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# Effects of Urban Expansion on Ownership, Use and Taxation of Agricultural Land

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## PREFACE

This study was made cooperatively by the Missouri Agricultural Experiment Station and the Farm Taxation and Rural Government Group, Agricultural Finance Branch, Farm Production Economics Division, U. S. Department of Agriculture. Project leaders were Frederick Stocker and Thomas F. Hady, Farm Taxation and Rural Government Group; and Frank Miller, Professor, Department of Agricultural Economics, University of Missouri. The authors gratefully acknowledge the counsel of these men and the suggestions of William Heneberry and Ronald Bird of the U. S. Department of Agriculture. We are particularly indebted to Hady for his suggestions and contributions to the manuscript.

Appreciation also is expressed to J. Wendell McKinsey and V. James Rhodes, chairmen of the Department of Agricultural Economics while the work was in progress, to members of the St. Louis County Planning Commission, the St. Louis County recorder and many others who cooperated in the work.

The principal reason for undertaking the study was to find ways to improve the public revenue system in urban-fringe areas. It is hoped that the findings will help to accomplish this purpose.

# Effects of Urban Expansion on Ownership, Use and Taxation of Agricultural Land

## INTRODUCTION

### The Property Tax Problem

The recent pattern of rapid population growth in the United States has been characterized by an outward expansion of cities into surrounding rural areas. For a number of reasons, this expansion has been scattered and uneven, causing many tracts of undeveloped land to be by-passed. This familiar type of growth has been labeled "urban sprawl" or "leap-frogging" and is a matter of concern to public officials, land planners, economists, and farmers.

Many authorities consider this unregulated urban expansion to be an inefficient use of land resources and a cause of unduly high expenditures for public services because of duplication and over-extension. It raises the cost of these services and leads to higher taxes than otherwise would be needed. This study was undertaken to determine what effects urban expansion has had on a specific rural-urban fringe area in St. Louis County. It considers the effects on assessment, taxation, ownership and land use.

Most of the revenue of the state government comes from sales, use and income taxes, but local governments lean heavily on the property tax. Of the total real estate assessed valuation in 1963, 30.5 percent was represented by farm lands, which were assessed at a statewide average of \$32.64 per acre compared with \$30.99 in 1962. The impact of urbanization on farm land values is indicated by the fact that St. Louis and Jackson Counties combined contained 12.7 percent of the total farm land value of the state. St. Louis County's farm land assessment value of \$72.4 million, was second to Jackson County (\$99.6 million) and over one-fourth more than the combined values of the third and fourth ranked counties, both of which lie adjacent to St. Louis County. In 1963, per acre assessed values were \$445.11 in St. Louis County, up from \$366.97 in 1962, but less than in Jackson County (\$545.56).

Further evidence of the influence of urban expansion upon the value of farm land in the rural-urban fringe is found in comparisons of census and assessment data (Table 1). In 1959, the value of farm land and buildings in Franklin, Jefferson, and St. Charles Counties, which are contiguous to St. Louis County, ranged from \$110.10 to \$257.67 per acre. In St. Louis County, the value was \$898.77 an acre. Assessed valuations varied from \$33.50 to \$69.00 in the adjacent counties

and were \$358.32 per acre in St. Louis County. For the State, the average value of farm land and buildings was \$110.57 an acre. The average assessed value was \$29.25 an acre.

When the census data were adjusted to 1963 values by using the land price index for Missouri, the value per acre of farm land and buildings went up to \$1,024.77 in St. Louis County. The assessed value rose from \$358.32 in 1959 to \$445.11. While land values increased 14.0 percent, assessments went up 24.2 percent. The increase might have been much greater if substantial adjustments had not been made following the appraisal that began in 1956. Land in Jackson County was not appraised and the assessed valuation rose from \$262.26 in 1959 to \$545.46 per acre in 1963, an increase of almost 108 percent. In Jefferson County assessed valuations were high in relation to counties outside major metropolitan influences, but the advance from 1959 to 1963 was only 19.7 percent. In the state, the increase was 11.6 percent (\$29.25 to \$32.64 per acre, Table 1).

### Objectives of the Study

The work was guided by the following objectives:

1. to determine the effects of urban expansion on rural and rural-urban real estate taxes, and on land ownership and use in an urban fringe area;
2. to compare assessment practices on urban, urban-fringe and rural lands for the purpose of determining if inequalities exist;
3. to see to what extent inequalities in assessment conform to or run counter to various criteria of fairness in taxation;
4. to evaluate alternative methods of assessment; and
5. to develop standards that can be used to make the property tax conform more nearly with concepts of tax equality in areas where inequalities exist under current procedures.

### The Study Area

The data were obtained from a section of St. Louis County northwest of the City of St. Louis, Mo., and contained the following types of information:

1. the trend of assessments and taxation in a rural-urban fringe area;
2. changes in the ownership pattern of farm land;
3. changes in the land use pattern;
4. the assessed valuations of land under varying types of ownership, present use, and potential future use;
5. market value of land by size of tract; and
6. changes in market value of a tract throughout the transition period from agricultural to urban use.

TABLE 1--CENSUS AND ASSESSED VALUES PER ACRE OF FARM LAND AND BUILDINGS  
IN SELECTED COUNTIES AND IN MISSOURI, 1959 AND 1963

Area	Value per Acre		Assessed Value				Change in Assessment per Acre 1959-1963
	1959* Census	1963** Adjusted	1959***	<u>Assessment</u> Census	1963****	<u>Assessment</u> Adjusted Census	
				(percent)		(percent)	(percent)
Franklin	\$111.10	\$ 126.67	\$ 33.50	30.0	\$ 33.65	26.6	+0.4
Jefferson	114.15	130.15	66.56	58.4	79.64	61.2	+19.7
St. Charles	257.67	293.79	69.00	25.6	83.22	28.3	+20.6
St. Louis	898.77	1,024.77	358.32	39.9	445.11	43.4	+24.2
Cass	151.91	173.21	39.54	26.0	41.91	24.2	+6.0
Clay	278.22	317.22	72.46	26.0	76.00	24.0	+4.9
Platte	196.67	224.24	61.67	31.4	57.71	25.7	-6.4
Jackson	322.64	367.87	262.26	81.3	545.46	148.3	+108.0
State	110.57	126.07	29.25	26.5	32.64	25.9	+11.6

\* United States Census of Agriculture, 1957, Vol. I Part 17, Missouri County Table I

\*\* The index of average value per acre reported in Farm Real Estate Market Developments CD-66, October 1964, U. S. Department of Agriculture was used in adjusting land values.

