

# *Agricultural Property Taxation: A Comparative Analysis*

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*by*

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## *Executive Summary*

The purpose of this study was to update a terminated Economic Research Service-USDA information series comparing property taxes across states. The top 25 agricultural producing states were studied along with Wyoming since it shares a border with the focused state, Nebraska.

State departments of revenue personnel from each of the states were surveyed and tax information compiled which provided the means to update the comparative tax analysis to 1998 for 19 of the 26 states. The remaining states lacked sufficient data to complete this update.

Major findings were:

Nebraska's 1998 taxes per \$100 of full market value of \$1.16 was 63 percent higher than the 19 state average of \$0.71.

Nebraska's 1998 taxes per \$100 of full market value of \$1.16 was 71 percent higher than the regional states (Nebraska and its six bordering states).

Thirteen of the 19 states for which estimates could be compiled reduced total dollar volume of taxes levied against agricultural real estate between the years of 1994 and 1998. Nebraska was one of those.

Eleven of the 19 states, including Nebraska, decreased their taxes per \$100 of full market value. For these states the average decline was 33 percent.

Nebraska experienced a 24 percent decrease in taxes per \$100 of full market value from 1994 to 1998 compared to 22 percent for the seven states in this region.

Although its taxes per \$100 of full market value has decreased in recent years, Nebraska still ranks at the top of the 25 major agricultural states as far as tax burden carried by agricultural real estate.

If Nebraska had decreased taxes levied per \$100 of full market value to the average of the 19 other states in this study (\$0.71 instead of \$1.16), annual net farm income for the state would have increased more than 6 percent in this decade.

The findings above would suggest a need for further study of this apparent property tax disparity still carried by the agricultural sector. In light of the flow of benefits received relative to tax burden, the current situation may well be putting this state's production agriculture at a competitive disadvantage.

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*Introduction*

Agricultural real estate values are very important to many different people, especially in Nebraska. Not only do the actual owners and buyers of land have an interest in it, but also local governments which levy agricultural property taxes. Real estate is a major portion of this state's farm sector and thus carries a large weight when considering tax revenues for local units of government. Property taxes also impact the stability of many farm businesses, particularly in periods of income shortfall (as now being encountered). The property tax burden, which is not directly tied to income earnings, can be quite burdensome.

The purpose of this UNL study was to update a comparative analysis of agricultural property tax across states. Starting with the Economic Research Service-USDA information series, which was terminated in 1994 due to budget cuts, we have updated this information series for the major agricultural states for the year, 1998. Much has changed in four years as shown in this study. Historical and current values for total taxes levied, average tax per acre, and tax per \$100 of full market value are found in the tables to follow.

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\*Conducted under contract with the NU Public Policy Center, Summer 1999; Professor Bruce Johnson, Department of Agricultural Economics, Faculty Advisor

## *Procedure*

In beginning this study, we were given the information compiled previously by staff of Senator George Coordsen's office. There had been some initial contact between his office and a number of states. It was our task to continue where they left off.

We had to first decide how many states we would focus on for this agricultural property tax survey. In consultation with Senator Coordsen's Office, it was our decision to focus primarily on the top 25 agricultural producing states in order to get a comprehensive perspective of agricultural taxation. These were selected on the basis of 1997 dollar volume of agricultural sales as reported by the National Agricultural Statistics Service, U.S. Department of Agriculture. Wyoming was then added to this list of 25 in order to include all bordering states to Nebraska, giving us a total of 26 states for our investigation.

Our next task was deciding what information we would need from our contacts. Not every state has the necessary information in the format we need. Many do not compile a state statistic of total taxes levied on agricultural real estate. However, if one can determine the total assessed value for agricultural real estate and an average millage rate for the state, then it is possible to calculate the total amount of taxes received; and then proceed to calculate the tax per \$100 of market value. It should be noted that some states have compiled data that represent the total amount of taxes levied on agricultural land and buildings; while for many of the others, we realized that state department of revenue personnel would need to make a series of special computations in order to arrive at the estimates we requested. Given our options, we chose this approach. The terminated

USDA series on agricultural taxation had attempted in those states to go down to the local levels of government and aggregate local taxes levied to a state total a most formidable and costly task (De Braal, 1993).

We then proceeded during June and July of 1999 with an extensive survey of state revenue divisions to obtain this property tax information. Using both telephone and electronic mail, we were able to identify those individuals who could provide us with the appropriate information. In numerous cases, these inquiries required several iterations before we could arrive at what we deemed a reliable estimate of property taxes levied in the respective state from agricultural property. The information collected from the states are presented in Appendix Table A-1.

The other important component of estimating the tax per \$100 of market value was having a total agricultural land and building value for each state. In reviewing the Economic Research Service (ERS) historical series on agricultural taxation, it was evident that values from the ERS-USDA land and building market value series was used for this analysis rather than value estimates provided by tax personnel in the individual states. Hence, in our investigation, we also used this ERS-USDA value series. We estimated this by first obtaining the 1996 land and building value for each of the 26 states as recorded by the ERS. These were unpublished estimates of total market value by state provided by ERS personnel and were the most recent estimate available as of June, 1999 (Jones, 1999).

Since the total value series was only for 1996, a time adjustment was needed to estimate 1998 values. To execute this, the published state per acre values for both years were gathered, and the

percentage changes were calculated for the period, 1996-1998. The 1996 total value of agricultural land and buildings was then adjusted by this percentage to arrive at a total land and building value for 1998 as shown in Appendix Table A-2.

Another portion of the study was to ascertain whether or not the state had a personal property tax for farm machinery and equipment. If they did, they were then asked how they applied their tax to the equipment and what the estimated tax amount for 1998 was in total dollars.

