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U.S. Farmland Values, 1982-84: A Comparison of Experimental and Traditional Data

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ABSTRACT

This report describes an experimental farmland-value survey of Agricultural Stabilization and Conservation Service (ASCS) county executive directors, initiated in 1982 and repeated in 1983 and 1984, and compares it with the U.S. Department of Agriculture farm report survey. State-level estimates of per acre farmland value from the 1984 ASCS survey are presented and compared with those derived from the farm report survey. The annual percentage changes in State-level farmland values shown by the ASCS survey are compared with those derived from the farm report survey. A simple paired comparison did not reveal a significant difference between the two percentage changes.

Keywords: Farmland, value, cash rents, cropland, grazing land, woodland, survey, States.

CONTENTS

	<u>Page</u>
INTRODUCTION	1
LAND-VALUE SURVEYS	2
The ASCS Survey	2
The Farm Report Survey	2
SUMMARY OF 1984 ASCS DATA	3
Mean Farmland Values	3
Median Farmland Values	4
Mean Cash Rents	8
Information Sources Used by County Executive Directors	8
ANNUAL PERCENTAGE IN FARMLAND VALUES: APRIL 1982-APRIL 1984	8
SUMMARY	13
REFERENCES	18
APPENDIXES	19
APPENDIX TABLES	24

U.S. Farmland Values, 1982-84: A Comparison of Experimental and Traditional Data

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INTRODUCTION

The U.S. Department of Agriculture (USDA) publishes an annual index of State and national farmland values in the Farm Real Estate Market Developments (FREMD) (1). 1/ The FREMD also publishes dollar-value series of farmland values, based on census data but updated by the USDA land-value index. The USDA land-value index is currently based on the USDA farm report, an opinion survey. USDA has recently undertaken a program to upgrade the quality of its published data. Farmland value statistics are being evaluated: alternative data sources are being examined, and procedures for constructing the land-value index are being reviewed. A survey of the county executive directors (CEDs) of the Agricultural Stabilization and Conservation Service (ASCS), USDA, is an alternative opinion survey on farmland values which is also being examined. Other data sources examined include tax assessment records, sales data, and data from panels of real estate experts.

The ASCS survey, conducted yearly since 1982, includes virtually all rural and agriculturally significant counties and has had an excellent response rate. The land-value estimates provided are useful in verifying the critical elements of the traditional land-value index. The coverage, response, and detail of this survey help evaluate USDA's data sources and methods. The ASCS survey also generates county-level working data for those years between census reports, which are available every 4 or 5 years.

This report summarizes the 1984 survey and compares annual percentage changes in farmland value from the ASCS surveys during 1982-84 with those reported in FREMD during the same period. The 1982 ASCS survey was summarized earlier (2). 2/

The first section of this report describes both the ASCS survey and the farm report survey. The second section reports the State and national estimates of farmland values and cash rents from the 1984 ASCS survey and compares the farm-land-value estimates with those reported in the 1984 issue of FREMD (CD-89).

1/ Underscored numbers in parentheses refer to literature cited in the Reference section.

2/ The 1982 ASCS data were re-edited after (2) was published, using procedures not possible with only 1 year of data. All 3 years of ASCS data were edited for this report using procedures which eliminate county estimates that are more than four times greater or smaller than the previous year's estimate.

The third section compares the annual percentage change in farmland value, as estimated in the ASCS surveys for 1982-84, with the corresponding changes shown in the 1982-84 issues of FREMD (CD-87 through 89).

LAND-VALUE SURVEYS

The ASCS Survey

The ASCS survey, initiated in 1982 and repeated in 1983 and 1984, elicited opinions on typical cash rents and on current values for four types of farmland: dry cropland, irrigated cropland, grazing land, and woodland. These categories were selected to enable the census-defined acreages (3) to be used as weights in calculating mean values. (Appendix A contains definitions of the farmland in the census.) The ASCS survey solicited opinions from ASCS county executive directors about the average value of farmland in their county, and about the range over which those market values varied for each type of farmland. The range was delineated by the CED reports of the highest and lowest market values for each type of farmland in their counties. In addition, the 1984 ASCS survey asked CEDs about the sources they used in making their estimates (see app. B for the 1984 questionnaire).

The CEDs were instructed to include the value of unused land and land improvements but to exclude the value of farmstead buildings in their estimate of farmland value. They were also instructed to exclude the value of commercial forests from their estimates of woodland value. CEDs were instructed to base their estimates of cropland, grazing land, and woodland values on full-market value, including the impact of urban influences on farmland value.

The ASCS surveys were mailed to the CEDs of all ASCS county offices. Questionnaires have been received from approximately 3,045 counties or county-type areas each year, over a 99-percent response rate. Nonresponse to individual questions (item nonresponse) was low. For example, in 1983, only 4 percent of the farmland-value questions was classified as item nonresponse under the criteria that a missing item was counted as missing only if the county had more than 10 percent of a given type of farmland.

The Farm Report Survey

The farm report survey has provided annual land-value data since 1926. This survey solicits opinions from individual farm operators about the average value of farmland in their locality. Farm report questionnaires vary by region and State. For example, values for specific types of cropland (dry cropland, irrigated cropland, and grazing land) are only collected for six Western States (see app. C for a representative farm report for the Western region and app. D for one representative of the Eastern region). The California farm report substantially differs from the farm reports for the other Western States (app. E).

The farm report survey, in contrast to the ASCS survey, asks farmers to include building values in their estimates of farmland value but to exclude urban influences. These instructions counterbalance the relative levels of the farmland-value estimates obtained from the two surveys. Inclusion of the building values increases the farmland-value estimates and exclusion of the urban influences

decreases estimates. The next effect of these differences may explain the consistently lower farmland values estimated from the ASCS data.

About 15,000-20,000 responses to the farm report survey have been received from the 53,000 questionnaires sent. A decreasing response rate prompted an examination of alternative sources for farmland-value information.

SUMMARY OF 1984 ASCS DATA

This section presents State and national estimates of farmland values and cash rents from the 1984 ASCS survey. Although ASCS data were collected in Alaska and Hawaii, they were not included in FREMD, and are therefore not included in this report. Estimates for Rhode Island are also excluded in this report because the reported cash rents were much higher than in other States, and including them would have distorted the regional and national statistics.

The ASCS surveys yielded land-value estimates "similar" to those reported in FREMD. Despite differences in methods, both the ASCS and FREMD figures should measure the same real estate markets. "Similar" implies correlation or relationship, not necessarily equality. Statistics shown in this report for the ASCS survey are weighted means of the edited dollar-values reported. The land-value estimates shown in FREMD are not means of actual survey reports but are estimates based on the land-value index and the most recent census estimates.

Mean Farmland Values

Separate weighted means of farmland values were calculated for the low, average, and high reported market values by State (see the questionnaire in app. B). Separate weighted means for dry cropland, grazing land, and woodland were also calculated, except where fewer than four counties per State reported values for that type of farmland. Such was the case for dry cropland in Nevada; for irrigated cropland in Connecticut, Kentucky, Massachusetts, Pennsylvania, and Virginia; and for woodland in Utah and Wyoming. Overall, 15 separate weighted means of farmland values were calculated for each State and for the United States. Table 1 demonstrates the combinations, showing weighted means for the United States in 1984.

Table 1--National weighted-mean values of U.S. farmland by type of farmland, April 1984 1/

Source and value series	All farmland	Dry cropland	Irrigated cropland	Grazing land	Woodland
<u>Dollars per acre</u>					
ASCS:					
Low	453	629	1294	238	350
Average	724	1000	2138	376	574
High	1257	1649	4124	706	975
FREMD	739	N/A	N/A	N/A	N/A

1/ Alaska, Hawaii, and Rhode Island not included.
N/A = Not applicable.

All means were calculated by weighting the values reported in the survey for each county by census-derived county acreages (3). The estimated value of U.S. farmland as reported in the 1984 FREMD is shown for comparison. The national weighted-mean value for all farmland, \$724 per acre, is just under the corresponding value in FREMD, \$739 per acre. The national weighted-mean value of irrigated cropland per acre is \$2,138. The means for dry cropland, grazing land, and woodland are \$1,000, \$376, and \$574 per acre, respectively.

Table 2 shows the weighted-mean values for all farmland for the low, average, and high series by State. Weighted means for the average series range from \$166 per acre in Wyoming to \$3,696 in Massachusetts. Appendix tables 1, 2, and 3 present the weighted means for each type of farmland by State for the low, average, and high series. The weighted means for the average series (app. table 2) range from \$127 per acre for grazing land in Wyoming to \$9,114 per acre for irrigated cropland in Florida.

Despite differences in survey universes and estimation procedures, the 1984 ASCS means and the 1984 FREMD estimates correspond quite well (table 3). Table 3 presents the low, average, and high estimates from the 1984 ASCS survey and shows the 1984 FREMD values. The ratios of the State ASCS means to the State FREMD estimates for the low, average, and high series are also presented.