\*\*\* Seventeenth Annual Report of the Proceedings and Decisions of the Missouri State Tax Commission Chapter IX Table I

\*\*\*\*Eighteenth Annual Report

The St. Louis area has experienced a consistent and substantial population increase since 1900. St. Louis County has had the most rapid growth. The General Land Use Plan<sup>1</sup> developed by the County Planning Commission forecasts a 1980 population of 1,175,000. Extensive physical improvements—especially streets, sewers, schools and recreational areas—will be required. The plan attributes the location of residential and other urban developments to topography, the location of highways, sanitary sewers, public services, zoning regulations and the availability of suitable land at reasonable prices. Most of the level land has been absorbed. Approximately 60 percent of the vacant space is flood plain of the Missouri, Meramec, and Mississippi Rivers or land with extreme slopes. Open, high flat land comprises 25 percent of the total county area.

The Florissant area contains most of the level land that is suitable for urban expansion at low development costs. The population has increased rapidly since 1950. Much of the growth occurred in an extension of existing development, and resulted in large compactly improved areas. This was an economical development pattern, but planners contend that not enough space was provided for parks, playgrounds, and other public areas. In the outlying portions of the county, residential development has been scattered so widely that providing needed facilities and services is difficult.

The Florissant Basin was chosen for the study because it constitutes one of the most important agricultural sections of St. Louis County, other than the flood plains of the Missouri River. Essentially, it lies between the river and well-developed residential and commercial areas. Most of the farm land is well adapted topographically to both agricultural and urban uses and lies adjacent to a rapidly expanding suburban area. It includes tracts in all phases of transition from rural to urban uses, all of which were appraised for tax purposes in 1959 and 1960. Many people believe that farm land, particularly in rural-urban fringe areas, often is assessed at a lower percentage of its market value than other real estate. In other words, preferential assessment is practised even though the law specifies that valuations shall be uniform. Since all of the real estate in the study recently had been appraised, the data afforded an excellent opportunity to test this hypothesis. The area is outlined in Figure 1.

The Planning Commission of St. Louis County has recommended only two uses for the land in the northern sector. The river bluff section, the sink hole section, and the flood plains on the north have been designated as open space, the remainder as rural, with recommendations for its retention in agriculture until needed for urban use which is estimated to be 1980 or later. Most of the data were collected from the open space and rural sectors. The sector to the south which is, or soon will be, developed for urban uses constitutes a small portion of the total area. The intent was to secure assessment and taxation data on land in all phases of transition from agricultural to urban uses.

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<sup>1</sup> Harland Bartholomew and Associates, *General Land Use Plan*, (St. Louis: St. Louis County, January, 1960).

