2014
Kansas County-Level Land Values for Cropland and Pasture

April 2015 (available at www.AgManager.info)
Revised July 2015

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Department of Agricultural Economics, Kansas State University
2014 Kansas County-Level Land Values for Cropland and Pasture

Mykel R. Taylor  
Department of Agricultural Economics  
April 2015 (Revised July 2015)

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 2010 through 2014. 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 KS-PVD. The land-value model used characteristics of the parcels sold to determine impacts on price. Characteristics such as parcel size, soil quality rating, 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 2013 estimates using PVD data and the 2014 land value estimates at the CRD level. Land values rose between 2013 and 2014 for all the CRDs in the state, with the largest dollar per acre increase in the Northwest district for irrigated land. Statewide, non-irrigated land increased by 6.2% between 2013 and 2014. Irrigated cropland across the state increased by 9.0% between 2013 and 2014, while pasture increased by 10.2% during the same period.

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

¹ The author would like to thank Leah Tsoodle (Kansas State University) and Mike Dahlman (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.
with less than 10 observed sales of irrigated land are not presented in the table. As a result, irrigated land values at the CRD level are only reported for the three Western regions and the South-Central region.

Another source of land value data are from the National Agricultural Statistics Service of the U.S. Department of Agriculture (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 displays the state-level estimates of land values from USDA-NASS versus the KS-PVD estimates for pasture, non-irrigated, and irrigated land between 2010 and 2014. The values shown in Figure 1 are listed in Table 3. The USDA-NASS land values estimates are consistently lower than the market-based KS-PVD estimates. The reason for this difference may be due to USDA-NASS survey respondents not being fully aware of how much land values have changed over the past several years.

Figure 1. Average Kansas Land Values and Percent Differences between KS-PVD Estimates and USDA-NASS Estimates (2010 – 2014)
Table 1. Estimated Agricultural Land Values for 2014 using PVD Land Sales Data

<table>
<thead>
<tr>
<th>CRD</th>
<th>County</th>
<th>Non-Irrigated, $/ac</th>
<th>Irrigated, $/ac</th>
<th>Pasture, $/ac</th>
<th>CRD</th>
<th>County</th>
<th>Non-Irrigated, $/ac</th>
<th>Irrigated, $/ac</th>
<th>Pasture, $/ac</th>
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<th>County</th>
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Note: Missing estimates for land value are due to insufficient observations of land sales.
### Table 2. Estimated Average Land Values by Crop Reporting District, 2013-2014

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**Difference, %**

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<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>8.6</td>
</tr>
<tr>
<td>Pasture</td>
<td>8.7</td>
<td>8.7</td>
<td>8.7</td>
<td>8.7</td>
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<td>8.7</td>
<td>8.7</td>
<td>8.7</td>
<td>8.7</td>
<td>8.7</td>
</tr>
</tbody>
</table>

### Table 3. Estimated Average Land Values by Type for Kansas, 2010-2014

<table>
<thead>
<tr>
<th>Year</th>
<th>Non-Irrigated Cropland</th>
<th>Irrigated Cropland</th>
<th>Pastureland</th>
<th>All Agricultural Land</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>1,608</td>
<td>2,660</td>
<td>1,092</td>
<td>1,787</td>
</tr>
<tr>
<td>2011</td>
<td>1,920</td>
<td>3,526</td>
<td>1,238</td>
<td>2,228</td>
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<tr>
<td>2012</td>
<td>2,381</td>
<td>4,706</td>
<td>1,437</td>
<td>2,841</td>
</tr>
<tr>
<td>2013</td>
<td>2,822</td>
<td>4,761</td>
<td>1,658</td>
<td>3,080</td>
</tr>
<tr>
<td>2014</td>
<td>2,990</td>
<td>5,169</td>
<td>1,802</td>
<td>3,320</td>
</tr>
</tbody>
</table>