1.2 Farm Real Estate Values, Rents, and Taxes

Farm real estate values and cash rents are important indicators of the financial condition of the farm sector. Farm real estate values are influenced by net returns from agricultural production, capital investment in farm structures, interest rates, government commodity programs, property taxes, and nonfarm demands for farmland. Values have been steadily rising since 1987. By early 1995, the average value of U.S. farm real estate exceeded the previous high set in 1982 before values began to decline. The most recent survey information indicates that average value continued to increase throughout calendar 2000; cash rents also were generally stable to higher for the 2001 crop year.

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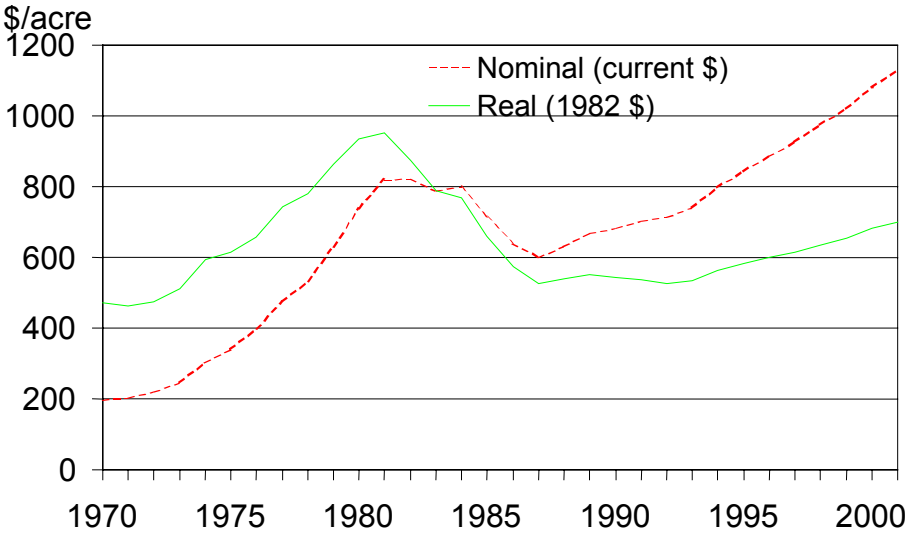
Values of farm real estate (farmland and attached buildings and dwellings) are important to landowners, prospective buyers, lenders, tax assessors, agricultural producers, and local governments. Farm real estate is the most valuable asset on the farm sector balance sheet (currently accounting for more than three quarters of total U.S. farm assets), and its value provides an indicator of the general economic health of the agricultural sector (Economic Research Service, 2001). Farm real estate underlies the financial stability of many farm businesses whose portfolios derive a large proportion of their value from real estate.

In addition to being the largest single investment item in a typical farmer's portfolio, farm real estate is the principal source of collateral for farm loans, enabling farm operators to finance the purchase of additional farmland and equipment or to finance current operating expenses. Some 54 percent of the total farm sector debt of $176.4 billion at the end of 2000 was real estate debt—either mortgages for purchase of farmland or short- or intermediate-term debt secured by farmland (Economic Research Service). As a consequence, wide swings in farm real estate values alter the equity positions, creditworthiness, and borrowing capacity of those farm operators and landowners that hold large percentages of assets in the form of farmland.

Farm Real Estate Values

The rapid increase in farmland values during the 1970s and early 1980s was followed by a sharp decline during 1982-87, then a slow upward trend beginning in 1987 (fig. 1.2.1). Since 1987, average farmland values in the Nation have increased 89 percent, from $599 per acre to $1,130 in January 2001. In real or inflation-adjusted terms (GDP deflator), however, this amounts to only a 32.8-percent gain. It was not until January 1, 1995, that the average nominal value per acre surpassed the record high of $823 set in 1982. But the January 2001 average, on a real (or inflation-adjusted) basis, was still 19.9 percent below the 1982 average.

Figure 1.2.1--Average real and nominal values of U.S. farm real estate



Source: USDA, ERS

U.S. farm real estate values rose 4.6 percent during 2000 (table 1.2.1). This represents an inflation-adjusted increase of 2.5 percent (table 1.2.2). Forty-seven States had real increases in agricultural real estate values in 2000. The increases ranged from 0.9 to 17.6 percent. The Southern Plains recorded a small regional increase: increases were low in both Oklahoma and Texas. The only decrease was a -0.8 percent for Washington. The largest regional increases occurred in the Southeast, Appalachian, and Lake regions —with 8.2, 8.0, and 7.6 percent increases, respectively—repeating the pattern recorded the previous year.

The 4.6-percent nominal increase in the national average value of agricultural real estate during 2000 marked the 14th consecutive yearly increase since 1987. Notable increases in average agricultural real estate values during 1987-2001 occurred within the Lake and Corn Belt regions (fig. 1.2.2a). Much of this increase can be attributed to strong nonfarm demand for farmland. (The Corn Belt experienced the largest value declines between 1981 and 1986.) The relatively small increase in Texas largely derives from the time period considered. Texas farm real estate values increased until the mid-1980s, before declining and then beginning a slow recovery later than most States.

As of January 2001, several Northeast States continued to record the highest average per-acre values for farm real estate. These values reflect continued pressure from nonagricultural sources for conversion to residential or other urban-related uses. The relatively high values in States such as California, Florida, Ohio, Illinois, Indiana, and North Carolina are the consequence of urban pressures, the presence of intensive agriculture for the production of high-value crops, or the natural fertility of the soil in some of these States (figure 1.2.2b). Alternatively, the relatively low average values in the Northern Plains, Southern Plains, and parts of the Mountain States can be attributed to large amounts of arid rangeland and less productive cropland. New Mexico, Wyoming, and Montana recorded the lowest average per-acre values (table 1.2.1).

Cash Rents

A substantial portion of U.S. farmland is operated under some form of lease, approximately 41 percent in 1997,

Table 1.2.1--Average per acre value of farm real estate, by State, selected years 1982-2001 1/

State	1982	1987	1994	1995	1996	1997	1998	1999	2000	2001	Change 2000-2001
Northeast:	1,367	1,491	2,160	2,200	2,220	2,240	2,280	2,370	2,520	2,640	4.8
Maine	680	885	1,130	1,130	1,150	1,170	1,190	1,200	1,250	1,300	4.0
New Hampshire	1,136	1,847	2,250	2,250	2,250	2,250	2,250	2,250	2,300	2,400	4.3
Vermont	815	1,114	1,400	1,450	1,490	1,500	1,520	1,570	1,650	1,750	6.1
Massachusetts	1,874	3,012	5,020	5,060	5,100	5,150	5,210	5,500	5,900	6,000	1.7
Rhode Island	2,729	3,389	6,400	6,500	6,500	6,500	6,500	6,500	6,600	6,700	1.5
Connecticut	2,610	3,557	5,950	5,950	5,950	5,950	5,950	6,300	6,600	6,900	4.5
New York	821	960	1,260	1,280	1,260	1,250	1,280	1,340	1,410	1,500	6.4
New Jersey	3,181	3,729	6,950	7,000	7,100	7,100	7,000	7,000	7,100	7,400	4.2
Pennsylvania	1,513	1,540	2,150	2,200	2,270	2,300	2,390	2,500	2,720	2,840	4.4
Delaware	1,787	1,677	2,350	2,440	2,550	2,580	2,660	2,750	2,800	2,830	1.1
Maryland	2,376	2,009	3,050	3,100	3,110	3,150	3,180	3,300	3,600	3,800	5.6
Lake States:	1,234	707	985	1,050	1,130	1,200	1,280	1,390	1,570	1,690	7.6
Michigan	1,278	924	1,210	1,330	1,420	1,530	1,670	1,850	2,150	2,250	4.7
Wisconsin	1,144	777	968	1,040	1,130	1,170	1,240	1,370	1,700	2,000	17.6
Minnesota	1,272	587	914	950	1,030	1,090	1,160	1,230	1,280	1,320	3.1
Corn Belt:	1,642	900	1,320	1,430	1,510	1,610	1,730	1,830	1,930	2,020	4.7
Ohio	1,629	1,097	1,560	1,750	1,820	1,890	2,040	2,220	2,300	2,400	4.3
Indiana	1,804	1,061	1,500	1,620	1,740	1,870	2,060	2,220	2,350	2,450	4.3
Illinois	2,023	1,149	1,670	1,820	1,900	1,980	2,130	2,250	2,380	2,450	2.9
Iowa	1,889	786	1,280	1,350	1,450	1,600	1,700	1,770	1,820	1,860	2.2
Missouri	945	604	825	880	950	1,010	1,070	1,130	1,250	1,380	10.4
Northern Plains:	547	331	428	453	463	481	499	510	526	547	4.0
North Dakota	455	303	353	373	383	390	401	406	415	425	2.4
South Dakota	349	238	286	302	310	325	348	360	380	405	6.6
Nebraska	730	400	550	580	610	620	645	670	695	725	4.3
Kansas	628	373	503	535	553	565	577	580	590	605	2.5
Appalachia:	1,083	1,004	1,320	1,430	1,550	1,630	1,720	1,840	1,990	2,150	8.0
Virginia	1,096	1,154	1,590	1,720	1,840	1,880	1,920	2,040	2,200	2,300	4.5
West Virginia	723	633	869	920	980	1,050	1,090	1,070	1,150	1,220	6.1
North Carolina	1,297	1,259	1,610	1,750	1,900	2,000	2,080	2,250	2,500	2,800	12.0
Kentucky	1,058	878	1,140	1,250	1,300	1,350	1,450	1,530	1,600	1,770	10.6
Tennessee	1,040	936	1,250	1,340	1,530	1,650	1,810	1,950	2,150	2,240	4.2
Southeast:	1,095	1,055	1,410	1,520	1,580	1,630	1,700	1,770	1,940	2,100	8.2
South Carolina	980	792	1,200	1,340	1,360	1,400	1,480	1,520	1,600	1,650	3.1
Georgia	926	889	1,150	1,260	1,360	1,430	1,510	1,630	1,880	2,100	11.7
Florida	1,518	1,605	2,060	2,110	2,150	2,200	2,240	2,260	2,400	2,570	7.1
Alabama	885	786	1,120	1,260	1,320	1,360	1,440	1,520	1,680	1,800	7.1
Delta States:	1,135	757	913	973	1,020	1,070	1,130	1,180	1,230	1,270	3.3
Mississippi	981	685	836	886	917	980	1,050	1,100	1,180	1,220	3.4
Arkansas	1,096	724	927	983	1,010	1,070	1,150	1,220	1,250	1,300	4.0
Louisiana	1,414	921	1,000	1,080	1,180	1,190	1,210	1,210	1,250	1,270	1.6
Southern Plains:	576	532	515	529	541	557	596	613	631	640	1.4
Oklahoma	725	475	517	547	547	570	610	625	634	640	0.9
Texas	539	546	515	525	540	554	593	610	630	640	1.6