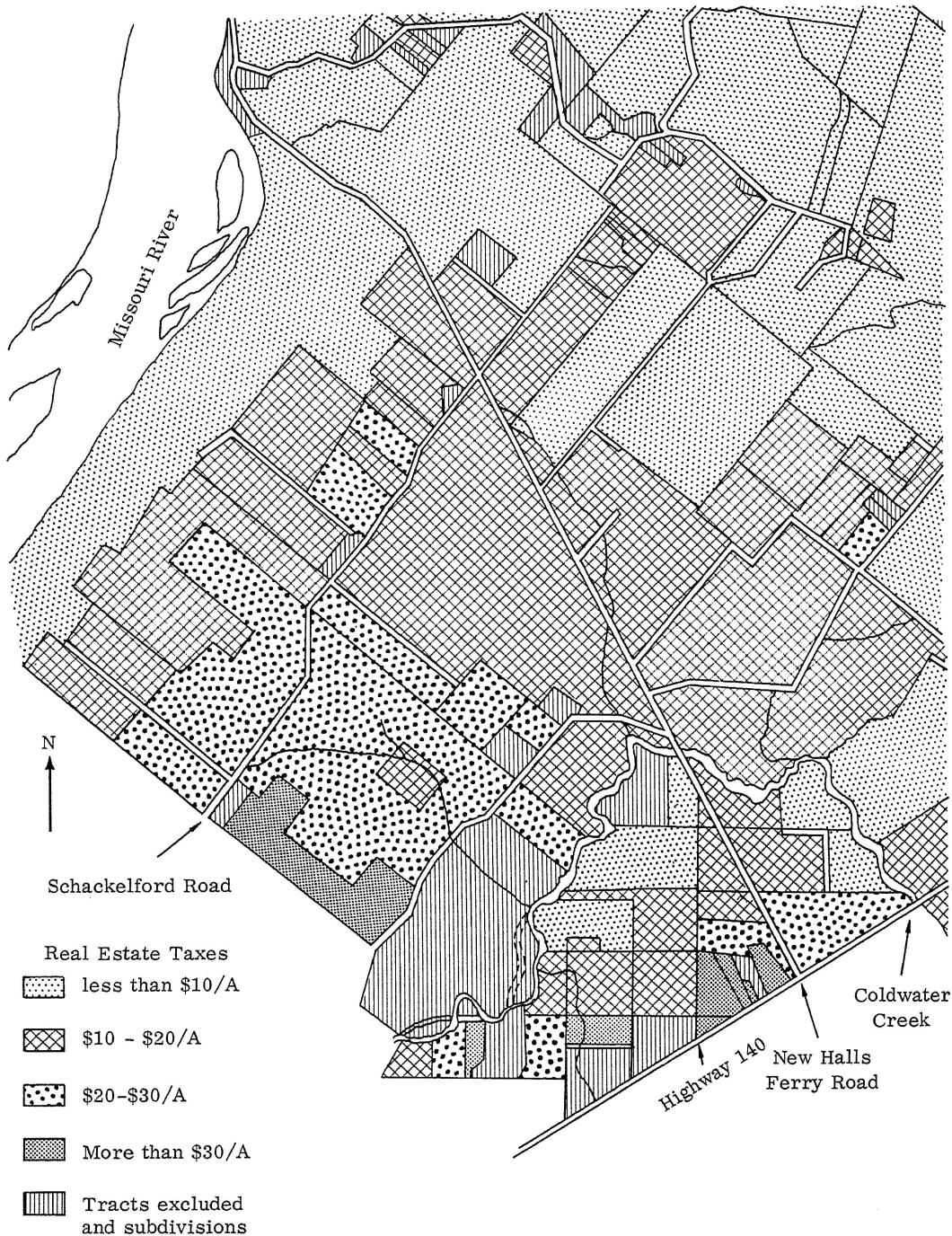


FIGURE 1  
 TAXES PER ACRE IN THE  
 FLORISSANT AREA OF ST. LOUIS COUNTY, MISSOURI

## Method of Investigation

A land ownership map was obtained for use in identifying the tracts to be studied. Ownership units of ten or more acres were included. The data assembled for each tract included acreage, assessed valuation of land and improvements, levy rates, taxes, and transfers. Classification of the owners according to occupation was accomplished through reference to ASCS records, city and county directories, and local officials. The tenure of farm operators was determined. The assessment and tax data were analyzed to determine whether or not significant differences existed due to ownership, land use, locational features, topography, size of tract, and period of ownership. Changes in assessments following the 1959-1960 appraisal were compared by occupation, tenure, land use, and location. The relative importance of real estate taxes on acreage and town lots was determined for use in evaluating proposals for easing the tax burden on farmers.

The real estate tax per acre was compared with prospective acre returns in agriculture to determine the possibility of conducting a profitable farm operation under existing rates of assessment and taxation.

## CLASSIFICATION OF LAND AND ASSESSMENT IN THE FLORISSANT AREA

### Size of Tracts

A total of 267 tracts, comprising 8,086 acres of agricultural land were included in the analysis of tax assessments. These tracts were classified according to size, tenure, and type of ownership. The size categories were: (1) less than 20 acres, (2) 20 to 44 acres, (3) 45 to 79 acres, and (4) 80 acres or more.

### Tenure of Operators

The tenure categories were (1) owner operators, (2) landlords, (3) partnerships and other family arrangements, and (4) all others,<sup>2</sup> essentially nonfarm.

### Type of Ownership

Under type of ownership the tracts were divided into (1) parcels held by real estate interests, (2) areas used in crop and/or livestock production, and (3) estates and miscellaneous. Most of the type (1) and (2) tracts were located in the Florissant Basin although some were scattered throughout the river bluff section where the topography was favorable. In general, this classification separated the tracts into those held by real estate firms, investment companies, development companies, and construction companies, tracts listed by individuals in the files of ASCS, rural residences, and miscellaneous holdings in areas of

<sup>2</sup> Includes business and professional individuals, investment firms, retired persons, utilities, miscellaneous rural residents.



rough topography. The number of tracts, the acreages and the amount of taxes are indicated in Tables 2, 3, and 4, according to size, tenure, and type.

### Changes in Assessment Following Appraisal

The magnitude of changes in assessment brought about by the professional reappraisal that was completed in 1959 was examined to determine whether or not any significant differences existed due to type of ownership and land use. The owners of the tracts were divided into four tenure categories as indicated above. Agricultural Stabilization and Conservation records were used to identify individuals in the first three categories insofar as possible. St. Louis City and County directories were consulted for further information and the occupations of individuals still unidentified were determined by local inquiries. It is recognized that the four categories which were used do not completely isolate each individual into one single, clearcut occupation. The title holder may be a landlord or owner operator and a real estate speculator at the same time. It is questionable whether or not an accurate classification can be made without access to information which is entirely in the minds of the owners themselves. The 267 tracts involved were placed in the four categories as follows: (1) owner operators, 79 tracts; (2) landlords, 62 tracts; (3) partnerships, 14 tracts; and (4) all other, 112 tracts.

Assessment changes were compared by designating valuations prior to reappraisal as 100 and assigning the appropriate index number to the amount after reappraisal. Land and improvements were treated separately. The resulting index for total assessment ranged from 47 to 610, which means that the assessment of some tracts was reduced more than 50 percent while others were increased more than six-fold. Both extremes occurred in the miscellaneous group. The greatest change was in the value of an 8.24 acre tract of unimproved land which was assessed at \$680 in 1959 and \$4,150 in 1960 and thereafter. The levy declined from \$4,530 to \$4,115 in 1960 but rose to \$4,815 in 1962. Taxes on this parcel increased from \$30.80 in 1959 to \$199.82 in 1962. The tract with an index of 47 comprised 100.39 improved acres owned by a development company. The index of assessment was 45 on the land, 66 on the improvements and 47 on the total value. The assessed valuation of the land before reappraisal was \$29,910 and the tax \$1,354.92. After reappraisal the value was lowered to \$13,460 and the tax to \$549.84.