At this juncture, it is necessary to note a limitation of this study. In gathering the information, it was obvious that for some states it was easier to extract the information from than others. In two of the states, California and Pennsylvania, agricultural real estate was apparently not of significant importance for state officials to separate out in their annual tax reporting, and thus it was virtually impossible to extract reliable 1998 estimates for agricultural property taxes. In five other states Alabama, Georgia, Kentucky, Mississippi, and North Carolina there was a problem of insufficient data collected at the state level (since property taxation is a local tax function, these states do not compile state total tax collections). They could not provide the information needed for this study. Despite repeated follow-up inquiries with state personnel, it was not possible to construct a reliable state estimate for these five states, and hence there is no 1998 update provided in our findings. Moreover, we suspect that similar difficulties occurred in the earlier USDA series on state agricultural taxation; and that USDA published information for these same states were crude estimates at best.

## *Findings*

The ERS historical series on agricultural property taxes levied, updated to 1998, is shown in Table 1. State estimates of the total taxes received, average tax levied per acre, and taxes per \$100 of market value are presented for the various years.

The updated state estimates for 1998 reveal a number of important changes. As for total taxes levied from agricultural real estate, thirteen states increased the dollar amount from 1994 to 1998 while six states decreased the dollar volume. States showing the largest percentage increase were Indiana, Texas, and Arkansas, with increases of 112 percent, 97 percent, and 77 percent respectively. Those with largest declines were Wyoming, Colorado, and Idaho with decreases of 52 percent, 35 percent, and 17 percent respectively. Nebraska showed a 15 percent decrease in total agricultural taxes levied from 1994 to 1998 to place it approximately in the top third in terms of percentage changes in dollar volume.

Obviously, when compiled on a taxes per acre basis, several states extract much higher agricultural taxes on average than Nebraska, both historically and also in this recent update. However, this finding has limited meaning, given great disparities in average market value of real estate across states. For example, states like Florida, Ohio, and Indiana have much higher taxes levied per acre than those in Nebraska, but also their per acre average value is much greater as well. Given the above, the more appropriate unit of measure to use for comparative analysis of agricultural real estate taxes is taxes per \$100 of market value of real estate value.



**Table 1. Taxes levied on Agricultural Real Estate for 26 Top Ag Producing States, Selected Years.<sup>a</sup>**

| State           | Total Taxes Levied     |              |              |                   | Average Tax per acre |             |             |                   | Taxes per \$100 of Full Market Value |             |             |                   |
|-----------------|------------------------|--------------|--------------|-------------------|----------------------|-------------|-------------|-------------------|--------------------------------------|-------------|-------------|-------------------|
|                 | 1992                   | 1993         | 1994         | 1998 <sup>b</sup> | 1992                 | 1993        | 1994        | 1998 <sup>c</sup> | 1992                                 | 1993        | 1994        | 1998 <sup>d</sup> |
|                 | <i>Million Dollars</i> |              |              |                   | <i>Dollars</i>       |             |             |                   | <i>Dollars</i>                       |             |             |                   |
| <b>Nebraska</b> | <b>352.8</b>           | <b>398.0</b> | <b>426.0</b> | <b>364.0</b>      | <b>8.06</b>          | <b>9.10</b> | <b>9.74</b> | <b>8.32</b>       | <b>1.42</b>                          | <b>1.57</b> | <b>1.53</b> | <b>1.16</b>       |
| Alabama         | 10.9                   | 11.1         | 11.4         | e                 | 1.32                 | 1.32        | 1.32        | e                 | 0.16                                 | 0.15        | 0.14        | e                 |
| Arkansas        | 38.0                   | 38.6         | 38.5         | 68.0              | 2.76                 | 2.83        | 2.86        | 4.99              | 0.38                                 | 0.37        | 0.36        | 0.40              |
| California      | 314.1                  | 338.7        | 344.4        | e                 | 12.87                | 13.93       | 14.21       | e                 | 0.73                                 | 0.81        | 0.83        | e                 |
| Colorado        | 81.2                   | 83.2         | 89.6         | 58.0              | 2.83                 | 2.90        | 3.13        | 2.02              | 0.77                                 | 0.76        | 0.73        | 0.29              |
| Florida         | 143.8                  | 140.7        | 130.8        | 198.0             | 14.75                | 14.71       | 13.68       | 20.57             | 0.72                                 | 0.71        | 0.62        | 0.80              |
| Georgia         | 53.4                   | 52.4         | 53.5         | e                 | 5.39                 | 5.29        | 6.40        | e                 | 0.60                                 | 0.55        | 0.55        | e                 |
| Idaho           | 40.4                   | 39.8         | 39.7         | 33.0              | 3.64                 | 3.58        | 3.58        | 2.97              | 0.53                                 | 0.52        | 0.46        | 0.37              |
| Illinois        | 428.6                  | 431.2        | 465.7        | 530.0             | 15.18                | 15.32       | 16.55       | 18.81             | 1.01                                 | 1.02        | 1.01        | 0.81              |
| Indiana         | 131.0                  | 138.6        | 142.8        | 303.0             | 8.23                 | 8.71        | 8.97        | 19.01             | 0.63                                 | 0.64        | 0.61        | 0.89              |
| Iowa            | 350.2                  | 358.9        | 350.6        | 481.0             | 11.13                | 11.44       | 11.21       | 15.33             | 0.95                                 | 0.92        | 0.85        | 0.86              |
| Kansas          | 102.7                  | 107.1        | 111.5        | 135.0             | 2.22                 | 2.32        | 2.41        | 2.92              | 0.46                                 | 0.47        | 0.45        | 0.49              |
| Kentucky        | 41.6                   | 43.6         | 44.0         | e                 | 3.04                 | 3.19        | 3.22        | e                 | 0.31                                 | 0.29        | 0.28        | 0.16 <sup>f</sup> |
| Michigan        | 359.5                  | 359.4        | 176.1        | 185.0             | 35.65                | 35.97       | 17.63       | 18.46             | 3.23                                 | 3.18        | 1.45        | 1.00              |
| Minnesota       | 196.1                  | 198.2        | 206.2        | 183.0             | 7.45                 | 7.56        | 7.86        | 6.97              | 0.85                                 | 0.84        | 0.87        | 0.95              |
| Mississippi     | 22.7                   | 22.3         | 22.5         | e                 | 2.33                 | 2.29        | 2.31        | e                 | 0.32                                 | 0.30        | 0.28        | e                 |
| Missouri        | 75.9                   | 78.4         | 78.7         | 85.0              | 2.63                 | 2.73        | 2.78        | 2.97              | 0.38                                 | 0.38        | 0.37        | 0.27              |
| North Carolina  | 58.5                   | 59.8         | 60.3         | e                 | 6.90                 | 7.12        | 7.28        | e                 | 0.55                                 | 0.54        | 0.54        | e                 |
| Ohio            | 155.9                  | 167.0        | 175.4        | 297.0             | 10.52                | 11.42       | 11.99       | 20.22             | 0.84                                 | 0.90        | 0.87        | 0.88              |
| Oklahoma        | 63.6                   | 64.6         | 65.1         | 70.4              | 2.04                 | 2.07        | 2.09        | 2.26              | 0.41                                 | 0.41        | 0.39        | 0.34              |
| Pennsylvania    | 131.8                  | 132.8        | 133.7        | e                 | 17.79                | 18.13       | 18.49       | e                 | 0.98                                 | 1.04        | 0.97        | e                 |
| South Dakota    | 133.4                  | 152.0        | 139.9        | 155.0             | 3.61                 | 4.11        | 3.78        | 4.19              | 0.99                                 | 1.11        | 0.98        | 0.98              |
| Texas           | 367.5                  | 379.3        | 391.4        | 527.0             | 2.93                 | 3.02        | 3.14        | 4.21              | 0.63                                 | 0.64        | 0.64        | 0.67              |
| Washington      | 72.3                   | 74.2         | 77.0         | 111.0             | 5.63                 | 5.78        | 6.07        | 8.68              | 0.71                                 | 0.74        | 0.68        | 0.60              |
| Wisconsin       | 302.2                  | 308.2        | 307.6        | 297.6             | 18.68                | 19.27       | 19.46       | 18.86             | 2.15                                 | 2.07        | 2.00        | 1.38              |
| Wyoming         | 17.5                   | 18.5         | 18.6         | 9.0               | 0.74                 | 0.78        | 0.79        | 0.38              | 0.54                                 | 0.52        | 0.47        | 0.11              |
| 26 States       |                        |              |              |                   | 8.01                 | 8.27        | 7.45        | 9.59 <sup>e</sup> | 0.82                                 | 0.83        | 0.73        | 0.71 <sup>g</sup> |

