Policy Brief

Agriculture Assessment in Nebraska

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Introduction

The Nebraska Legislature has held meetings and solicited input from a host of individuals and organizations who are advocating for: 1) property tax relief and; 2) revisions to agriculture assessment practices. This policy brief focuses on agriculture in Nebraska from three perspectives:

1. Why this is an issue;
2. Discussion of agriculture assessment practices;
3. Questions to consider.

Property Taxes in Nebraska

According to the US Bureau of Census, Nebraska like most Great Plains states relies heavily on property taxes to fund local government (municipalities, counties, school districts and special purpose districts). While local reliance on property taxes to fund local governments has declined since 1977, it still accounts for 79 percent in 2011 (see figure below).

Property Taxes as a Share of Local Taxes in Great Plains States

Source: US Census Bureau, State and Local Government Finances, multiple year.
Property Valuation by Class in NE

The graph below reflects the distribution of property value by class. Notice how NE bucked the national trend in recent years as the value of agricultural land is growing disproportionately to other classes, including residential. Agricultural land has grown from 24 percent of all valuation in 2007 to 45 percent in 2015. Residential property in NE is down from 52 to 36 percent during the same period.

Real Property by Class in Nebraska

Source: Nebraska Department of Revenue: [http://www.revenue.nebraska.gov/PAD/research/valuation.html](http://www.revenue.nebraska.gov/PAD/research/valuation.html)

* 2007 was chosen because it reflects the year when agriculture assessments were changed to 75 percent of market value.
Agriculture Shoudering Larger Property Tax Burden

Given the amount of local reliance on property taxes and the shift in the distribution of the property tax burden to agriculture, that sector is shoudering more of the property burden over the past decade (see below).

Source: Nebraska Department of Revenue: [http://www.revenue.nebraska.gov/PAD/research/valuation.html](http://www.revenue.nebraska.gov/PAD/research/valuation.html)

*2007 was chosen because it reflects the year when agriculture assessments were changed to 75 percent of market value.*
Agriculture in Nebraska

The size and number of farms has been shifting in Nebraska for at least the last forty years. The number of farms has dropped nearly 30 percent (28.2 percent) between 1980 and 2012 (see below). At the same time the average farm size has increased 33 percent, from 734 acres to 974 acres. Interesting, the amount of farming acreage in Nebraska has only decreased by 4.6 percent since 1980.

Nebraska’s Farmers and Ranchers Lead the Nation

Nebraska farmers and ranchers are national leaders in both commodities and livestock. Nebraska trails states such as Idaho, California, Wisconsin and New York in dairy, and southeastern states in poultry.

Commodities (highlights)
- Great northern bean production (rank 1)
- Pinto bean production (rank 2)
- Corn and grain production (rank 3)
- Dry edible bean production (rank 3)
- Off and on-farm grain storage capacity (rank 4)
- Cash receipts from crops, 2011 ($11.8 billion; rank 4)

Livestock, Dairy and Poultry (highlights)
- Commercial red meat production (rank 1)
- Commercial cattle slaughter (rank 1)
- Cattle on feed (rank 2)
- Cattle and calves (rank 2)
- Beef cows (rank 2)
- Livestock cash receipts, 2011 ($10.1 billion; rank 4)
Property Assessment Process

The guiding principle of any assessment process is uniformity. Ensuring uniformity requires important roles played by local governments as well as the State. Local governments – in Nebraska, this means counties – are responsible for the assessments and the State is responsible for overseeing and ensuring equalization in assessment practices across the state.

NE Constitutional Requirements

- “Taxes should be levied by valuation uniformly and proportionately upon all real property and franchises as defined by the Legislature except as otherwise provided in or permitted by this Constitution”
- “… the legislature may provide that agricultural land and horticultural land, as defined by the Legislature, shall constitute a distinct class of property for purposes of taxation and may provide for a different method of taxation…”

To date, Nebraska’s assessments are based on a fair and equitable estimate of the market value.

Valuation Methodologies

There are three generally accepted valuation methodologies used by assessors. The most common is the sales approach.