The range of assessment indices was narrowest in the "partnership and other" category. The average change was highest in this category, with the exception of improvements. The average change was smallest for owner operators, though almost the same as for landlords. Within categories, improvements experienced the widest range of assessment change, and the average adjustment resulted in a slight reduction, compared with more than doubling the land assessments. Despite the wide range in assessment changes within and among categories, the averages were remarkably similar, with a low index of 191 and a high

TABLE 2--CLASSIFICATION OF TRACTS BY SIZE AND TAXES PER ACRE  
IN THE FLORISSANT AREA OF ST. LOUIS COUNTY, MISSOURI, 1962

Size (Acres)	Number of Tracts	Total Acreage	Average Acreage	Total Land Tax	Land Tax Per Acre
Group 1					
Less than 20	120	1,454.85	12.12	\$22,504.87	\$15.47
Group 2					
20 to 44	88	2,591.53	29.45	35,350.48	13.64
Group 3					
45 to 79	42	2,443.52	58.18	26,430.12	10.82
Group 4					
80 and over	<u>13</u>	<u>1,502.74</u>	<u>115.60</u>	<u>8,491.69</u>	<u>5.65</u>
TOTAL or AVERAGE	263	7,992.64	30.39	\$92,777.16	\$11.60

TABLE 3--TAXES PER ACRE BY TENURE GROUPS  
IN THE FLORISSANT AREA OF ST. LOUIS COUNTY, MISSOURI, 1962

Category*	Number	Acres	Average Acres	Taxes	Tax/Acre
1	79	2,301.67	29.13	\$29,943.10	\$13.01
2	62	1,557.84	25.13	18,352.92	11.78
3	14	366.26	26.16	6,417.22	17.42
4	<u>108</u>	<u>3,766.87</u>	<u>34.87</u>	<u>38,063.92</u>	<u>10.10</u>
TOTAL	263	7,992.64	30.39	\$92,777.16	\$11.60

- \*1. Owner operators
- 2. Landlords
- 3. Partnerships and other family holdings
- 4. Other

TABLE 4--TAXES PER ACRE BY TYPE OF OWNERSHIP IN  
THE FLORISSANT AREA OF ST. LOUIS COUNTY, MISSOURI, 1962

Category*	Number	Acres	Average Acres	Taxes	Tax/Acres
1	41	1,661.40	40.52	\$20,689.77	\$12.45
2	112	3,088.84	27.58	39,252.57	12.71
3	<u>26</u>	<u>1,012.79</u>	<u>38.95</u>	<u>4,978.08</u>	<u>4.92</u>
TOTAL	179	5,763.03	32.20	\$64,920.42	\$11.26

- \*1. Real estate interests
- 2. Agriculture (ASCS listings)
- 3. Estates and Miscellaneous

index of 241 (Table 5). It appears that inequalities in assessment were much greater within than among categories.

TABLE 5--ASSESSMENT INDICES OF LAND AND IMPROVEMENTS FOR 1960 IN ST. LOUIS COUNTY, MISSOURI, BY TENURE CATEGORIES (1959=100)

Category <sup>1</sup>	Range	Average
I		
Land	94 - 708	240
Improvements	2 - 340	89
Total	89 - 488	191
II		
Land	86 - 700	241
Improvements	4 - 350	92
Total	86 - 577	192
III		
Land	136 - 434	313
Improvements	56 - 118	88
Total	132 - 432	241
IV		
Land	45 - 725	250
Improvements	13 - 308	95
Total	47 - 610	207

<sup>1</sup>Categories are defined as follows: I, owner operator; II, landlord; III, partner-ships and other family holding plans; IV, all others.

Assessment indices of tracts that were classified according to type of ownership also were compared (Table 6). The range of total assessment in this instance was from a low of 47 found on one tract held by real estate interests to a high of 488 on a farm tract. The average increase was highest among tracts held by real estate interests where the land assessment was raised 171 percent as a result of the appraisal. It appears that land in the hands of real estate interests was under-assessed more frequently prior to the appraisal compared to tracts held by people in the other groups.

Assessment of estate and miscellaneous tracts increased by 70 percent from 1959 to 1960. The widest range in total assessment was in the holdings of real estate interests. The variation was from 47 to 480. As in the previous classification, variations were greater within than between categories.

By size of tract, the average increase in assessment of land was greatest for the smallest size and progressively less for larger tracts. With one exception in each case, the same trend applies to improvements and total valuations. The range of assessment changes on land was widest for the largest size tracts. The

TABLE 6--ASSESSMENT INDICES OF LAND AND IMPROVEMENTS FOR 1960  
IN ST. LOUIS COUNTY, MISSOURI, BY TYPE OF  
OWNERSHIP AND USE (1959=100)

Category <sup>1</sup>	Range	Average
I		
Land	45 - 500	271
Improvements	13 - 132	86
Total	47 - 480	243
II		
Land	90 - 708	238
Improvements	4 - 340	85
Total	89 - 488	191
III		
Land	64 - 280	170
Improvements	15 - 308	98
Total	59 - 266	145

<sup>1</sup>Categories are defined as follows: I, real estate interests; II, agriculture (ASCS listing); III, estate and miscellaneous.

indices ranged from 45 to 700. The narrowest range was on the next smaller size tract, 86 to 375. This same size of tract had the widest range of assessment changes on improvements, 5 to 350. The narrowest range was on the largest size tracts. The range for changes in total assessment decreased from size group 1 through size group 3, but increased to the second widest range in size group 4, the largest size category. The most consistent finding of the reappraisal was that land had been under-assessed relative to improvements. Variations within were greater than those between size categories. Assessments on the largest tracts (80 acres or more) changed less than those on any other size (Table 7).