continued

Table 1.2.1 continued

State	1982	1987	1994	1995	1996	1997	1998	1999	2000	2001	Change 2000-2001
Mountain:	325	257	338	362	383	399	415	426	462	486	5.2
Montana	271	200	254	277	289	291	294	296	350	375	7.1
Idaho	839	552	780	840	900	960	1,020	1,090	1,170	1,210	3.4
Wyoming	193	157	180	192	206	215	222	220	240	260	8.3
Colorado	451	368	479	520	558	590	618	630	670	695	3.7
New Mexico	195	156	198	209	212	215	217	217	217	224	3.2
Arizona	302	299	810	840	880	920	987	1,070	1,180	1,300	10.2
Utah	589	451	690	710	740	780	807	855	900	975	8.3
Nevada	268	240	268	289	332	366	392	420	440	460	4.5
Pacific:	1,346	1,084	1,510	1,540	1,670	1,730	1,780	1,870	1,900	1,940	2.1
Washington	922	756	1,020	1,070	1,120	1,160	1,190	1,190	1,200	1,190	-0.8
Oregon	705	541	747	844	928	960	960	1,000	1,020	1,050	2.9
California	1,900	1,554	2,210	2,220	2,400	2,500	2,610	2,770	2,850	2,910	2.1
48 States	823	599	798	844	887	926	974	1,020	1,080	1,130	4.6

1/ Value of farmland and buildings in nominal dollars. 1982 value as of April 1; 1987 value as of February 1; 1994-2001 value as of January 1.

Source: USDA, Economic Research Service and National Agricultural Statistics Service

Figure 1.2.2a--Percent Change in Average Value Per Acre of Farm Real Estate, 1987 - 2001

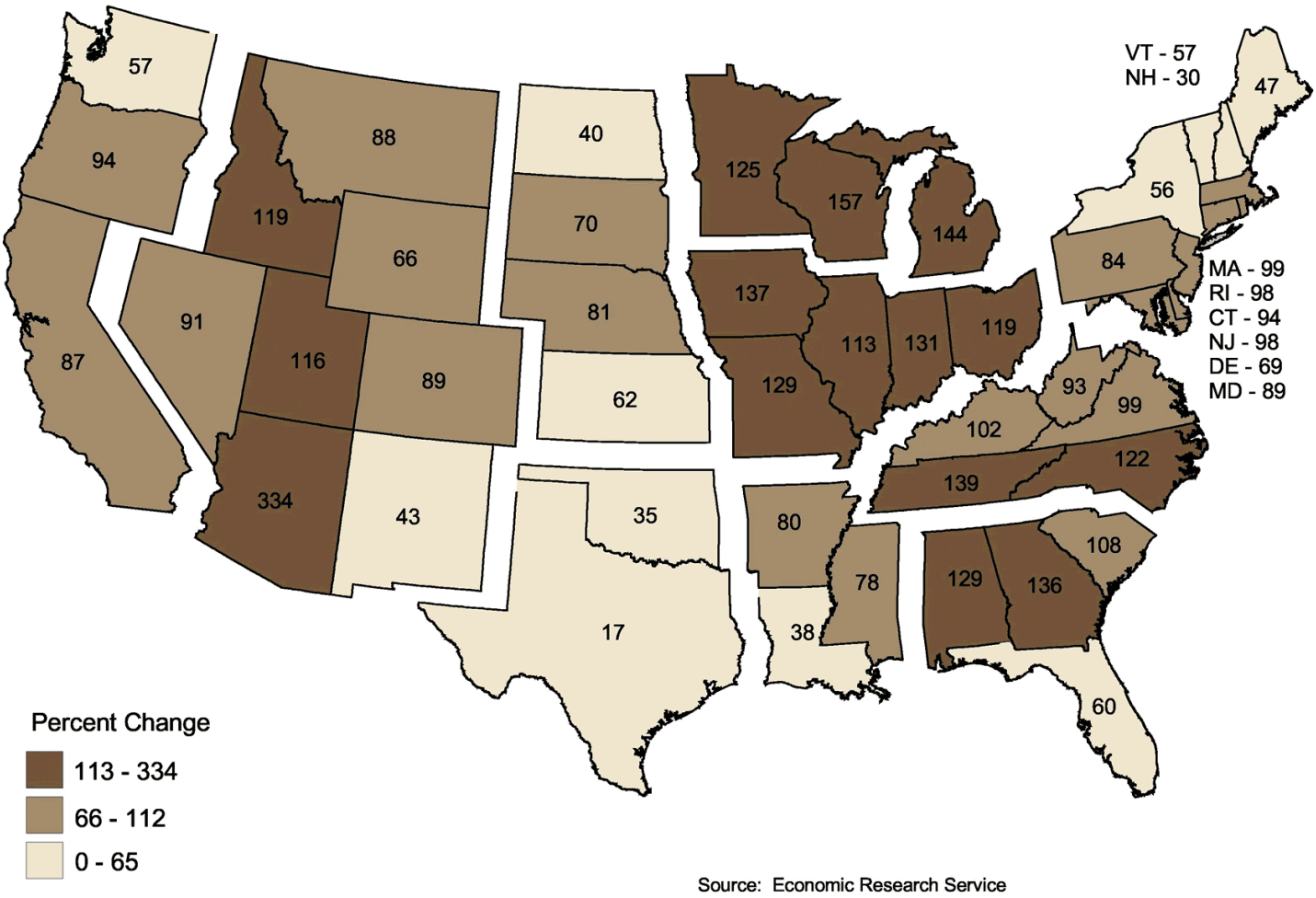


Table 1.2.2--Average per acre real (inflation-adjusted) value of farm real estate, by State, selected years, 1982-2001 1/

