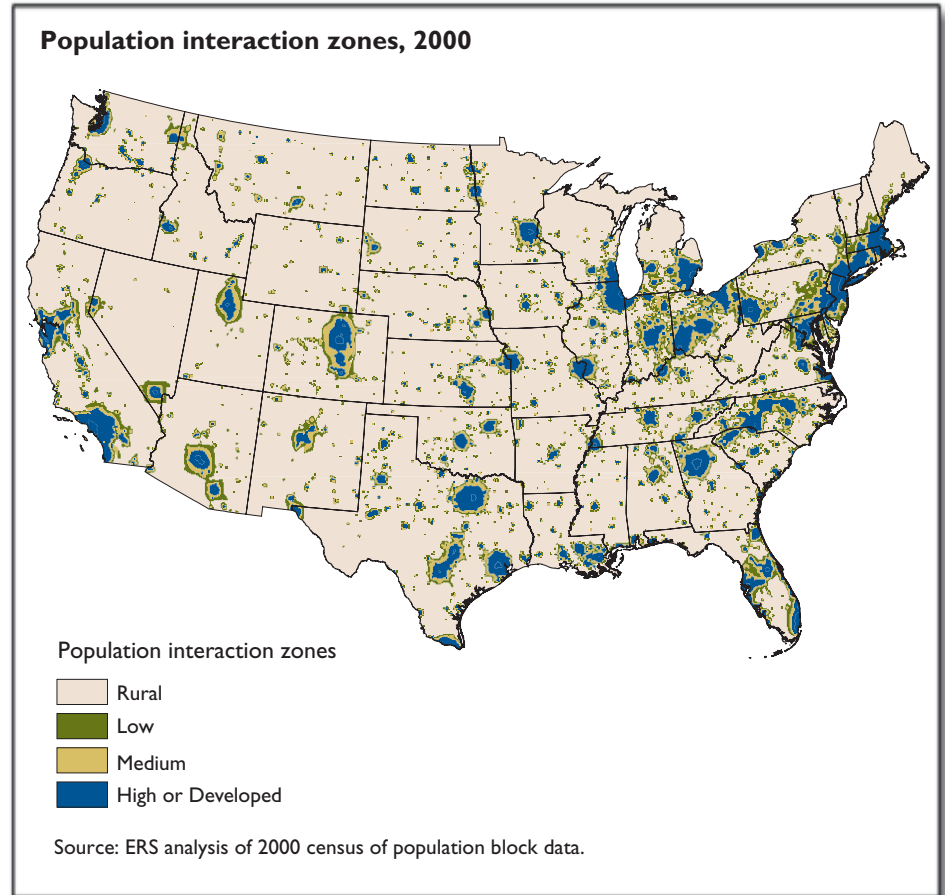
Behind the Data

Population Interaction Zones for Agriculture

Widespread conversion of rural lands to urban uses is an issue challenging all levels of government. To provide policymakers with information useful for projecting future changes in land use, ERS has created a system to classify remaining farmland into "population interaction zones for agriculture" (PIZA). These zones represent areas of agricultural land use in which urban-related activities affect the economic and social environment of agriculture. In these zones, population interactions with farm production activities increase farmland value, change farm enterprises, and elevate the probability of conversion to urban-related uses.

Though closely related to the existing ERS county-level Urban Influence Codes and census tract-level Rural-Urban Commuting Area Codes, PIZA is a complementary system that provides codes for much smaller 5-kilometer squares. In addition, the PIZA codes provide a continuous and cardinal (rather than ordinal) measure of population interaction, which is especially useful for some analyses.

Designation of the zones begins with use of common Geographic Information System (GIS) software to assign an index number to each 5-kilometer cell in a grid laid out across the contiguous 48 States. The "population interaction index" (PII) measures the influence that nearby population exerts on agricultural land in each grid cell. Each PII is a continuous measure that accounts for both population size in all grid cells within a 50-mile radius and their distance from the target grid cell. The index increases as population increases, and/or as distance between agricultural land and that population decreases.

