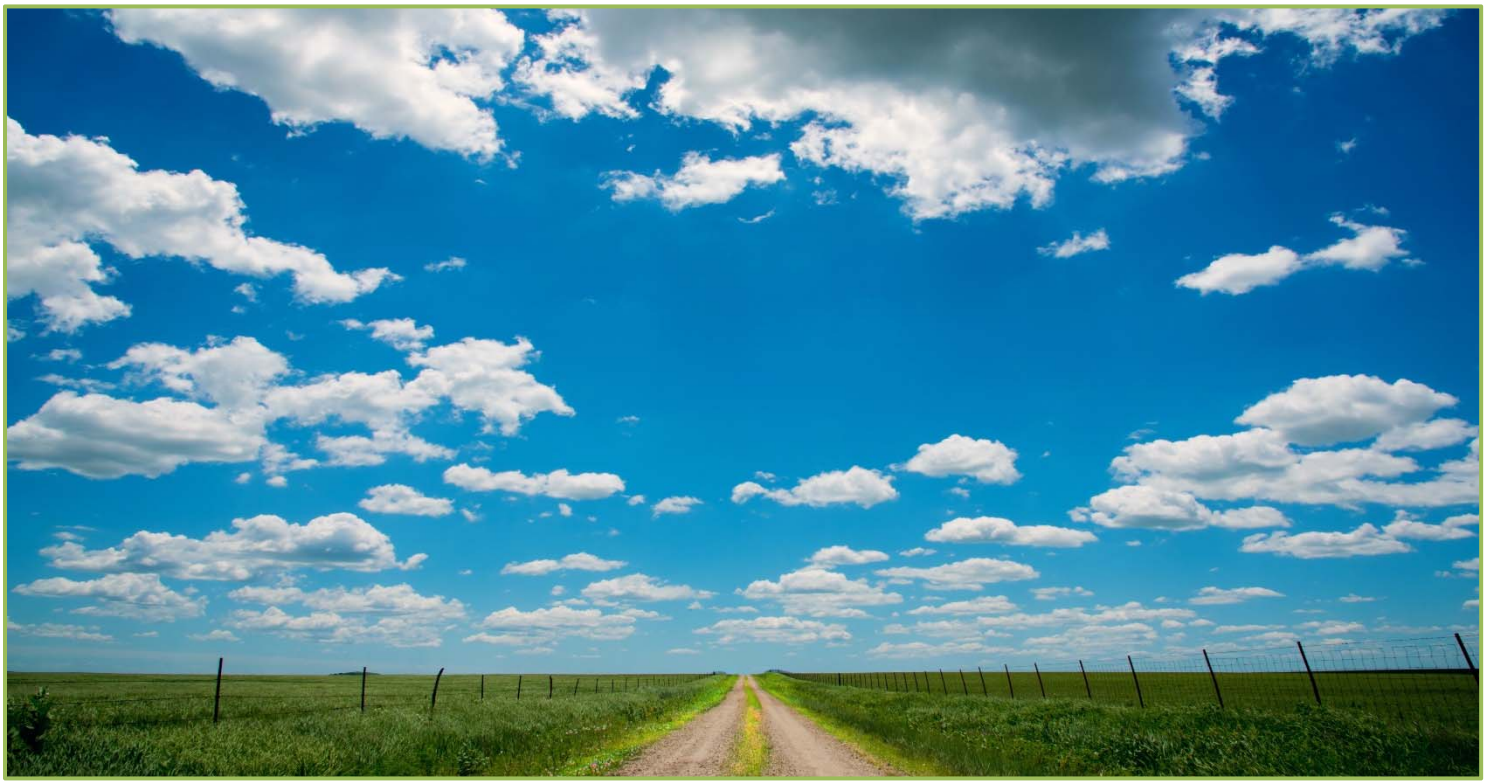

2017
Kansas County-Level Land Values for Cropland and Pasture

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The value of Kansas cropland and pasture land has been changing rapidly over the past several years. As a result, many people are interested in current estimates of the value of an average parcel of ground for their county. Since Kansas is a non-disclosure state, there is very little publicly available information people may use for determining county-average land values.