The ratios of the 1984 ASCS means (average series) to 1984 FREMD estimates vary among States from 0.69 in Alabama to 1.99 in Massachusetts (table 3). The 1984 ASCS estimates differ from the FREMD estimates by more than one standard deviation (0.28) for six States: Alabama, Florida, Maine, Massachusetts, Nevada, and Utah (table 3). In 1982, the weighted means of only four States (California, Maine, Nevada, and Wyoming) differed from estimates reported in FREMD by more than one standard deviation (0.37). In 1983, only four States (Maine, Florida, Nevada, and Utah) differed by more than one standard deviation (0.29).

For crop-production regions, mean ratios of ASCS to FREMD estimates for 1984 ranged from 0.88 in the Lake States to 1.14 in the Mountain States (table 4). The range of the ratios for crop production regions was somewhat wider for the 1982 and 1983 data. The 47-State mean ratio was 0.98, with a standard deviation of 0.28. The average for the corresponding 1982 ratios was 1.01, with a standard deviation of 0.37. The average 47-State mean ratio for 1983 was 1, with a standard deviation of 0.29. These statistics indicate little variation in the 47-State mean ratios from the two sources for 1982, 1983, or 1984, but indicate considerable variation for some individual States and crop production regions.

Median Farmland Values

The mean, as a measure of average concentration, is most useful for describing normal distributions. When a frequency distribution is asymmetrical, or non-normal, the mean is unduly influenced by high and low extremes, and may not represent a value typical of the distribution.

Another measure of average concentration, the median, may better indicate a value typical of a distribution when a frequency distribution is highly skewed. The median, the middle item in an array, may more nearly represent the usual

Table 2--Weighted mean values of farmland by State, 1984

State ^{1/}	Values of farmland		
	Mean of low values	Mean of avg. values	Mean of high values
	<u>Dollars per acre</u>		
Alabama	374	590	885
Arizona	125	281	434
Arkansas	590	808	1027
California	1175	2176	3768
Colorado	261	395	683
Connecticut	918	3040	6477
Delaware	886	1308	1752
Florida	1507	2737	4463
Georgia	457	674	965
Idaho	414	673	1075
Illinois	1035	1730	2554
Indiana	918	1379	1955
Iowa	921	1511	2093
Kansas	348	486	668
Kentucky	590	976	1580
Louisiana	1062	1691	2614
Maine	229	379	608
Maryland	1212	1805	3428
Massachusetts	832	3696	4285
Michigan	611	881	1417
Minnesota	612	953	1321
Mississippi	510	742	1052
Missouri	495	734	1052
Montana	158	237	343
Nebraska	370	524	716
Nevada	275	497	799
New Hampshire	489	935	2959
New Jersey	1226	2502	7871
New Mexico	165	241	412
New York	313	552	1002
North Carolina	650	1069	1656
North Dakota	247	393	582
Ohio	813	1242	1967
Oklahoma	377	572	912
Oregon	303	505	774
Pennsylvania	796	1266	2128
Rhode Island	NR	NR	NR
South Carolina	418	665	1096
South Dakota	179	254	368
Tennessee	546	873	1303
Texas	405	598	1432
Utah	317	733	2480
Vermont	384	755	1816
Virginia	616	933	1586
Washington	417	656	991
West Virginia	469	890	2213
Wisconsin	522	840	1531
Wyoming	108	166	253

NR = Not reported.

1/ Alaska and Hawaii not included.

Source: April 1984 Survey of ASCS county executive
directors.

Table 3--Comparison of 1984 ASCS farmland values with 1984 FREMD farmland values, by State

State ^{1/}	Value estimates			FREMD	Ratio ASCS low to FREMD	Ratio ASCS avg. to FREMD	Ratio ASCS high to FREMD				
	ASCS										
	Low	Average	High								
-----Dollars per acre-----											
Alabama	374	594	885	858	0.44	0.69	1.03				
Arizona	125	281	434	285	.44	.90	1.52				
Arkansas	590	808	1027	944	.63	.86	1.09				
California	1175	2176	3768	1925	.61	1.13	1.96				
Colorado	261	395	683	423	.62	.93	1.61				
Connecticut	918	3040	6477	2862	.32	1.06	2.26				
Delaware	886	1308	1752	1692	.52	.77	1.04				
Florida	1507	2737	4463	1490	1.01	1.84	3.00				
Georgia	457	674	965	801	.57	.84	1.20				
Idaho	414	673	1075	700	.59	.96	1.54				
Illinois	1035	1730	2554	1692	.61	1.02	1.51				
Indiana	918	1379	1955	1477	.62	.93	1.32				
Iowa	921	1511	2093	1396	.66	1.08	1.50				
Kansas	348	486	668	528	.66	.92	1.27				
Kentucky	590	976	1580	927	.64	1.05	1.70				
Louisiana	1062	1691	2614	1481	.72	1.14	1.77				
Maine	229	379	608	691	.33	.55	.88				
Maryland	1212	1805	3428	2239	.54	.81	1.53				
Massachusetts	832	3696	4285	1854	.45	1.99	2.31				
Michigan	611	881	1417	1109	.55	.79	1.28				
Minnesota	612	953	1321	990	.62	.96	1.33				
Mississippi	510	742	1052	966	.53	.77	1.09				
Missouri	495	734	1052	759	.66	.97	1.39				
Montana	158	237	343	241	.75	.98	1.42				
Nebraska	370	524	716	495	.41	1.06	1.45				
Nevada	275	497	799	273	1.01	1.82	2.93				
New Hampshire	489	935	2959	1181	.41	.79	2.51				
New Jersey	1226	2502	7871	3148	.39	.70	2.50				
New Mexico	165	241	412	204	.81	1.18	2.02				
New York	313	552	1002	793	.39	.70	1.26				
North Carolina	650	1069	1656	1362	.48	.78	1.22				
North Dakota	247	393	582	414	.60	.95	1.41				
Ohio	813	1242	1967	1245	.65	1.00	1.58				
Oklahoma	377	572	912	661	.57	.87	1.38				
Oregon	303	505	774	574	.53	.88	1.35				
Pennsylvania	796	1266	2128	1381	.58	.92	1.54				
Rhode Island	NR	NR	NR	3046	--	--	--				
South Carolina	418	665	1096	846	.49	.79	1.30				
South Dakota	179	254	368	263	.68	.97	1.40				
Tennessee	546	873	1303	951	.57	.92	1.37				
Texas	405	598	1432	646	.63	.93	2.22				
Utah	317	733	2480	572	.55	1.28	2.34				
Vermont	384	755	1816	849	.45	.89	2.14				
Virginia	616	933	1586	1040	.59	.90	1.53				
Washington	417	656	991	915	.46	.72	1.08				
West Virginia	469	890	2213	804	.58	1.11	2.75				
Wisconsin	522	840	1531	958	.54	.88	1.60				
Wyoming	108	166	253	165	.65	1.01	1.53				
Ratio mean ^{2/}	N/A	N/A	N/A	N/A	.58	.98	1.68				
Standard dev. of ratio mean	N/A	N/A	N/A	N/A	.14	.28	.64				

NR = Not reported.

N/A = Not applicable.

^{1/} Alaska and Hawaii not included.

^{2/} Alaska, Hawaii, and Rhode Island not included.

Sources: April 1984 survey of ASCS county executive directors and Farm Real Estate Market Developments (FREMD), 1984 issue (CD-89).

Table 4--Mean and standard deviation of ratio of average State ASCS means to State FREMD estimates, 1982-84, by crop production region

Crop production region	Ratio mean			Standard deviation of ratio		
	1982	1983	1984	1982	1983	1984
Northeast 1/	0.87	0.90	0.93	0.19	0.24	0.40
Lake States	.91	.91	.88	.11	.08	.09
Corn Belt	1.01	1.03	1.00	.07	.06	.06
Northern Plains	1.01	1.01	.98	.05	.06	.06
Appalachian	.94	.93	.95	.06	.10	.13
Southeast	.98	1.03	1.04	.38	.46	.34
Delta States	.98	.98	.92	.26	.22	.19
Southern Plains	.95	.94	.90	.06	.04	.04
Mountain	1.35	1.23	1.14	.76	.51	.30
Pacific	.92	.86	.91	1.16	.12	.21
47 States 2/	1.01	1.00	.98	.37	.29	.28

1/ Rhode Island not included.

2/ Alaska, Hawaii, and Rhode Island not included.

concept of an average in an asymmetric (skewed) distribution. The median is less influenced by a few extreme values.

The mean and median coincide in normal distributions, and the distribution is fully characterized by the mean and standard deviation. In skewed distributions, the median provides useful supplementary information for describing the distribution, because such distributions have many items concentrated above or below the mean. Those distributions with the concentration below the mean are labeled positively skewed; those with the concentration above the mean are labeled negatively skewed. A positively skewed distribution has a median which has a lower value than the distribution mean, and a negatively skewed distribution has a median which has a greater value. The ASCS data have a positively skewed distribution.