State	1982	1987	1994	1995	1996	1997	1998	1999	2000	2001	Change 2000-2001
Northeast:	1,452	1,312	1,522	1,518	1,499	1,484	1,482	1,521	1,593	1,636	2.7
Maine	722	779	796	780	777	775	773	770	790	806	1.9
New Hampshire	1,207	1,624	1,585	1,553	1,519	1,491	1,462	1,444	1,454	1,487	2.2
Vermont	866	980	986	1,001	1,006	994	988	1,008	1,043	1,084	3.9
Massachusetts	1,991	2,650	3,536	3,492	3,444	3,412	3,386	3,530	3,731	3,718	-0.4
Rhode Island	2,899	2,981	4,508	4,485	4,390	4,306	4,224	4,172	4,173	4,151	-0.5
Connecticut	2,772	3,130	4,191	4,106	4,018	3,942	3,866	4,044	4,173	4,275	2.4
New York	872	844	888	883	851	828	832	860	892	929	4.2
New Jersey	3,379	3,281	4,896	4,830	4,795	4,704	4,549	4,493	4,490	4,585	2.1
Pennsylvania	1,607	1,355	1,514	1,518	1,533	1,524	1,553	1,605	1,720	1,760	2.3
Delaware	1,898	1,475	1,655	1,684	1,722	1,709	1,729	1,765	1,771	1,754	-1.0
Maryland	2,524	1,767	2,148	2,139	2,100	2,087	2,066	2,118	2,276	2,355	3.4
Lake States:	1,311	622	694	725	763	795	832	892	993	1,047	5.5
Michigan	1,358	813	852	918	959	1,014	1,085	1,187	1,360	1,394	2.5
Wisconsin	1,215	684	682	718	763	775	806	879	1,075	1,239	15.3
Minnesota	1,351	516	644	656	696	722	754	789	809	818	1.1
Corn Belt:	1,744	792	930	987	1,020	1,067	1,124	1,175	1,220	1,252	2.6
Ohio	1,730	965	1,099	1,208	1,229	1,252	1,326	1,425	1,454	1,487	2.2
Indiana	1,916	934	1,057	1,118	1,175	1,239	1,339	1,425	1,486	1,518	2.2
Illinois	2,149	1,011	1,176	1,256	1,283	1,312	1,384	1,444	1,505	1,518	0.9
Iowa	2,007	692	902	932	979	1,060	1,105	1,136	1,151	1,152	0.1
Missouri	1,004	531	581	607	642	669	695	725	790	855	8.2
Northern Plains:	581	291	301	313	313	319	324	327	333	339	1.9
North Dakota	483	266	249	258	258	258	261	261	262	263	0.4
South Dakota	371	209	202	209	209	215	226	231	240	251	4.4
Nebraska	775	352	387	400	412	411	419	430	439	449	2.2
Kansas	667	328	354	369	373	374	375	372	373	375	0.5
Appalachia:	1,150	883	930	987	1,047	1,080	1,118	1,181	1,258	1,332	5.9
Virginia	1,164	1,015	1,120	1,187	1,243	1,246	1,248	1,309	1,391	1,425	2.4
West Virginia	768	557	612	635	662	696	708	687	727	756	4.0
North Carolina	1,378	1,108	1,134	1,208	1,283	1,325	1,352	1,444	1,581	1,735	9.7
Kentucky	1,124	773	803	863	878	894	942	982	1,012	1,097	8.4
Tennessee	1,105	823	881	925	1,033	1,093	1,176	1,252	1,360	1,388	2.1
Southeast:	1,163	928	993	1,049	1,067	1,080	1,105	1,136	1,227	1,301	6.1
South Carolina	1,041	697	845	925	918	928	962	976	1,012	1,022	1.1
Georgia	984	782	810	869	918	947	981	1,046	1,189	1,301	9.5
Florida	1,612	1,412	1,451	1,456	1,452	1,458	1,456	1,451	1,518	1,592	4.9
Alabama	940	691	789	869	891	901	936	976	1,062	1,115	5.0
Delta States:	1,206	666	643	671	689	709	734	757	778	787	1.2
Mississippi	1,042	602	589	612	619	649	682	706	746	756	1.3
Arkansas	1,164	637	653	678	682	709	747	783	790	806	1.9
Louisiana	1,502	810	705	745	797	788	786	777	790	787	-0.4
Southern Plains:	612	468	363	365	365	369	387	393	399	397	-0.6
Oklahoma	770	418	364	378	370	378	396	401	401	397	-1.1
Texas	573	480	363	362	365	367	385	392	398	397	-0.5

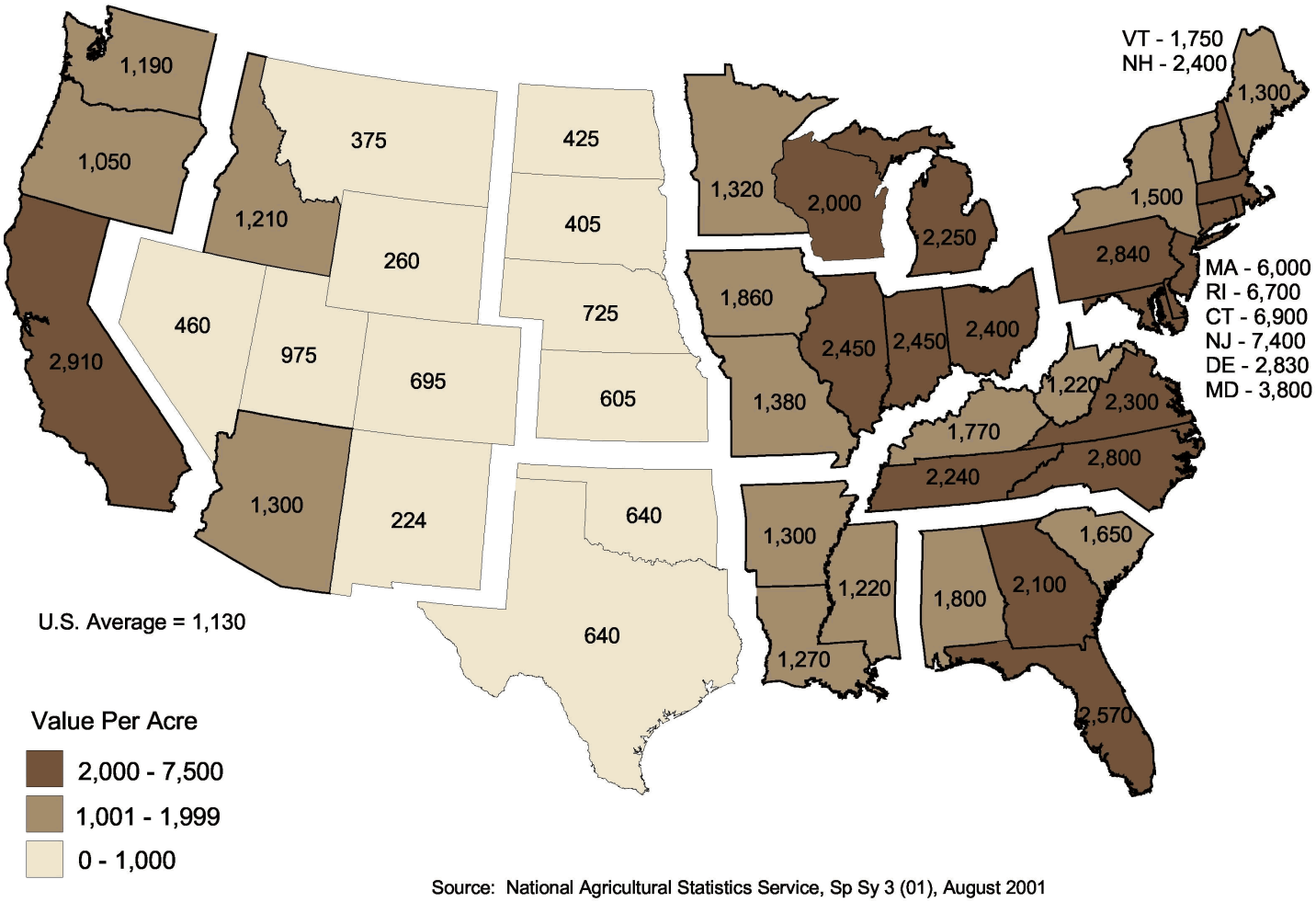
continued

Table 1.2.2 continued

State	1982	1987	1994	1995	1996	1997	1998	1999	2000	2001	Change 2000-2001
Mountain:	345	226	238	250	259	264	270	273	292	301	3.1
Montana	288	176	179	191	195	193	191	190	221	232	5.0
Idaho	891	485	549	580	608	636	663	700	740	750	1.3
Wyoming	205	138	126	132	139	142	144	141	152	161	6.2
Colorado	479	324	337	359	377	391	402	404	424	431	1.6
New Mexico	207	138	139	144	143	142	141	139	137	139	1.2
Arizona	321	263	571	580	594	610	641	687	746	806	8.0
Utah	626	397	486	490	500	517	524	549	569	604	6.2
Nevada	285	211	189	199	224	242	255	270	278	285	2.4
Pacific:	1,430	954	1,064	1,063	1,128	1,146	1,157	1,200	1,201	1,202	0.1
Washington	979	665	719	738	756	769	773	764	759	737	-2.8
Oregon	749	476	526	583	627	636	624	642	645	651	0.9
California	2,018	1,367	1,557	1,532	1,621	1,656	1,696	1,778	1,802	1,803	0.1
48 States	874	527	562	582	599	613	633	655	683	700	2.5

1/ Nominal values for farmland and buildings adjusted by the Gross Domestic Product
Source: Economic Research Service, USDA.

Figure 1.4.2b - Average Value Per Acre of Farm Real Estate, January 1, 2001



Source: National Agricultural Statistics Service, Sp Sy 3 (01), August 2001

according to the 1997 Census of Agriculture. The most common form of lease, the cash rental agreement, is characterized by a fixed payment negotiated before planting. In contrast, payment to landowners under share rental agreements vary with the amount of product harvested. Under cash rental arrangements, the tenant bears all of the production and market-price risk; share rental arrangements implicitly divide production and market risks between tenant and landlord.