In order to assign cells to either a "rural" zone or a "population interaction" zone, thresholds for PII were established for each of 20 Land Resource Regions (LRRs) defined by USDA's Natural Resources Conservation Service. Thresholds were established near the upper end of the range of index numbers for grid cells in the most rural census tracts of each LRR. Within each LRR, index numbers below that threshold represent rural levels of population interaction, which exist even in the absence of urban-related population interaction. Any grid cell whose index exceeds the threshold is classified into a "population interaction zone." Cells initially classified into the population interac-

Population interaction zones, 2000

Population interaction zones

- Rural
- Low
- Medium
- High or Developed

Source: ERS analysis of 2000 census of population block data.

tion zone are further classified into one of three categories, yielding a four-level classification: rural (little or no urban-related population interaction) and low, medium, and high population interaction.

The indices (PII) and zone codes (PIZA), which can be used to classify any geographic point in the 48 contiguous States, are available on the ERS website. GIS software is necessary, however, to retrieve the indexes and zone codes and relate them to any given geographic point.

Charles Barnard
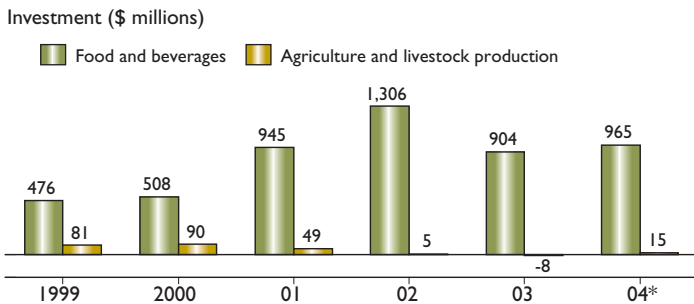**Contact: Vince Breneman**, breneman@ers.usda.gov

For more information. . .

Measuring Interactions Between Urban-Related Population and Agricultural Production Activities: www.ers.usda.gov/briefing/landuse/measuringurbanchapter.htm

See also the ERS Population Interaction Zones for Agriculture (PIZA), at: www.ers.usda.gov/data/populationinteractionzones/

Markets and Trade

Mexico's food and beverage industries attract substantially higher net inflows of foreign direct investment than production agriculture

Investment ($ millions)

■ Food and beverages   ■ Agriculture and livestock production

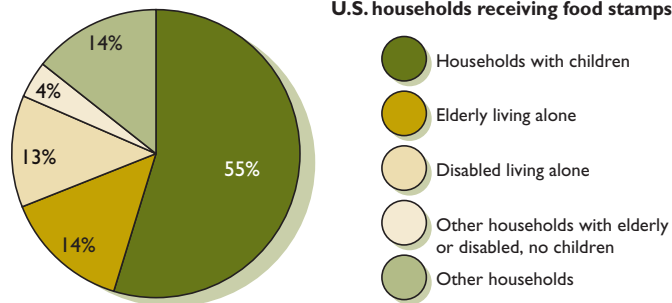| Year	Food and beverages	Agriculture and livestock production
1999	476	81
2000	508	90
01	945	49
02	1,306	5
03	904	-8
04*	965	15

*January-September 2004.

Source: ERS calculations, based on data from Mexican Secretariat of Economy, General Directorate of Foreign Investment.
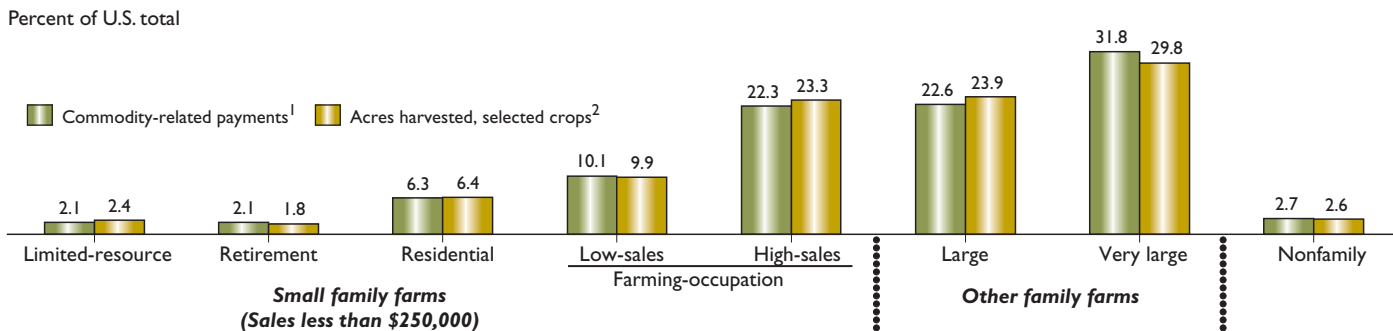
Diet and Health