- Sales (Market) comparison Approach
  - Based on recent “arms-length” sales of comparable properties in area. The property is compared to recently sold properties.

- Cost Approach
  - Based on determining the value of vacant land then adding the cost of construction, minus depreciation. This approach requires recent sales of vacant lands and more recently constructed buildings from which construction costs can be derived.

- Income Approach
  - Value of property is based on its rental income, this is, its future ability to produce income for the owner. The income approach is based on the assumption that the value of a property is directly related to the income it will generate over its economic lifetime. The assumption is that there is a relationship between income and value. Value is the present worth of future benefits. This, thus, requires forecasting income and expenses. This method is used for apartments, office buildings, malls, and other property that generates a regular income.
According to the Nebraska Department of Revenue, each of these methodologies is appropriate:

The valuation of real property is determined according to professionally accepted mass appraisal techniques, including but not limited to the following: (1) comparing sales of properties with known or recognized values, taking into account location, zoning, and current functional use (also known as the sales comparison approach); (2) the income approach; and (3) the cost approach.

Source: http://www.revenue.nebraska.gov/PAD/PAD_faq.html#PAD06

Farmland Assessment

Often in heavy agriculture states, there is some form of break for farmland – today, every state offers some form of tax relief for agriculture land owners. In Nebraska, farmland is currently assessed at market value. Again, according to the Nebraska Department of Revenue:

The valuation for agricultural or horticultural land is valued according to market or actual value, no different than any other real property. However, Nebraska law allows for agricultural and horticultural land to be assessed at a rate lower than 100% of market value. State statute currently mandates agricultural or horticultural land to be assessed at 75% of its fair market value. Assessors use a three-year median agriculture land sales average creating a “lagged effect” between assessed value and current rental rates.

A market or sales comparison approach may be used to determine the actual value for each class and subclass of agricultural and horticultural land.

A valuation per unit of comparison, or per land capability group, may be made based on matched pairs analysis of comparable sales.

The income approach to valuation may be used to determine the actual value for each class and subclass of agricultural and horticultural land. An estimate of potential gross income is made from:

- Typical cash rents for comparable land; or
- Estimated landlord’s share of income on a crop/share basis; or
- For grassland, the rent should be based on animal unit months.

Typical expenses are deducted from the estimate of gross income to arrive at net income to the landowner. Indicated net income is capitalized or divided by the appropriate capitalization rate to estimate the value of the parcel.

Capitalization rate must consider:

- Market derived discount rate;
- Market derived rate of change;
- Market derived sinking fund rate; and
- Appropriate effective tax rate.
Reconciliation of final value is based on the appropriateness of the approach to value (market is preferred in the valuation of agricultural land) and the availability and reliability of the information used in each approach. Source: http://www.revenue.nebraska.gov/PAD/PAD_faq.html#PAD06

Use-Value Assessment of Agricultural Land

Use-value assessment (UVA) is a preferential property tax treatment for agricultural land owners which was first adopted in the United States in the 1960s to deal with the trend of urbanization. Under traditional assessment methods, property is assessed in its market value or highest and best use. The use-value approach assesses the property in its present use (Anderson, 1993).

Use-value assessment of agricultural land could reduce agricultural landowners’ property tax burdens, especially for those whose land is at the edge of urban area since the suburban land’s market value grows rapidly as the urban area expands. (State of Wisconsin, 2010; Anderson, 2012: 73)

According to Schwartz et al. (1976) and Anderson (1993), the main purposes of use-value assessment are:

1. preserve agricultural land to ensure food supply,
2. slow the conversion of farmland into non-farm use since the land development toward non-farm use is usually an irreversible process.

However, some researches point out that use-value property tax is ineffective. Firstly, it erodes the property tax base of local governments. Therefore, local governments have to raise the tax rate in order to stable their tax revenues. Other property owners have to pay more property tax.