TABLE 7--INDICES OF ASSESSMENT CHANGES RELATED TO SIZE OF TRACT, FLORISSANT AREA OF ST. LOUIS COUNTY, MISSOURI, 1959 TO 1960 (1959=100)

Size (acres)	Range	Average
Group 1		
Less than 20		
Land	90 - 125	267
Improvements	2 - 340	101
Total	82 - 610	211
Group 2		
20 to 44		
Land	86 - 608	257
Improvements	13 - 139	85
Total	66 - 480	213
Group 3		
45 to 79		
Land	86 - 375	205
Improvements	5 - 350	88
Total	59 - 287	166
Group 4		
80 and over		
Land	45 - 700	158
Improvements	52 - 138	83
Total	47 - 470	141

## TAXES ON LAND

### Related to Size of Tract

Average per acre taxes were compared by size of tract. Without exception, the amount levied per acre increased as tract size decreased. The range was from \$15.47 per acre for tracts smaller than 20 acres to \$5.65 for tracts of 80 acres or more (Table 2).

### Related to Tenure

Among tenure categories, average acres per tract were: (1) owner operators, 29.1; (2) landlords, 25.1; (3) partnerships and other family holdings, 26.2; and (4) other ownerships, 34.9. The four categories accounted for the following percentages of the total acreage: (1) 28.8, (2) 19.5, (3) 4.6, (4) 47.1. Taxes per acre, excluding improvements, were \$31.01 for category 1, \$11.78 for category 2, \$17.42 for category 3 and \$10.10 for category 4 (Table 3). The range was highest in categories 1 (\$3.03 to \$48.79) and 4 (\$0.32 to \$54.85). The tract taxed at \$0.32 per acre was in a low-lying area adjacent to a slough. Its potential for agricultural or urban use was low.

### Related to Type of Ownership

The average sizes of tracts held for different purposes were: (1) real estate development, 40.52 acres; (2) agriculture, 27.58 acres; and (3) estates and miscellaneous, 38.95 acres (Table 4). The three categories accounted for the following percentages of the total acreage: (1) 20.5; (2) 38.1; (3) 12.5. Not all tracts were included in these categories. Taxes per acre, excluding improvements, were \$12.45 for category 1, \$12.71 for category 2, and \$4.92 for category 3. The data show that agricultural land was not favored with regard to the amount of tax paid per acre. The tax per acre on agricultural land was higher than that on any other classification.

### Related to Location

A locational aspect considered in the 1959 appraisal was proximity to urban development. The level of taxes on tracts that were near urban development was higher than it was on those farther from it. In addition, there were variations within the group of tracts under consideration. Per acre taxes on land increased from \$6.60 adjacent to the Missouri River to a high of \$54.84 near the northwest section of the city of Florissant, declined to \$24.85 on a tract more than twice as large extending farther from the city, rose again to \$33.65, declined to \$13.96 on a tract bordering Coldwater Creek, rose again to \$32.10, declined to \$10.96 adjacent to the same creek. The taxes were slightly higher eastward with the highest rates adjacent to State Highway 140, then declined to \$12.46 as the distance from the city increased (Table 8 and Figure 1).

TABLE 8--LAND TAX ON TRACT BORDERING THE INNER EDGE OF THE FLORISSANT AREA, ST. LOUIS COUNTY, MISSOURI, 1962 (WEST TO EAST)

Tract Number	Acres	Land Tax	Tax per Acre
94	26.76	\$ 176.59	\$ 6.60
106	30.00	370.75	12.36
107	15.00	234.01	15.60
165	40.23	912.25	22.67
255	23.52	612.70	26.05
256	38.00	1,552.14	40.85
36	10.00	487.92	48.79
24	17.43	956.02	54.84
25	43.87	1,090.22	24.85
219	18.00	605.72	33.65
266	33.03	1,100.63	33.32
247	18.50	244.11	13.96
251	19.00	501.41	26.39
257	15.90	510.34	32.10
88	25.00	617.12	24.68
87	13.15	144.13	10.96
89	40.00	440.00	11.00
141	16.16	521.20	32.25
151	10.00	147.17	14.72
18	20.00	259.84	12.99
92	26.30	527.58	20.06
91	16.00	501.70	31.36
226	8.00	309.07	38.63
38	55.51	1,538.23	27.71
196	18.57	353.64	19.04
80	47.67	695.72	14.59
209	59.20	747.18	12.62
268	22.27	506.38	22.74
190	28.16	351.01	12.46
Total or Average	755.23	\$17,014.78	\$22.53

Per acre taxes were compared on tracts which bordered the main highway traversing the area, known as the New Halls Ferry Road. It runs in a north-westerly direction across the area, and was divided into three major sections from southeast to northwest as follows: (1) Highway 140 to Coldwater Creek, (2) Coldwater Creek to Schackelford Road, and (3) Schackelford Road to the Missouri River. Section 1 is closest to the urbanized area. Taxes ranged from \$38.63 per acre on an eight-acre tract to \$9.78 on a tract bordering the creek and averaged \$21.13 compared with the general average of \$11.60 for the entire study area. In the second sector, there was less variation. Taxes per acre ranged from \$12.82 to \$19.85. The lowest payment was on a long narrow tract with little

highway frontage. The highest was on a tract at the intersection of New Halls Ferry and Schackelford Roads. The average was \$16.35.

The third sector begins at a major road intersection, extends through about a half-mile of farming area and the Missouri River Bluff and ends at the riverfront. The average tax for this sector was \$7.72 per acre, which was 66 percent of the area average. The range was from \$17.20 at the intersection of New Halls Ferry and Schackelford Roads to \$3.52 for a large tract in the bluffs. Near the river, the taxes increased to \$9.64 per acre (Table 9 and Figure 1). A tract taxed at \$7.39 per acre contained a stone quarry.