<sup>a</sup> Detail for 1992, 1993, and 1994 based on Economic Research Service-USDA Agricultural Real Estate Tax Survey.

<sup>b</sup> Estimate for 1998 based on a UNL survey of taxation patterns for agricultural real estate across the 26 reported states, Summer, 1999.

<sup>c</sup> 1998 estimates based on reported state tax collections divided by the ERS-USDA estimates of acreage of agricultural land in farms for each state.

<sup>d</sup> 1998 estimate based on reported state tax collections divided by ERS-USDA 1998 unpublished estimates of total market value of agricultural land and buildings for each state.

<sup>e</sup> indicates insufficient data.

<sup>f</sup> figure given by Kentucky with no other information.

<sup>g</sup> refers to the 19 states in the analysis for which there was significant data to estimate 1998 taxes levied on agricultural land and buildings.

On a tax levied per \$100 of market value, eight of the states increased the level between 1994 and 1998, while eleven decreased. South Dakota remained the same. Five states which increased total dollar volume of tax revenue levied over this time period actually experienced a decrease in rate per \$100 of market value indicating that market value of real estate was appreciating at a rate faster than the tax levy rate.

As for the new 1998 benchmark of taxes per \$100 of market value, it is significant that Nebraska still ranks among the very highest, despite the fact its tax rate has declined in recent years. Nebraska had the highest tax per \$100 of market value of any of the surrounding states with a value of \$1.16 per \$100 of full market value (See Figure 1). The average of the seven states including Nebraska was much lower at a value of \$0.68 per \$100 of full market value or 41 percent lower than Nebraska. (Conversely, Nebraska's tax rate was 71 percent higher than the seven-state average.)

Only Iowa and South Dakota are remotely close to Nebraska in terms of taxes levied per \$100 of full market value, while the remaining border states are far below the Nebraska level in 1998. Differing tax configurations in combination with different population levels and economic activity contribute to these wide differences. For example, in Wyoming a coal severance tax on exported coal reserves from the state basically replaces property taxes on agricultural real estate for financing local government.

\*Average taking total taxes levied for all seven states and dividing by the total land value of all seven states.

Comparisons can also be made between Nebraska and all of the other states for which complete data was collected for 1998 (Figure 2). Nebraska is approximately 63 percent higher than the 19 state average of \$0.71 of tax per \$100 of market value. On this measure alone, it could be said the agricultural property tax burden in Nebraska is considerably higher than the average of the other major agricultural states in the U.S.