Appendix tables 4 and 5 show median farmland values by State. These 1984 weighted medians were calculated by weighting each observation by the county acreage (3) of the appropriate type of farmland. Appendix table 4 contains the median values of all farmland for the low, average, and high series. Appendix table 5 provides the median values for dry cropland, irrigated cropland, grazing land, and woodland in each State. Medians in table 5 are based upon the average series values.

Table 5 compares median farmland values with mean farmland values. The mean is greater than the median in all but five States, indicating that county-level farmland values are generally concentrated below the State-level mean. Ratios of both mean and median farmland values to FREMD farmland values are also shown

in table 5. The 47-State ratio of mean values to FREMD farmland values is 0.98. The median values do not correspond as closely with the FREMD values: the 47-State average of median values to FREMD is only 0.72.

Mean Cash Rents

Weighted means for 1984 cash rents were calculated in much the same way as for land values, using weights derived from acreages reported in the census (3). Table 6 shows the 1984 weighted means for cash rents, by State and includes FREMD cash rents for comparison. State-level cash rents estimated from ASCS data range from \$11.80 to \$110.93 per acre for dry cropland, \$15.00 to \$178.10 per acre for irrigated cropland, and \$0.98 to \$34.84 per acre for grazing land.

Information Sources Used by County Executive Directors

The 1984 ASCS survey asked CEDs about the information sources used in their estimates. This question was not asked on the 1982 and 1983 surveys. Respondents were asked specifically if they used or consulted: (1) their personal knowledge of the local land market; (2) the committee of farmers associated with the ASCS county offices; (3) local real estate professionals, Federal Land Bank officials, bankers, Extension Service employees, real estate agents, or appraisers; and (4) the previous year's (1983) survey. They were also asked to list other sources that they consulted.

County committees, made up of three locally elected farmers who administer and manage the ASCS programs at the county level, were the most widely used information source. Ninety-one percent of the county directors consulted these committees when making their estimates (this corresponds closely with the sample of farmers who completed the SRS and census surveys). Seventy-seven percent of the directors also used their personal knowledge of the real estate market. Fifty-two percent of the directors consulted the 1983 questionnaire, and 33 percent consulted local real estate professionals. Only 10 percent of the directors used additional sources, including the Soil Conservation Service, the Farmers Home Administration, and USDA.

ANNUAL PERCENTAGE CHANGES IN FARMLAND VALUES: APRIL 1982-APRIL 1984

USDA farmland-value surveys are primarily used to construct an index which depicts estimated annual changes in farmland values. The percentage changes in value implied by the index are used to extrapolate or interpolate benchmark estimates of average dollars per acre of land and buildings. These benchmark values are obtained from the periodic Censuses of Agriculture.

One can estimate annual changes in farmland values between April 1, 1982, and April 1, 1984, from the ASCS surveys. This period coincides with the estimated annual changes reported in FREMD (CD-88 and 89). Annual percentage changes in value calculated from the 1982-83 ASCS estimates are compared with the annual percentage changes in value reported in FREMD for all farmland and for irrigated and dry cropland, grazing land, and woodland. The two surveys are not expected to show the same level of farmland values, either at the State or national level, because of differences in sampling universe, definitions, and weighting

Table 5--Comparison of 1984 ASCS average mean and median farmland values with 1984 FREMD farmland values, by State

State ^{1/}	Value estimates			Ratio ASCS mean to FREMD	Ratio ASCS median to FREMD		
	ASCS		FREMD				
	Mean	Median					
<u>--- Dollars per acre ---</u>							
Alabama	594	500	858	0.69	0.58		
Arizona	281	125	285	.99	.44		
Arkansas	808	800	944	.86	.85		
California	2176	1000	1925	1.13	.52		
Colorado	395	200	423	.93	.47		
Connecticut	3040	1700	2862	1.06	.59		
Delaware	1308	1050	1692	.77	.62		
Florida	2737	1200	1490	1.84	.81		
Georgia	674	600	801	.84	.75		
Idaho	673	400	700	.96	.57		
Illinois	1730	1800	1692	1.02	1.06		
Indiana	1379	1500	1477	.93	1.02		
Iowa	1511	1600	1396	1.08	1.15		
Kansas	486	455	528	.92	.86		
Kentucky	976	800	927	1.05	.86		
Louisiana	1691	1125	1481	1.14	.76		
Maine	379	300	691	.55	.43		
Maryland	1805	1700	2239	.81	.76		
Massachusetts	3696	1000	1854	1.99	.54		
Michigan	881	800	1109	.79	.72		
Minnesota	953	850	990	.96	.86		
Mississippi	742	750	966	.77	.78		
Missouri	734	700	759	.97	.92		
Montana	237	125	241	.98	.52		
Nebraska	524	325	495	1.06	.66		
Nevada	497	300	273	1.82	1.10		
New Hampshire	935	750	1181	.79	.64		
New Jersey	2502	2000	3148	.79	.64		
New Mexico	241	115	204	1.18	.56		
New York	552	500	793	.70	.63		
North Carolina	1069	1000	1362	.78	.73		
North Dakota	393	310	414	.95	.75		
Ohio	1242	1300	1245	1.00	1.04		
Oklahoma	572	500	661	.87	.76		
Oregon	505	350	574	.88	.61		
Pennsylvania	1266	1000	1381	.92	.72		
Rhode Island	NR	NR	3046	--	--		
South Carolina	665	630	846	.79	.74		
South Dakota	254	185	263	.97	.70		
Tennessee	873	800	951	.92	.84		
Texas	598	400	646	.93	.62		
Utah	733	350	572	1.28	.61		
Vermont	755	550	849	.89	.65		
Virginia	933	800	1040	.90	.77		
Washington	656	450	915	.72	.49		
West Virginia	890	625	804	1.11	.78		
Wisconsin	840	750	958	.88	.78		
Wyoming	166	100	165	1.01	.61		
Ratio mean ^{2/}	N/A	N/A	N/A	.98	.72		
Standard dev. of ratio mean	N/A	N/A	N/A	.28	.17		

NR = Not reported.

N/A = Not applicable.

^{1/} Alaska and Hawaii not included.

^{2/} Alaska, Hawaii, and Rhode Island not included.

Sources: April 1984 survey of ASCS county executive directors and Farm Real Estate Market Developments (FREMD), 1984 issue (CD-89).

Table 6--Weighted means of cash rents by State, 1984

State ^{1/}	Cropland				Grazing land	
	ASCS		FREMD		ASCS	FREMD
	Dry	Irrigated	Dry	Irrigated		
<u>Dollars per acre</u>						
Alabama	33.35	45.00	35.40	NA	13.67	18.20
Arizona	NR	91.97	NA	NA	0.98	NA
Arkansas	45.36	69.63	51.20	NA	13.44	17.10
California	39.63	153.99	NA	NA	13.51	NA
Colorado	12.36	84.68	NA	NA	3.79	NA
Connecticut	39.84	NR	NA	NA	15.68	NA
Delaware	71.56	NR	61.60	NA	NR	NA
Florida	39.17	178.10	NA	NA	16.43	NA
Georgia	28.57	67.91	32.60	NA	18.08	20.00
Idaho	37.97	103.77	NA	NA	24.51	NA
Illinois	110.93	108.30	119.50	NA	26.54	43.60
Indiana	100.40	NR	104.00	NA	31.10	36.40
Iowa	110.75	NR	116.50	NA	34.84	40.70
Kansas	31.74	59.03	33.80	63.80	11.39	13.10
Kentucky	56.49	NR	58.40	NA	21.80	26.50
Louisiana	47.39	52.95	NA	NA	14.04	NA
Maine	26.22	NR	NA	NA	12.50	NA
Maryland	51.11	NR	54.70	NA	20.33	NA
Massachusetts	47.41	NR	36.80	NA	17.79	NA
Michigan	55.19	94.31	60.80	NA	16.32	NA
Minnesota	72.24	96.09	73.50	NA	17.38	22.40
Mississippi	45.50	64.92	46.80	NA	13.07	15.70
Missouri	62.71	94.21	67.80	NA	22.44	25.80
Montana	21.39	56.20	NA	NA	3.40	NA
Nebraska	53.47	113.01	52.00	104.90	11.87	13.10
Nevada	NR	63.27	NA	NA	20.28	NA
New Hampshire	34.59	NR	NA	NA	12.07	NA
New Jersey	45.91	69.30	48.80	NA	29.72	NA
New Mexico	11.21	68.86	NA	NA	8.22	NA
New York	28.96	87.64	34.10	NA	10.87	NA
North Carolina	39.11	15.00	46.80	NA	20.13	22.00
North Dakota	31.86	75.53	34.40	NA	7.43	9.30
Ohio	83.22	NR	83.00	NA	20.80	29.20
Oklahoma	31.08	49.17	31.50	48.10	8.62	11.50
Oregon	45.92	102.30	NA	NA	17.65	NA
Pennsylvania	36.88	NR	40.40	NA	12.50	16.70
Rhode Island	NR	NR	NA	NA	NR	NA
South Carolina	27.57	47.41	28.80	NA	14.90	17.00
South Dakota	30.91	NR	31.30	NA	8.72	9.00
Tennessee	49.80	53.71	48.10	NA	20.21	23.80
Texas	22.48	48.65	24.10	55.80	5.19	8.30
Utah	11.80	52.52	NA	NA	16.30	NA
Vermont	25.86	NR	25.60	NA	11.34	15.00
Virginia	37.45	NR	37.50	NA	15.16	15.50
Washington	45.30	105.35	NA	NA	7.65	NA
West Virginia	34.52	NR	NA	NA	10.41	NA
Wisconsin	61.87	121.45	60.60	NA	20.29	24.00
Wyoming	18.46	49.65	NA	NA	3.43	NA

NR = Not reported.

