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**AN ANALYSIS OF USE-VALUE  
TAXATION IN WAKE AND WILSON  
COUNTIES, NORTH CAROLINA, 1976**

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# **AN ANALYSIS OF USE-VALUE TAXATION IN WAKE AND WILSON COUNTIES, NORTH CAROLINA, 1976**

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## ABSTRACT

The 1973 North Carolina General Assembly enacted legislation providing for differential assessment of qualifying agricultural, horticultural, and forestry lands on the basis of use value rather than market value. This study examines the 1976 results and impacts of this legislation in Wake and Wilson counties. Wake County approved more applications for use-value taxation than any other North Carolina county, 4,095; Wilson had 31.

Data were obtained from the tax office of each county on the land-use schedule and the basic characteristics of the lands under use-value taxation. The use-value appraisal of the land only was twice as high in Wilson than in Wake County (\$633 vs. \$316 per acre). Use-value differences were attributed to differences both in appraisal procedures and in soil productivity.

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# AN ANALYSIS OF USE-VALUE TAXATION IN WAKE AND WILSON COUNTIES, NORTH CAROLINA, 1976

## INTRODUCTION

In 1973, the North Carolina General Assembly passed legislation providing for differential appraisal and taxation of qualifying agricultural, horticultural, and forestry land. Under this legislation, qualifying properties are taxed on the basis of 'use value' rather than 'market value.' Market value is the price at which land would change hands if it were in its highest and best use. Use value, however, reflects the value of the land in its highest and best agricultural use. In order to comply with this legislation, counties must adopt use-value appraisal schedules which itemize the use values of various categories of land based upon the land quality and its corresponding agricultural potential.

In order to qualify for this use-value appraisal, land must meet ownership, size, and income criteria. The land must be individually owned by a natural person or corporation whose principal activity is agricultural production. The owner must reside on the tract or have owned it for the four years preceding the use-value application. The tract must be at least 10 acres in size (for forest tracts, the minimum size is 20 acres) and have produced a

gross income averaging \$1,000 per year in the three years preceding application. There is no income requirement for forest tracts.

Through 1976, about one-third of the North Carolina counties had applications for use-value appraisal. Two such counties were Wilson and Wake. This study analyzes the results of this 1973 Statute for the year 1976 in these two counties.

This study explores two facets of the use-value taxation law in Wilson and Wake counties. The average use value of qualifying land in Wilson County was found to be twice as high per acre as that in Wake County. Possible explanations for this difference are analyzed. The different definition of qualifying tract in Wake County and the value added for tobacco allotment in Wilson County (but not in Wake County) are explored as possible explanations. Basic land characteristics are also analyzed as an explanation for the higher agricultural use value in Wilson County.

Second, the impact of the legislation is analyzed. The effect of the legislation on the tax base in the two counties is contrasted. Tentative conclusions are drawn about the effectiveness of the legislation in achieving alternative goals.

#### Study Area and Procedure

Wake County is an urban-influenced area with Raleigh at its center. Thus, since market value of rural land is considerably higher than its agricultural use value, Wake County is a prime candidate for use-value taxation. Also, a general reappraisal of the property in Wake County became effective in 1976, substantially increasing appraisals for tax purposes. More applications were approved for use-value appraisals in Wake County in 1976 than in any other North Carolina county.

Wilson County, on the other hand, is mostly rural; the urban influence is much smaller than in Wake County. Although it, too, was reappraised in 1976, only 31 applications for use-value appraisal were approved (26 were not approved).

Data for this study were obtained from the tax office in each county using both the use-value applications and tax cards.



Data on ownership, market and use appraisal values, land use, crops, and income were collected and tabulated. In Wilson County 30 of the 31 farms with approved use-value applications were used as the data base (one was unavailable at the time the data were collected). In Wake County, due to the large number of approved applications, 4,095, a systematic 5 percent sample was drawn. Every 20th approved application was drawn from the applications file (in parcel number order) and used for the sample. The total number of applications in the sample was 198. This sample is assumed to be representative of the population of approved Wake County applications for purposes of this study.

Table 1 shows characteristics of owners of tracts qualifying for use-value taxation in Wake and Wilson counties. The average length of time the farm was owned was 30 years in Wake County and 31 years in Wilson County.<sup>1</sup> The percent of owners residing on the tract for both counties is less than one-half.

Most of the farms in both counties that qualified for use-value appraisals were individually owned. Thus, the typical tract of land receiving use-value taxation in Wake and Wilson counties was an individually owned family farm which had been in the family for over a generation.

#### Location of Qualifying Farms

In Wilson County, a total of 57 applications for use-value appraisal were received in 1976. Thirty-one of these were accepted and taxed on the basis of present-use value, as the law provides. Three of these were forest tracts, comprising 9.1 percent of the land under use-value appraisal. Nineteen of the remaining 26 applicants were denied because the appraised tax value was no higher than the agricultural use value.

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<sup>1</sup>This figure is for those who did not reside on the tract. Presumably, the residing farmers would have owned the land at least as long, although those data are not available.