**\*\*Average taken by dividing total taxes levied for 19 states by the total ag land value for 19 states.**

As shown in Table 1, Nebraska ranks very high in tax per \$100 of market value in 1998, exceeded only by the 1998 rate in Wisconsin. Michigan also ranks relatively high. However, it is important to note that the top three states, Wisconsin, Nebraska, and Michigan, have all reduced their agricultural taxes levied per \$100 of market value considerably from 1994 values. Wisconsin and Michigan both had an estimated drop in their levied taxes by 31 percent from 1994 to 1998.

Wisconsin dropped from \$2.00 in 1994 to \$1.38 in 1998, while Michigan dropped from \$1.45 to \$1.00 per \$100 of market value. Moreover, in the case of Wisconsin, the rate is somewhat misleading due to the presence of a circuit breaker clause which ties the actual property tax to the individual's level of taxable income; thus the actual property tax burden itself in Wisconsin is much less regressive and more directly tied to ability to pay, an important tax consideration regarding tax equity and fairness (Wisconsin Department of Revenue, 1999).

In order to get a better regional perspective of where Nebraska lies in recent changes of agricultural tax burden, a comparison with bordering states was made, and percentage declines for the period 1994-98 calculated and presented in Figure 3. Nebraska is basically in the middle of the pack as far as action taken in the direction of lowering taxes levied per \$100 of market value.

Nebraska has seen a decrease of 24 percent since 1994 compared to an average decrease of 22 percent for the region comprised of Nebraska and its bordering states.

Surprising results in Figure 3 are the levy decreases in Colorado and Wyoming. It is possible the massive decreases in these states may be due to a shift in tax burden from agricultural property to other tax sources; however, documentation of this was beyond the scope of this inquiry. Whatever the causes, Colorado has seen a decrease of 60 percent and Wyoming 77 percent since 1994.

Several factors have contributed to Nebraska's decline in taxes per \$100 of market value. The first is the initiation of state legislated levy limits for local units of government which has phased in over the past few years. This has curtailed growth in spending of local governments, and in some instances where levies exceeded the limits, actually reduced expenditure levels. These levy limits, coupled with greater volume of state-aid to education flowing to local school districts, has contributed greatly to property tax reduction for agricultural property on a taxes per \$100 of market value basis.

State personnel were asked if their state levied personal property taxes on farm equipment and machinery. As shown in Appendix Table A-1, nine of the states surveyed reported that they do tax farm machinery and equipment. However, for many of these states, the dollar volume taxes levied is difficult if not impossible to estimate at the state level. For only three of the states, Nebraska, Idaho, and Indiana, was a total dollar estimate available of personal property taxes levied. For the year 1998, Nebraska had a total personal property tax revenue of \$25.9 million dollars from agricultural machinery and equipment followed by Idaho with \$10.6 million and Indiana with \$8.9

million dollars.

For the other states, a variety of factors precluded producing a state-level estimate of taxes levied.

For example, in Arkansas, the taxes are levied at the county level and dollar totals are not aggregated to the state level. Some state personnel even indicated that the process by which these taxes are levied are somewhat arbitrary and not uniformly applied from one county to the next.

For other states, like Florida and Oklahoma, the county personnel property taxes levied are aggregated to the state level; but there was no means to separate out the farm equipment and machinery share of the total.

Thus, we cannot make a definitive answer to the role of the personal property taxes on farm equipment and machinery. Nevertheless, we believe it is noteworthy that only a minority of the major agricultural states (35 percent) do assess such a tax, and that Nebraska is one of those. Moreover, it added to the property tax burden on production agriculture nearly \$26 million dollars in 1998.

### ***Conclusions and Implications***

Taxes levied on agricultural real estate in Nebraska has declined in recent years, the result of legislated levy limits on local units of government and greater state-level contributions to local school districts. Total dollar volume of taxes levied against agricultural real estate in Nebraska fell an estimated 15 percent from 1994 to 1998. Moreover, since market value of agricultural real estate was rising during this time period, the tax rate per \$100 of market value fell even further from \$1.53 to \$1.16, or a 24 percent decline.

However, despite these recent changes in tax policy, Nebraska, in 1998, still remained at the very top in any state comparison of taxes levied per \$100 of market value of agricultural real estate. Of the major agricultural states in the U.S., only Wisconsin remained higher in 1998; and that status is somewhat misleading due to Wisconsin's circuit breaker clause as previously discussed.

The dollar differential of this higher tax rate on agricultural property in Nebraska upon its agricultural sector is not insignificant. Had the 1998 tax rate per \$100 of market value been the average of the major agricultural states (\$0.71 instead of the Nebraska rate of \$1.16), total taxes levied against agricultural real estate would have been reduced by 39 percent to \$223 million in 1998 ( $364.0 \text{ mil.} \times .61 = \$223.0 \text{ mil.}$ ). Other things being equal, that would have resulted in an additional \$141 million of net farm income for Nebraska's agricultural sector. And given an average annual net farm income for Nebraska of \$2.2 billion for the 1990s, this tax savings would represent more than a 6 percent increase in net farm income.

In light of the above, there is evidence to suggest that Nebraska's tax configuration may be imposing a relatively greater tax burden on its agricultural sector than other states. Certainly, it is obvious with regard to property taxes. But the issue is much more complex than that and would require a more comprehensive tax study which investigates all aspects of state and local tax policy impact upon the agricultural sector. This may imply the need for a further comparative study of Nebraska against other states. For example, a case study comparing Nebraska to each of its six bordering states could be initiated, in which tax impact against essentially identical agricultural production units could be compared across state borders. In so doing, the full ramifications of state and local tax policy and intergovernmental transfer payments could be analyzed and



compared. If, upon this further investigation, true tax discrepancies are found to exist which essentially penalize this state's agricultural producers, then deliberate policy changes could be prescribed to restore Nebraska agriculture's competitive position.