About 86 percent of the almost 9 million households that received food stamps in FY 2003 had at least one child, elderly person, or disabled person

U.S. households receiving food stamps

- 55% Households with children
- 14% Elderly living alone
- 13% Disabled living alone
- 4% Other households with elderly or disabled, no children
- 14% Other households

Source: Prepared by ERS using data from USDA's Food and Nutrition Service.

Farms, Firms, and Households

Acres of program commodities help explain the distribution of commodity program payments, 2003

Percent of U.S. total

■ Commodity-related payments[1]   ■ Acres harvested, selected crops[2]

	Commodity-related payments	Acres harvested, selected crops
Limited-resource	2.1	2.4
Retirement	2.1	1.8
Residential	6.3	6.4
Low-sales	10.1	9.9
High-sales	22.3	23.3
Large	22.6	23.9
Very large	31.8	29.8
Nonfamily	2.7	2.6

Small family farms (Sales less than $250,000): Limited-resource, Retirement, Residential
Farming-occupation: Low-sales, High-sales
Other family farms: Large, Very large
Nonfamily

[1] Direct payments, countercyclical payments, loan deficiency payments, marketing loan gains, and other payments. [2] Food and feed grains, soybeans, other oilseeds, sugar beets, and sugarcane.

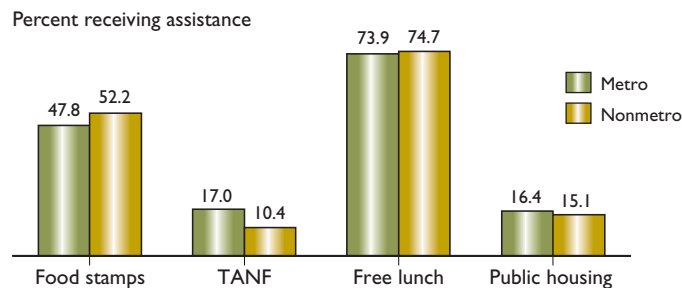Source: USDA's 2003 Agricultural Resource Management Survey, Phase III.

Rural America

The metro-nonmetro gap in child poverty rates narrowed in the 1990s but widened again in the early 2000s

Percent in poverty

(line graph showing Nonmetro and Metro trends from 1985 to 03)
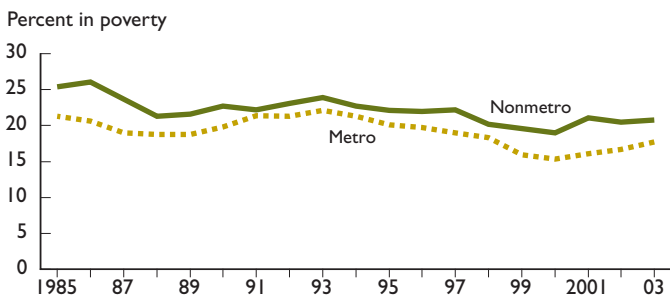
Note: Child poverty rates are based on children under age 18 in families.
Source: Calculated by ERS from Current Population Survey data files, 1986-2004.

Higher shares of nonmetro poor children receive food stamps than metro children, 2004

Percent receiving assistance

■ Metro   ■ Nonmetro

	Metro	Nonmetro
Food stamps	47.8	52.2
TANF	17.0	10.4
Free lunch	73.9	74.7
Public housing	16.4	15.1

Note: Households must meet a low-income threshold to qualify for food stamps, Temporary Assistance for Needy Families (TANF), and free or reduced-price lunches.