Secondly, landowners might postpone sale of their land to enjoy reduced taxes and wait for the land prices raise. This rent-seeking action might delay the development of agricultural land. (Mark and Yamauchi, 1982)

Last but not least, agricultural land may be eligible for use-value property tax but actually zoned for non-agricultural purposes and many of them are even owned by real estate or property development business. According to Johnson and England (2015), The problem of “fake farmers whose property is... too large to mow, but too small to grow” causes property tax expenditure for local governments (State of Wisconsin, 2010; Lincoln Institute of Land Policy, 2015).
Agricultural Assessment in Other States

The focus of this review will be on the following states: Iowa, Kansas, Michigan, Minnesota, South Dakota and Wisconsin. These states were chosen because of their location and their different approaches to agriculture assessment. An important difference is that these states are generally heavy row crop production states and do not have the degree of irrigation found in Nebraska.

Interestingly, Nebraska is the only state in the region that uses a pure classified use at market value for agricultural land assessment. Some form of use-value assessment is the most common in the region.

According to a recent report by The Midwest Office of the Council of State Governments (CSG) (2012), half of the states in the US use a market-approach to agricultural land assessment.

As described in report, the CSG Midwest notes that the states in this region tend to tax farmland utilizing use-value assessment. The study goes on to note that four factors go into this assessment practice: commodity prices, soil productively, rental rates, production expenses and capitalization rates – interest rates for farm mortgages (6).

“In general, the formula economists use to calculate use-value assessment is this: UVA = net income/(interest rate + property taxes). This formula comes closest to determining what a farmer can afford to pay at current commodity and production costs” (6).

Another interesting note in the study is that only 11 states automatically enroll farmland into the use-value assessment program. Most states require an application by the landowner.
Iowa

Similar to Nebraska, Iowa has experienced rapid growth in property values for much of the past three decades. Land values peaked in 2013 at nearly $9,000 per acre and has since dipped to less than $8,000 per acre in 2015 (see below).

Also similar to Nebraska, Iowa has experienced a drop in the number of farms and an increase in average farm size.
Assessment of Farmland in Iowa

Agricultural land is based on productivity and the buildings are assessed separately. Thus, for farmland, the income capitalization approach is used, meaning using the expected benefits to determine the value of an income generating property. This requires the incorporation of key factors into the assessment such as soil quality and weather conditions. In Iowa, a soil map is used to generate a corn suitability rating from which income is estimated. Net earnings income is determined by a five-year rolling average of crop prices multiplied by yields minus expenses.

The other key element of the capitalization rate. This can be thought of similar to mortgage rate and captures the needed cash flow to service debt on land. As a general rule, the higher the capitalization rate, the lower the use-value (Anderson, 2012). Unlike many states that use Federal Land Bank (FLB) rates, Iowa set the capitalization rate at 7 percent.

Iowa also uses a five-year average of assessments to smooth year-to-year variation. In assessment year 2013, the productivity value was 24.7 percent of market value (http://tinlyurl.com/zh2wmx).

Kansas

Similar to Iowa, agricultural land in Kansas is valued based on its income or productivity. Interestingly, all agricultural land in Kansas is required to be inspected by the county or district appraiser at least once every six years. Valuations are required for each parcel based on both market and use-value, despite assessments being based solely on use-value.

Agricultural lands are classified by USDA soil type and productivity for each type of land is determined within each county or homogeneous region using an 8-year moving average of landlord net income. The capitalization rate is the sum of, “… the contract rate of interest for new federal land bank loans in Kansas on July 1 of each year averaged over a 5-year period… plus a percent not less than 0.75 percent nor more than 2.75 percent, as determined by the director of property valuation” (Anderson, 2012).