Another implication of the relatively high property tax burden on the agricultural real estate base of the state is the issue of taxation relative to benefits received. Are owners of taxable agricultural real estate really receiving essentially comparable publically provided benefits for the property taxes paid? Obviously, tax collections for the provision of roads, bridges, fire protection, and law enforcement will directly benefit the property owner in some direct proportion to the value of real estate owned. Even taxes levied in Nebraska for funding Natural Resource District programs represent a direct relationship to utility and value of agricultural real estate. However, for the provision of public education, for which the majority of property taxes are levied, the relationship of agricultural property taxation to benefits received is minimal at best. Moreover, given the out-migration of high school graduates from our rural communities, there is a major disparity by which rural areas in general and agricultural property holders specifically subsidize urban areas with their well-educated young adults. While further comparative research of states' educational financing provisions is needed, there is evidence from this study of property tax burden to suggest that most other states rely more heavily upon other tax sources for financing their schools than does Nebraska (See Appendix B). If this state wants to continue to reduce property tax burden as well as enhance the relationship of taxes levied to benefits received, then it is likely that greater state aid to public education from income and sales taxes will be necessary.

Finally, the issue of valuation of agricultural real estate for property taxation is inherently involved in this comparative analysis of agricultural property taxes. The fact that Nebraska, by state constitutional mandate, attempts to assess agricultural real estate on the basis of 80 percent of market value implies a valuation process tied to the market dynamic irrespective of income-producing potential in agricultural use. While in theory it is true that agricultural real estate value should reflect its perceived income-earning potential, there is no question that given the limited number of real estate sales which take place over a period of time, there may be little relationship of transfer prices to the discounted present value of agricultural earnings. Moreover, this dilemma appears to be intensifying as buyers are acquiring agricultural real estate for a variety of reasons, many of which have little or no relationship to its agricultural production potential. What this implies is that assessed values derived for tax purposes gradually move beyond the income earning potential of the property so that even with a lower tax per \$100 of market value, the property tax burden for the agricultural producer becomes even more onerous (Spahr and Sunderman, 1998). Hence, the process of classifying property into agricultural and other classes is fundamentally part of the tax disparities revealed by this comparative state analysis.

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# **Appendix A**

**Appendix Table A-1. Information Compiled From Survey of State Revenue Personnel, Summer 1999.**

| STATE           | Total Taxes Levied on Farmland, 1998<br>(In Millions) | State 1998 Assessed L+B Value<br>(Estimated)<br>(In Millions) | 1998 Millage Rate/Tax Levy | Existence of Personal Property Tax on Agricultural Equipment |
|-----------------|---|---|----------------------------|--|
| <b>Nebraska</b> | <b>364</b>  |   |                            | <b>yes</b>   |
| Alabama         | a   | a   | a                          | no   |
| Arkansas        | 68 <sub>a</sub>                                       | 1,580   | 44.5 <sub>a</sub>          | yes <sub>a</sub>   |
| California      |   |   |                            |  |
| Colorado        | 58  | 741   | 78.8                       | no   |
| Florida         | 198   | 9,126   | 21.7                       | yes  |
| Georgia         | a   | a   | 25.2                       | a  |
| Idaho           | 33  | 8,921   |                            | yes  |
| Illinois        | 530   | 7,594   |                            | no   |
| Indiana         | 303   | 4,856   |                            | yes  |
| Iowa            | 481   |   |                            | no   |
| Kansas          | 135 <sub>a</sub>                                      | 4,429   | 88.0                       | no   |
| Kentucky        |   | 11,054  |                            | no   |
| Michigan        | 185   | 7,232   | 25.6                       | no   |
| Minnesota       | 183   | 22,027  |                            | no   |
| Mississippi     |   | 1,180   | 96.3                       | no   |
| Missouri        | 85 <sup>b</sup> <sub>a</sub>                          | 12,100 <sub>a</sub>   | a                          | yes <sub>a</sub>   |
| North Carolina  |   |   |                            |  |
| Ohio            | 297   | 6,900   | 43.1                       | no   |
| Oklahoma        | 70 <sub>a</sub>                                       | 8,800   | 80.0 <sub>a</sub>          | yes <sub>a</sub>   |
| Pennsylvania    |   |   |                            |  |
| South Dakota    | 155   | 11,899  |                            | no   |
| Texas           | 527   | 82,176  |                            | no   |
| Washington      | 111   | 7,872 <sub>a</sub>  |                            | yes  |
| Wisconsin       | 298   |   |                            | no   |
| Wyoming         | 9   | 139   | 66.1                       | yes  |
| 26 State        | 4,180 <sup>c</sup>                                    |   |                            |  |

<sup>a</sup> insufficient data.

<sup>b</sup> indicates a 1997 value.

<sup>c</sup> indicates total value of the 19 of 26 states for which there was sufficient data provided.