NA = Not available.

1/ Alaska and Hawaii not included.

Sources: April 1984 survey of ASCS county executive directors and Farm Real Estate Market Developments (FREMD), 1984 issue (CD-89).

procedures. If both surveys are accurately portraying annual changes in farmland values, however, the percentage changes should not differ significantly.

Table 7 shows the weighted-mean values per acre for the United States during 1982-84. Means are shown for dry cropland, irrigated cropland, grazing land, woodland, and all farmland combined for the average series. The average values per acre for farmland as reported in the 1982 and 1983 issues of FREMD are also shown. The negative changes in value shown by the ASCS data for 1982-84 are consistent with the FREMD report and the district Federal Reserve Bank reports. The magnitude of the decreases shown by ASCS data and FREMD for "all farmland" are similar. The percentage declines shown by the two sources, -7 percent with ASCS data and -6 percent with FREMD data, differ by less than one percentage point. The 1983-84 percentage changes in farmland value shown by ASCS and FREMD are identical; both sources show a 1-percent decline in farmland values.

Table 7--National weighted-mean values and annual percentage changes of U.S. farmland, by type of farmland, 1982-84. 1/

Source and type of land	1982	1983	1984	Percentage change	
				1982-83	1983-84
--- Dollars per acre ---					
ASCS:				----- Percent -----	
Dry cropland	1139	1037	1000	-9	-4
Irrigated cropland	2316	2159	2138	-7	-1
Grazing land	360	357	376	-1	5
Woodland	590	577	574	-3	-1
All farmland	781	730	724	-7	-1
FREMD	789	743	739	-6	-1

1/ Alaska, Hawaii, and Rhode Island not included.

Table 8 shows ASCS farmland values and the annual percentage changes in farmland values for each State. The greatest disagreement between the sources occurred in Nevada in 1982-83, with ASCS estimates showing a 26-percent decline in farmland value, but FREMD showing only a 5-percent decline. For the 1983-84 percentage changes, the greatest disagreement occurred in Massachusetts. ASCS showed a 54-percent increase in farmland values, while FREMD showed only a 6-percent increase. However, the percentage changes were similar in most States, and the two sources showed identical changes in value for Indiana, Kansas, and Virginia in 1982-83 and for Georgia, Tennessee, Utah, and Wisconsin in 1983-84.

The distributions of annual percentage changes by State for 1982-84 are roughly normal for both ASCS and FREMD data. A simple paired comparison on the two sets of yearly percentage changes can be made by hypothesizing that the differences between the ASCS and FREMD estimates equal zero. A t-test of this hypothesis

Table 8--Average value per acre and annual percentage change,
all farmland, 1982-84

State ^{1/}	ASCS			Percentage change			
	ASCS			ASCS		FREMD	
	1982	1983	1984	1982-83	1983-84	1982-83	1983-84
--- Dollars per acre ---							Percent
Alabama	626	619	594	-1	-4	-5	-2
Arizona	288	300	281	4	-6	-5	-5
Arkansas	935	855	808	-9	-5	-11	-4
California	1993	1788	2176	-10	22	1	0
Colorado	412	396	395	-4	0	-2	3
Connecticut	2713	3055	3040	13	0	2	7
Delaware	1325	1431	1308	-8	-9	0	2
Florida	2208	2498	2737	-13	10	2	2
Georgia	744	686	674	-8	-2	-3	0
Idaho	757	687	673	-9	-2	-7	0
Illinois	1998	1791	1730	-10	-3	-11	-2
Indiana	1645	1431	1379	-13	-4	-13	-1
Iowa	2002	1777	1511	-11	-15	-13	-11
Kansas	552	512	486	-7	-5	-7	3
Kentucky	1012	950	976	-6	-3	-3	4
Louisiana	1924	1837	1691	-5	-1	-3	0
Maine	386	370	379	-4	2	2	6
Maryland	1912	1796	1805	-6	1	-10	3
Massachusetts	1999	2402	3696	20	54	2	0
Michigan	980	937	881	-4	-6	-7	7
Minnesota	1227	1067	953	-13	-11	-11	-5
Mississippi	810	775	742	-4	-4	-8	8
Missouri	859	771	734	-10	-5	-13	7
Montana	230	239	237	-4	-1	-7	2
Nebraska	651	612	524	-6	-14	-10	2
Nevada	895	658	497	-26	-24	-5	2
New Hampshire	1126	970	935	-14	-4	-22	3
New Jersey	2219	2260	2502	-6	11	-5	3
New Mexico	224	211	241	-6	14	-2	3
New York	545	512	552	-6	8	-2	5
North Carolina	1142	1044	1069	-9	-2	-1	4
North Dakota	450	420	393	-7	-6	-5	0
Ohio	1406	1301	1242	-7	-15	-12	0
Oklahoma	632	604	572	-4	-5	-5	8
Oregon	598	536	505	-10	-6	-5	1
Pennsylvania	1417	1287	1266	-9	-2	-4	8
Rhode Island	NR	NR	NR	N/A	N/A	N/A	N/A
South Carolina	760	733	665	-4	-9	-6	2
South Dakota	292	265	254	-9	-4	-7	3
Tennessee	911	850	873	-7	-5	-5	9
Texas	573	567	598	-1	-3	-3	2
Utah	839	717	733	-15	-2	-5	7
Vermont	740	772	755	3	-1	-2	1
Virginia	918	927	933	-1	-2	0	3
Washington	661	642	656	-3	-2	0	3
West Virginia	798	874	890	10	-6	-5	6
Wisconsin	959	893	840	-7	-1	-5	2
Wyoming	210	167	166	-20	-1	-5	2

NR = Not reported (indicates insufficient information upon which to base estimate)

N/A = Not applicable.

^{1/} Alaska and Hawaii not included.

Sources: Surveys of ASCS county executive directors (1982-84) and Farm Real Estate Market Developments (CD-87, 88, and 89).

did not reveal a significant difference between the ASCS and FREMD percentage changes for either the 1982-83 or the 1983-84 estimates.

Annual percentage changes for 1982-84 are also estimated from the ASCS data for dry and irrigated cropland, pasture, and woodland. Table 9 presents the percentage changes shown by ASCS and FREMD for dry cropland (the percentage changes shown by FREMD are based on indexes of dry cropland values). Aside from California, the percentage changes reported are similar; the differences between estimates from the two sources ranged from 1 to 6 percent. Table 10 presents similar information for irrigated cropland. California showed the widest divergence between the two surveys with a 17-percent decrease in values shown by ASCS and a 3-percent increase in the index values shown by FREMD. The FREMD estimates for California's dry and irrigated cropland are based on land used for seven categories of agricultural production (four irrigated and three dry cropland). ASCS estimates for dry and irrigated cropland are not categorized by land used for agricultural production. This may partially explain the larger divergences between the ASCS and FREMD estimates for California.

Table 11 shows the percentage changes in grazing-land values from the two sources. The changes are within 4-percentage points for Colorado, Kansas, Nebraska, Oklahoma, and Texas. California also showed the greatest divergence between FREMD and ASCS grazing-land estimates.

Table 12 shows mean woodland values and percentage change estimates for ASCS data (percentage changes from FREMD are not shown since FREMD does not report either woodland values or indexes of woodland values). The ASCS percentage change estimates show much more variation among States than do those for dry cropland, irrigated cropland, and grazing land. Individuals familiar with the market for other types of farmland probably have less information about woodland: woodland on farms is a small percentage of the total State area and may be scattered rather than concentrated in a few counties; and woodland on farms may not be sold separately as often as other types of farmland.

SUMMARY

The ASCS survey has provided estimates of farmland value since 1982. These estimates have been fairly consistent with those reported in FREMD, despite important differences in methods of collecting, using, and reporting the data. National percentage changes in farmland value shown by the ASCS and farm report surveys are virtually identical. Both surveys show a 1-percent decline in farmland values for 1983-84, and 6- and 7-percent declines are shown by FREMD and ASCS, respectively, for 1982-83. The State percentage estimates shown by the two surveys diverged considerably for a few States, including Nevada and Massachusetts. However, a t-test did not reveal significant differences between the State-level ASCS and FREMD annual percentage change estimates. The changes shown were similar for most States and were identical for Indiana, Kansas, and Virginia in 1983 and for Georgia, Tennessee, Utah, and Wisconsin in 1984.