Table 1. Ownership Characteristics of Use-Value Parcels, Wake and Wilson Counties, North Carolina, 1976

Characteristics	Wake	Wilson
No. of Years Owned	30	31
Residing on Tract (percent)	36	44
Type of Ownership (percent)		
Individual	96.5	78.6
Partnership	3.5	7.1
Corporation	0 <sup>a</sup>	7.1
Other	0	7.1

<sup>a</sup>No corporations were found in the sample taken. Further sampling for another study revealed the presence of some corporations. There seem to be relatively few such qualifying corporate farms, so other statistics in this study are little affected by this fact.

Source: Wake County and Wilson County tax offices.

In Wilson County, 13 of the 30 sampled farms were located within the city limits of Wilson, the county seat. The remaining 17 farms were within 10 miles of the County Courthouse, with most within 4 miles. Those farms further out from the city and receiving use-value appraisals are located on U.S. Highway 301. (The 26 farms that were denied use-value appraisals are located farther away from Wilson than those that were accepted.)

In Wake County a very different pattern of location exists. Figure 1 shows a map of Wake County with the approximate location of the sample of parcels receiving use-value taxation.<sup>2</sup> Only two parcels are located near Raleigh. A closer study of the map reveals that most of the parcels seem to be located around the smaller

<sup>2</sup>The parcels were located on the map by parcel number, the first half of which corresponds to a numbered area of the county.

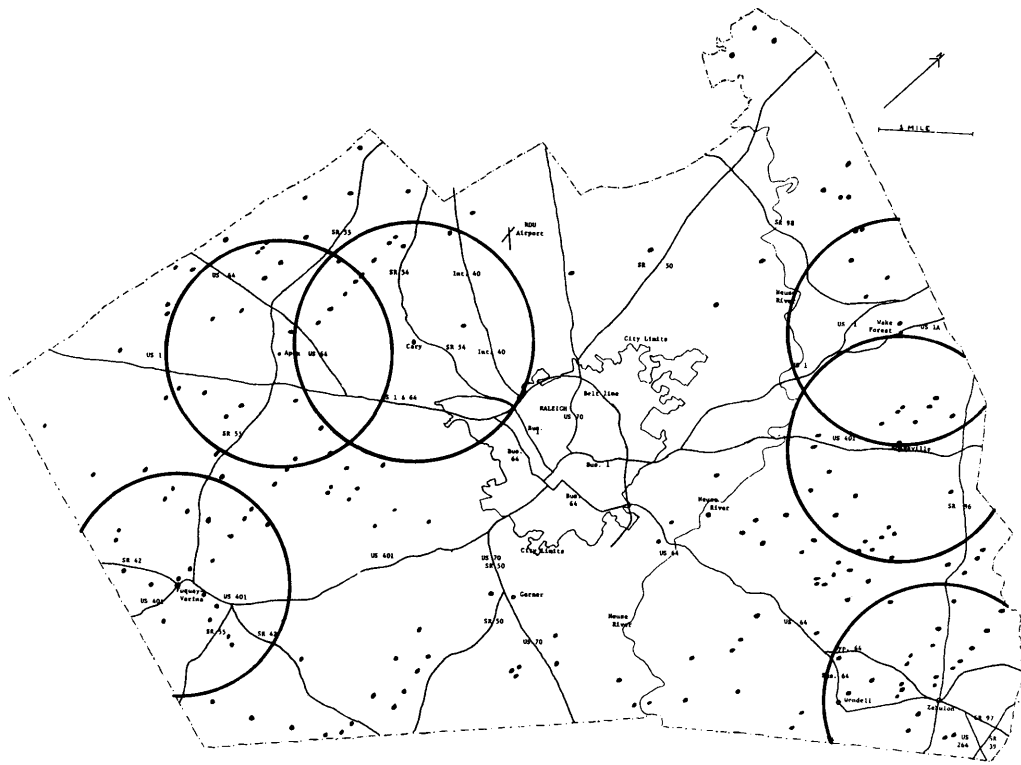


Figure 1. Location of Land Parcels Qualifying for Use-Value Taxation, Wake County, North Carolina, 1976

communities, cities, and towns of the county. An average of 18+ parcels are located within 5 miles of the 6 communities listed in the table (Table 2 and circled areas in Figure 1).

As indicated above, more than 4,000 applications for use-value taxation were approved in Wake County in 1976. Approximately 15 percent of these were forest parcels comprising 13.8 percent of the total use-valued land. On the basis of the 5 percent sample, Wake County had approximately 226,034 acres of land coming under the act in 1976 which comprised 41 percent of the total land in the county. These numbers are approximate because they are based upon the sample and expanded to proportion. This estimate of total acres placed under the use-value law in Wake County exceeds the farm acres in the preliminary reports of 1974 Census of Agriculture, 209,662 (U. S. Bureau of the Census, 1976).

Table 2. Number of Qualifying Parcels Within Given Radius of Towns in Wake County, North Carolina, 1976

Town	Miles from Town					
	0-1	1-2	2-3	3-4	4-5	0-5
	Number of Parcels					
Fuquay	3	3	3	6	4	19
Apex	0	3	4	6	7	20
Cary	0	0	1	5	5	11
Wake Forest	1	0	6	5	1	13
Zebulon	3	8	6	2	4	23
Rolesville	<u>1</u>	<u>2</u>	<u>8</u>	<u>11</u>	<u>1</u>	23
Average	1.33	2.67	4.67	5.83	3.67	

Average =  
18+  
Parcels

Source: Tax files, Wake County.