In an attempt to improve the amount of land value information available, the Kansas Property Valuation Department (PVD) provides K-State with data on agricultural land sales.[1] These data reflect agricultural land sales in Kansas from 2014 through 2017. To obtain estimates that reflect land sold for agricultural purposes in an "arm's-length" transaction, some observations were removed from the original dataset.[2] The sales data used in the analysis were limited to bare land (undeveloped) parcels of at least 40 acres in size. These filtered data were used in a regression analysis to estimate county-specific land (non-irrigated, irrigated, and pasture) values, referred to as KSU-PVD. The land-value model used characteristics of the parcels sold to determine impacts on price. Characteristics such as parcel size, growing season rainfall and temperature averages, soil characteristics (e.g. slope, percentage of sand, silt, and clay), percent of pasture and cropland within a parcel, and when a parcel was sold were all used to estimate county-level land values.

The county-level estimates and the average for each of the Crop Reporting Districts (CRD) are shown in Table 1, where the CRD average is a simple average of the counties that fall within the region. Table 2 provides a comparison between the 2016 estimates using PVD data and the 2017 land value estimates at the CRD level. Land values fell between 2016 and 2017 for all land types across the state. Statewide, non-irrigated land decreased 6.4% between 2016 and 2017. Irrigated cropland across the state increased slightly by 2.1% between 2016 and 2017 and pasture decreased by 9.0% during the same period. This is the first year of substantial decreases in Kansas land values since the early 1980's.

[1] The author would like to thank Leah Tsoodle (Kansas State University) and Jim Shontz (Property Valuation Department) and others for their assistance with data collection and interpretation.
[2] "Arm's-length" refers to land sold through typical market channels and does not include intra-family transactions, court-ordered sales, or other transactions that may keep the sale from being considered a market-based transaction.

Irrigated cropland values are not reported for all counties. For statistical accuracy of the county-level estimates, a minimum number of land sales must be observed in a county. Counties with less than 10 observed sales of irrigated land over the period 2015 to 2017 are not presented in the table. As a result, irrigated land values at the CRD level are not reported for the Central, North Central, and three Eastern regions of the state.

Another source of land value data is the U.S. Department of Agriculture's National Agricultural Statistics Service (USDA-NASS), who report state average values for irrigated, non-irrigated, and pasture land. These values are based upon an annual survey of agricultural producers and landowners asking for their estimate of the market value of cropland and pasture land they own or operate. Figure 1 shows the state-level estimates of land values from USDA-NASS for non-irrigated and irrigated cropland and pasture from 2013 to 2017. The USDA-NASS land values estimates are consistently lower than the market-based KSU-PVD estimates. However, the relationship is relatively stable with USDA-NASS values approximately 35% lower than KSU-PVD estimates for non-irrigated cropland and pasture and 70% lower for irrigated cropland. The consistency between the two methods suggests that both methods capture the trends in a similar manner, but level differences between the two must be taken into account when referring to the data.

