2017
Kansas County-Level Land Values for Cropland and Pasture

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Mykel R. Taylor  
Department of Agricultural Economics

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.

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)](image-url)
Table 1. Estimated Agricultural Land Values for 2017 using PVD Land Sales Data

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<tr>
<th>CRD</th>
<th>County</th>
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<th>Pasture, $/ac</th>
<th>CRD</th>
<th>County</th>
<th>Non-Irrigated, $/ac</th>
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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

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<th>Irrigated</th>
<th>Pasture</th>
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Note: Values for 2016 vary from previous publications of this bulletin due to updates in available data at the parcel level.