# Staff Papers Series 

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## 4

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HOW FARM REAL ESTATE TAXES ARE CALCULATED IN MINNESOTA

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by

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Minnesota has a complex, classified property tax system. Different classes of property are assessed at different percentages of market value, and state-paid property tax credits reduce the tax liability of some property owners. This paper describes some of the basic features of the Minnesota property tax system and illustrates how net property taxes on farm real estate are calculated. The examples are based on provisions in effect for taxes levied in 1985 and payable in 1986.

## PROPERTY CLASSIFICATION AND VALUATION

The first step in the property tax process is to determine the classification of all taxable property and to estimate its market value. This is the responsibility of local property tax assessors. Some local governments-townships and municipalities--may choose not to employ their own assessors. In such cases, the county is responsible for conducting the assessment at the expense of the local unit. In Minnesota, assessors are appointed, rather than elected, and must meet state certification requirenents.

Nearly all personal property is exempt from taxation. Consequently, the Minnesota property tax is almost exclusively a tax on real property--land and structures. Property taxes provide nearly all of the tax revenue of local units of government. There is no state property tax.

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## Classification

In general, real estate classified as agricultural land includes parcels of 10 acres or more used for agricultural purposes. This may include cropland, pastureland, timberland, waste and unusable land, and land withheld from use under federal farm programs. Parcels of less than 10 acres may also be classified as agricultural land if used primarily for agricultural rather than residential purposes. Farm real estate includes agricultural 1and, dwellings on agricultural land, and farm buildings and other structures.

Farm real estate which the assessor classifies as agricultural land is then listed as either homestead or nonhomestead property. If the principal residence of the owner is on the farm, the property is classified as homestead farm real estate. The homestead classification extends to each shareholder of a "family farm corporation" and each partner in a farm operation who is actively engaged in farming and resides on the land. Farmland need not be contiguous to qualify as homestead property. However, noncontiguous land cannot be farther than two townships (or cities) from the homestead. All farm real estate that does not qualify as homestead property is classified as nonhomestead agricultural property. For example, a farm leased to a tenant by an absentee owner would be classified as nonhomestead farm real estate.

## Estimated Market Value

The property tax assessor is responsible for estimating the current market value of all taxable property. The assessor is to determine, as closely as possible, the actual market value of property using whatever appraisal methods he or she deems appropriate. Actual sales prices are used as one measure of the validity of estimated market value. Studies comparing assessors' estimated market value with actual sale prices are conducted by the Minnesota Department
of Revenue. In valuing farmland, the law also instructs assessors "to consider and give recognition to its earning potential as measured by its free market rental rate."

Property tax assessors obviously have a difficult job in estimating current market values when real estate prices are changing rapidly. The market for agricultural land is a leading example. From the mid-1970's to 1981, the estimated value of farmland per acre in Minnesota increased by about 250 percent. Today, farmland values are probably less than half their 1981 levels.

## ASSESSED VALUATION

The assessed valuation of property is based on its classification, estimated market value, and the assessment ratios (percentages) established by state law. For a given class of property, the assessed (taxable) value of each parcel is calculated as follows:

| Estimated |
| :---: |
| Market Value | $\mathrm{x} \quad$| Assessment |
| :---: |
| Ratio |$\quad=\quad$| Assessed |
| :---: |
| Value |

The total assessed valuation of a taxing jurisdiction represents its tax base (i.e., the tax base of a township, city, county, school district, or special district). Since taxing jurisdictions overlap, property will be subject to taxes levied by several different governmental units.