TABLE 9--LAND TAX PER ACRE (WITHOUT IMPROVEMENTS) ON TRACTS  
BORDERING NEW HALLS FERRY ROAD IN THE FLORISSANT AREA  
ST. LOUIS COUNTY, MISSOURI--SOUTHEAST TO NORTHWEST--1962

Tract Number	Acres	Land Tax	Tax per Acre
Section 1			
Highway 140 to Coldwater Creek			
38	55.51	\$1,538.23	\$27.71
226	8.00	309.07	38.63
195	20.00	390.77	19.54
192	15.60	213.65	13.70
184	16.02	272.52	17.01
161	12.02	237.00	19.72
158	21.15	388.23	18.36
159	<u>19.00</u>	<u>185.74</u>	<u>9.78</u>
Total	167.30	\$3,535.21	\$21.13
Section 2			
Coldwater Creek to Schackelford Road			
147	26.54	\$ 470.93	\$17.74
197	25.49	483.90	18.98
11	17.88	346.70	19.39
138	11.00	176.71	16.06
140	13.84	227.26	16.42
198	8.91	146.85	16.48
132	11.04	141.56	12.82
135	30.00	427.96	14.27
143	32.25	463.20	14.36
142	36.00	474.75	13.19
40	10.00	178.15	17.82
164	15.16	249.89	16.48
163	13.00	202.23	15.56
162	17.00	332.72	19.57
76	<u>17.00</u>	<u>337.53</u>	<u>19.85</u>
Total	285.11	\$4,660.64	\$16.35



TABLE 9 (Continued)

Tract Number	Acres	Land Tax	Tax per Acre
Section 3 Schackelford Road to Missouri River			
118	28.44	\$ 424.68	\$14.93
48	11.81	203.19	17.20
119	20.64	298.53	14.46
59	16.19	237.86	14.69
1	22.28	318.75	14.31
2	73.12	690.40	9.44
50	93.97	330.31	3.52
54	64.17	349.09	5.44
55	76.39	346.20	4.53
211	34.76	194.04	5.58
47	9.49	91.49	9.64
234	15.05	118.44	7.87
235	<u>15.06</u>	<u>111.22</u>	<u>7.39</u>
Total	481.37	\$3,714.20	\$ 7.72

### SUBDIVISION ASSESSMENT

In addition to the 8,086 acres which have been considered thus far, a tract of 55.27 acres was traced from 1948 to 1962 as it moved from agricultural use through development and into a residential subdivision. Most of this land was platted in 1958 and improved in 1959 and 1960. Assessment and taxation data were assembled on the acreage from 1948 onward (Table 10).

A comparison of the tax revenue before and after residential development reveals the relative importance of town lots and improvements to the total tax base. Despite a rapid increase in taxes on the undeveloped 55 acres, the tax revenue in 1957, the year preceding subdivision, was only \$527.04 compared with \$379.68 on an average single house and lot in the subdivision in 1959.

The assessed valuation of 111 vacant residential lots in the newly formed subdivision averaged \$47.12 in 1958. Seventeen lots were assessed at higher rates corresponding to valuations in later years in that respect and bear no resemblance to the 111. The overall average was \$163.44.

The assessed valuation of improved lots in the subdivision averaged \$864.88 in 1960 for land and from \$4,500 to \$5,000 for improvements.

As the sale price of this land could not be determined from county records, the profitability to the farmer of holding it from 1948 to 1957 could not be cal-

TABLE 10--TAXATION HISTORY OF A SUBDIVISION IN THE FLORISSANT  
AREA OF ST. LOUIS COUNTY, MISSOURI,  
1948-1958

Year	Acres	Assessed Valuation	Taxes
*1948	55.27	\$ 5,220	\$ 110.67
1949	55.27	5,220	113.28
1950	55.27	5,220	168.09
1951	55.27	5,220	167.04
1952	55.27	5,220	222.38
1953	55.27	5,220	231.76
1954	55.27	5,220	246.39
1955	55.27	5,220	358.39
1956	55.27	5,220	413.44
**1957	55.27	9,760	527.04
***1958	55.27	81,940	4,793.49

culated. Although real estate taxes reached nearly \$10 per acre in 1957, which is high for agricultural land, the taxes paid for the 10 years on the 55 plus acres total \$2,558 or about \$46 per acre for this period. This amount is a rather minute fraction of the customary sale price of an acreage having frontage on a major highway and lying within a half-mile of a developed area. It may also represent meager return of revenue to the local government.

It was noted that valuations did not change from 1948 until 1957. If they had increased as land values did during a similar period (240 percent from 1949 to 1959), taxes might have increased enough to encourage or force an earlier transfer of the tract to urban uses.

The total assessed valuation for the tract from 1958 to 1962 was as follows:

*1958	\$ 81,940 (Subdivided with 7 improved lots)
1959	415,810 (56 improved residential lots)
1960	816,300 (All improved except 1 residential, 2 commercial lots)
1961	820,060 (Improved except 2 commercial lots)
1962	820,060 (143 improved residential lots, 2 unimproved commercial lots)

Of the \$820,060 total assessed valuation in 1962, land comprised \$142,530, including \$25,700 for the unimproved commercial tracts; improvements comprised \$677,530 of the total.

\* Ownership changed in this year.

Substantial changes occurred in the assessment of the residential lots from 1958, the year of subdivision, through 1961, the year in which they were improved. As vacant lots in 1958, 111 tracts were assessed at an average value of \$47.12 each. In 1959, as improved or about to be improved residential lots, they were assessed at an average of \$871.26. The logic of assessing vacant lots in an area ready for development at a level as low as \$47.12 is not clear. This figure bears little relationship to the price usually paid for suburban lots in an area of rapid development. With an assessment of 33 1/3 percent, \$871.26 suggests a market value of \$2,613.78 which appears to be more realistic than \$141.36, the implied market value in 1958.