The term "cash rent" refers to the amount of cash paid by a tenant to a landowner for use of a farmland parcel as an input in agricultural production. Cash rents are generally considered a short-term indicator of the return to a landowner's investment in the land. To tenants, though, cash rents represent a major production expense. Because rents reflect the income-earning capacity of the land, they vary widely across the country. Cropland rents tend to be highest in areas where higher-value crops are grown.

The highest average cash rents in 2001 were reported for irrigated land in California at $290 per acre (table 1.2.3). California produces large quantities of high-value specialty crops, vegetables, fruits, and nuts. Cropland suitable for corn and soybean production in the Midwest also commands high rents. The highest rents for nonirrigated cropland in 2001 were reported in Illinois ($119 per acre) and Iowa ($117 per acre). For the 2001 crop year, average cash rents were higher than 2000 in about 88 percent of States, unchanged in 7 percent, and lower in 5 percent. This pattern was roughly similar for both irrigated and nonirrigated cropland. An upward pattern was evident in 8 of the 10 regions.

During 2001, average cash rents for pasture varied from $36 per acre in Wisconsin to $1.60 per acre in New Mexico, but for many States survey data were insufficient to make an estimate (table 1.2.4). Comparing 2001 average cash rents for pasture with those from 2000, results were mixed, but the majority of States recorded increases. Regionally, States in the Appalachian, Delta, Southern Plains, and Pacific regions uniformly recorded increases. In the remaining regions, no uniformly consistent trend was observable.

Grazing Fees

Grazing fees for use of pasture or rangeland are also a form of cash rent, except that payment is based on "grazing units" rather than tracts of land (acres). A grazing unit is defined on an animal-unit-month (AUM) basis, which is one cow or cow-calf pair, or seven sheep or goats, for 1 month. Grazing fees on privately owned nonirrigated land in 16 selected States averaged $12.60 per AUM in 2000, reflecting a slight increase from 1999 (table 1.2.5). Fees ranged from $20 per AUM in Nebraska to $7 in Oklahoma. Private grazing fees have been rising over the last decade (fig. 1.2.3).

Grazing fees on public lands administered by the Bureau of Land Management (BLM) of the U.S. Department of the Interior, and the Forest Service (FS) of the U.S. Department of Agriculture (USDA) are set by law. These fees vary annually according to a legislated formula, which links the fees to changes in the cost of production. As a result of the formula, grazing fees on public land were reduced 16 percent in January 1996, reflecting lower market prices for livestock and increased production costs. The new fees, which took effect March 1, 1996, were set at the statutory minimum $1.35 per AUM, 26 cents less than in 1995. This rate remained in effect through 2001. (For more on grazing issues, see chapter 1.1, *Land Use*.)

Table 1.2.3---Cropland rented for cash: average gross cash rent per acre, 1995-2001 1/

State and land type	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
						Dollars				
Northeast:							40.00	40.00	40.00	41.50
New England 2/	na	na	na	35.20	30.70	na	na	na	na	na
New York	36.20	34.90	38.20	25.10	29.00	29.20	32.00	31.00	32.00	33.00
New Jersey	52.00	50.60	71.10	45.40	44.80	47.10	50.60	53.10	51.00	47.00
Pennsylvania	42.40	44.10	41.90	38.80	38.50	41.00	40.00	41.00	40.00	42.00
Delaware	62.30	57.90	59.80	61.10	64.30	60.00	58.00	56.00	56.20	57.50
Maryland	*	55.40	60.80	44.70	48.00	51.30	54.00	54.20	54.20	55.50
Lake States:							69.50	69.00	72.00	73.00
Michigan	47.40	45.60	49.00	49.70	52.20	57.30	60.00	60.00	60.00	60.00
Wisconsin	51.40	52.50	51.20	46.20	48.50	55.00	60.00	62.00	65.00	66.00
Minnesota	62.30	64.20	61.90	70.10	73.80	75.60	77.40	75.60	77.90	80.50
Corn Belt:							100.00	101.00	103.00	105.00
Ohio	70.20	68.50	70.50	67.10	70.80	72.50	73.20	73.70	74.00	76.00
Indiana	85.70	88.30	90.40	88.40	94.80	97.30	98.00	99.00	100.00	100.00
Illinois	103.30	102.90	107.30	99.70	106.00	109.00	111.00	111.00	119.00	119.00
Iowa	104.60	108.00	107.00	99.60	105.00	110.00	113.00	112.00	115.00	117.00
Missouri -Nonirrigated	na	na	na	51.10	50.00	56.00	57.00	59.00	62.00	65.00
Northern Plains:							44.50	44.50	45.50	46.50
N. Dakota	29.10	31.30	31.90	33.10	34.00	35.00	35.00	35.50	35.50	36.00
S. Dakota -Nonirrigated	30.40	30.50	32.20	30.20	31.90	35.00	36.50	38.00	39.80	40.00
Nebraska -All cropland							88.40	86.90	88.00	88.00
-Nonirrigated	49.60	50.30	50.30	57.20	60.00	63.40	65.70	64.50	66.00	65.00
-Irrigated	102.80	102.20	106.80	111.10	112.00	116.00	117.00	115.00	117.00	117.00
Kansas -All cropland							36.80	36.00	36.50	39.00
-Nonirrigated	31.90	32.80	34.70	35.50	32.70	34.50	35.50	35.00	35.50	36.00
-Irrigated	62.70	65.10	72.50	na	66.30	69.00	67.00	66.00	67.00	72.00
Appalachian:							46.00	48.00	50.00	50.00
Virginia	34.40	33.80	37.40	35.70	36.00	36.50	35.00	35.70	36.50	36.50
West Virginia	30.40	30.10	36.90	30.00	32.00	32.00	29.00	28.00	26.00	26.00
North Carolina	37.70	41.00	38.10	33.60	39.00	42.00	43.00	45.00	45.00	48.00
Kentucky	52.60	55.30	59.00	52.80	64.00	70.00	65.00	70.00	74.00	72.00
Tennessee	48.80	50.20	49.50	43.00	48.30	56.50	57.00	62.00	60.00	59.50
Southeast:							41.00	39.50	42.00	46.00
South Carolina	21.70	22.50	23.40	23.50	23.80	24.00	22.50	22.00	24.20	27.50
Georgia -All cropland							47.00	47.30	50.00	54.00
-Nonirrigated	na	na	na	32.90	36.40	36.80	37.00	37.20	39.10	38.00
-Irrigated	na	na	na	60.80	66.90	71.00	85.00	90.00	91.00	97.00
Florida -Non-irrigated	101.50	95.70	73.10	22.50	30.00	31.00	30.00	30.00	32.00	32.00
Alabama	28.10	30.70	36.50	36.20	39.00	35.00	35.00	31.00	33.00	36.00

continued

Table 1.2.3, continued

State and land type	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
						Dollars				
Delta States:							57.00	59.20	62.00	64.00
Mississippi -All cropland							55.60	58.00	61.00	62.00
-Nonirrigated	na	na	na	41.60	45.00	49.00	47.90	49.20	52.00	54.00
-Irrigated	na	na	na	70.00	70.00	71.20	67.30	76.00	80.00	79.00
Arkansas -All cropland							70.00	67.00	69.00	67.00
-Nonirrigated	na	na	na	48.40	48.80	53.00	53.00	50.00	50.00	47.00
-Irrigated	na	na	na	58.70	na	73.00	80.00	78.00	80.00	78.00
Louisiana -All cropland							55.00	56.90	55.20	62.00
-Nonirrigated	na	na	na	55.30	53.00	48.00	49.00	49.60	51.90	56.00
-Irrigated	na	na	na	77.60	65.30	70.60	70.00	70.00	70.00	74.00
Southern Plains:							25.50	25.00	27.00	27.50
Oklahoma -Nonirrigated	26.10	26.20	25.20	25.10	25.60	26.60	25.60	27.00	26.00	27.00
Texas -All cropland							26.00	24.00	27.00	27.00
-Nonirrigated	20.00	20.60	20.20	17.00	18.50	17.50	20.00	18.00	21.00	21.00
-Irrigated	45.30	49.40	44.90	53.80	53.00	50.00	51.00	49.00	53.00	53.00
Mountain:							60.00	63.00	59.00	61.00
Montana -All cropland							21.60	25.00	23.80	24.50
-Nonirrigated	19.80	21.00	24.10	15.30	17.00	17.00	17.00	18.00	17.30	18.00
-Irrigated	50.60	54.80	49.70	na	na	na	51.50	54.00	49.70	46.00
Idaho -All cropland							90.00	94.00	98.00	95.00
-Nonirrigated	33.90	34.30	47.80	na	44.10	44.10	45.00	45.00	44.00	48.00
-Irrigated	114.30	100.50	126.60	112.30	113.00	109.00	110.00	115.00	120.00	115.00
Colorado -All cropland							56.30	58.00	55.00	65.00
-Nonirrigated				na	na	na	18.50	18.00	18.00	22.00
-Irrigated				na	na	na	90.00	95.00	90.00	100.00
New Mexico -Irrigated	87.70	80.40	88.90	88.00	na	na	na	na	na	na
Arizona -Irrigated	na	na	na	87.40	94.60	112.00	134.00	140.00	135.00	135.00
Utah -Irrigated	30.50	26.30	28.20	50.90	60.00	60.00	60.00	57.00	57.00	58.00
Pacific:							166.00	176.00	180.00	179.00
Washington-Nonirrigated	49.80	53.40	55.90	70.80	na	na	na	na	na	na
-Irrigated	113.10	124.20	133.20	137.80	138.00	144.00	147.00	153.00	160.00	165.00
Oregon -All cropland							76.00	85.00	90.00	90.00
-Nonirrigated	58.20	55.50	61.90	66.00	65.80	64.00	66.00	66.00	67.00	70.00
-Irrigated	106.70	124.70	135.90	130.00	115.00	110.00	105.00	105.00	120.00	110.00
California -Irrigated	179.60	191.50	223.00	189.60	210.00	218.00	235.00	260.00	300.00	290.00