**Appendix Table A-2. Market Value Estimates for Agricultural Land and Appendix Table A-2. Market Value Estimates for Agricultural Land in Selected States**

| STATE                        | USDA<br>1996<br>L + B Value<br>(In Millions) | USDA<br>1996 Ave.<br>per acre | USDA<br>1998 Ave.<br>per acre | Ratio<br>1998 Value<br>1996 Value | Estimated<br>USDA<br>1998<br>L + B Value<br>(In Millions) |
|------------------------------|--|-------------------------------|-------------------------------|-----------------------------------|---|
| <b>Nebraska</b>              | <b>29,695</b>                                | <b>610</b>                    | <b>645</b>                    | <b>1.0574</b>                     | <b>31,399</b>   |
| Alabama                      | 13,594                                       | 1,320                         | 1,440                         | 1.0909                            | 14,830  |
| Arkansas                     | 14,836                                       | 1,010                         | 1,150                         | 1.1386                            | 16,892  |
| California                   | 72,105                                       | 2,400                         | 2,610                         | 1.0875                            | 78,414  |
| Colorado                     | 18,150                                       | 558                           | 618                           | 1.1075                            | 20,102  |
| Florida                      | 23,752                                       | 2,150                         | 2,240                         | 1.0419                            | 24,746  |
| Georgia                      | 16,025                                       | 1,360                         | 1,510                         | 1.1103                            | 17,792  |
| Idaho                        | 12,223                                       | 900                           | 1,020                         | 1.1333                            | 13,853  |
| Illinois                     | 58,000                                       | 1,900                         | 2,130                         | 1.1211                            | 65,021  |
| Indiana                      | 28,642                                       | 1,740                         | 2,060                         | 1.1839                            | 33,909  |
| Iowa                         | 47,876                                       | 1,450                         | 1,700                         | 1.1724                            | 56,130  |
| Kansas                       | 26,417                                       | 553                           | 577                           | 1.0434                            | 27,563  |
| Kentucky                     | 19,283                                       | 1,300                         | 1,450                         | 1.1154                            | 21,508  |
| Michigan                     | 15,579                                       | 1,420                         | 1,670                         | 1.1761                            | 18,322  |
| Minnesota                    | 29,079                                       | 1,030                         | 1,160                         | 1.1262                            | 32,749  |
| Mississippi                  | 11,557                                       | 917                           | 1,050                         | 1.1450                            | 13,233  |
| Missouri                     | 28,445                                       | 950                           | 1,070                         | 1.1263                            | 32,038  |
| North Carolina               | 18,120                                       | 1,900                         | 2,080                         | 1.0947                            | 19,837  |
| Ohio                         | 30,032                                       | 1,820                         | 2,040                         | 1.1209                            | 33,662  |
| Oklahoma                     | 18,609                                       | 547                           | 610                           | 1.1152                            | 20,752  |
| Pennsylvania                 | 19,292                                       | 2,270                         | 2,390                         | 1.0529                            | 20,312  |
| South Dakota                 | 14,038                                       | 310                           | 348                           | 1.1226                            | 15,759  |
| Texas                        | 71,894                                       | 540                           | 593                           | 1.0981                            | 78,950  |
| Washington                   | 17,538                                       | 1,120                         | 1,190                         | 1.0625                            | 18,634  |
| Wisconsin                    | 19,740                                       | 1,130                         | 1,240                         | 1.0973                            | 21,662  |
| Wyoming                      | 7,118  | 206                           | 222                           | 1.0777                            | 7,671   |
| <b>26 States<sup>a</sup></b> | <b>681,639</b>                               |                               |                               |                                   | <b>755,742</b>  |

<sup>a</sup> Summation of the top 25 agricultural producing states (as reported by the National Agricultural Statistics Service) and Wyoming.

# Appendix B

## *Appendix B*

Another measure that can be used to analyze the differences in property taxes between states is to compare the percentage of revenue for elementary/secondary education that comes from property taxes for each state. Educational financing is derived from three sources federal, state, and local. Analyzing what percentage of school revenue is gathered from each source is a useful tool in comparing states. This information was found using the U.S. Department of Education's web page to access the annual reports. The limitation of these tables is that the data is from 1996 but was the latest published on their web site at the time of this writing.

Appendix B-1 shows the sources of revenue for public schools to finance elementary and secondary schools. The information is split up into the three sources of revenue: federal, state, and local. The second portion of the table in columns 5-7 shows the percent distribution that each source carries. As shown in Appendix Table B-1, Nebraska has relied upon local sources to finance public elementary/secondary education. For the 1995-96 school year, Nebraska ranked highest with almost 64 percent of revenue for elementary/secondary schools coming from local sources. This compares with the national average of nearly 46 percent and the 26-state average of 43 percent. Other states that are comparable to Nebraska as far as percent of revenue from local sources are Illinois and South Dakota with percentages of nearly 61 percent each.

The next step is to break down the components of the local sources of revenue. This is analyzed in Appendix Table B-2. This table shows what percent of local revenue is composed of property taxes. As shown in this table, property taxes represented almost 83 percent of the total local revenue for elementary/secondary education in Nebraska in 1995-96. This placed Nebraska near



the top. The states ranking higher than Nebraska in this comparison were: Wisconsin (90 percent), Illinois (90 percent), South Dakota (86 percent), Texas (86 percent), Idaho (85 percent), and Florida (83 percent). Nebraska's 83 percent of local sources was higher than the 26-state average of 77 percent and also the United States average of 65 percent.

A final comparison that can be determined is to analyze what percent property taxes represent the total elementary/secondary education revenue from all sources. This is shown in Appendix Table B-3. As shown, Nebraska, with a percentage of 53 percent, ranked second among the 26 top agricultural producing states when comparing the percent of revenue received from property taxes for elementary/secondary education. The only state that received more revenue from property taxes for elementary/secondary education was Illinois with 55 percent. Nebraska's border state, South Dakota, also recorded a high percentage upon property taxes in the 1995-96 school year. These three states are very high compared to the 26-state average of 33 percent and the United States average of 30 percent.