## REASONS FOR THE DIFFERENCE IN AGRICULTURAL USE VALUE

The purpose of this section is to investigate the difference in agricultural use value between Wake and Wilson counties. In doing so, adjustments are first made for several factors. Following these adjustments, other possible sources of difference are analyzed.

The use-value law is not specific as to how, exactly, the tracts are to be assessed. The value standards for agricultural land must reflect "the price estimated in terms of money at which the property would change hands between a willing and financially able buyer and a willing seller, . . . assuming that both of them have reasonable knowledge of the capability of the property to produce income in its present use and that the present use of the property is its highest and best use" [North Carolina General Statute 105-277.2 (5)], and that is the only real guideline given in the law for determining the use value of the property. Therefore, various appraisal methods are used, and differences arise as to how to handle tobacco allotments, etc.

Table 3 reveals that there is obviously a difference in the average use-value appraisal in the two counties, Wilson County having the larger of the two average appraisals. The average value of improvements is also about \$1500 per parcel higher in Wilson County. Since the improvement value is interpreted to be the same whether the farm is appraised at market or use value in both counties, this difference (about \$1,500) can be eliminated from the average use value of agricultural land since it is not a function of the use-value appraisal process in either county.

Another adjustment was made for size since the average parcel in Wilson County was 21.51 acres larger than the sampled Wake County parcels. To eliminate this difference due to size, the average appraisal figures were divided by the average acre figures--the

resulting four numbers are presented in Table 3. When this adjustment is made, the use value per acre is almost exactly twice as high in Wilson County (\$633 vs. \$316).

The apparent difference in use value may arise from two sources: (1) there may be a real difference in the intrinsic agricultural use value of the land of the two counties, and/or (2) there may be a difference in the use-value appraisal process in these two counties of North Carolina.

#### The Use-Value Appraisal Process

Two factors which could cause differences in appraisals are the land-use schedules themselves and the method by which they are applied. This section is devoted to examining the former aspect while a later section considers the latter.

Table 3. Comparison of Agricultural Use-Value Appraisals in Wake and Wilson Counties, North Carolina, 1976

Item	County	
	Wake	Wilson
Avg. Use-Value Appraisal	\$25,846	\$58,729
Avg. Improvements Value	\$ 8,414	\$10,145
Avg. Use Value of Land Only (total use value less improvements)	\$17,432	\$48,584
Avg. Use Value per Acre (avg. acres in parentheses)	\$ 468 (55.20)	\$ 766 (76.71)
Avg. Use Value per Acre of Land	\$ 316	\$ 633

Source: Tax files, Wilson and Wake counties.

Under the use-value taxation law, each county must develop a schedule for appraising farmland at its use value. The law gives no specific suggestion as to what method should be used to arrive at the numbers in the schedule. Two main methods of estimating use values in the land-use schedules were used. One, the market

approach, analyzes land sales within the county between two farmers. In this approach, sales are selected which are seemingly devoid of urban influences, thus providing an estimate of what the the land is worth solely for agricultural purposes.

The second main approach to estimating use value is the net income approach. In this approach the productivity of various types of land are estimated for a given crop or crops. The annual net income figure thus obtained is divided by a capitalization rate to determine the use value.

Although Wilson and Wake counties used markedly different approaches in arriving at their use-value schedules, the final products are remarkably similar if no tobacco allotments are involved. Table 4 presents use values for various types of land taken from the land-use schedules. However, this side-by-side comparison is somewhat misleading, as the tobacco allotment footnote suggests. The numbers in the two schedules without allotments are very similar, but the 80 cents per pound of tobacco allotment in Wilson County creates substantial deviation between the schedules of the two counties.

In Wilson County, predominantly rural, the market approach was used in constructing the use-value schedule. Thirty-four sales were analyzed to determine the value of different types of land as farmland. The open (crop) land was divided into three grades based upon productivity, and each was given an estimated value. In addition, a value for tobacco allotment was obtained. Since tobacco may not be grown without a prescribed government allotment (in pounds), it must be purchased from a previous owner along with land having an allotment or rented from someone who already has one. By analysis of sales and rents of these allotments, Wilson County officials estimated the economic use value of tobacco allotment to be 80¢ per pound. This total figure (80¢ times the pounds of allotment) for each farm was then spread over the open land acres and added to each category of open land that occurs on that farm.

Table 4. Agricultural Use Values by Type of Land for Wake and Wilson Counties, North Carolina, 1976

Type of Land	County	
	Wake	Wilson <sup>a</sup>
	(dollars)	
<u>Open Land</u> <sup>b</sup>		
A	525	550
B	450	470
C	350	360
D	250	-
Woodland	200	110-240
Wasteland	100-200	50

<sup>a</sup>Note: Wilson County also adds a value to open land based upon the amount of tobacco allotment (see text).

<sup>b</sup>A, B, C, and D are grades of open land. A is the most productive, B is the next most productive, etc.

Source: Wake County and Wilson County tax offices.