Interestingly, State Senator Jeff Melcher and R-Leawood introduced Senate Bill 178 in 2015 in order to value agriculture property the same as other property, but the bill wasn’t passed.

http://www.saline.org/Appraiser/KansasAgUseValuation.aspx

South Dakota

Agricultural land used to be based on market value (market sale prices). After 2010, agricultural land in South Dakota is assessed based upon its productivity value. Productivity value (also called formula value) is the starting point for valuing all agricultural land in the state assessed by Department of Economics at South Dakota State University.

http://dor.sd.gov/Taxes/Property_Taxes/Productivity_Valuation_for_Agricultural_Land_Assessments.aspx

There is a 15, 20, or 25 percent cap in place to control year-to-year increases or decreases in an agricultural property’s assessed value. (It’s adjusted by the county Director of Equalization.)
In states with a cap, there is a growing disparity between the farm’s actual value and the level at which it is being assessed. South Dakota is a case in point. As Sen. Rhoden of South Dakota notes, the state’s old market-based system had already created wide disparities in the appraisal of agricultural land from county to county. The 10 percent cap under the new use-value assessment, he says, made it impossible to close those disparities and to close the gap between a land’s taxable value and its actual value. (http://www.csgmidwest.org/policyresearch/1012aglandtaxes.aspx)

- Only tax a portion (85 percent) of the final use-value assessment. (http://www.csgmidwest.org/policyresearch/1012aglandtaxes.aspx)

**Minnesota Green Acres Program**
- Agriculture land owners must apply to Program
- Reaction to growing ag land values at rates greater than other property classes on urban fringes – trying to protect from development
- Ag land is assessed at best-use then compared to values in heavily ag counties; ag land owner gets the lower of the two valuations
- In 2012, 62/87 counties had acreage enrolled, equal to 13.6% of productive agriculture acreage
- 2008 audit found that tax savings for those in program = $35 million

**Michigan Farmland and Open Space Preservation**
- Act enables landowners to enter into development rights agreement with State
- Landowner entitled to income tax benefits and land is not subject to special assessments for sanitary, sewer, lights or non-farm drain projects
- Credits depend on tax assessed against property and the landowner’s income
- Landowner entitled to claim a MI tax credit equal to property taxes minus 3.5% of owner’s household income
- Requirements include size and use
- Agreements last anywhere from 10 to 90 years
- Can sell/transfer land without penalty
- Increases in taxable land held to lower of two rates: five percent or rate of inflation

**Wisconsin Use-Value Assessment**
- Specific only to land in agricultural use
- Aim was to reduce sprawl and provide tax relief to farmers
- Overseen by the Farmland Advisory Board
  - Involved in the Program’s management – federal land bank’s 5-year capitalization rate; annual reporting of program effectiveness
Questions for Consideration

1) **Recent trends in farmland values.** In a recent survey of the farm real estate market in Nebraska, average values decreased four percent between 2015 and 2016. This is the second consecutive annual decrease.

According to the report, “General expectations amongst panel members weakened for future increases in land value... Current crop prices once again were listed as the most negative factor for a second year... property taxes may have a negative bearing on the value of agricultural land, depending on future policies” (UNL Nebraska Farm Real Estate Market Highlights 2015-16, p. 3).

![Figure 2. Average Value of Nebraska Farmland, February 1, 2016 and Percent Change From Year Earlier](image)

Source: UNL Nebraska Farm Real Estate Market Surveys, 2015 and 2016.

2) **Use value assessment does not, by itself, reduce overall property tax burdens, it, at best, shifts property tax burdens.** Use-value assessment was implemented as an instrument for helping preserve farmland on urban fringes where development pressures drive up farmland values at rates higher than other property classes. The policy could, no doubt, help some farmers on the urban fringes in Nebraska but will have no effect on most farmers in the State.

3) **Implementation of use-value assessment in Nebraska will be challenged by topography and the types of farming in the State.** The following maps show the amount of variation in land rents based on pasture, irrigated and non-irrigated. There is great variation across the state in farm rents (and values) – which is partially a reflection of the variation in production capacity. As such there would need to be use-value assessments set up in different regions in the state.
4) What is the basis for determining use? Many states use crop production. That may work for crop and irrigated lands, but grazing is quite different. Based on conversations I have had with county assessors there is far more variation, on a farm-by-farm basis in grazing productivity, which will make it difficult for less productive farmers, especially in western Nebraska. He was confident that crops would be easier to convert to use-value as there is greater consistency in productivity across farms.
5) Use-value assessment risks the possibility of abuse by developers. According to Anderson (2012), states need to consider a penalty when land is removed from use-value. One study (England and Mohr, 2003 and 2006) suggests a high penalty per acre that declines with years of enrollment in the program. Such a policy may serve as a deterrent from rapid conversion of farmland to development.

