

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 7.3% between 2016 and 2017. Irrigated cropland across the state increased slightly by 4.4% between 2016 and 2017 and pasture decreased by 1.1% during the same period. This is the first year of substantial decreases in Kansas land values since the early 1980’s.

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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.

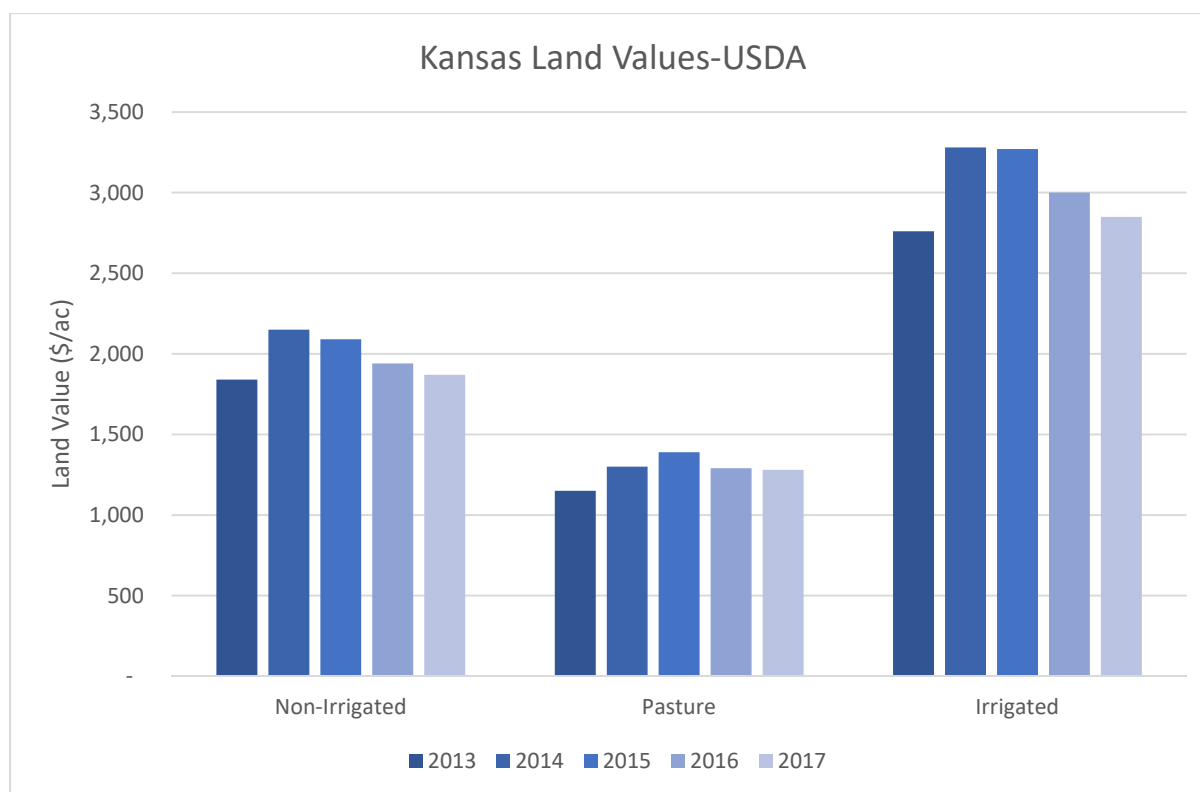


Figure 1. Average Kansas Land Value Estimates by USDA-NASS (2013 – 2017)