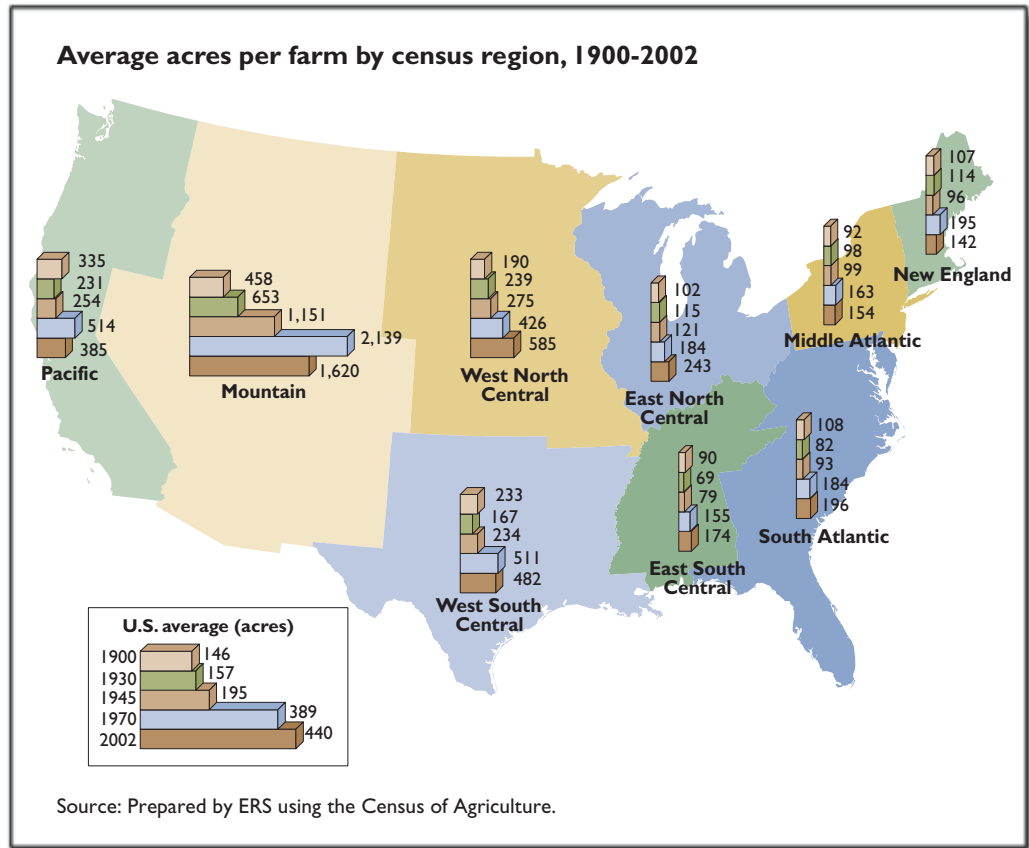Source: Calculated by ERS from the March 2004 Current Population Survey.

On the Map

Average farm size grows most rapidly in mountain States

Average farm size in the U.S. has increased fairly steadily over the last century, but growth patterns vary by region and time periods. Snapshots of regional average farm size at five points in time (see "Milestones in U.S. Farming and Farm Policy" on page 10) illustrate a more complex picture of changing farm size in the U.S. than is apparent in national averages.

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Average acres per farm by census region, 1900-2002

New England
107
114
96
195
142

Pacific
335
231
254
514
385

Mountain
458
653
1,151
2,139
1,620

West North Central
190
239
275
426
585

East North Central
102
115
121
184
243

Middle Atlantic
92
98
99
163
154

South Atlantic
108
82
93
184
196

East South Central
90
69
79
155
174

West South Central
233
167
234
511
482

U.S. average (acres)

Year	Acres
1900	146
1930	157
1945	195
1970	389
2002	440

Source: Prepared by ERS using the Census of Agriculture.

In the Long Run

Farm population as a share of total U.S. population

Farm population has fallen steadily as a share of total U.S. population for more than a century. Less than half the U.S. population has lived on farms since these data were first collected in 1880.

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Farm population has decreased steadily

Millions

Nonfarm population

Farm population

Source: Prepared by ERS using the Census of Agriculture.