6) K-12 is the driver of property taxes. If the aim is to provide property tax relief to farmers, the most direct means is to consider K-12 funding reform. Nebraska relies more heavily on local aids to fund K-12 education than neighboring states and the US average. Given the limited state or local revenue options available to local governments, this means that greater dependence on property taxes. According to the US Census Bureau, in 2011, K-12 education funding in Nebraska consisted of:
   - 53.5 percent local sources (national average was 43.4 percent);
   - 30.3 percent state sources (national average was 44.1 percent) and;
   - 16.2 percent federal sources (national average was 12.5 percent)

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Table 1. Average Reported Value of Nebraska Farmland for Different Land Types by Agricultural Statistics District, February 1, 2016

<table>
<thead>
<tr>
<th>Type of Land and Year</th>
<th>Agricultural Statistics District</th>
<th>Northwest</th>
<th>North</th>
<th>Northeast</th>
<th>Central</th>
<th>East</th>
<th>Southwest</th>
<th>South</th>
<th>Southeast</th>
<th>State&lt;br&gt;</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Dollars Per Acre</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Dryland Cropland (No Irrigation Potential)</td>
<td>$/acre</td>
<td>745</td>
<td>1,650</td>
<td>5,760</td>
<td>3,235</td>
<td>6,360</td>
<td>1,955</td>
<td>3,575</td>
<td>4,845</td>
<td>3,470</td>
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<tr>
<td></td>
<td>% change</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>5</td>
<td>7</td>
<td>-4</td>
<td>2</td>
</tr>
<tr>
<td>Dryland Cropland (Irrigation Potential)</td>
<td>$/acre</td>
<td>790</td>
<td>2,150</td>
<td>6,715</td>
<td>3,850</td>
<td>7,165</td>
<td>1,815</td>
<td>4,315</td>
<td>6,450</td>
<td>4,785</td>
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<tr>
<td></td>
<td>% change</td>
<td>6</td>
<td>-6</td>
<td>-5</td>
<td>-6</td>
<td>-2</td>
<td>-7</td>
<td>-4</td>
<td>-7</td>
<td>-5</td>
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<tr>
<td>Grazing Land (Tillable)</td>
<td>$/acre</td>
<td>565</td>
<td>1,325</td>
<td>3,955</td>
<td>2,460</td>
<td>4,370</td>
<td>1,070</td>
<td>2,240</td>
<td>3,200</td>
<td>1,495</td>
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<tr>
<td></td>
<td>% change</td>
<td>6</td>
<td>-5</td>
<td>7</td>
<td>-6</td>
<td>4</td>
<td>-6</td>
<td>-5</td>
<td>5</td>
<td>-1</td>
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<td>Grazing Land (Nontillable)</td>
<td>$/acre</td>
<td>480</td>
<td>740</td>
<td>2,475</td>
<td>1,925</td>
<td>2,795</td>
<td>915</td>
<td>1,690</td>
<td>2,205</td>
<td>975</td>
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<tr>
<td></td>
<td>% change</td>
<td>-2</td>
<td>-1</td>
<td>-4</td>
<td>-5</td>
<td>-7</td>
<td>-3</td>
<td>-7</td>
<td>-3</td>
<td>-3</td>
</tr>
<tr>
<td>Hayland</td>
<td>$/acre</td>
<td>890</td>
<td>1,460</td>
<td>3,430</td>
<td>2,585</td>
<td>3,200</td>
<td>1,700</td>
<td>2,340</td>
<td>2,780</td>
<td>1,965</td>
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<tr>
<td></td>
<td>% change</td>
<td>-20</td>
<td>-23</td>
<td>-6</td>
<td>-11</td>
<td>-22</td>
<td>-13</td>
<td>-21</td>
<td>-10</td>
<td>-17</td>
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<tr>
<td>Gravity Irrigated Cropland</td>
<td>$/acre</td>
<td>2,970</td>
<td>3,970</td>
<td>7,220</td>
<td>6,560</td>
<td>8,115</td>
<td>4,390</td>
<td>6,265</td>
<td>7,375</td>
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<td></td>
<td>% change</td>
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<td>-4</td>
<td>-2</td>
<td>-5</td>
<td>-4</td>
<td>-1</td>
<td>-12</td>
<td>-8</td>
<td>-6</td>
</tr>
<tr>
<td>Center Pivot Irrigated Cropland</td>
<td>$/acre</td>
<td>3,290</td>
<td>4,350</td>
<td>7,880</td>
<td>7,530</td>
<td>9,410</td>
<td>5,330</td>
<td>7,240</td>
<td>9,185</td>
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<td>% change</td>
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<td>-2</td>
<td>-8</td>
<td>-12</td>
<td>-3</td>
<td>-5</td>
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<tr>
<td>All Land Average</td>
<td>$/acre</td>
<td>820</td>
<td>1,245</td>
<td>5,980</td>
<td>3,780</td>
<td>6,990</td>
<td>1,960</td>
<td>4,255</td>
<td>5,675</td>
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<td>-2</td>
<td>-5</td>
<td>-8</td>
<td>-5</td>
<td>-4</td>
</tr>
</tbody>
</table>