1/ Estimates for 1996 and prior years previously published by the Economic Research Service, USDA. Data are for all cropland unless specified as irrigated or non-irrigated. Regional estimates not available prior to 1998. The all cropland estimate for states with irrigated and non-irrigated rent estimates are not available prior to 1998.

2/ Includes: CT, ME, MA, NH, RI, and VT.

na = Insufficient reports to publish data.

Source: National Agricultural Statistics Service, USDA

Table 1.2.4---Pasture rented for cash: average gross cash rent per acre, 1995-2001 1/

State	1995	1996	1997	1998	1999	2000	2001
				Dollars			
Northeast:				31.00	27.00	24.00	23.00
New York	14.50	14.50	15.2	na	na	na	na
Pennsylvania	29.80	37.00	37.60	37.00	36.00	32.00	32.00
Lake States:				25.30	27.60	24.00	22.00
Wisconsin	31.40	35.00	30.00	34.00	38.00	38.00	36.00
Minnesota	16.50	16.00	16.00	16.00	17.00	18.00	19.00
Corn Belt:	na	na	na	25.30	25.00	24.50	26.50
Illinois	27.65	29.40	31.00	32.00	31.00	33.00	33.00
Iowa	28.05	28.90	31.10	34.00	31.00	29.00	30.00
Missouri	16.40	20.00	19.00	18.00	18.50	20.00	22.50
Northern Plains:				10.50	10.80	11.20	11.40
North Dakota	8.00	8.50	9.00	9.20	9.30	9.50	9.80
South Dakota	8.50	9.10	9.20	9.70	10.20	11.00	11.20
Nebraska	9.20	10.00	10.40	10.70	10.90	11.30	11.30
Kansas	11.70	11.90	11.60	13.00	13.30	12.80	12.60
Appalachian:				17.50	17.20	18.00	19.00
Virginia	14.00	15.00	16.00	15.50	15.50	16.00	16.50
North Carolina	17.00	22.30	23.00	22.00	21.00	21.00	22.00
Tennessee	14.30	13.50	16.00	18.00	16.40	18.00	18.50
Southeast:				15.90	16.00	17.20	17.30
Georgia	19.20	23.20	21.70	20.60	20.80	22.00	23.00
Florida	19.50	17.40	15.50	14.00	14.00	15.00	15.00
Alabama	12.50	15.80	16.50	15.50	15.00	17.00	18.00
Delta States:				15.00	13.90	13.80	15.50
Mississippi	13.00	15.60	16.40	14.50	13.50	14.00	16.00
Louisiana	12.60	12.60	13.00	16.00	15.50	14.00	16.00
Southern Plains:				6.90	7.30	6.30	7.50
Oklahoma	9.20	8.00	8.10	7.80	8.30	7.80	8.30
Texas	4.80	5.40	5.60	6.60	6.90	6.00	7.20
Mountain:				4.00	4.10	3.80	3.80
Montana	5.10	5.00	5.00	4.50	5.10	4.80	4.50
Wyoming	3.50	na	na	na	4.00	3.50	3.50
Colorado	na	na	na	5.00	4.80	5.20	4.80
New Mexico	1.80	na	1.30	1.50	1.70	1.70	1.60
Utah	13.70	na	na	11.00	12.00	11.00	13.00
Pacific:				13.00	12.00	11.00	13.00
California	39.30	na	7.00	12.00	10.00	9.00	11.00

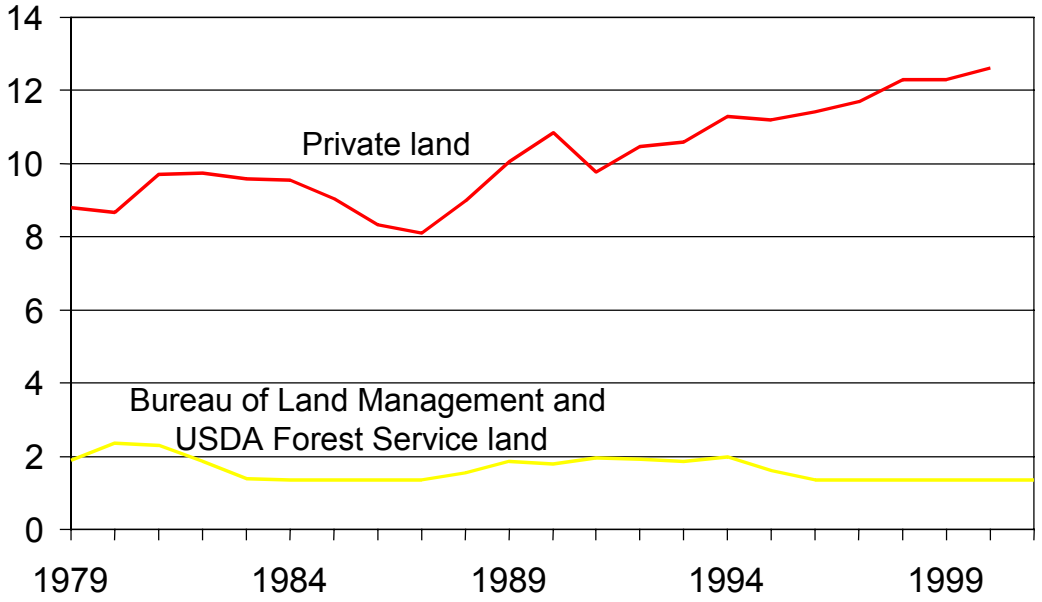
na = Insufficient reports to publish data.

1/ Estimates for 1996 and prior years previously published by the ERS, USDA. Regional estimates not available prior to 1998

Source: National Agricultural Statistics Service, USDA

Figure 1.2.3--Average grazing fees on private and public lands, 1979-2001

$/animal-unit month



Source: USDA, ERS, based on NASS, USDI.

Table 1.2.5---Cattle grazing rates on privately owned nonirrigated land, selected States, 1982, 1987 and 1992-2000

State	1982	1987	1992	1993	1994	1995	1996	1997	1998	1999	2000
					Dollars per animal unit month 1/						
Northern Plains:											
North Dakota	8.34	7.41	10.04	10.00	9.75	10.30	10.60	9.30	10.20	10.30	10.90
South Dakota	11.09	8.61	12.44	12.60	13.20	13.90	13.20	14.00	14.20	14.70	15.50
Nebraska	13.80	10.29	14.83	17.00	17.50	17.60	18.00	18.80	19.00	19.00	20.00
Kansas	9.59	8.87	10.99	11.30	11.00	10.50	12.00	10.50	12.90	11.50	12.00
Southern Plains:											
Oklahoma	6.29	5.68	6.58	7.10	6.20	7.00	7.00	8.00	9.00	8.00	7.00
Texas	8.06	8.30	8.92	8.75	8.75	9.10	8.00	9.00	9.00	8.00	8.50
Mountain:											
Montana	8.90	7.94	11.86	11.40	11.80	11.90	11.80	12.30	12.60	13.20	14.10
Idaho	7.98	6.60	9.49	9.25	9.70	10.10	10.20	10.40	10.80	11.10	10.90
Wyoming	8.46	6.31	9.93	10.50	10.50	11.30	11.00	12.00	11.90	11.70	12.20
Colorado	9.04	8.27	10.11	9.70	10.20	10.30	11.40	11.30	11.80	12.00	11.80
New Mexico	6.26	5.82	6.95	7.55	8.08	8.74	8.87	8.79	8.80	8.80	9.00
Arizona	*	7.19	5.53	5.72	5.72	5.75	6.50	6.50	6.70	7.40	7.20
Utah	9.29	5.98	9.79	8.90	9.00	9.50	9.75	9.00	10.00	10.00	10.80
Nevada	5.70	7.31	10.26	8.80	8.80	8.80	8.80	9.00	9.10	9.00	9.50
Pacific:											
Washington	6.67	9.55	10.69	7.80	8.30	8.50	8.70	9.00	10.00	10.00	8.90
Oregon	7.70	5.91	9.28	9.75	9.00	10.20	10.00	10.20	11.10	11.10	10.70
California	9.23	8.46	10.09	10.40	11.00	10.50	10.10	10.60	11.50	12.10	12.30
16 State average 2/	9.75	8.09	10.46	10.60	11.30	11.20	11.40	11.70	12.30	12.30	12.60

* Insufficient number of reports for an accurate estimate of grazing rates.