For example, assume that a farmer has a 26,000 pound allotment on a single farm containing 50 acres of open land. Assume further that the land is composed of 17 acres of grade A, 17 acres of grade B and 16 acres of grade C land. The 26,000 pounds would be multiplied by 80¢ and a total value added figure of \$20,800 determined for the farm. This amount is then divided by the number of open acres (50) to arrive at \$416 per acre of open land. This allotment value is then added to each of the 50 open acres. In this example, the tobacco allotment would almost double the appraised use value of the open land on the farm, raising the average per acre value of the open land from \$462 to \$878.

In Wake County, a combination of the net income and market approach was used to determine the use values in the land-use schedule. The net income approach was used in determining the crop



productivity of four grades of land. Land areas corresponding to these four soil groups were determined and located geographically through the use of soils maps of the county. The use value of a parcel could then be determined upon application by referring to the county maps. Several sales were analyzed to determine an appropriate capitalization rate.

Also, in Wake County a definition of "tract" was used which resembles the census definition of "farm." If all the farm parcels belonging to one owner taken together met the ten-acre minimum plus the other qualifying criteria, then the entire tract (including all parcels) was deemed to qualify. This means that in Wake County there are some parcels qualifying for use-value taxation that would not have qualified in Wilson County where a parcel of less than ten acres had to be contiguous with the boundary of another qualifying farm parcel of the same owner.

In this study, "split tract" is used to denote land (owned by one owner or corporation) composed of more than one parcel in which one or more parcels are not contiguous. Thus, a split tract can be said to be made up of two or more parcels.

In this section, two basic sources of difference in implementation of the use-value law have been found: Wilson County's value added to open land for landowners with tobacco allotments and Wake County's handling of split tracts.

#### Land-Use Differences

Appraisers in the two counties classified given parcels (or parts thereof) into several land type categories based upon soil productivity and how the land is used. How the parcels are divided among these categories will affect the average use value. For example, if two parcels are the same size, the one that is appraised in the higher-valued category (ies) will have the higher appraisal. This section explores land receiving use-value taxation by land-use category.

Table 5 shows the percentages of land in each category of the schedule (open, woodland, and wasteland) plus two more: building site and other. According to the law as it is interpreted in both

counties, the use value of building site acreage is taken to be its market value. Also, a qualifying parcel may have an area of land on it that does not qualify for use-value appraisal; this land is carried over to the use-value appraisal at market value. Thus, there are eight categories of land use in Wake and seven in Wilson County.

As indicated above, there were three classes of open land in Wilson County and four in Wake County. To compare the open land categories for the two counties, some adjustments are required. First, consider the percentage of open land. There was considerably more open land in Wilson than in Wake (Table 5). Conversely, there was much more forest or woodland in Wake than in Wilson.

This can be interpreted two ways. First, Wilson County may have more farming/grazing land than Wake on its use-value parcels. Alternatively, the Wake County appraisers relative to those in Wilson County may have been more inclined to classify pasture and partially cleared land in the woodland category.

Further analysis reveals that appraised use value per open acre is slightly higher for Wilson than Wake County since the use value of each category of open land is higher in Wilson County (Table 5). Using a weighted average approach (with the percentages as the weights and the appraisal figures from the schedule as the figures to be weighted), it was found that use values in Wake and Wilson counties were \$409 and \$497 per open acre, respectively.

More land in Wilson County farms was classified as "building site" and "other" than was observed for Wake County (see Table 5). Since these categories do not get any reduction in appraisal under the use-value law and since they typically carry a higher appraisal than those categories that do get reduced appraisals, this would tend to increase the average use value per acre in Wilson County.<sup>3</sup>

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<sup>3</sup>The total appraised use value for a farm includes those parts that did not get reduced appraisals under the law plus those that did.

Since there are no set value standards for these two categories (building site and other), the full impact of this differing distribution cannot be measured in this study.

Table 5. Land-Use Categories as Percentage of Total Land for Farms Qualifying for Use-Value Appraisal, Wake and Wilson Counties, North Carolina, 1976

Land-Use Categories	County	
	Wake	Wilson
	(percent)	
<u>Open and Pasture</u>		
A	9.2	31.8
B	12.5	27.7
C	11.0	7.9
D	<u>5.0</u>	<u>-</u>
Subtotal	37.7	61.4
Woodland	59.5	27.9
Wasteland	0.8	3.1
Building Site	1.6	5.0
Other	0.5	2.6

Source: Tax records, Wake and Wilson counties, North Carolina.

#### Crops and Soil Productivity

The principal determinant of agricultural use value is the crop-producing value of the land. If one tract of land can produce more money-making crops than another, then its agricultural use value should be higher. Although Wilson County did not use the net income approach in the process of constructing its land-use schedule, this section explores soil productivity as a possible explanation for the higher agricultural use values in Wilson County. According to one specialist:

In general, the soils of Wilson County have better physical properties, are easier to manage, and have

greater crop production potential than those in Wake County. Wilson County soils are typical of those of the Upper Coastal Plain being sandy to sandy loams in texture, well drained, easily tilled and very responsive to management. They tend to occur on relatively flat topography and are well suited for mechanization. These soils are susceptible to wind erosion but easily conserved with normal conservation practices.