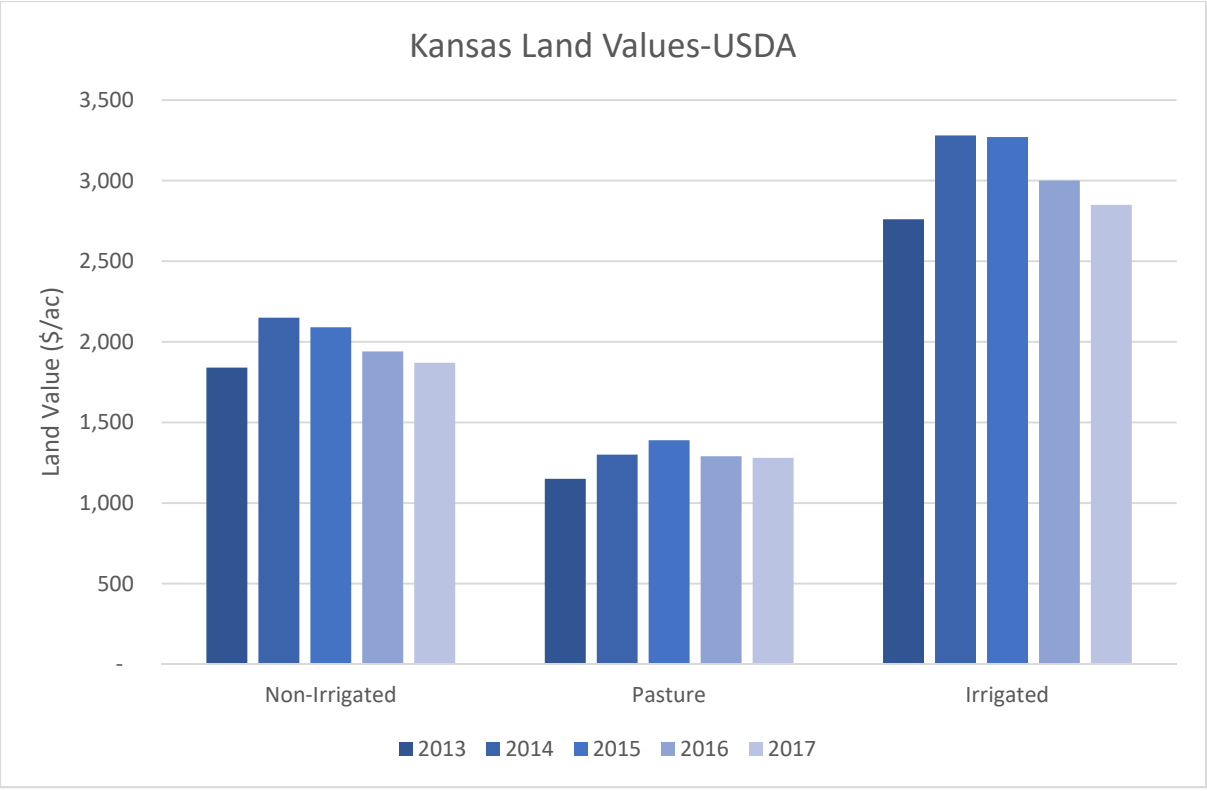

Figure 1. Average Kansas Land Value Estimates by USDA-NASS (2013 – 2017)