1/ Includes cow-calf rates converted to animal-unit-month (1 aum = cow-calf X 0.833).

2/ All States except Texas.

Source: USDA, NASS. Agricultural Prices.

Agricultural Real Estate Taxes

Agricultural real estate tax estimates are used as components in USDA's prices-paid indexes for commodities and services, interest, taxes, and farm wages. Property taxes on farm real estate are a direct cost to landowners, but when farmland is cash-rented, those taxes are passed on to tenants through rents paid, and thus agricultural real estate taxes become a cost of production for all farm operators. Agricultural real estate taxes are a principal source of funding for State and local governments.

Taxes levied on U.S. agricultural real estate (land and buildings) by State and local governments totaled nearly $5 billion in 1995 (the most recent year for which data are available), 2 percent more than a year earlier (table 1.2.6). The U.S. average tax per acre was $5.94, up from $5.86 in 1994. The average tax per $100 of full market value on U.S. agricultural real estate declined from $0.75 in 1994 to $0.73 in 1995 (fig. 1.2.4, table 1.2.6). Agricultural real estate taxes include all *ad-valorem* taxes (those based on value) after allowing for preferential assessments and any old age, homestead, or veterans' exemptions (excluded are levies based on benefits received, such as irrigation and drainage improvements).

Compared with 1994, taxes per acre in 1995 averaged higher in 32 States, lower in 15, and unchanged in 2. Taxes per $100 of full market value in 1995 were higher in 19 States, lower in 20, and unchanged in 10. Taxes varied widely among the States, ranging in 1995 from 40 cents per acre in New Mexico to $58.43 in Rhode Island. Taxes per $100 of full market value ranged from 9 cents in Delaware to $2.03 in Arizona.

State variation in agricultural real estate tax rates is partly due to (1) the degree to which States rely on real estate taxes as a source of local revenue; (2) the extent to which States provide tax relief, such as use-value assessment, homestead and old-age exemptions, and veterans' preferences; and (3) taxpayer acceptance of real estate assessments, payment schedules, and rate changes.

To encourage farming, all States (except Michigan) have laws on preferential (or deferred) land-use assessment of farmland (Aiken, 1990). These laws permit farmland devoted to farming to be assessed on the basis of its use as farmland. This can be especially beneficial to owners of farmland near expanding urban areas, where, in some instances, taxes on farmland assessed at fair market value for residential use may exceed the net income generated from farming.

These laws are designed not only to reduce agricultural real estate taxes to make farming more economically profitable, but to reward farms and ranches for providing open space, habitat for wildlife, and environmental amenities. Laws vary by State with respect to minimum acreage requirements, minimum number of years in farming, percentage of gross annual income the landowner receives from the land, and penalties for converting the land to a nonfarm use.

Note that 1995 was the final year for which national data in the 105-year agricultural real estate tax series (begun in 1890) were collected by ERS via a separate, dedicated survey mailed to local government tax agencies. In subsequent years, some information on the subject was gathered through the Agricultural Resource Management Study (ARMS) Costs and Returns survey conducted jointly by ERS and NASS. However, the personal and real property taxes are not collected separately, making the data noncomparable.

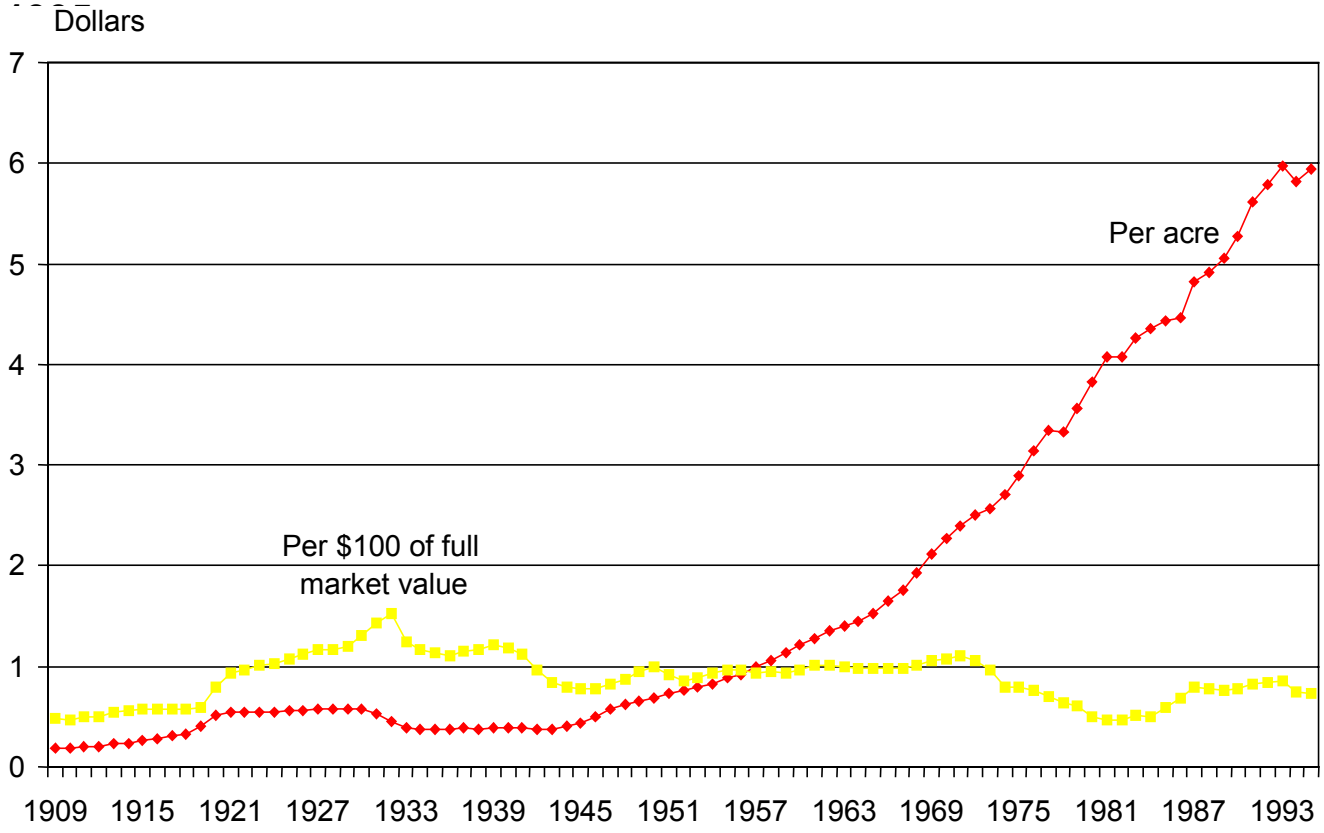
Table 1.2.6 --Taxes levied on agricultural real estate, by State, 1993-