## TAX RATES

Local units of government "certify" their property tax levies in dollars to the county auditor. The county auditor is then responsible for calculating property tax rates and determining the taxes payable for individual parcels of
property. Tax rates are calculated as follows:
$\frac{\text { Property Tax Levy }}{\text { Tax Base }}=\quad$ Tax Rate

For example, suppose a school district levies a property tax of $\$ 500,000$ and has a total assessed valuation of $\$ 12,500,000$. Its tax rate would be:

$$
\frac{\$ 500,000}{\$ 12,500,000}=.040=40 \mathrm{mil} 1 \mathrm{~s}
$$

Note that property tax rates are usually expressed in mills. A mill is $1 / 10$ of 1 percent. A tax rate of 40 mills means that the tax is $\$ 40$ for each $\$ 1,000$ of assessed (not market) valuation. Property tax rates are often referred to as mill rates.

An individual parcel of property will be subject to taxes imposed by several different governmental units. Farm real estate will typically be taxed by the county, school district, and township in which the property is located. It may also be taxed by one or more special districts (e.g., soil and water conservation districts, watershed districts, etc.). For purposes of illustration, let's assume that the following tax rates apply to a particular farm:

| Taxing Jurisdiction | Tax Rate |
| :--- | ---: |
| County | 30 mills |
| School District | 40 mills |
| Township | 4 mills |
| Special Districts | 1 mill |
| Total Tax Rate | 75 mills |

Suppose that a farm has an estimated market value of $\$ 660,000$ and an assessed value of $\$ 116,240$. If the tax rate is 75 mills, the gross tax on the farm will be:

| Assessed <br> Value | x | Tax <br> Rate | $=$ | Gross <br> $\operatorname{Tax}$ |
| :---: | :---: | :---: | :---: | :---: |
| $\$ 116,240$ | x | .075 | $=$ | $\$ 8,718$ |

The gross tax on farm real estate will be reduced by one or more state-paid property tax credits to arrive at the net property tax payable by the owner. The two most important credits are the state school agricultural credit and the homestead credit. One or more additional credits may apply in certain instances.

## EXAMPLE: HOMESTEAD FARM REAL ESTATE

To illustrate how the net property tax on a farm homestead is calculated, let's consider a 640 acre farm where the value of the farmland, farm buildings, and other structures is estimated by the assessor to average $\$ 1,000$ per acre and the homestead dwelling is valued at $\$ 20,000$. The 1985 estimated market value of the farm for taxes payable in 1986 is then:

House, Garage, and 1 Acre

House (including garage)
One Acre (on which house is located) Total
\$20,000
1,000
$\$ 21,000$

First 320 Acres (excluding house, garage; and 1 acre)

$$
\begin{array}{cc}
\text { Included in Homestead Base } & \$ 43,000 \\
\text { Excess over Homestead Base } & \$ 276,000 \\
\text { Total } & \$ 319,000
\end{array}
$$

Acres Over 320

320 Acres

$$
\$ 320,000
$$

## Total Estimated Market Value

| House, garage, and 1 acre | $\$ 21,000$ |
| :--- | :--- |
| First 320 acres (excluding house, |  |
| garage, and 1 acre |  |
|  |  |
| Included in Homestead Base | $\$ 43,000$ |
| Excess over Homestead Base | $\$ 276,000$ |
| Remaining 320 Acres | $\frac{\$ 320,000}{\$ 660,000}$ |
| Total |  |

The reason for dividing the estimated market value of the farm into these components is because two different assessment ratios apply to homestead farm real estate and because of the way in which the state school agricultural credit is calculated. This will become apparent as we go along.

## Assessed Value

The assessed value of property, as noted earlier, is calculated as a percentage of the assessor's estimated market value. These percentages are referred to as assessment or classification ratios. Assessment ratios are set by state law. For taxes payable in 1986 , the assessment ratios for agricultural homestead real estate are:

|  | Assessment Ratio |
| :--- | ---: |
| First $\$ 64,000$ of market value | $14 \%$ |
| Excess market value over $\$ 64,000$ | $18 \%$ |

The lower assessment ratio applies to what is known as the homestead base value. Under current state law, the homestead base value is adjusted automatically each year to reflect statewide changes in property values.