Since the 1995-96 school year, Nebraska has undergone significant changes in its school financing configuration. With the enactment of levy limits on governmental units, educational financing has partially shifted from local property tax to state-aid revenues. During the 1996-97 school year, Nebraska relied on nearly 38 percent of school revenue from state aid (Hovey and Hovey, 1999). According to state aid consultants in the Nebraska Department of Education, the state share of Nebraska public school expenditures for the 1997-98 school year was about 41 percent. Moreover, given the future phasing in of a further reduction in the mandated levy limit for school financing (from \$1.10 to \$1.00 per \$100 of assessed value), the state aid share will increase even

further in the next few years. This change will bring the state closer to the national pattern, but, in all likelihood, the state will remain relatively heavily dependent upon local property tax financing.

While the re-balancing of educational financing is continuing for the state as a whole, there are local situations in which the state-aid share is actually going to diminish rather than increase.

Since the state-aid formula is largely driven by numbers of students overall and numbers of students with special needs, any area of the state having declining enrollments will, in turn, see a reduction in state aid. Many of these areas are heavily dependent upon the assessed agricultural land base, and therefore property tax relief for these will be less.

**Appendix Table B-1. Summary of Public School System Finances for  
Elementary/Secondary Education by State: 1995-96**

| State           | Elementary/Secondary Revenue |                               |                |                  | Percent Distribution |               |               |
|-----------------|------------------------------|-------------------------------|----------------|------------------|----------------------|---------------|---------------|
|                 | Total                        | Source                        |                |                  | From<br>Federal      | From<br>State | From<br>Local |
|                 |                              | Federal                       | State          | Local            |                      |               |               |
|                 |                              | <i>(Thousands of Dollars)</i> |                |                  | <i>(Percent)</i>     |               |               |
| <b>Nebraska</b> | <b>1,866,708</b>             | <b>100,886</b>                | <b>574,359</b> | <b>1,191,463</b> | <b>5.4</b>           | <b>30.8</b>   | <b>63.8</b>   |
| Alabama         | 3,360,759                    | 334,858                       | 2,138,717      | 887,184          | 10.0                 | 63.6          | 26.4          |
| Arkansas        | 2,164,787                    | 192,152                       | 1,296,247      | 676,388          | 8.9                  | 59.9          | 31.3          |
| California      | 31,051,638                   | 2,603,882                     | 17,061,474     | 11,386,282       | 8.4                  | 55.0          | 36.7          |
| Colorado        | 3,881,037                    | 194,998                       | 1,664,676      | 2,021,363        | 5.0                  | 42.9          | 52.1          |
| Florida         | 13,684,230                   | 942,159                       | 6,671,487      | 6,070,584        | 6.9                  | 48.8          | 44.4          |
| Georgia         | 7,731,368                    | 516,518                       | 4,086,584      | 3,128,266        | 6.7                  | 52.9          | 40.5          |
| Idaho           | 1,133,180                    | 80,486                        | 718,218        | 334,476          | 7.1                  | 63.4          | 29.5          |
| Illinois        | 12,667,206                   | 728,400                       | 4,191,483      | 7,747,323        | 5.8                  | 33.1          | 61.2          |
| Indiana         | 6,252,373                    | 306,715                       | 3,298,257      | 2,647,401        | 4.9                  | 52.8          | 42.3          |
| Iowa            | 3,005,578                    | 147,878                       | 1,486,426      | 1,371,274        | 4.9                  | 49.5          | 45.6          |
| Kansas          | 2,893,359                    | 140,242                       | 1,658,774      | 1,094,343        | 4.9                  | 57.3          | 37.8          |
| Kentucky        | 3,621,214                    | 305,059                       | 2,272,684      | 1,043,471        | 8.4                  | 62.8          | 28.8          |
| Michigan        | 12,545,250                   | 648,922                       | 8,462,687      | 3,433,641        | 5.2                  | 67.5          | 27.4          |
| Minnesota       | 5,914,991                    | 241,241                       | 3,435,468      | 2,238,282        | 4.1                  | 58.1          | 37.8          |
| Mississippi     | 2,238,187                    | 295,014                       | 1,285,429      | 657,744          | 13.2                 | 57.4          | 29.4          |
| Missouri        | 5,213,176                    | 324,566                       | 2,536,393      | 2,352,217        | 6.2                  | 48.7          | 45.1          |
| North Carolina  | 6,515,310                    | 443,121                       | 3,971,818      | 2,100,371        | 6.8                  | 61.0          | 32.2          |
| Ohio            | 12,102,503                   | 704,629                       | 4,831,397      | 6,566,477        | 5.8                  | 39.9          | 54.3          |
| Oklahoma        | 3,162,021                    | 278,281                       | 1,856,294      | 1,027,446        | 8.8                  | 58.7          | 32.5          |
| Pennsylvania    | 14,131,391                   | 760,182                       | 5,629,751      | 7,741,458        | 5.4                  | 39.8          | 54.8          |
| South Dakota    | 705,960                      | 67,493                        | 209,375        | 429,092          | 9.6                  | 29.7          | 60.8          |
| Texas           | 22,235,265                   | 1,613,462                     | 9,834,742      | 10,787,061       | 7.3                  | 44.2          | 48.5          |
| Washington      | 6,308,990                    | 366,716                       | 4,288,899      | 1,653,375        | 5.8                  | 68.0          | 26.2          |
| Wisconsin       | 6,297,934                    | 270,455                       | 2,869,875      | 3,157,604        | 4.3                  | 45.6          | 50.1          |
| Wyoming         | 661,848                      | 41,007                        | 339,629        | 281,212          | 6.2                  | 51.3          | 42.5          |
| 26 States       | 191,346,263                  | 12,649,322                    | 96,671,143     | 82,025,798       | 6.6                  | 50.5          | 42.9          |
| United States   | 289,229,749                  | 18,604,617                    | 139,167,980    | 131,457,152      | 6.4                  | 48.1          | 45.5          |