Source: a UNL Nebraska Farm Real Estate Market Surveys, 2015 and 2016.
   b Value of pivot not included in per-acre value.
   c Weighted averages.
**Distribution of Nebraska Property Taxes by Source**

The pie chart below reflects the proportion of property taxes collected by type of entity. Not surprisingly, school districts account for the lion’s share of property tax collections in Nebraska. This is a pattern consistent with other states and why efforts to provide property tax relief tend to focus on school districts.

**K-12 Total Revenues: Fiscal Year 2011**

Source: US Census Bureau
Policy Options

- **No change to current agricultural assessment practices.** Nebraska has experienced a two-year decline in the farm real estate market. This is occurring in every region of the state, particularly in the south and north regions. According to a recent study by UNL’s Department of Agricultural Economics, the top factor negatively affecting land values is current crop prices, followed by property taxes and farm input costs (2016). Given that property assessments are based on market values; we should see a shift in assessments away from agriculture toward other property classes.

- **Adopt use-value assessment for agricultural land.** This is the most common method for agricultural assessment in the region. The State Constitution permits this assessment practice for agricultural land. The benefits of this policy change is for farmers on urban fringes, there would be shift away from farms to other classes of property, thereby giving property tax relief to those farmers. Use-value also aligns the property tax with the productive value of the land, as opposed to its market-value. Conversely, this is a tax shift by design (not tax relief) and will have little impact on most rural areas in Nebraska which are heavily agricultural. Further considerations:
  
  - Anderson (2012), strongly suggests penalties when land is removed from use-value to prevent potential abuse by developers. In addition, Anderson and England (2015) recommend strong eligibility rules, including, “Require Schedules E and F from their federal income tax returns to report rental income or farm use of the land” (p. 3).
  - Implementation is challenging in Nebraska given the significant variation in soil quality throughout the state. Many states use crop production. That may work for crop and irrigated lands, but grazing is quite different. Based on conversations I have had with county assessors there is far more variation, on a farm-by-farm basis in grazing productivity, which will make it difficult for less productive farmers.

- **Targeted property tax relief.** For instance, Michigan’s Farmland and Open Space Preservation Act enables landowners to enter into development rights agreement with State. Landowners are entitled to income tax benefits and land is not subject to special assessments for sanitary, sewer, lights or non-farm drain projects. Credits depend on tax assessed against property and the landowner’s income.

- **Focus on the driver of property taxes in Nebraska: K-12 education.** Compared to other states, Nebraska K-12 schools are funded by property taxes at a higher percentage and, conversely, less funding comes from the State. As such, K-12 accounts for an average of 60 percent of the total property tax bill. State aid to K-12 districts, particularly those outside metropolitan areas, could have one of the most direct effects on farmers’ property tax bills.
Reference