In our example, assessed value is calculated as follows:

House, Garage, and 1 Acre
Estimated Market Value
$\$ 21,000$
Multiplied by: Assessment Ratio
Equals: Assessed Value
$\quad .14$
$\$ 2,940$

First 320 Acres (excluding house, garage, and 1 acre

Included in Homestead Base
Estimated Market Value $\$ 43,000$
Multiplied by: Assessment Ratio
Equals: Assessed Value
$\quad . \quad 14$
$\$ 6.020$

Excess Over Homestead Base
Estimated Market Value $\quad \$ 276,000$
Multiplied by: Assessment Ratio _.... 18
Equals: Assessed Value
$\$ 49,680$
Total Assessed Value
$\begin{array}{cc}\text { Included in Homestead Base } & \$ 6,020 \\ \text { Excess over Homestead Base } & \frac{49,680}{155,700} \\ \text { Total } & \$ 55\end{array}$

Remaining Acres Over 320
$\begin{array}{lr}\text { Estimated Market Value } & \$ 320,000 \\ \text { Multiplied by: Assessment Ratio } & .18 \\ \text { Equals: Assessed Value } & \$ 57,600\end{array}$

Total Assessed Value

House, Garage, and 1 Acre
Next 319 Acres
$\$ 2,940$
55,700
Remaining 320 Acres
57,600
Total
$\$ 116,240$

Note that the lower assessment ratio (14 percent) applies to the value of the house, garage, and one acre plus any additional value up to the homestead base value of $\$ 64,000$. In this example, the estimated market value of the house, garage, and one acre is $\$ 21,000$; therefore an additional $\$ 43,000$ of estimated market value is assessed at the 14 percent rate ( $\$ 64,000-$ $\$ 21,000=\$ 43,000$ ). All estimated market value in excess of $\$ 64,000$ is assessed at the higher rate (18 percent).

## Gross Property Tax

The gross property tax on the farm is its total assessed value multiplied by the property tax rate. Let's assume in this example that the local property tax rate is 75 mills (i.e., the tax is 7.5 percent of the farm's assessed value). The gross tax before the subtraction of property tax credits is:

House, Garage, and 1 Acre
Assessed Value
Multiplied by: Tax Rate
Equals: Gross Tax

First 320 Acres (excluding house,
garage, and 1 acre)

$$
\begin{array}{lr}
\text { Assessed Value } & \$ 55,700 \\
\text { Multiplied by: Tax Rate } & .075 \\
\text { Equals: Gross Tax } & \$ 4,177.50
\end{array}
$$

Remaining Acres Over 320
$\begin{array}{lr}\text { Assessed Value } & \$ 57,600 \\ \text { Multiplied by: Tax Rate } & .075 \\ \text { Equals: Gross Tax } & \$ 4,320.00\end{array}$
Total Gross Tax
House, Garage, and 1 Acre
Next 319 Acres
$\begin{array}{r}220.50 \\ 4,177.50 \\ 4,320.00 \\ \hline \$ 8,718.00\end{array}$ Total

## State School Agricultural Credit

All farm real estate, both homestead and nonhomestead, is eligible to receive a state-paid school agricultural credit. This credit reduces the property tax liability of the owners of farmland. The credit is calculated as a percentage of the gross tax. The amount of this credit is paid directly to local school districts by the state. For taxes payable in 1986, the state school agricultural credit for homestead farm real estate is:

| Applies to <br> Tax on: | Percent of <br> Gross Tax |
| :---: | :---: |
| First 320 Acres (excluding |  |
| house, garage, and 1 acre) | $36 \%$ |
| Excess Over 320 Acres | $26 \%$ |

The school agricultural credit in this example is calculated as follows:
First 320 Acres (excluding house,
garage, and 1 acre)

Gross Tax $\$ 4,177.50$
Multiplied by: Percent Credit .36
Equals: School Agricultural Credit $\overline{\$ 1,503.90}$

## Remaining Acres Over 320

Gross Tax
Multiplied by: Percent Credit
Equals: School Agricultural Credit
$\$ 4,320.00$
.26
$\$ 1,123.20$

Total School Agricultural Credit
House, Garage, and 1 Acre $\$ 0$
Next 319 Acres
Remaining 320 Acres
1,503.90
1,123.20
Total
$\frac{1,123.20}{\$ 2,627.10}$

Note that the school agricultural credit does not apply to the tax on the house, garage, and one acre.