SOURCE: U.S. Bureau of the Census, Annual Survey of Government Finances

**Appendix Table B-2. Revenue From Local Secondary Education by State: 1995-96**

| State           | Total<br>Local<br>Revenue     | Property<br>Taxes | Property Taxes<br>As % of Total<br>Local Revenue |
|-----------------|-------------------------------|-------------------|--|
|                 | <i>(Thousands of Dollars)</i> |                   | <i>(Percent)</i>                                 |
| <b>Nebraska</b> | <b>1,191,463</b>              | <b>984,750</b>    | <b>82.7</b>                                      |
| Alabama         | 887,184                       | 367,785           | 41.5   |
| Arkansas        | 676,388                       | 513,747           | 76.0   |
| California      | 11,386,282                    | 8,455,584         | 74.3   |
| Colorado        | 2,021,363                     | 1,637,177         | 81.0   |
| Florida         | 6,070,584                     | 5,047,787         | 83.2   |
| Georgia         | 3,128,266                     | 2,507,488         | 80.2   |
| Idaho           | 334,476                       | 283,817           | 84.9   |
| Illinois        | 7,747,323                     | 6,940,343         | 89.6   |
| Indiana         | 2,647,401                     | 2,067,248         | 78.1   |
| Iowa            | 1,371,274                     | 1,095,521         | 79.9   |
| Kansas          | 1,094,343                     | 809,501           | 74.0   |
| Kentucky        | 1,043,471                     | 586,370           | 56.2   |
| Michigan        | 3,433,641                     | 2,731,977         | 79.6   |
| Minnesota       | 2,238,282                     | 1,590,564         | 71.1   |
| Mississippi     | 657,744                       | 476,024           | 72.4   |
| Missouri        | 2,352,217                     | 1,737,814         | 73.9   |
| North Carolina  | 2,100,371                     |                   |  |
| Ohio            | 6,566,477                     | 5,199,678         | 79.2   |
| Oklahoma        | 1,027,446                     | 723,693           | 70.4   |
| Pennsylvania    | 7,741,458                     | 5,796,057         | 74.9   |
| South Dakota    | 429,092                       | 367,713           | 85.7   |
| Texas           | 10,787,061                    | 9,228,351         | 85.6   |
| Washington      | 1,653,375                     | 1,255,389         | 75.9   |
| Wisconsin       | 3,157,604                     | 2,850,287         | 90.3   |
| Wyoming         | 281,212                       | 201,871           | 71.8   |
| 26 States       | 82,025,798                    | 63,456,536        | 77.4   |
| United States   | 131,457,152                   | 85,760,512        | 65.2   |

SOURCE: U.S. Bureau of the Census, Annual Survey of Government Finances

**Appendix Table B-3. Revenue From Property Taxes for Public Elementary-Secondary Education by State: 1995-96**

| State           | Total<br>Elementary/Secondary<br>Revenue | Total<br>Property<br>Taxes | Property Taxes As %<br>of Total Elementary/<br>Secondary Revenue |
|-----------------|--|----------------------------|--|
|                 | <i>(Thousands of Dollars)</i>            |                            | <i>(Percent)</i>   |
| <b>Nebraska</b> | <b>1,866,708</b>                         | <b>984,750</b>             | <b>52.8</b>  |
| Alabama         | 3,360,759                                | 367,785                    | 10.9   |
| Arkansas        | 2,164,787                                | 513,747                    | 23.7   |
| California      | 31,051,638                               | 8,455,584                  | 27.2   |
| Colorado        | 3,881,037                                | 1,637,177                  | 42.2   |
| Florida         | 13,684,230                               | 5,047,787                  | 36.9   |
| Georgia         | 7,731,368                                | 2,507,488                  | 32.4   |
| Idaho           | 1,133,180                                | 283,817                    | 25.0   |
| Illinois        | 12,667,206                               | 6,940,343                  | 54.8   |
| Indiana         | 6,252,373                                | 2,067,248                  | 33.1   |
| Iowa            | 3,005,578                                | 1,095,521                  | 36.4   |
| Kansas          | 2,893,359                                | 809,501                    | 28.0   |
| Kentucky        | 3,621,214                                | 586,370                    | 16.2   |
| Michigan        | 12,545,250                               | 2,731,977                  | 21.8   |
| Minnesota       | 5,914,991                                | 1,590,564                  | 26.9   |
| Mississippi     | 2,238,187                                | 476,024                    | 21.3   |
| Missouri        | 5,213,176                                | 1,737,814                  | 33.3   |
| North Carolina  | 6,515,310                                |                            |  |
| Ohio            | 12,102,503                               | 5,199,678                  | 43.0   |
| Oklahoma        | 3,162,021                                | 723,693                    | 22.9   |
| Pennsylvania    | 14,131,391                               | 5,796,057                  | 41.0   |
| South Dakota    | 705,960                                  | 367,713                    | 52.1   |
| Texas           | 22,235,265                               | 9,228,351                  | 41.5   |
| Washington      | 6,308,990                                | 1,255,389                  | 19.9   |
| Wisconsin       | 6,297,934                                | 2,850,287                  | 45.3   |
| Wyoming         | 661,848                                  | 201,871                    | 30.5   |
| 26 States       | 191,346,263                              | 63,456,536                 | 33.2   |
| United States   | 289,229,749                              | 85,760,512                 | 29.7   |

SOURCE: U.S. Bureau of the Census, Annual Survey of Government Finances