State	Total taxes			Average tax per			Taxes per $100 of full market value		
	1993	1994	1995	1993	1994	1995	1993	1994	1995
	Million dollars			*Dollars*			*Dollars*		
Alabama	11.1	11.4	11.9	1.32	1.32	1.37	0.15	0.14	0.14
Arizona	50.7	50.5	52.8	6.02	6.02	6.63	1.97	1.92	2.03
Arkansas	38.6	38.5	45.4	2.83	2.86	3.36	0.37	0.36	0.40
California	338.7	344.4	358.3	13.93	14.21	14.92	0.81	0.83	0.85
Colorado	83.2	89.5	87.1	2.90	3.13	3.07	0.76	0.73	0.67
Connecticut	9.9	9.9	10.3	27.85	28.69	29.88	0.65	0.61	0.64
Delaware	1.2	1.2	1.4	2.24	2.17	2.46	0.09	0.08	0.09
Florida	140.7	130.8	170.2	14.71	13.68	17.90	0.71	0.62	0.80
Georgia	52.4	53.5	54.2	5.29	5.40	5.40	0.55	0.55	0.52
Hawaii	42.9	41.6	41.4	25.33	24.59	24.47	0.74	0.74	0.74
Idaho	39.8	39.7	36.6	3.58	3.58	3.39	0.52	0.46	0.40
Illinois	431.2	465.7	485.4	15.32	16.55	17.26	1.02	1.01	0.99
Indiana	138.6	142.8	140	8.71	8.97	8.85	0.64	0.61	0.56
Iowa	358.9	350.6	412.6	11.44	11.21	13.21	0.92	0.85	0.94
Kansas	107.1	111.5	114.8	2.32	2.41	2.49	0.47	0.45	0.45
Kentucky	43.6	44	45.6	3.19	3.22	3.35	0.29	0.28	0.28
Louisiana	18.2	17.8	18.2	2.48	2.48	2.54	0.26	0.26	0.26
Maine	13.7	13.9	14.4	10.77	11.31	11.83	1.09	1.05	1.08
Maryland	23.8	24.7	25.3	11.14	11.59	11.96	0.44	0.40	0.41
Massachusetts	14.7	14.9	14.9	26.87	27.68	27.72	0.73	0.69	0.68
Michigan	359.4	176.1	171.6	35.97	17.63	17.25	3.18	1.45	1.32
Minnesota	198.2	206.2	219.9	7.56	7.86	8.36	0.84	0.87	0.88
Mississippi	22.3	22.5	23.1	2.29	2.31	2.38	0.30	0.28	0.27
Missouri	78.4	79.7	84.1	2.73	2.78	2.93	0.38	0.37	0.37
Montana	86.1	71.4	76.9	1.78	1.48	1.60	0.66	0.49	0.50
Nebraska	398	426	466.5	9.10	9.74	10.61	1.57	1.53	1.59
Nevada	4.1	4.1	4.4	0.76	0.78	0.90	0.36	0.34	0.36
New Hampshire	9.2	9.6	9.8	23.80	24.99	25.04	1.09	1.05	1.04
New Jersey	36	36.6	40.1	42.40	43.67	48.06	0.93	0.90	0.99
New Mexico	12.5	12.2	12	0.41	0.40	0.40	0.18	0.17	0.17
New York	160.3	156.3	153.7	20.33	20.33	20.11	1.82	1.63	1.60
North Carolina	59.8	60.3	58.8	7.12	7.26	7.05	0.54	0.54	0.50
North Dakota	90.2	92.1	97.9	2.42	2.47	2.63	0.62	0.6	0.62
Ohio	167	175.4	173.2	11.42	11.99	11.87	0.90	0.87	0.81
Oklahoma	64.6	65.1	65.2	2.07	2.09	2.08	0.41	0.39	0.37
Oregon	77.8	70.7	63.6	4.91	4.47	4.03	0.75	0.60	0.51
Pennsylvania	132.8	133.7	139.7	18.13	18.49	19.33	1.04	0.97	0.99
Rhode Island	3	2.9	3.1	58.51	56.75	58.43	1.2	1.06	1.11
South Carolina	19.8	20.2	20.3	4.33	4.42	4.41	0.50	0.48	0.46
South Dakota	152	139.9	110.5	4.11	3.78	2.99	1.11	0.98	0.74
Tennessee	53.2	52.7	55.7	4.65	4.65	4.92	0.44	0.44	0.43
Texas	379.3	391.4	386.7	3.02	3.14	3.10	0.64	0.64	0.61
Utah	12.1	12.6	13.7	1.74	1.83	1.91	0.38	0.36	0.36
Vermont	21.3	21.9	21.5	15.77	16.56	16.31	1.36	1.31	1.27
Virginia	61.7	63.5	63.5	7.57	7.8	7.81	0.58	0.58	0.56
Washington	74.2	77	87.9	5.78	6.07	6.98	0.74	0.68	0.74
West Virginia	4.5	5	5.2	1.34	1.49	1.53	0.19	0.21	0.21
Wisconsin	308.2	307.6	301.5	19.27	19.46	19.21	2.07	2.00	1.86
Wyoming	18.5	18.6	19.8	0.78	0.79	0.83	0.52	0.47	0.47
United States 1/	5,023.30	4,908.60	4,989.20	5.98	5.86	5.94	0.85	0.75	0.73

1/Excludes Alaska

Source: Economic Research Service, Agriculture Real Estate Tax

Figure 1.2.4 -- U.S. agricultural real estate taxes, 1909-1995



Source: USDA, ERS, Farm real estate tax data.

In addition, recent non-Federal initiatives, undertaken primarily by State governments and researchers at land grant universities in the upper Midwest, may yield regional or selected State data for post-1995 years. However, because of differing sampling methods, statistical techniques, and data processing procedures, caution is advised for two reasons. Old and new data, intended to extend the USDA time series for some States more heavily dependent on agriculture, may not be strictly comparable. And future estimates of agricultural real estate taxes may not be available in many States (especially in the New England region) in which agriculture is a small segment of the overall economy.

Factors Affecting Farm Real Estate Values

Farm real estate values are affected by many factors, both agricultural and nonagricultural. In the more rural areas of the Nation, where farmers account for most of the farmland purchases, net returns to agricultural uses of farmland (whether from marketing commodities or government subsidies) are the principal determinant of farmland value. Cash rents are often used as a measure of net returns. Particularly since 1996, farmland values in some areas of the U.S. have been influenced by relatively high levels of direct government payments. The agricultural value of farm real estate in primarily rural areas is also influenced by capital investment in farm structures, interest rates, and a myriad of lesser factors.

In areas near cities, however, demand for farmland to be converted to nonfarm uses may be the predominant determinant of value. And, as the U.S. population continues to grow and disperse, even primarily rural States such as Iowa are experiencing urban-related influences on farmland values. Commuters, who can now travel further or partially telecommute are often willing to pay more than agricultural value in order to have "country" homes in primarily rural areas. Other families develop hobby farms, second homes, or recreational structures in rural areas. In Iowa, for instance, there are now more people living in the country, not on farms, than there are farmers.

Intrinsic value to the farmers themselves is another factor that can add value to particular parcels of land. Considerations such as proximity of the parcel to an existing operation (for purposes of farm expansion), a "heritage" of long-time family ownership of the parcel, and farming as a way of life will all add value above that justified from a purely investment perspective.

Interest rates, particularly real (or inflation-adjusted) rates, have been identified as especially important determinants of U.S. farmland values during the post-1960s period (Gertel, 1990). As proxies for the discount rate, interest rates determine the current value of expected future earnings from land: for a given pattern of future earnings, higher (lower) interest rates imply lower (higher) land values. During much of the mid to late 1970s, real interest rates were actually negative, providing a strong incentive to borrow money. Much of the borrowed money was used to purchase rapidly appreciating farmland. Conversely, real interest rates dramatically increased from 1981 to 1985 when nominal interest rates increased rapidly just as expectations of future inflation were decreasing. The resulting increase in the real mortgage interest rate has been cited as a cause of the slide in farmland values in the early and mid-1980s.

Several other factors that may each contribute worth to a parcel of agricultural land include the potential for conversion of farmland for residential, commercial, or industrial development; concurrent use of actively farmed land for income-generating recreational purposes, such as fee-hunting, fee-recreation, or wildlife viewing; as well as values generated by the presence of open land. The potential to convert farmland to nonagricultural use can increase the price of farmland well above its value in agricultural use. In heavily populated areas, especially, competing demands from nonagricultural uses can outweigh agricultural productivity as a determinant of farmland value (Robison and Koenig, 1992).

But even in less densely populated areas, such as those within the 10th Federal Reserve District (Kansas, Nebraska, Oklahoma, Wyoming, Colorado, and parts of New Mexico), nonfarm demand factors are the biggest influence on farmland values (Federal Reserve Bank of Kansas City). Nonfarm influences on agricultural real estate values have gained increased attention as interest in farmland preservation, suburban "sprawl", and habitat conservation has grown. Recent research indicates that nonfarm influence accounts for 25 percent of the market value of U.S. farmland (Barnard, 2000). The broad effects of urban development at the rural urban fringe are extensively discussed by Heimlich and Anderson (2001).

In addition to the nonagricultural factors mentioned above, an array of government policies influence the income derived from farmland, and hence its value. Federal commodity support programs are the most obvious. But also important are farm credit programs, zoning regulations, habitat protection laws, infrastructure development (such as roads and dams), environmental regulations, and even property and income tax policy. Research has shown that commodity support programs increase farmland values relative to what they would be in the absence of such programs (Barnard et al., 1997; Featherstone and Baker, 1988; Herriges, et al., 1992).

Bankers responding to Federal Reserve Bank surveys often cite government payments when asked about future agricultural conditions in the 10th Federal Reserve District (Federal Reserve Bank of Kansas City).

The 1996 Farm Act, which was designed to phase out commodity support payments and to implement Production Flexibility Contract Payments (PFCPs), raised concern that such changes would lower farmland values and, hence, the net worth and creditworthiness of farm businesses. While the 7-year phase-out of the PFCPs implemented by the 1996 Act is now nearly complete, farmland values instead have risen. This may be, in part, attributable to the recent influx of farm sector support in the form of emergency payments and loan deficiency payments (LDPs), which have more than offset the scheduled decline in PFCPs. From 1997 to 2001, Congress has enacted ad hoc emergency assistance legislation four times, infusing the farm economy with more than $22 billion in aid. In addition, LDPs, which expanded after the 1996 Act, added another $19 billion to the farm economy, supplementing the diminishing PFCPs.