Property Tax after School Agricultural Credit
Gross Property Tax on Farm $\$ 8,718.00$
Minus: School Agricultural Credit $\quad 2,627.10$
Equals: Tax after Credit $\$ 6,090.90$

## Homestead Credit

Homestead farm real estate receives the same state-paid homestead credit as nonagricultural homesteads. This credit is calculated as a percentage of the property tax liability remaining after subtraction of the state school agricultural credit. For taxes payable in 1986 , the homestead credit is 54 percent of the tax up to a maximum credit of $\$ 700$. In this example, the homestead credit is:

| Tax after School Agricultural Credit | $\$ 6,090.90$ |
| :--- | ---: |
| Multiplied by: Percent Credit | .54 |
| Equals | $\$ 3,289.09$ |

Since this amount exceeds $\$ 700$, the farm in this example would receive the maximum credit of $\$ 700$.

Net Property Tax

The net property tax payable on the farm in this example is:

Gross Property Tax
Minus: School Agricultural Credit
Minus: Homestead Credit
Equals: Net Property Tax
$\$ 8,718.00$
2,627.10
700.00
$\$ 5,390.90$

The "effective" tax rate--net tax as a percentage of estimated market value--in this example is:

$$
\begin{aligned}
& \frac{\text { Net Property Tax }}{\text { Estimated Market Value }}= \begin{array}{l}
\text { Effective } \\
\text { Tax Rate }
\end{array} \\
& \frac{\$ 5,390.90}{\$ 660,000.00}=.0082=0.82 \%
\end{aligned}
$$

This example does not take into account any additional property tax credits which may apply to certain parcels of real estate. Other credits include the wetlands credit, native prairie credit, disaster credit, agricultural preserves credit, etc. Special tax provisions apply to the homesteads of blind and disabled persons.

## EXAMPLE: NONHOMESTEAD FARM REAL ESTATE

To show how the net property tax on nonhomestead farm real estate is calculated, let's use the same farm as an example. Now, however, we will assume that the owner does not live on the $f a r m$ and that the farm is rented to a tenant. Therefore, the farm does not qualify as homestead property.

As before, we will consider a 640 acre farm where the value of the farmland and farm buildings and structures is estimated by the assessor to average $\$ 1,000$ per acre and the farm dwelling is valued at $\$ 20,000$. The 1985 estimated market value of the farm for taxes payable in 1986 is then:

Assessor's Estimated Market Value

House, Garage, and 1 Acre

```
House (including garage)
    $20,000
One Acre (on which house is
        located)
        Total $21,000
```


## Remaining Acres

639 Acres
\$639,000

Total Estimated Market Value

$$
\begin{array}{lr}
\text { House, Garage, and } 1 \text { Acre } & \$ 21,000 \\
\text { Remaining } 639 \text { Acres } & \boxed{639,000} \\
\text { Total } & \$ 660,000
\end{array}
$$

The total estimated market value is the same as in the example for a farm homestead. The tax calculation is simpler in this case because nonhomestead farm real estate receives the same percentage state school agricultural credit regardless of the number of acres and because there is no homestead credit.