Wake County encompasses parts of both the Upper Coastal Plain and the Lower Piedmont. Thus, the county contains some highly desirable soils similar to those in Wilson County, but the total area is limited. Most of the soils have characteristics associated with the Piedmont which are not as desirable as those associated with soils from the Coastal Plain. Piedmont soils, in general, have been eroded, exposing clay loam to clay materials in some cases, and are harder to till and manage. They are very susceptible to water erosion. The topography is more rolling and less adaptable to mechanization. In addition, a sizable portion of the county consists of soils derived from Triassic Basin sediments. These sediments occur in the western portion of the Piedmont region of the county. The soils contain montmorillonite clay causing poor drainage and erosion and are very difficult to manage. These soils have a very low crop production potential.

The soils of both counties are highly weathered, acid, and inherently infertile. However, these deficiencies can be easily corrected with proper liming and fertilization programs. The greater crop production potential of Wilson County is due mainly to superior soil physical characteristics that make these soils highly responsive to management.<sup>4</sup>

A breakdown of the cropland uses on the farms qualifying for use-value taxation under study is shown on a percentage basis in Table 6. The crops are listed in order of decreasing revenue -- the highest revenue producer, tobacco, is the first crop on the list. Wilson County has a higher concentration of both tobacco and grain (corn and wheat); and also of the first three crops taken together.

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<sup>4</sup>Dr. Gordon S. Miner, Soil Science Department, North Carolina State University.

The tobacco and soybean percentages are also widely different on the split and non-split tracts in Wake County. Tobacco constitutes a much higher proportion of the total cropland for the non-split farms than for the split farms. Table 7 is provided to give further evidence of this higher production capability of land in Wilson County. Crop yield information by county is provided for various crops for the years 1968-1974. In all but 3 (marked) cases, Wilson County had the higher yield per acre. The crop yield data of Table 7 demonstrate the greater agricultural capability of the soils of Wilson County and are consistent with Dr. Miner's analysis. These data are also consistent with the hypothesis that the agricultural use value of land in Wilson County is, intrinsically, higher.

Table 6. Crop Production on Farms under Use-Value Taxation, Wake and Wilson Counties, North Carolina, 1976

Item	Wake County			Wilson County
	Non-splits	Splits	Total	
Total Planted Acres	1,540.15	3,396.24	4,936.39	992.28
<u>Percent in:</u>				
Tobacco	36.78	12.37	19.98	27.20
Grain	28.57	25.44	26.41	49.09
Soybeans	23.18	33.79	30.48	19.55
Oats	1.60	10.45	7.69	2.06
Hay	1.76	1.06	1.27	0.00
Other	8.12	16.89 <sup>a</sup>	14.15 <sup>a</sup>	2.06
	<u>100.00</u>	<u>100.00</u>	<u>99.99</u>	<u>99.99</u>

<sup>a</sup>These figures include among other items, 244 acres barley, 55 acres milo, 26 acres alfalfa, and 40 acres lespedeza on one farm (a split tract) comprising 11.9 percent of total cropland for splits.

Source: Use-value applications, Wilson and Wake counties, North Carolina.

Table 7. Yields per Acre for Selected Crops, Wake and Wilson Counties, North Carolina, 1968-1974

Item	Yield per Acre							Units
	1968	1969	1970	1971	1972	1973	1974	
<u>Wake County:</u>								
Tobacco	1760	1820	2055	2110	2060	2030	1940	Pounds
Soybeans	12	26 <sup>a</sup>	17	23	22	17	19	Bushels
Oats	40	40	54	56	40	45	45	Bushels
Hay	1.45 <sup>b</sup>	1.80 <sup>b</sup>	1.45	1.65	1.55	1.76	1.30	Tons
<u>Wilson County:</u>								
Tobacco	1975	2095	2320	2265	2215	2305	2150	Pounds
Soybeans	15	26 <sup>a</sup>	22	26	29	22	23	Bushels
Oats	60	49	72	85	60	65	65	Bushels
Hay	1.25 <sup>b</sup>	1.15 <sup>b</sup>	1.95	1.95	2.05	2.00	1.75	Tons

<sup>a</sup>In this case yields per acre for the two counties were the same.

<sup>b</sup>In these 2 cases, Wake County had the higher yield per acre.

Source: North Carolina Agricultural Statistics (U. S. Department of Agriculture, 1970-1976).

#### Split Tracts

As mentioned earlier, in determining qualification for use-value taxation the definition of "tract" in Wake County was different from the one in Wilson County. In Wake County the definition of tract is similar to the U. S. Census definition of "farm."<sup>5</sup> This section explores this definitional difference in terms of explaining the agricultural use-value differences of land in the two counties.

Table 8 provides economic, ownership, and crop information on split tracts as compared with the other farms sampled from Wake

<sup>5</sup>See previous section on the "use-value appraisal process" for a more complete discussion of the distinction between tract and parcel in Wake County.

County (non-split tracts). Although the characteristics of the split tracts differ widely from the non-split tracts in some respects, they are about equal in terms of the average use value per acre of land.