Comparability at the State and national levels inspires some confidence in the county data that underlie the State and national estimates. The quality of those county estimates is important because the only other county data available nationwide are those provided by the Censuses of Agriculture, which are only

Table 9--Average value per acre and annual percentage change,
dry cropland, 1982-84

State ¹ /	ASCS			Percentage change			
				ASCS		FREMD	
	1982	1983	1984	1982-83	1983-84	1982-83	1983-84
--- Dollars per acre ---							Percent -----
Alabama	751	744	731	-1	-2	NA	NA
Arizona	1057	709	1726	-33	143	NA	NA
Arkansas	1046	934	891	-11	-5	NA	NA
California	2463	1397	2648	-43	90	2	-2
Colorado	398	390	407	-2	4	-3	1
Connecticut	3392	3933	4474	16	14	NA	NA
Delaware	1473	1579	1430	7	-9	NA	NA
Florida	2226	2271	2400	-2	-6	NA	NA
Georgia	815	742	714	-9	-4	NA	NA
Idaho	720	623	620	-13	0	NA	NA
Illinois	2153	1929	1863	-10	-3	NA	NA
Indiana	1800	1567	1514	-13	-33	NA	NA
Iowa	2144	1904	1621	-11	-15	NA	NA
Kansas	648	603	573	-7	-5	-7	-2
Kentucky	1236	1158	1199	-6	4	NA	NA
Louisiana	2063	1942	1840	-6	-1	NA	NA
Maine	493	520	513	6	-5	NA	NA
Maryland	2145	2000	2013	-7	1	NA	NA
Massachusetts	2951	2983	5412	1	81	NA	NA
Michigan	1081	1027	968	-5	-6	NA	NA
Minnesota	1364	1184	1056	-13	-11	NA	NA
Mississippi	915	881	837	-4	-5	NA	NA
Missouri	999	887	840	-11	-5	NA	NA
Montana	4222	428	414	1	-3	-3	3
Nebraska	868	815	711	-6	-13	-10	-12
Nevada	NR	NR	NR	NA	NA	NA	NA
New Hampshire	1884	1565	1473	-17	-6	NA	NA
New Jersey	2361	2429	2762	3	14	NA	NA
New Mexico	243	228	392	-6	72	NA	NA
New York	648	620	642	-4	4	NA	NA
North Carolina	1430	1288	1323	-10	3	NA	NA
North Dakota	555	512	481	-8	-6	NA	NA
Ohio	1588	1477	1409	-7	-5	NA	NA
Oklahoma	869	817	754	-6	-8	-3	NA
Oregon	1046	939	890	-10	-5	NA	NA
Pennsylvania	1714	1516	1513	-12	0	NA	NA
Rhode Island	NR	NR	NR	NA	NA	NA	NA
South Carolina	878	840	740	-4	-12	NA	NA
South Dakota	467	424	401	-9	-5	NA	NA
Tennessee	1100	1024	1042	-7	2	NA	NA
Texas	841	815	876	-3	7	1	5
Utah	645	517	492	-20	-5	NA	NA
Vermont	908	979	897	8	-8	NA	NA
Virginia	1180	1173	1165	-1	-1	NA	NA
Washington	884	816	813	-8	0	NA	NA
West Virginia	1240	1391	1405	12	1	NA	NA
Wisconsin	1132	1051	990	-7	-6	NA	NA
Wyoming	472	334	333	-29	0	NA	NA

NR = Not reported (indicates insufficient information upon which to base estimate).

NA = Not available.

¹/ Alaska and Hawaii not included.

Sources: Surveys of ASCS county executive directors (1982-84) and Farm Real Estate Market Developments (CD-87, 88, and 89).

Table 10--Average value per acre and annual percentage change, irrigated cropland, 1982-84

State ^{1/}	ASCS			Percentage change			
	ASCS		1984	1982-83		1983-84	
	1982	1983	1984	1982-83	1983-84	1982-83	1983-84
--- Dollars per acre ---							----- Percent -----
Alabama	1388	1368	1239	-1	-9	NA	NA
Arizona	2670	2520	2884	-6	14	NA	NA
Arkansas	1482	1401	1233	-5	-12	NA	NA
California	4957	4106	4093	-17	0	3	-5
Colorado	1760	1671	1578	-5	-6	1	-2
Connecticut	5000	2500	2500	-50	0	NA	NA
Delaware	1800	1800	1932	0	7	NA	NA
Florida	6127	7953	9114	30	15	NA	NA
Georgia	1276	1233	1064	-3	-14	NA	NA
Idaho	1862	1734	1618	-7	-7	NA	NA
Illinois	1909	1614	1688	-15	5	NA	NA
Indiana	1393	1643	1712	18	4	NA	NA
Iowa	1692	1784	1424	5	-20	NA	NA
Kansas	865	822	781	-5	-5	-8	-3
Kentucky	NR	NR	NR	NA	NA	NA	NA
Louisiana	2172	1904	1604	-12	-16	NA	NA
Maine	NR	NR	NR	NA	NA	NA	NA
Maryland	2097	2747	2272	31	-17	NA	NA
Massachusetts	NR	NR	NR	NA	NA	NA	NA
Michigan	1226	1251	1182	2	-6	NA	NA
Minnesota	1416	1227	1186	-13	-3	NA	NA
Mississippi	1583	1679	1459	6	-13	NA	NA
Missouri	1843	1560	1527	-15	-2	NA	NA
Montana	1187	1177	1149	-1	-2	-11	11
Nebraska	1674	1580	1369	-6	-13	-11	-13
Nevada	1468	1283	1251	-13	-2	NA	NA
New Hampshire	NR	NR	NR	NA	NA	NA	NA
New Jersey	2379	2178	1929	-8	-11	NA	NA
New Mexico	2912	2601	2489	-11	-4	NA	NA
New York	2552	1319	4621	-48	250	NA	NA
North Carolina	1228	1318	1070	7	-19	NA	NA
North Dakota	935	1074	1169	15	9	NA	NA
Ohio	NR	NR	NR	NA	NA	NA	NA
Oklahoma	832	796	771	-4	-3	-9	12
Oregon	2026	1837	1711	-9	-7	NA	NA
Pennsylvania	NR	NR	NR	NA	NA	NA	NA
Rhode Island	NR	NR	NR	NA	NA	NA	NA
South Carolina	1234	1426	1272	16	-11	NA	NA
South Dakota	991	875	806	-12	-8	NA	NA
Tennessee	1489	900	900	-40	0	NA	NA
Texas	978	970	911	-1	-6	5	NA
Utah	2943	2629	2718	-11	3	NA	NA
Vermont	NR	NR	NR	NA	NA	NA	NA
Virginia	NR	NR	NR	NA	NA	NA	NA
Washington	1669	1920	1983	15	3	NA	NA
West Virginia	NR	NR	NR	NA	NA	NA	NA
Wisconsin	1346	1295	1278	-4	-1	NA	NA
Wyoming	1145	1020	989	-11	-3	NA	NA

NR = Not reported (indicates insufficient information upon which to base estimate).

NA = Not available.

1/ Alaska and Hawaii not included.

Sources: Surveys of ASCS county executive directors (1982-84) and Farm Real Estate Market Developments (CD-87, 88, and 89).

Table 11-- Average value per acre and annual percentage change, grazing land, 1982-84

State ^{1/}	ASCS			Percentage change			
				ASCS		FREMD	
	1982	1983	1984	1982-83	1983-84	1982-83	1983-84
	----- Dollars per acre -----						
Alabama	541	520	491	-4	-6	NA	NA
Arizona	206	227	182	10	-20	NA	NA
Arkansas	554	563	529	2	-6	NA	NA
California	755	963	1352	28	40	0	7
Colorado	257	248	252	-4	2	-3	7
Connecticut	1597	1500	1746	-6	16	NA	NA
Delaware	NR	NR	NR	NA	NA	NA	NA
Florida	1549	1658	1773	7	7	NA	NA
Georgia	699	634	633	-9	0	NA	NA
Idaho	341	308	326	-10	6	NA	NA
Illinois	730	671	644	-8	-4	NA	NA
Indiana	488	657	601	-17	-9	NA	NA
Iowa	760	668	537	-12	-20	NA	NA
Kansas	345	316	295	-8	-7	-4	-7
Kentucky	698	667	666	-4	0	NA	NA
Louisiana	1735	1760	1490	-1	-15	NA	NA
Maine	337	296	271	-12	-8	NA	NA
Maryland	1219	1074	1014	-12	-6	NA	NA
Massachusetts	1228	2526	2543	106	1	NA	NA
Michigan	466	422	385	-9	-9	NA	NA
Minnesota	442	370	339	-16	-8	NA	NA
Mississippi	620	581	578	-6	-1	NA	NA
Missouri	542	505	485	-7	-4	NA	NA
Montana	137	146	146	7	0	-9	2
Nebraska	246	230	182	-7	-21	-8	-17
Nevada	859	615	454	-28	-26	NA	NA
New Hampshire	996	803	863	-19	7	NA	NA
New Jersey	1577	1591	1939	-1	22	NA	NA
New Mexico	176	168	195	-5	16	NA	NA
New York	243	234	245	-4	5	NA	NA
North Carolina	920	845	894	-8	6	NA	NA
North Dakota	187	184	166	-2	-10	NA	NA
Ohio	550	519	490	-6	-6	NA	NA
Oklahoma	455	443	432	-3	-2	-6	-1
Oregon	278	254	243	-9	-4	NA	NA
Pennsylvania	709	652	608	-8	-7	NA	NA
Rhode Island	NR	NR	NR	N/A	N/A	N/A	N/A
South Carolina	650	617	593	-5	-4	NA	NA
South Dakota	152	139	135	-9	-3	NA	NA
Tennessee	660	628	602	-5	5	NA	NA
Texas	450	451	474	0	5	3	12
Utah	649	545	565	-16	4	NA	NA
Vermont	754	813	734	8	-10	NA	NA
Virginia	749	764	783	2	2	NA	NA
Washington	236	212	235	-10	11	NA	NA
West Virginia	573	601	647	5	8	NA	NA
Wisconsin	477	427	389	-10	-9	NA	NA
Wyoming	162	126	127	-22	1	NA	NA

NR = Not reported (indicates insufficient information upon which to base estimate).