## Assessed Value

For taxes payable in 1986, the assessment ratio for nonhomestead farm real estate is 18 percent. In this example, assessed value is calculated as follows:

House, Garage, and 1 Acre

| Estimated Market Value | $\$ 21,000$ |
| :--- | ---: |
| Multiplied by: Assessment Ratio |  |
| Equals: Assessed Value | .18 <br> 3,780 |

Remaining 639 Acres

| Estimated Market Value | $\$ 639,000$ |
| :--- | ---: |
| Multiplied by: Assessment Ratio | .18 |
| Equals: Assessed Value | $\$ 115,020$ |

Total Assessed Value
House, Garage, and I Acre \$ 3,780
Remaining 639 Acres Total

115,020
$\$ 118,800$

Although the assessment ratio for nonhomestead farm real estate is the same regardless of farm size, this example separates out the assessed value of the farm dwelling, garage, and one acre because the state school agricultural credit does not apply to the tax on this portion of total estimated market value.

## Gross Property Tax

As before, the gross property tax on the farm is its total assessed value multiplied by the local property tax rate. Again, we will assume the property tax rate is 75 mills. The gross property tax before the suitraction of property tax credits is:

## House, Garage, and 1 Acre

| Assessed Value |  | $\$$3,780 <br> Multiplied by: Tax Rate <br> Equals: Gross Tax |
| :--- | :---: | ---: |
| . |  |  |

Remaining 639 Acres

$$
\begin{array}{lr}
\text { Assessed Value } & \$ 115,020 \\
\text { Multiplied by: Tax Rate } & \overline{\$ 8,626.50} \\
\text { Equals: Gross Tax } &
\end{array}
$$

Total Gross Tax

$$
\begin{array}{lr}
\text { House, Garage, and 1 Acre } & \$ 283.50 \\
\text { Remaining } 639 \text { Acres } & \underline{8,626.50} \\
\quad \text { Total } & \$ 8,910.00
\end{array}
$$

## State School Agricultural Credit

Nonhomestead farm real estate is eligible to receive the state school agricultural credit. For taxes payable in 1986 the credit is 26 percent of the gross property tax, excluding the tax on the house, garage, and one acre. The percentage credit is the same regardless of the size of
the farm. Recall that the credit for the first 320 acres of homestead farm real estate (excluding the house, garage, and one acre) was 36 percent.

The school agricultural credit in this example is:

640 Acres (excluding house, garage and 1 acre)

| Gross Tax | $\$ 8,626.50$ |
| :--- | ---: | ---: |
| Multiplied by: Percent Credit | .26 |
| Equals: School Agricultural Credit | $\$ 2,242.89$ |

## Net Property Tax

The net property tax payable on the farm in this example is:

| Gross Property Tax | $\$ 8,910.00$ |
| :--- | ---: |
| Minus: $\quad$ School Agricultural Credit | $\underline{2,242.89}$ |
| Equals: Net Property Tax | $\$ 6,667.11$ |

The effective tax rate is:

$$
\frac{\$ 6,667.11}{\$ 660,000.00}=.0101=1.01 \%
$$

Again, this example does not take into account any other property tax credits which may apply to specific parcels of property.

Note that the effective tax rate on nonhomestead farm real estate is higher than the tax rate on homestead farm real estate--in these examples, 1.01 percent for nonhomestead property as compared with 0.82 percent for homestead property. The difference is due to the homestead credit, the higher school agricultural credit that applies to homestead farm real estate, and the difference in assessment ratios.

## CONCLUDING NOTE

In Minnesota, local units of government levy property taxes--often subject to levy limitations imposed by state law. Local property tax levies relative to the property tax base determine the property tax rate. All property within a given taxing jurisdiction is subject to the same local tax rate. However, the effective tax rate on different classes of property will vary because of differences in assessment ratios and in state provisions for property tax credits. And the composition of the local tax base will also affect the distribution of property tax burdens among different classes of property.

The purpose of this paper was to illustrate how property taxes on farm real estate are calculated. These examples are based on provisions in effect for taxes payable in 1986. Keep in mind that property tax provisions are Erequently changed by the legislature.


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