## AGRICULTURAL EARNINGS AND LAND VALUES

### Basis of Assessment in Urban Fringe Areas

It has been pointed out many times that taxes on farm land in rural-urban fringe areas are an excessive burden for farmers. This stems from the fact that assessments are based on land values which reflect possible use for urban development. Even though this assessed value may be less than the price offered by a developer, it is greater than the value determined by capitalizing the return to the land while in agricultural use. Also, the current price offered by a developer may be much less than the price the land would bring after a brief waiting period. The farmer under these conditions may feel that he is unable to pay a tax based on speculative value out of an income derived from agriculture. If he is forced to sell for financial reasons, not only is he compelled to cease farming prematurely, or seek a new location, but he may be deprived of the opportunity to achieve a significantly greater amount of capital gain. Only by being in a highly favorable financial position or by neglecting his farm, may he be able to continue to hold title to his land. In periods of high employment farmers can get jobs in St. Louis at minimum or higher wages, \$1.25 or more an hour, depending upon their skills.

With these considerations in mind an analysis was made to determine the relationship between agricultural earnings and real estate taxes on rural-urban fringe land. A hypothetical farm of 80 acres was used and the typical proportion of crop acres for the area was applied to it. A typical cropping system was chosen; yields were estimated from county averages for 1957-1962 and adjusted for township variations. The estimated prices used to determine income fall within the range used in other studies. Gross return to the landlord was based on a one-third share of crop returns, which is customary rent in the area, plus a cash payment for pasture. Improvements were not considered in the analysis (Table 11).

TABLE 11--HYPOTHETICAL ORGANIZATION AND RENT INCOME FROM AN EIGHTY-ACRE FARM IN THE FLORISSANT AREA OF ST. LOUIS COUNTY

Crop	Acreage	Adjusted County Yield	Total Yield	Price	Value	Landlord Share (1/3)
Corn	15	62 bu.	930 bu.	1.00	\$ 930	\$ 310
Wheat	15	31 bu.	465 bu.	1.60	744	248
Soybeans	23	29 bu.	667 bu.	2.00	1,334	445
Alfalfa	15	2 T.	30 T.	18.00	540	180
Pasture etc.	<u>12</u>			6.00	72	<u>72</u>
Total	80					\$1,255
Landlord return per acre:						
				Gross (\$1,255 ÷ 80)	\$15.69	
		*Interest at 5%	\$39.60			
		Tax (ASCS average)	<u>12.71</u>		<u>52.31</u>	
		Net (loss)			\$36.62	
Capitalized Value:						
		<u>\$15.69</u>				
		.05 + .01605				= \$237.55

The gross rent of \$15.69 per acre compares with an average tax per acre for all ASCS tracts of \$21.71. This leaves \$2.98 per acre to cover interest. A tax of \$12.71 indicates a market value of \$792 per acre which at 5 percent produces a computed interest cost of \$39.60 per acre per year.<sup>3</sup> If 5 percent is accepted as a reasonable return on the \$792 implied market value, the result is a net annual loss of \$36.62 per acre. Theoretically, this loss can be recovered in capital gains. Market price is earnings value plus present worth of anticipated capital gains. However, the gains can be realized only by owners who have the financial strength to wait for the conversion of agricultural land to urban uses. Application of the formula: value equals annual income divided by interest plus tax rate yields an agricultural value of \$237.55 per acre.<sup>4</sup> Interest at 5 percent on this agricultural value would consume \$11.88 of the annual income and \$3.81 would represent the land tax at the 1962 levy rate with an assessment ratio of one-third.

By applying the same technique to county data, with slightly lower crop yields, the agricultural use value derived is \$217.11 per acre. The landlord return of \$14.34 is composed of \$10.86 imputed interest at 5 percent and \$3.48 land tax. If the county average acre value of \$1,100 were used to determine interest at the 5 percent rate, the cost would be \$55 per acre. The total per acre cost of interest and land taxes would be \$70.38 compared with the \$14.34 return. The

<sup>3</sup> \$12.71 divided by .04815 (tax levy per \$100 assessed valuation) multiplied by 100 equals \$264 assessed value. Since assessment is at one third of market value, the implied market value would be \$792.

<sup>4</sup> See Table 11.

annual loss of \$56.04 per acre interest and actual land tax based on market rather than earnings value could not be sustained unless the title holder was in a strong financial position. It is doubtful that the land would be held even by an owner of means unless he anticipated a substantial increase in land value.

Many factors influence the market value of land. Important among them are rent, interest rates, anticipated increase in value, taxes and such amenity values as pride of ownership, desire to hold title to a particular tract because of close proximity to members of the family, and other such personal considerations. Reasonably accurate values can be placed on rent, interest, increase in market price, and taxes. Use of the equation  $\frac{MR}{V} = i - \frac{dV}{V} + t$  where MR = mar-

ginal rent, V = value, i = interest, dV = annual price increment and t = taxes,<sup>5</sup> shows that a title holder or prospective buyer who expects an annual increase in value of approximately 5.3 percent would be able to capitalize the \$14.34 rent at 5 percent and derive a value of \$1,100 an acre instead of the \$217.11 obtained by capitalizing the net rent from agricultural use.

The greater the anticipated annual increase in value the higher the rates of interest can be in the equation. As Gaffney has pointed out, the land tax tends to displace interest as the prime cost of holding title to land.<sup>6</sup> His reasoning is demonstrated in Table 12. The analysis is based on the assumption that people in different financial circumstances vary in the rates of return they seek on investments. Messrs. 2 percent, 4 percent, and 8 percent have marginal rents of \$3, \$4, and \$5 respectively for a particular tract of land. With no tax, Mr. 2 percent easily can be the highest bidder, but as tax rates rise the bid shifts to Mr. 4 percent and finally to Mr. 8 percent. An interest charge that bears on different people unequally tends to be displaced by a tax charge that is indifferent to individual credit ratings, and in the absence of capital gains to the title holder, permits the party who must have a high rate of return on his investment to bid effectively for land. However, in an urban-fringe area where large increases in value are anticipated high taxes can force land into the hands of people who can forego immediate income. In many cases it can be forced out of profitable agricultural use before it is needed for urban development.

<sup>5</sup> Mason Gaffney, *Rent Theory, Problems and Practices*, Missouri Agricultural Experiment Station Research Bulletin 810, August 1962, p. 47.