NA = Not available.

N/A = Not applicable.

1/ Alaska and Hawaii not included.

Sources: Surveys of ASCS county executive directors (1982-84) and Farm Real Estate Market Developments (CD-87, 88, and 89).

Table 12--Average value per acre and annual percentage change, woodland, 1982-84

State ^{1/}	ASCS					
	Value per acre			Percentage change		
	1982	1983	1984	1982-83	1983-84	
--- Dollars per acre --						--- Percent ---
Alabama	439	444	400	1	-10	
Arizona	NR	NR	NR	NA	NA	
Arkansas	503	457	463	-9	1	
California	1397	1232	1225	-12	-1	
Colorado	526	381	595	-28	56	
Connecticut	1901	2236	1099	18	-51	
Delaware	434	557	479	28	-14	
Florida	1247	1389	1535	11	11	
Georgia	600	571	594	-5	4	
Idaho	630	488	524	-23	7	
Illinois	603	547	520	-9	-5	
Indiana	712	624	588	-12	-6	
Iowa	620	530	469	-15	-12	
Kansas	408	323	359	-21	11	
Kentucky	379	352	345	-7	-2	
Louisiana	1084	1146	1065	6	-7	
Maine	287	231	262	-20	13	
Maryland	1299	1275	1327	-2	4	
Massachusetts	929	1204	1364	30	13	
Michigan	522	545	504	4	-8	
Minnesota	379	387	353	2	-9	
Mississippi	496	559	538	13	-4	
Missouri	363	366	371	1	1	
Montana	490	443	403	-10	-9	
Nebraska	372	391	262	5	-33	
Nevada	NR	NR	NR	NA	NA	
New Hampshire	601	573	556	-5	-3	
New Jersey	1764	1815	1897	3	5	
New Mexico	1159	1242	1520	7	22	
New York	339	306	336	-10	10	
North Carolina	667	641	646	-4	1	
North Dakota	255	213	197	-16	-8	
Ohio	679	556	505	-18	-9	
Oklahoma	349	378	433	8	15	
Oregon	1134	817	682	-28	-17	
Pennsylvania	684	783	706	14	-10	
Rhode Island	NR	NR	NR	NA	NA	
South Carolina	563	559	537	-1	-4	
South Dakota	403	207	592	-49	186	
Tennessee	464	431	461	-7	7	
Texas	954	906	1062	-5	17	
Utah	NR	NR	NR	NA	NA	
Vermont	486	409	531	-16	30	
Virginia	567	606	622	7	3	
Washington	1259	1187	1115	-6	-6	
West Virginia	407	429	406	5	-5	
Wisconsin	527	521	493	-1	-5	
Wyoming	NR	NR	NR	NA	NA	

NR = Not reported (indicates insufficient information upon which to base estimate).

NA = Not available.

^{1/} Alaska and Hawaii not included.

Sources: Surveys of ASCS county executive directors (1982-84) and Farm Real Estate Market Developments (CD-87, 88, and 89).

available every 4 or 5 years. Thus, the ASCS survey may provide annual data, suitable for internal working purposes, which supplement the quinquennial county data from the Censuses of Agriculture.

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1. U.S. Department of Agriculture, Economic Research Service. Farm Real Estate Market Developments. CD-87 through 89, 1982-84.
2. . U.S. Farmland Values, April 1982: An Experimental Survey of ASCS County Executive Directors. ERS Staff Report No. AGES830706. Sept. 1983.
3. U.S. Department of Commerce, Bureau of the Census. Census of Agriculture, 1978. Vol. 1: State and County Data, Parts 1-50. April 1981.
4. Barnard, Charles and Gene Wunderlich. "Comparing Farmland Sales with the Actual USDA Land Values Index." Journal of the American Society of Farm Managers and Rural Appraisers. Oct. 1984.

APPENDIX A: Expansion factors for the ASCS land value survey

The 1978 Census of Agriculture does not explicitly provide data for acreages of dry cropland, irrigated cropland, grazing land, or woodland. Consequently, the acreages of these lands must be estimated from the categories of land that the census provides. The following definitions explain the derivations of the acreages used as weights in this report. Refer to table 1 for each county, in Vol. 1 of the 1978 Census of Agriculture.

Census of Agriculture

I. Acreage of dry cropland:

Total cropland minus harvested cropland irrigated. From that total, subtract other land irrigated (irrigated cropland used only for pasture is included).

II. Acreage of irrigated cropland:

Harvested cropland irrigated plus other land irrigated (irrigated cropland used only for pasture from I above).

III. Acreage of grazing or pasture land:

Pastureland, all types, minus cropland used only for pasture (woodland pastured is included here).

IV. Acreage of forest land:

Woodland not pastured (woodland pastured from III above).

APPENDIX B

LAND VALUE SURVEY

Name of County (Parish) _____ County code _____

State _____ State code _____

TYPICAL CROPLAND
(includes usual improvements, roads, waste)
(excludes buildings)IRRIGATED NONIRRIGATED

1 The county-wide average market value of CROPLAND is \$ _____ per acre \$ _____ per acre

2 The market value of an acre of cropland in your county varies between a high of \$ _____ per acre \$ _____ per acre and a low of \$ _____ per acre \$ _____ per acre

TYPICAL PASTURE OR GRAZING LAND
(includes usual improvements, roads, waste)
(excludes buildings and cropland used for pasture)

3 The county-wide average market value of GRAZING or PASTURE land is \$ _____ per acre

4 The market value of grazing or pasture land in your county varies between a high of \$ _____ per acre and a low of \$ _____ per acre

TYPICAL WOODLAND ON FARMS
(land on farms and ranches used principally for trees even when partially or occasionally pastured) (includes useful improvements, roads, waste)
(excludes commercial/industrial forest and buildings)

5 The county-wide average market value of WOODLAND is \$ _____ per acre

6 The market value of woodland in your county varies between a high of \$ _____ per acre and a low of \$ _____ per acre

TYPICAL CASH RENTS

7 This year the county-wide average annual cash rent for NONIRRIGATED CROPLAND is \$ _____ per acre

8 This year the county-wide average annual cash rent for IRRIGATED CROPLAND is \$ _____ per acre

9 This year the county-wide average annual cash rent for GRAZING or PASTURE LAND is (exclude leasing on public land) \$ _____ per acre

10 Sources consulted: (check appropriate items)

a) personal knowledge of local land market _____

b) COC _____

c) Local real estate professional (Federal Land Bank officials, bankers, extension personnel, real estate agents, appraisers, etc.) _____

d) 1983 questionnaire _____

e) other _____

Time to complete the questionnaire _____ minutes

OTHER COMMENTS (use back as needed):



FARM and RANCH REPORT

APRIL 1983

Form Approved
O.M.B. Number 0535-0002

C.E. 02-0420

Nebraska

Please make corrections in name, address, and Zip Code,
if necessary.

••••••••••
PLEASE MAIL
PROMPTLY
••••••••••

Dear Crop Reporter:

Once again it is time for the farm and ranch report. Response to this survey is voluntary and not required by law. However, cooperation is very important in order to make accurate estimates for your State.

Reports from individual farms are used only with other reports to arrive at area or State estimates. This service is possible only with your valuable help. Please remember to:

1. Note the instructions.
2. Mail your report promptly in the enclosed envelope which needs no stamp.

Respectfully,

Jack L. Aschwege

Jack L. Aschwege
Statistician in Charge
Nebraska

P.S. Individual reports are kept confidential.