Since the income figures are just rough estimates provided to the county by the landowner to demonstrate the fulfillment of the income criteria of the use-value law, the difference in average gross income of \$314 per acre between the two kinds of tracts does not, probably, indicate a true difference in the productive capacity of the land. As indicated above (and shown in the last line of the table) the average use value per acre is about the same for both split and non-split tracts. Thus, the different definition of land tract in Wake County seemingly made little or no difference in the average use value per acre of land in the county qualifying for taxation under the 1973 legislation. The effect of this Wake County definition of land tract as it relates to the impact of the legislation (including the tax bill) will be explored in a later section.

#### Evaluation of Differences

In the preceding sections, several factors relating to differences in appraisals per acre between Wilson and Wake counties were studied. The land-use schedules of the two counties were examined and found to be very similar, except for the value added for tobacco allotment in Wilson. The existence of split tracts in Wake was found to be insignificant in terms of appraisal values. The different distribution of land by land-use category was found to be important in explaining the higher use value in Wilson County. Also, the pattern of crop production showed a possible "natural" difference in favor of Wilson County farmland.

The treatment of tobacco allotment value also contributed to the difference in use value between Wake and Wilson counties. In Wilson County, 25 of the 30 parcels (83.3 percent) with use-value appraisals had tobacco allotments. These allotments, on the average, increased the use value of all the use-valued open land by \$302 per acre. In Wake County where tobacco allotments did not enter into

the computation of agricultural use value, only 41.9 percent of the sampled parcels had tobacco allotments (see Table 9).

Table 8. Comparison of Split and Non-Split Tracts in Wake County, North Carolina, 1976

Item	Split <sup>a</sup>	Non-Split
Percent of Land in Cropland	70.93	33.73
Gross Income per Acre Planted	\$1,084	\$770
Individual Owners (percent)	98.6	95.2
Partnerships (percent)	1.4	4.8
Avg. Years Owned	28.16	30.56
Percent Residing on Parcel	24.3	40.3
Avg. Value of Buildings	\$1,361	\$1,547
Avg. Value of Dwellings	3,759	8,440
Avg. Value of Other Imp.	0	354
Avg. Value of Total Imp.	5,120	10,380
Avg. Use-Value Appraisal	\$19,071	\$29,890
Avg. Use-Value Appraisal per Acre of Land	\$ 304	\$ 321

<sup>a</sup>Total farm data used for crop and income information, parcel information used for other values.

Source: Tax files and use-value applications, Wake County, North Carolina.

The potential effect of tobacco allotments on agricultural use value in Wake County was estimated using the same procedure used in Wilson County and one assumption about the distribution of tobacco allotments. In Wilson County, several parcels may share a tobacco allotment, while only one is eligible for use-value appraisal. In such cases, not all of the allotment value is added to the qualifying parcel; instead it is apportioned over the entire open land of the owner. As a result of this process, if the value added by tobacco allotment is separately calculated for each farm



eligible for use-value taxation, the allotment value added is overstated. On the average, this calculated value had to be reduced by 18.7 percent to arrive at the tobacco allotment value added per acre listed on the tax card at the Wilson County Tax Office.

Table 9. Extent of Tobacco Allotments on Farms Qualifying for Use-Value Taxation, Wake and Wilson Counties, North Carolina, 1976

Item	Wake	Wilson
Number of Allotments	83	25
Percent of Total Qualifying Applications	41.9	83.3
Avg. Acres Allotted	7.27	26.23
Avg. Lbs. Allotted	13,251	29,750
Avg. Value Added	-	\$ 352

Source: Tax files, Wilson and Wake counties, North Carolina.

If it is assumed that this same reduction and value per pound is appropriate in Wake County, the value added proxy figure for tobacco allotment is \$356 per acre (13,251 pounds x \$.80 X (1 - 18.7%) + 24.21 acres of allotment). This is quite close to the \$352 value due to tobacco allotment on Wilson County use-valued farms with tobacco allotments.

However, when this is spread over all parcels qualifying for use-value taxation, the effect of tobacco allotment is considerably smaller in Wake County. Since only 41.9 percent of the qualifying tracts in Wake County have allotments, use value is increased by \$174 per open acre (based upon total open acres).<sup>6</sup> Multiplying

<sup>6</sup>The average tobacco allotment pounds figure for all sampled parcels (including those without tobacco allotments) was multiplied by \$.80. This figure was then reduced by the 18.7% given above and spread over the average open acres in the sample. (5554.65 pounds X \$.80 X (1 - 18.7%) ÷ 20.774 acres.)

this \$174 by the percentage of land in open acres (38.0 percent as in Table 5), it is estimated that including tobacco allotment as a component of agricultural use value would add \$66 per acre to the total Wake County appraisal per parcel. Thus, \$66 is an estimate of the difference per acre of the total use-value appraisal explained by tobacco allotment.

The agricultural use value of land in Wilson County was \$317 per acre higher than in Wake County (Table 10). Sixty-six dollars of that has been explained due to a different appraisal practice related to tobacco allotment. The remaining difference, however, can be further broken down. The remaining difference of \$251 (\$317-\$66) can be separated into a part representing a different land-use distribution, and a part showing a difference in crop producibility.