Even though PFCPs may have been viewed as transitory payments when authorized by the 1996 Act, subsequent emergency assistance and a 70-year history of Federal involvement in supporting the farm sector apparently have generated expectations that future support will be available when needed. These buoyed expectations are apparent from land values, which have risen nationally since 1996, despite substantially reduced returns from farm production.

Inflation, lending policies of farm credit agencies and banks, and speculation have also been identified as factors external to farmland markets that affect farmland values. Other factors contribute to the spatial variation in farmland values, including site-specific characteristics of individual parcels. Among these are access to major highways, proximity to commodity and input markets, aesthetic locations, and homesite potential.

Direct Federal Payments

The issue of whether direct government payments through commodity programs are capitalized into cropland values continues to be relevant. Under the Federal Agricultural Improvement and Reform Act of 1996 (FAIR), all Federal commodity program payments are to be phased out by the end of 2002. If direct program payments are capitalized into cropland values, as many theorize, then an end to payments would signal a decline in cropland values. Recent ERS estimates indicate that the degree to which direct government payments are capitalized into cropland values varies widely, with the highest degree of capitalization occurring in the Northern Plains. From a policy perspective, this means that the effects of program elimination on cropland values will vary across the U.S., partially depending on the dominant program crop. The estimates are mostly within the range of estimates found by other researchers using disparate techniques and data (Barnard et al., 1997).

Most recently, an article by Ryan et al. (2001) addresses the dramatic increase in total direct government payments that have occurred since the 1996 Farm Act. The high level of overall farm support payments has supported farmland values even during a period of substantial declines in net farm income.

Development at the Urban Fringe and Beyond

An ERS report released in June 2001 (Heimlich and Anderson) addresses issues surrounding development of new houses, roads, and commercial buildings at the fringe of existing urban areas. Though not a new issue, this development causes metropolitan areas to "sprawl" into the countryside, interspersing sometimes incompatible urban-related development with existing agriculture. Metropolitan Statistical Areas (MSAs) defined by the Bureau of the Census contain 20 percent of U.S. land area and 80 percent of U.S. population (Bureau of the

Census, GARMS, 2000). Metropolitan areas also contain nearly one-third of all U.S. farms (1991) and produce a similar proportion of the value of U.S. agricultural production.

The Effect of Farmland Preservation Programs on Farmland Prices

Though all States have laws directed toward the preservation of farmland, far fewer have implemented programs that permanently preserve farmland. More than 15 States and 34 local governments have implemented either purchase-of-development-rights (PDR) or transfer-of-development rights (TDR) programs as part of comprehensive policies to preserve farmland in urbanizing areas (American Farmland Trust). PDR/TDR programs purchase (or accept donations of) parcel-specific easements from landowners that extinguish the right to develop the parcel. All residual rights and the "agricultural use value" remain with the landowner. The "separated" development rights also can be held by nongovernmental entities such as land trusts.

Capital asset pricing theory predicts that the market value of a development-restricted parcel will decline until it reflects only its use value. Nickerson and Lynch recently tested that hypothesis using sales data from development-restricted parcels in Maryland. Their analysis indicates that, contrary to predictions, the market value of the development-restricted parcels they studied is not significantly lower than that of similar unrestricted parcels. They conclude that this phenomenon may be attributable to landowner expectations that the restrictions may not be permanent or to purchases by hobby farmers who receive nonmarket values (unconnected to agriculture) from owning land in an agricultural area that is more likely to retain its rural character and open space attributes.

Nonmarket Public Goods of Farmland

Farmland also provides a set of nonmonetary benefits that until recently were rarely acknowledged because these "rural amenity" benefits were supplied in abundance by a ubiquitous agriculture. But as the Nation becomes more urbanized, with the concomitant loss of farms and interspersion of urban-related activities, the decrease in those amenities has become a source of concern. For instance, areas with relatively high levels of natural amenities grew faster than other rural areas over the past decade (McGranahan). The nonmonetary benefits potentially reduced or eliminated by loss of farmland and open space can include recreation opportunities, aesthetic enjoyment from viewing landscapes and wildlife, environmental quality, and nostalgia related to the moral, historic, and cultural significance of rural life.

But "rural amenities" cannot be bought and sold, meaning consumers have no market in which to express their preferences to retain these aesthetic products. As a consequence, some form of social action may be implemented to serve as a substitute for the land market's allocative functions. These social actions, often in the form of legislation intended to preserve rural amenities, are intended to offset the market's inability to account for the value of these nonmarket goods and correct for their anticipated loss through the market-driven development of farmland. (See chapter 1.1, Land Use, for discussion of land use and property rights issues affecting land values.)

Due partially to legal and cultural tradition, State and local land use policies have been the primary means of preserving rural amenities. Voters and taxpayers in many area of the United States have supported State and local initiatives to encourage retention of private land as undeveloped or "open space" land. Even though these State and local programs take several forms, including retention of undeveloped land for publicly accessible parks and recreation areas, many openspace programs focus on retention of agricultural uses of land, in part reflecting the predominant presence of agriculture in many rural area. All 50 States have right-to-farm laws.

Forty-nine States have some form of use-value assessment or preferential taxation favoring farmland. Conservation easements can be purchased in 20 States, at least 20 counties have transferable development rights programs, 16 States have agricultural district laws, and 24 States allow agricultural protection zoning (American Farmland Trust, *1997*).

The Federal role in farmland protection, while limited, is expanding. The Federal Agricultural Improvement and Reform Act of 1996 (FAIR) directed USDA to purchase agricultural conservation easements on prime and unique farmland for the purpose of protecting it from nonagricultural uses. The Farmland Protection Program (FPP), authorized up to $35 million (from Commodity Credit Corporation funds administered by NRCS) in matching funds for State and local farmland protection programs. The FPP was involved in the protection of about 70,000 acres in over 19 States. An additional $17.5 million of funding was appropriated in FY 2001 and helped protect approximately 28,000 acres in 28 States.

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Recent ERS Reports on Land Values, Rents, and Taxes

Agricultural Income and Finance, Situation and Outlook, Annual Lender Issue), **AIS-74, Feb. 2000 (Jerome Stam, ed.). This report discusses the financial conditions of commercial agricultural lenders during 1999. Focus is on the four major institutional farm lenders: commercial banks, the Farm Credit System, the Farm Services Agency, and life insurance companies. Financial institutions serving agriculture continued to experience improved conditions in 1999. In recent years, farm-debt-to-farm-income ratios have dropped and farm real estate value increases have led to significantly improved equity positions for many farmers.**

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USDA Surveys for Collecting Data on Agricultural Land Values, Rents, and Taxes

Land values are collected two times annually—in the June Agricultural Survey (JAS), designed to collect information on summer and fall harvested crops and livestock inventories; and in the Fall Agricultural Survey (FAS), aimed at areas with crops that winter over, such as winter wheat. When these surveys are combined, they provide a complete, statistically reliable sample of agricultural land uses in the United States. Cash rents are collected only on the JAS.

The JAS and FAS, conducted by the National Agricultural Statistics Service (NASS), are probability-based surveys that divide the area of the United States into "segments" representative of national land uses. A representative sample of all land uses in the 48 contiguous States is obtained by selecting approximately 1 percent of all land in these States for inclusion in the combined surveys. Twenty percent of the segments are replaced each year. Within the selected segments, enumerators identify "tracts," which represent a particular farm operator's acreage within the segment. Farm operators then provide per acre estimates of value and/or cash rents for the farmland in their tract. In 1995, 14,603 segments were sampled. Within these segments, enumerators identified 119,012 tracts, of which 50,294 were classified as agricultural. Cash rental acres were identified in 17,565 tracts (35 percent of total agricultural tracts).

In 1997, responsibility for producing State and national estimates of agricultural land values and cash rents was transferred from ERS to NASS. Revisions and rebenchmarking of the series was completed in March 1999. The most recent estimates of agricultural real estate values, for January 1, 2001, were made available in August 2001. Estimates of agricultural cash rents were published in July 2001.

All NASS reports are available free on the Internet (http://www.nass.usda.gov.) Select "Today's Reports" or "Publications" and then select "Reports by Calendar," or select "Publications" and then "Search," by "Title" or "Subject."

Agricultural Real Estate Tax Survey

Prior to its discontinuation in 1995, the ARETS obtained national data on agricultural real estate taxes. ARETS was conducted by ERS, surveying approximately 4,200 taxing jurisdictions. Each jurisdiction was asked to provide tax and acreage information for a sample of 10 farm or ranch parcels for the current and preceding years. Respondents in jurisdiction with fewer than 10 parcels were requested to provide information on all parcels in the jurisdiction. Taxes per $100 of market value were derived by dividing the average per-acre tax by the average per-acre value of farm real estate. This data series, by State and Nation, dates from 1890 for taxes per acre and from 1909 for total taxes and taxes per $100 of full market value.

Grazing Fees

Grazing Fees are based on survey indications of monthly lease rates for private, nonirrigated grazing land from the January Agricultural Survey conducted by NASS.