"Farm With Facts"

INSTRUCTIONS

- Report the condition of pastures, as compared with the normal growth and vitality you would expect at this time if there had been no damage from unfavorable weather, insects, pests, etc. Let 100 percent represent a normal condition.
- Enter dash (-) for the questions that do not apply to your locality.
- In reporting farm land value and cash rents for your locality, omit all land where value is affected by use or offer for town or suburban lots, resort, "country home", timber, mining, oil, factory, or other uses primarily nonagricultural.

PASTURE AND RANGE	
Please Answer This Question For Your Locality	Answer here ▼
PASTURE and RANGE FEED (Exclude irrigated pasture) condition in PERCENT 266	
FARM (RANCH) LAND VALUES Please Report Average Market Value Per Acre For Your Locality	
Please report the average market value per acre of each of the following classes of land that may be in your locality (including the value of improvements)	
IRRIGATED LAND	Average value per acre 705 \$
NONIRRIGATED CROPLAND	Average value per acre 706 \$
NONIRRIGATED PASTURE or GRAZING LAND	Average value per acre 707 \$
CASH RENTS Please report average cash rents expected in your locality during the 1983 season	
IRRIGATED CROP LAND	Average cash rent per acre 758 \$
NONIRRIGATED CROP LAND	Average cash rent per acre 760 \$
NONIRRIGATED PASTURE or GRAZING LAND	Average cash rent per acre 762 \$

PLEASE COMMENT ON FARM ACTIVITIES

Reported by _____

County _____ Date _____



FARM REPORT

APRIL 1983

Form Approved
O.M.B. Number 0535-0002
C.E. 02-0417

Missouri

Please make corrections in name, address, and Zip Code, if necessary.

•••••••••
PLEASE MAIL
PROMPTLY
•••••••••

Dear Crop Reporter:

This report includes questions on the quantity of grain stored on your farm(s) now plus farm land values and cash rents in your locality.

Response to this survey is voluntary and not required by law. However, cooperation is very important in order to make accurate estimates for Missouri.

Reports from individual farms are used only with other reports to arrive at area or State estimates. This service is possible only with your valuable help. Please remember to:

1. Note the instructions.
2. Mail your report promptly in the enclosed envelope which needs no stamp.

Respectfully,

Donald M. Bay

Donald M. Bay,
State Statistician
Missouri

P.S. Individual reports are kept confidential.

"Farm With Facts"

INSTRUCTIONS

- Report the condition of pastures, as compared with the normal growth and vitality you would expect at this time if there had been no damage from unfavorable weather, insects, pests, etc. Let 100 percent represent a normal condition.
- Enter dash (-) for the questions that do not apply to your locality. On questions relating to your operations, enter 0 when zero or none is the answer.
- In reporting farm land value and cash rents for your locality, omit all lands where value is affected by use or offer for town or suburban lots, resort, "country home", timber, mining, oil, factory, or other uses primarily nonagricultural.

PASTURE	
Please Answer This Question For Your Locality	Answer here
PASTURE FEED condition in PERCENT 266	
GRAIN STORED ON FARMS	
Report all whole grain stored on the farm(s) you operate regardless of year of production, ownership, or intended use. Include grain under Government Reserve or Loan stored on your farm(s). Exclude grain stored off the farm.	
Please Report Total Bushels Stored On This Farm April 1, 1983	Answer here
CORN 70 lb. ear or 56 lb. shelled	BUSHELS 012
WHEAT 60 pound	BUSHELS 032
OATS 32 pound	BUSHELS 092
RYE 56 pound	BUSHELS 132
SORGHUM GRAIN 56 pound	BUSHELS 162
SOYBEANS 60 pound	BUSHELS 142
FARMLAND VALUE	
Please report average market value per acre for your locality.	
ALL FARMLANDS with improvements (including the value of farm buildings, etc.)	Average market value per acre 701 \$
CASH RENTS	
Please report average cash rents expected in your locality during the 1983 season	
WHOLE FARMS RENTED entirely for CASH: Average cash rent per acre	751 \$
Average value per acre for these cash-rented farms	752 \$
CROPLAND RENTED for CASH: Average cash rent per acre	753 \$
Average value per acre for this cash-rented cropland	754 \$
PASTURE or GRAZING LAND RENTED for CASH: Average cash rent per acre	755 \$
Average value per acre for this cash-rented pasture	756 \$

Reported by _____

County _____ Date _____

PLEASE COMMENT ON FARM ACTIVITIES
ON OTHER SIDE



APPENDIX E

FRUIT INQUIRY

APRIL 1983

Form Approved
O.M.B. Number 0535-0039

C.E. 02-0448a

California

To CHANGE your address or STOP
mailing make notation on this sheet
and return in the enclosed envelope.
Please allow 8 weeks for change.

••••••••••
PLEASE MAIL
PROMPTLY
••••••••••

Dear Crop Reporter:

Reports from all over the country enables us to compile the basic crop information which farmers like yourself use in planning and marketing their products. Response to this survey is voluntary and not required by law. However, cooperation is very important in order to make accurate estimates for California.

Reports from individual farms are used only with other reports to arrive at area or State estimates. This service is possible only with your valuable help. Please remember to:

1. Note the instructions.
2. Mail your report promptly in the enclosed envelope which needs no stamp.

Respectfully,

R. A. McGregor
Robert A. McGregor
Statistician in Charge
California

P.S. Individual reports are kept confidential.

INSTRUCTIONS

- Report the condition (*expected production*) of fruit crops now as compared with prospects for a full crop. Let 100 percent represent a full crop you would expect if there were no damage from unfavorable weather, insects, diseases, etc. For crops which have already been harvested, report production as a percent of a full crop.
- Use letter F to indicate an entire failure. Enter dash (—) for the questions that do not apply to your locality.
- In reporting farm land values for your locality, omit all lands where value is affected by use or offer for town or suburban lots, resort, "country home" timber, mining, oil, factory, or other uses primarily nonagricultural.

FRUIT CROPS

Please Answer For Your Locality, Expected Production As A Percent of Full Crop	Answer here ▼
NAVEL and miscellaneous ORANGES (1982 bloom)	555 PERCENT
VALENCIA ORANGES (1982 bloom)	550 PERCENT
LEMONS (1982 bloom)	565 PERCENT
GRAPEFRUIT (1982 bloom)	560 PERCENT
GRAPEFRUIT, Desert Valley (1982 bloom)	561 PERCENT

FARM (RANCH) LAND VALUES

Please Answer Those Questions
For Your Locality

Please estimate the average MARKET VALUE
PER ACRE of each of the following classes
of land that occur in your locality
(Include the value of buildings):

IRRIGATED CROPLAND best suited for: Vegetable crops	per acre	718 \$
Alfalfa, cotton and sugar beets	per acre	719 \$
Barley, beans, grain sorghum and other grain crops	per acre	720 \$
NONIRRIGATED CROPLAND	per acre	721 \$
PASTURE AND RANGELAND Irrigated pasture	per acre	722 \$
Nonirrigated pasture	per acre	723 \$
Rangeland	per acre	724 \$

Reported by _____

County _____ Date _____

**PLEASE COMMENT ON FARM ACTIVITIES
ON OTHER SIDE**

Appendix table 1--Weighted means of the low per acre values of dry cropland, irrigated cropland, grazing land, and woodland by State, 1984 1/

State ^{2/}	Dry cropland	Irrigated cropland	Grazing land	Woodland
	<u>Dollars per acre</u>			
Alabama	440	800	334	269
Arizona	1131	1102	82	NR
Arkansas	652	928	387	300
California	1054	2469	701	572
Colorado	278	1010	168	346
Connecticut	1277	NR	769	340
Delaware	953	1678	NR	286
Florida	1629	3767	1085	912
Georgia	494	774	449	370
Idaho	398	1015	184	356
Illinois	1112	1374	412	308
Indiana	1006	1278	437	371
Iowa	983	1063	370	326
Kansas	395	592	231	277
Kentucky	720	NR	419	211
Louisiana	1106	1073	1066	705
Maine	321	NR	173	146
Maryland	1338	1493	683	944
Massachusetts	1058	NR	1063	306
Michigan	670	931	273	3341
Minnesota	676	832	234	212
Mississippi	569	1092	418	363
Missouri	562	1229	337	250
Montana	296	774	90	234
Nebraska	494	977	132	201
Nevada	NR	805	244	NR
New Hampshire	849	NR	407	244
New Jersey	1230	1332	1116	1202
New Mexico	205	1576	138	850
New York	363	3548	143	165
North Carolina	806	547	585	376
North Dakota	294	976	1220	134
Ohio	918	NR	336	339
Oklahoma	493	544	287	266
Oregon	586	1146	116	412
Pennsylvania	944	NR	420	443
Rhode Island	NR	NR	NR	NR
South Carolina	479	919	401	295
South Dakota	276	571	100	307
Tennessee	647	601	440	278
Texas	566	640	328	733
Utah	262	NR	204	NR
Vermont	458	NR	290	315
Virginia	792	NR	521	365
Washington	521	1360	129	666
West Virginia	701	NR	372	237
Wisconsin	609	1035	258	298
Wyoming	231	589	84	NR

NR = Not reported.