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

CRD	County	Non-Irrigated, Irrigated, Pasture,			CRD	County	Non-Irrigated, Irrigated, Pasture,			CRD	County	Non-Irrigated, Irrigated, Pasture,			
		\$/ac	\$/ac	\$/ac			\$/ac	\$/ac	\$/ac			\$/ac	\$/ac	\$/ac	
Northwest	Cheyenne	1,772	5,254	1,228	North	Clay	3,117	--	2,159	Northeast	Atchison	4,970	--	3,442	
	Decatur	2,121	--	1,469		Central	Cloud	2,969	--		2,056	Brown	4,484	--	3,106
	Graham	2,194	--	1,519			Jewell	2,809	--		1,946	Doniphan	4,662	--	3,230
	Norton	2,316	--	1,604			Mitchell	2,710	--		1,877	Jackson	4,874	--	3,376
	Rawlins	2,054	--	1,423			Osborne	2,581	--		1,788	Jefferson	5,423	--	3,756
	Sheridan	2,069	6,134	1,433			Ottawa	2,824	--		1,956	Leavenworth	6,682	--	4,628
	Sherman	1,736	5,146	1,202			Phillips	2,428	--		1,682	Marshall	4,039	--	2,798
	Thomas	1,960	5,810	1,358			Republic	3,166	--		2,193	Nemaha	4,296	--	2,976
				Rooks	2,349		--	1,627	Pottawatomie	4,428	--	3,067			
				Smith	2,530	--	1,753	Riley	4,674	--	3,238				
				Washington	3,435	--	2,380	Wyandotte	--	--	--				
	Average:	2,028	5,586	1,404		Average:	2,811	1,947		Average:	4,853		3,362		
West	Gove	2,052	--	1,421	Central	Barton	2,489	--	1,724	East	Anderson	3,714	--	2,572	
Central	Greeley	1,752	5,195	1,214		Dickinson	3,131	--	2,169	Central	Chase	2,893	--	2,004	
	Lane	1,979	--	1,371		Ellis	2,199	--	1,523		Coffey	3,534	--	2,448	
	Logan	1,860	--	1,289		Ellsworth	2,397	--	1,660		Douglas	5,391	--	3,734	
	Ness	2,116	--	1,466		Lincoln	2,522	--	1,747		Franklin	3,904	--	2,704	
	Scott	1,964	5,823	1,361		Marian	3,432	--	2,377		Geary	3,432	--	2,378	
	Trego	2,187	--	1,515		McPherson	3,129	--	2,167		Johnson	--	--	--	
	Wallace	1,694	5,023	1,174		Rice	2,594	--	1,796		Linn	3,849	--	2,666	
	Wichita	1,872	5,551	1,297		Rush	2,122	--	1,470		Lyon	3,516	--	2,435	
						Russell	2,261	--	1,566		Miami	4,210	--	2,916	
						Saline	3,081	--	2,134		Morris	3,104	--	2,150	
											Osage	3,534	--	2,448	
											Shawnee	5,376	--	3,724	
											Wabaunsee	3,106	--	2,151	
		Average:	1,942	5,398		1,345		Average:	2,669		1,849		Average:	3,812	
Southwest	Clark	1,388	4,116	962	South	Barber	1,938	--	1,342	Southeast	Allen	3,125	--	2,164	
	Finney	1,352	4,010	937	Central	Comanche	1,776	--	1,230		Bourbon	3,248	--	2,250	
	Ford	1,542	4,572	1,068		Edwards	2,036	6,036	1,410		Butler	2,500	--	1,732	
	Grant	1,257	3,726	870		Harper	2,361	--	1,635		Chautauqua	2,677	--	1,854	
	Gray	1,438	4,264	996		Harvey	3,227	--	2,235		Cherokee	3,397	--	2,353	
	Hamilton	1,090	3,232	755		Kingman	2,452	--	1,698		Cowley	2,392	--	1,657	
	Haskell	1,304	3,865	903		Kiowa	1,951	5,784	1,351		Crawford	3,517	--	2,436	
	Hodgeman	1,445	--	1,001		Pawnee	1,976	5,858	1,369		Elk	2,809	--	1,946	
	Kearny	1,258	3,730	871		Pratt	2,158	6,399	1,495		Greenwood	2,638	--	1,828	
	Meade	1,245	--	862		Reno	2,680	--	1,856		Labette	3,177	--	2,201	
	Morton	1,227	3,638	850		Sedgwick	5,860	--	4,059		Mongtomery	3,167	--	2,194	
	Seward	1,208	3,581	837		Stafford	2,199	6,519	1,523		Neosho	3,308	--	2,291	
	Stanton	1,193	3,538	827		Sumner	2,943	--	2,039		Wilson	3,022	--	2,093	
Stevens	1,228	3,642	851					Woodson	2,982	--	2,066				
	Average:	1,298	3,826	899		Average:	2,581	6,119	1,788		Average:	2,997	2,076		

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									State
	Northwest	West Central	Southwest	North Central	Central	South Central	Northeast	East Central	Southeast	
Non-Irrigated										
2016	2,186	2,094	1,400	3,031	2,878	2,783	5,233	4,111	3,232	2,994
2017	2,028	1,942	1,298	2,811	2,669	2,581	4,853	3,812	2,997	2,777
Difference, \$/ac	-159	-152	-102	-220	-209	-202	-380	-299	-235	-218
Difference, %										-7.3%
Irrigated										
2016	5,351	5,171	3,665	--	--	5,862	--	--	--	5,012
2017	5,586	5,398	3,826	--	--	6,119	--	--	--	5,232
Difference, \$/ac	235	227	161	--	--	257	--	--	--	220
Difference, %										4.4%
Pasture										
2016	1,420	1,360	909	1,968	1,869	1,808	3,399	2,670	2,099	1,945
2017	1,404	1,345	899	1,947	1,849	1,788	3,362	2,641	2,076	1,923
Difference, \$/ac	-15	-15	-10	-21	-20	-20	-37	-29	-23	-21
Difference, %										-1.1%

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