Table 1. Estimated Agricultural Land Values for 2017 using PVD Land Sales Data

CRD	County	Non-Irrigated, $/ac	Irrigated, $/ac	Pasture, $/ac
Northwest	Cheyenne	1,511	3,604	1,057
	Decatur	1,784	--	1,248
	Graham	1,836	--	1,284
	Norton	3,388	--	2,371
	Rawlins	2,365	--	1,655
	Sheridan	1,481	3,532	1,036
	Sherman	2,082	4,964	1,457
	Thomas	1,774	4,230	1,241
	Average:	**2,028**	**4,083**	**1,419**
West Central	Gove	1,724	--	1,206
	Greeley	1,495	3,565	1,046
	Lane	3,791	--	2,653
	Logan	3,250	--	2,274
	Ness	1,966	--	1,375
	Scott	2,821	6,727	1,974
	Trego	3,169	--	2,218
	Wallace	2,688	6,410	1,881
	Wichita	3,575	--	2,501
	Average:	**2,720**	**5,567**	**1,903**
Southwest	Clark	1,188	2,833	831
	Finney	1,137	2,711	795
	Ford	1,287	3,069	901
	Grant	1,086	2,591	760
	Gray	1,234	2,944	864
	Hamilton	946	2,255	662
	Haskell	1,128	2,689	789
	Hodgeman	1,238	--	866
	Kearny	1,632	3,891	1,142
	Meade	2,513	--	1,759
	Morton	2,299	5,482	1,608
	Seward	2,319	5,531	1,623
	Stanton	1,062	2,533	743
	Stevens	1,972	4,703	1,380
	Average:	**1,503**	**3,436**	**1,052**
North Central	Clay	2,440	--	1,707
	Cloud	2,348	--	1,643
	Jewell	2,743	--	1,919
	Mitchell	3,317	--	2,321
	Osborne	2,195	--	1,536
	Ottawa	1,820	--	1,273
	Phillips	2,996	--	2,097
	Republic	2,185	--	1,529
	Rooks	1,805	--	1,263
	Smith	2,006	--	1,404
	Washington	1,496	--	1,047
	Average:	**2,305**		**1,613**
Central	Barton	2,005	--	1,403
	Dickinson	2,474	--	1,731
	Ellis	1,779	--	1,245
	Ellsworth	1,967	--	1,376
	Lincoln	3,354	--	2,347
	Marian	2,781	--	1,946
	McPherson	1,517	--	1,062
	Rice	2,774	--	1,941
	Rush	1,899	--	1,329
	Russell	2,091	--	1,463
	Saline	1,587	--	1,110
	Average:	**2,203**		**1,541**
South Central	Barber	1,620	--	1,134
	Comanche	1,495	--	1,046
	Edwards	1,705	4,067	1,193
	Harper	1,973	--	1,380
	Harvey	2,496	--	1,747
	Kingman	1,738	--	1,216
	Kiowa	3,006	7,169	2,103
	Pawnee	1,750	4,174	1,225
	Pratt	1,520	3,624	1,063
	Reno	2,299		1,609
	Sedgwick	1,725	--	1,207
	Stafford	1,234	2,942	863
	Sumner	1,513	--	1,058
	Average:	**1,852**	**4,395**	**1,296**
Northeast	Atchison	3,798	--	2,658
	Brown	3,561	--	2,491
	Doniphan	3,793	--	2,654
	Jackson	3,820	--	2,673
	Jefferson	4,149	--	2,903
	Leavenworth	2,772	--	1,940
	Marshall	2,789	--	1,951
	Nemaha	4,000	--	2,799
	Pottawatomie	2,285	--	1,599
	Riley	2,354	--	1,647
	Wyandotte	3,182	--	--
	Average:	**3,318**		**2,331**
East Central	Anderson	2,932	--	2,052
	Chase	2,306	--	1,613
	Coffey	2,775	--	1,941
	Douglas	3,354	--	2,347
	Franklin	3,017	--	2,111
	Geary	2,510	--	1,756
	Johnson	2,376	--	--
	Linn	1,337	--	936
	Lyon	2,352	--	1,645
	Miami	1,974	--	1,382
	Morris	1,158	--	810
	Osage	1,807	--	1,264
	Shawnee	1,697	--	1,187
	Wabaunsee	1,176	--	823
	Average:	**2,198**		**1,528**
Southeast	Allen	2,353	--	1,646
	Bourbon	2,441	--	1,708
	Butler	1,886	--	1,319
	Chautauqua	2,071	--	1,449
	Cherokee	2,532	--	1,772
	Cowley	1,840	--	1,288
	Crawford	2,523	--	1,765
	Elk	2,174	--	1,521
	Greenwood	2,034	--	1,423
	Labette	1,090	--	763
	Mongtomery	2,079	--	1,455
	Neosho	1,182	--	827
	Wilson	2,314	--	1,619
	Woodson	2,684	--	1,878
	Average:	**2,086**		**1,460**

Note: Missing estimates for irrigated values are due to insufficient observations of irrigated land sales in the previous three years.

Table 2. Estimated Average Land Values by Crop Reporting District, 2016-2017

	Crop Reporting District									
	Northwest	West Central	Southwest	North Central	Central	South Central	Northeast	East Central	Southeast	State
Non-Irrigated										
2016	1,776	1,766	1,210	2,530	2,301	1,969	4,353	3,130	2,551	2,398
2017	2,028	2,720	1,503	2,305	2,203	1,852	3,318	2,198	2,086	2,246
Difference, $/ac	252	954	293	-225	-98	-117	-1,035	-932	-465	-153
Difference, %										-6.4%
Irrigated										
2016	3,998	5,452	3,365	--	--	4,304	--	--	--	4,280
2017	4,083	5,567	3,436	--	--	4,395	--	--	--	4,370
Difference, $/ac	85	116	71	--	--	91	--	--	--	91
Difference, %										2.1%
Pasture										
2016	1,278	1,271	871	1,821	1,656	1,417	3,133	2,253	1,836	1,726
2017	1,419	1,903	1,052	1,613	1,541	1,296	2,331	1,528	1,460	1,571
Difference, $/ac	141	632	181	-208	-115	-121	-802	-725	-376	-155
Difference, %										-9.0%

Note: Values for 2016 vary from previous publications of this bulletin due to updates in available data at the parcel level.