1/ The values reported in this table are weighted means of the low values reported for questions 2, 4, and 6 in Appendix B.

2/ Alaska and Hawaii not included.

Source: April 1984 Survey of ASCS county executive directors.

Appendix table 2--Weighted means of the average per acre values of dry cropland, irrigated cropland, grazing land, and woodland by State, 1984 1/

State 2/	Dry	Irrigated	Grazing	Woodland
	cropland	cropland	land	
	Dollars per acre			
Alabama	731	1239	491	400
Arizona	1726	2884	182	NR
Arkansas	891	1233	529	463
California	2648	4093	1352	1225
Colorado	407	1578	252	595
Connecticut	4474	NR	1746	1099
Delaware	1430	1932	NR	479
Florida	2400	9114	1773	1535
Georgia	714	1064	633	594
Idaho	620	1618	326	524
Illinois	1863	1688	644	520
Indiana	1514	1712	601	588
Iowa	1621	1424	537	469
Kansas	573	781	295	359
Kentucky	1199	NR	666	345
Louisiana	1840	1604	1490	1065
Maine	513	NR	271	262
Maryland	2013	2272	1014	1327
Massachusetts	5412	NR	2543	1364
Michigan	968	1182	385	504
Minnesota	1056	1186	339	553
Mississippi	837	1459	578	538
Missouri	840	1527	485	371
Montana	414	1149	146	403
Nebraska	711	1369	182	262
Nevada	NR	1251	454	NR
New Hampshire	1473	NR	863	556
New Jersey	2762	1929	1939	1897
New Mexico	392	2489	195	1520
New York	642	4621	245	336
North Carolina	1323	1070	894	646
North Dakota	481	1169	166	197
Ohio	1409	NR	490	505
Oklahoma	754	771	432	433
Oregon	890	1711	243	682
Pennsylvania	1513	NR	608	706
Rhode Island	NR	NR	NR	NR
South Carolina	740	1272	593	537
South Dakota	401	806	135	592
Tennessee	1042	900	662	461
Texas	876	911	474	1062
Utah	492	2718	565	NR
Vermont	897	NR	734	531
Virginia	1165	NR	783	622
Washington	813	1983	235	1115
West Virginia	1405	NR	647	406
Wisconsin	990	1278	389	493
Wyoming	333	989	127	NR

NR = Not reported.

1/ The values reported in this table are weighted means of the average values reported for questions 1, 3, and 5 in Appendix B.

2/ Alaska and Hawaii not included.

Source: April 1984 Survey of ASCS county executive directors.

Appendix table 3--Weighted means of the high per acre values of dry cropland, irrigated cropland, grazing land, and woodland by State, 1984 ^{1/}

State ^{2/}	Dry	Irrigated	Grazing	Woodland
	cropland	cropland	land	
	<u>Dollars per acre</u>			
Alabama	1100	1684	712	593
Arizona	3035	3843	296	NR
Arkansas	1109	1590	697	685
California	5242	8457	1677	2279
Colorado	568	3294	416	915
Connecticut	8838	NR	4142	3468
Delaware	1884	2410	NR	897
Florida	3772	14569	3029	2323
Georgia	980	1340	865	963
Idaho	860	2518	611	763
Illinois	2757	2157	909	734
Indiana	2144	2172	824	885
Iowa	2247	1618	724	684
Kansas	809	988	382	507
Kentucky	1928	NR	1137	547
Louisiana	2908	2380	2097	1690
Maine	797	NR	366	458
Maryland	3957	3180	1552	2207
Massachusetts	5665	NR	3880	1738
Michigan	1588	1532	533	692
Minnesota	1465	1507	463	500
Mississippi	1202	1753	759	794
Missouri	1221	1927	655	528
Montana	560	1715	222	639
Nebraska	986	1826	248	369
Nevada	NR	1713	749	NR
New Hampshire	4445	NR	2408	1997
New Jersey	9271	3194	5326	5243
New Mexico	564	4670	328	3007
New York	1207	7224	368	553
North Carolina	2050	1510	1323	1026
North Dakota	729	1471	209	259
Ohio	2229	NR	658	971
Oklahoma	1196	1108	694	792
Oregon	1409	2865	332	1039
Pennsylvania	2567	NR	881	1184
Rhode Island	NR	NR	NR	NR
South Carolina	1175	1704	951	997
South Dakota	591	1112	186	1884
Tennessee	1577	1000	931	664
Texas	2715	1557	964	2158
Utah	1662	4171	2438	NR
Vermont	2046	NR	1351	1696
Virginia	2113	NR	1112	1011
Washington	1222	3017	359	1655
West Virginia	3480	NR	1683	941
Wisconsin	1849	1776	554	874
Wyoming	432	1529	196	NR

NR = Not reported.

1/ The values reported in this table are weighted means of the high values reported for questions 2, 4, and 6 in Appendix B.

2/ Alaska and Hawaii not included.

Source: April 1984 Survey of ASCS county executive directors.

Appendix table 4--Weighted median value of farmland by State, 1984 1/

State ^{2/}	Median of low values	Median of average values	Median of high values
<u>Dollars per acre</u>			
Alabama	350	500	700
Arizona	75	125	300
Arkansas	600	800	1000
California	500	1000	1500
Colorado	125	200	300
Connecticut	800	1700	3200
Delaware	700	1050	1250
Florida	800	1200	2200
Georgia	400	600	850
Idaho	200	400	600
Illinois	1000	1800	2800
Indiana	900	1500	2000
Iowa	850	1600	2300
Kansas	300	455	600
Kentucky	500	800	1200
Louisiana	800	1125	1550
Maine	200	300	425
Maryland	1000	1700	2500
Massachusetts	500	1000	1400
Michigan	500	800	1100
Minnesota	600	850	1200
Mississippi	500	750	1000
Missouri	500	700	1000
Montana	90	125	200
Nebraska	250	325	440
Nevada	200	300	500
New Hampshire	350	750	1200
New Jersey	1000	2000	3000
New Mexico	100	115	175
New York	250	500	900
North Carolina	600	1000	1500
North Dakota	221	310	450
Ohio	800	1300	1800
Oklahoma	300	500	675
Oregon	100	350	400
Pennsylvania	500	1000	1650
Rhode Island	NR	NR	NR
South Carolina	400	630	950
South Dakota	130	185	250
Tennessee	500	800	1150
Texas	300	400	550
Utah	100	350	1000
Vermont	400	550	1000
Virginia	500	800	1200
Washington	200	450	500
West Virginia	350	625	975
Wisconsin	500	750	1190
Wyoming	80	100	200

NR = Not reported.

1/ The values reported in this table are weighted medians of the low, average, and high values reported for questions 1-6 in Appendix B.

2/ Alaska and Hawaii not included.

Source: April 1984 Survey of ASCS county executive directors.

Appendix table 5--Weighted medians of the average values of dry cropland, irrigated cropland, grazing land, and woodland by State, 1984 1/

State 2/	Dry cropland	Irrigated cropland	Grazing land	Woodland
<u>Dollars per acre</u>				
Alabama	700	1500	450	350
Arizona	2060	3500	125	NR
Arkansas	800	1200	500	400
California	1000	4000	650	1250
Colorado	380	1200	160	450
Connecticut	2500	2500	1200	800
Delaware	1800	1700	NR	400
Florida	1250	8000	1000	1000
Georgia	700	1000	500	500
Idaho	495	1500	300	500
Illinois	1900	1600	600	450
Indiana	1500	1800	589	500
Iowa	1700	1500	500	400
Kansas	550	750	300	330
Kentucky	1000	2500	500	300
Louisiana	1250	1250	950	800
Maine	400	NR	250	200
Maryland	2000	2300	1000	850
Massachusetts	1600	NR	750	500
Michigan	850	1200	350	450
Minnesota	1000	1100	300	225
Mississippi	780	1500	500	500
Missouri	800	1500	475	300
Montana	350	1100	100	400
Nebraska	625	1400	150	200
Nevada	NR	1000	300	NR
New Hampshire	1000	NR	700	500
New Jersey	2200	2000	1500	1500
New Mexico	213	1350	115	1500
New York	600	5000	200	250
North Carolina	1200	1000	800	500
North Dakota	410	1000	170	200
Ohio	1400	NR	400	400
Oklahoma	700	525	400	350
Oregon	590	1500	100	500
Pennsylvania	1250	NR	500	500
Rhode Island	NR	NR	NR	NR
South Carolina	700	665	500	450
South Dakota	325	700	100	800
Tennessee	850	900	500	350
Texas	700	700	275	950
Utah	375	1500	275	NR
Vermont	700	NR	350	500
Virginia	1000	1700	700	500
Washington	550	1630	200	800
West Virginia	1000	NR	500	400
Wisconsin	950	1150	400	400
Wyoming	300	900	100	NR

NR = Not reported.

1/ The values reported in this table are weighted medians of the average values reported for questions 1, 3, and 5 in in Appendix B.

2/ Alaska and Hawaii not included.

Source: April 1984 Survey of ASCS county executive directors.