In both the Wake and Wilson use-value schedules, all cropland values are higher than woodland values. Thus, it may be concluded that cropland is more valuable than woodland. The weighted average value of the open and woodland categories in Wake County is \$282 per acre; for Wilson it is \$402. Thus, it is estimated that \$120 per acre (\$402-\$282) of the remaining \$251 difference in use value is due to the higher cropland to woodland ratio in Wilson County than in Wake County.

The remaining \$131 per acre (\$251-\$120) may be attributed to differences in soil productivity (Table 10). This difference appears plausible when one considers both the higher proportion of the most productive grades of land and the greater impact of tobacco allotments in Wilson County.

**Table 10. Weights of Differences in Use-Value Appraisals, Wake and Wilson Counties, North Carolina, 1976**

Wilson County Use-Value Appraisal per Acre	\$633
Wake County Use-Value Appraisal per Acre	<u>\$316</u>
Difference in Appraisal per Acre	\$317
Adjustment for Appraisal Practice Differences Tobacco Allotment	<u>\$ 66</u>
Remainder	
Due to Value of Land	\$251
Explained Due to Land-Use Pattern (higher cropland to woodland ratio in Wilson County)	<u>\$120</u>
Due to Differences in Crop Producibility	\$131

Source: Tax records, Wake and Wilson counties, North Carolina.

## IMPACT OF LEGISLATION

Farmland preferential assessment acts have been enacted in about 40 states since World War II (Hady, 1970). The most commonly cited reasons for agricultural use-value legislation are (1) to preserve farm and open space land, and (2) to provide tax relief for qualifying property owners. The only definite result of the legislation in other states has been to provide tax relief.

What can be said about the impact of the legislation in North Carolina? First, consider the effect of the legislation on the tax bill.

### Tax Bill Effects

The average tax bill information for 1975 and 1976 for Wake and Wilson counties on a per-parcel and a per-acre basis is shown in Table 11, along with the average appraisal figures. In order to fully understand this table, it must be read in conjunction with the tax rates for Wake and Wilson counties shown in Table 12.

The tax bill per acre of the Wake County farms under the act in 1976 was, on the average, higher than in the previous year when the farms were not taxed on the basis of use value (\$3.65 vs. \$2.72). Two factors are responsible. First, Wake County prior to 1976 had a de facto use-value policy. Indeed, no acreage classified as farm was assessed for taxes at more than \$300 per acre (Pasour and Danielson, 1975, p. 30). Second, a general revaluation took place in Wake County (as in Wilson) in 1976; and, coupled with this, a legal suit was filed in Wake County which had an upward effect on the new appraisals for farmlands. The net effect was a 330 percent increase in farm appraisals of those farms now under use-value appraisal (Wilson's increase was 200 percent).

Table 11. Tax Bill Information, Wake and Wilson Counties, North Carolina, 1975 and 1976

Item	Wake		Wilson	
	Per Parcel	Per Acre	Per Parcel	Per Acre
Appraised Prior (1975) Value	15,948	289	44,586	581
Appraised Market (1976) Value	52,748	955	98,075	1278
Appraised Use Value (1976) (total-including bldg.)	25,846	468	58,729	766
Avg. Tax Bill on Prior (1975) Value	149.91	2.72	468.16	6.10
Avg. Tax Bill on Market (1976) Value	411.44	7.45	715.95	9.33
Avg. Tax Bill on 1976 Use Value	201.61	3.65	428.72	5.59
Market Less Use Value <sup>a</sup>	209.84	3.80	287.23	3.74
Avg. Tax Bill Savings (prior less use value)-51.70		-.93	39.44	.51

<sup>a</sup>These two items are kept by the county as a record of deferred taxes. When a farm with use-value taxation loses eligibility due to a change in use, "deferred" taxes plus interest must be paid for the preceding three fiscal years.

Source: Tax files, Wilson and Wake counties, North Carolina.

Table 12. Tax Rates, Wake and Wilson Counties, North Carolina, 1975 and 1976

Year	Wake	Wilson
	(¢/\$100)	(¢/\$100)
1975	94	105
1976	78	73

Source: Wilson County and Wake County tax offices.

As indicated previously, a large number of applications for use-value taxation were approved in Wake County. The large number of applications approved resulted not just from the appraisal of farmland much nearer to actual market but also from the definition of "tract" which allowed more land to qualify in Wake County.

The significance of split tracts can be determined from the data presented in Tables 13 and 14. Parcels sampled which came from split tracts amounted to 37 percent of the total parcels sampled. Due to the sampling method chosen (systematic 5 percent sampling), no more than 1 parcel from each split tract was used in the sample (i.e. each twentieth use-valued parcel was chosen for the sample and no split-tract contained more than 12 parcels). Therefore, the exact percentage of parcels in Wake County which are from split tracts cannot be calculated from this sample. However, evidence suggests it is approximately one-third of the total parcels (4,095).

The size (acreage) of the split tracts and their included parcels differs widely from the non-split tracts (single parcel tracts). However, the most significant fact, in terms of the impact of the Wake County definition of "tract," is that about 20 percent of the parcels on split tracts are less than 10 acres in size--or, in other words, would not have qualified for use value in any other North Carolina county. Thus, the less restrictive Wake County definition of "tract" did provide for a significant number of parcels to qualify under the act that otherwise would not have.

The tax bill for farms receiving use-value taxation in Wilson County was reduced by \$.51 per acre in 1976 relative to 1975 (\$6.10 versus \$5.59). However, in both Wake and Wilson counties there was a large reduction in 1976 taxes for qualifying properties resulting from the use-value legislation. Deferred taxes averaged \$3.80 per acre in Wake County and \$3.74 per acre in Wilson County.

Table 13. Wake County Split Tracts - Extent of Existence, 1976

Item	Number	Percent of Total (total item)
Sampled Parcels from Split Tracts	74	37.4 (198 sampled parcels)
Acres of Land in Sampled Parcels from Split Tracts	5,409	27.9 (total land in sample)
Acres of Land in Total Split Tract	7,323	37.8 (total land in sample)

Source: Tax files, Wake County, North Carolina.

Table 14. Wake County Split Tracts - Size Characteristics, 1976

Avg. Number of Parcels in Split Tract	3.45
Avg. Number of Parcels Less Than 10 Acres	.676
Total Number of Parcels Less Than 10 Acres	50
Percent of Total Split Tracts	19.6
Total Acres in Less Than 10 Acre Parcels	306.11
Percent of Total Land Sampled	1.6
Avg. Size of Parcels from Split Tracts	16.72 ac.
Avg. Size of Parcels from Single Parcel Tracts	60.72 ac.
Avg. Size of Split Tracts	159.97 ac.

Source: Tax files, Wake County, North Carolina.

#### Tax Base Effects

The difference in the effects on the total tax bill for the two counties is quite marked. This stems in large part from the difference in the number of use-value applicants. In Wilson County,

deferred taxes amounted to a negligible amount (approximately \$8600) when compared to the total tax base. In Wake County, however, deferred taxes amounted to about \$994,000,<sup>7</sup> or 3.9 percent of the total tax bill of the county (\$25.7 million). Another way of interpreting the impact of the Act on the tax base is that a tax rate 3.9 percent lower than the existing 78¢/\$100 would theoretically have been in effect without the 1973 Act in Wake County in 1976.

#### Longer Term Effects

The effect of the legislation in maintaining land in agriculture remains an open question in North Carolina. The law has been widely used in several counties of the state but has not been used at all in more than half of the counties of the state.

In the case of Wake County, where the potential for urban uses around the city of Raleigh is high, the sample of farmers placing land under use-value taxation in this study suggests that land close to the city was affected very little by use-value taxation because little land was placed in the program. However, even where most of the agricultural land in a county is placed under use-value taxation, it does not necessarily mean that the legislation will preserve agricultural land. It may merely be a way of reducing the tax burden until such time as the land is converted to another use.

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<sup>7</sup> Estimate obtained from Wake County tax office.



## SUMMARY AND CONCLUSIONS

Legislation providing for certain agricultural lands to be taxed on the basis of agricultural use value instead of market value was enacted in North Carolina in 1973. This study has examined the application of the use-value taxation law in Wilson and Wake counties, North Carolina, in 1976. Wilson County approved 30 applications for use-value taxation while Wake County approved 4,095 applications in 1976. Data were obtained on the ownership, crop production, appraised tax value, appraised agricultural use value and other characteristics of the farms placed under the 1973 legislation from the application forms and tax cards in the tax office of each county. A 5 percent sample was taken in Wake County due to the large number of applications.

The per acre agricultural use value was found to be about twice as high for the qualifying farms in Wilson County than those in Wake County (\$633 vs. \$316). The difference in the average use-value appraisal per acre in the two counties was analyzed to determine the importance of various factors contributing to this difference. Also, the impact of the law on the tax bill of individual landowners and the county tax base was estimated.

Several factors were found to contribute to the higher average use-value appraisal per acre in Wilson County. In Wake County no value was added for tobacco allotments and the ratio of woodland to cropland was higher. Also, the soils differ in the two counties, with soils in Wilson County having a higher agricultural use value.

The appraised use value of open land was increased in Wilson County on farms having tobacco allotments. It was estimated that including the value of tobacco allotment in the use-value appraisal in Wake County in the same way would have increased the average use-value appraisal by \$66 per acre.

The higher ratio of cropland to woodland in Wilson County was estimated to account for \$120 of the difference in use-value appraisals in the two counties. The remaining \$131 per acre was taken to be an estimate of the higher level of soil producibility in Wilson County.

Tax bills were higher for the landowners qualifying for use-value taxation in Wake County in 1976 than in 1975 in spite of the fact that almost no agricultural land was taxed on the basis of use value in 1975.<sup>8</sup> The dominant factor in the large increase in use-value applications in Wake County was a general reappraisal, effective in 1976, which greatly increased appraised tax values of agricultural land. Deferred taxes in Wake County in 1976 totaled approximately one million dollars.

Preservation of agricultural land is another commonly cited reason for agricultural differential assessment legislation. Although most of the farmland in Wake County was placed under the Act in 1976, it is too early to assess the long-term effects of the Act in preserving agricultural land.

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<sup>8</sup>Only three applications for agricultural use-value taxation were approved in Wake County in 1975.

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