<sup>6</sup> *Ibid.*, p. 45.

TABLE 12--BIDS PER ACRE FOR LAND AS DETERMINED BY COMBINED INTEREST RATES, TAX RATES, AND MARGINAL IMPUTABLE RENTS

The High Bid Is in the Shaded Area at Each Tax Rate

i (interest, percent)	.02	.04	.08
Rent per acre	\$ 3	\$ 4	\$ 5
t (tax, percent)			
	<u>Bids for Land in \$</u>		
.00	150	100	62
.01	100	80	56
.02	75	68	50
.03	60	56	45
.04	51	50	42
.05	42	44	38
.10	25	29	28
.15	18	21	22
.20	14	17	18
1.00	2.94	3.84	4.65
	$\text{Bid} = \frac{\text{Rent}}{i + t}$		

## SCHOOL DISTRICTS

### Importance of Farmland

Assessed valuations in St. Louis County were determined by school districts. The farm land in all districts included 161,923 acres and was assessed at \$65.58 million or \$405 per acre. In addition, 241,047 town lots were assessed at \$1.35 billion or \$5,586 per lot. In seven districts, all of the land was assessed as lots. The percentage of the total valuation derived from the assessed acreage ranged from 0 to 48.4 in the various districts. Only two districts had total valuations of less than \$1 million. Two others had total valuations below \$10 million and the district which ranked highest had \$110 million.

Over-all, the assessed acreage accounted for 4.6 percent of the total valuation of the 27 districts. The district which contained virtually all of the tracts involved in the study obtained 9.4 percent of its valuation from acreage—26,696 acres were assessed at \$9,279,000, an average of \$347.58 per acre. Values throughout the districts ranged from \$90.07 to \$57,800 per acre. School district levies ranged from \$2.50 to \$3.98 per \$100 assessed valuation.

Generally, high values and high taxes per acre are associated with districts in which the unplatted land is relatively less important than town lots and low values with those in which the acreage is relatively more important than town lots. The few notable exceptions were in by-passed areas. In one district where the acreage accounted for 22.3 percent of the total valuation, the average assessed value was \$24,848 per acre. The real estate tax on the 416.11 acres in this district would approximate \$1,500 per acre. Taxation at this level would preclude any consideration of agricultural use, except for convenience during the period of change to urban use.

On the other hand, an entirely different situation existed in the district in which most of the tracts in the study area were located. Here acreage comprised 9.4 percent of the total assessed value, with an average assessment of \$347.58 per acre. In this situation, where the average real estate tax per acre, including improvements, was \$16.74, the impact on farmers was relatively greater than the importance of the revenue derived from the total acreage. It might be said that farm land was important to the area from the standpoint of land use but relatively less important as a source of revenue. If real estate taxes are to be evaluated as a means of directing land use, this area can be used to estimate the effects of various proposals aimed at achieving this goal.

## ALTERNATIVE METHODS OF TAX RELIEF

Several procedures have been proposed for dealing with real estate tax problems where annual payments are high in relation to income from the property. The following are described here:

1. public purchase of land that is in process of transfer from agricultural to urban uses;
2. purchase of development rights by a public authority;
3. preferential assessment of land as long as it remains in agricultural uses;
4. deferred taxation.

### Public Purchase of Land

The data in Table 13 show land use in the Florissant Area in 1959 and probable use in 1980. The Planning Commission estimates that 6.118 acres will be needed for urban uses during the 21-year period, an average of 291.33 acres per year. By applying the same proportions to the R-1 School District, which occupies approximately the same general area, 344.5 acres will be needed annually for new urban uses. The market value of the average acre in the R-1 district in 1962, calculated from the assessed value, was \$1,042.74. The annual acreage needed for urban uses had a market value of \$359,249. The 21-year requirement would represent an outlay of \$7,544,224, if a unit of government purchased the land and guided its development. For St. Louis County, the estimated requirement for the 21-year period would be 98,138 acres. The average assessed value per acre in 1962 was \$366.97. Market value would equal three times the assessed value or approximately \$1,100 per acre. The total additional urban land needed during the 21-year period would cost the county \$107 million at 1962 values. This amount is slightly in excess of the total annual revenue of the county.

Orderly development through public purchase would be a giant undertaking. Proponents of this procedure point out the following advantages:

If efficient planning were undertaken, orderly development could be attained with provision for open space for parks, playgrounds, and greenbelts to delineate urban sections and contribute to the scenic beauty of the area. In addition, the gains in land values which are socially created could be recovered directly for society when the publicly held land was transferred to private hands for development. The land which would be retained by the public for open space not only would be adequate, but would have been purchased in advance of actual need at a much lower price than would prevail at the time of its utilization. Pending urban development, the land could be leased for agricultural production. No problem of taxes in excess of land income would arise.

Although this form of public action has been taken in a number of European cities on a very large scale, it would probably be politically unpopular in America.



TABLE 13--PRESENT AND PROPOSED LAND USE IN THE FLORISSANT AREA  
OF ST. LOUIS COUNTY, MISSOURI (1959 AND 1980)

<u>Existing Land Use in 1959</u>		<u>Acres</u>
Residential		2,708.8
Recreational		47.1
Commercial		75.7
Manufacturing		0.5
Streets		766.2
Utility		297.1
Public Institutional and Open Space		19,816.1
Vacant		2,757.4
Water (excluding rivers)		<u>180.0</u>
Total (excluding rivers)		26,648.9
Existing Dwelling Units	7,666	
<u>Proposed Land Use 1980</u>		
Residential		
Density of 10-25 dwelling units/acre		95.0
Density of 7.5 dwelling units/acre		105.0
Density of 4.5 dwelling units/acre		4,705.0
Density of 3.5 dwelling units/acre		2,665.0
Density of 2.5 dwelling units/acre		1,410.0
Density of 0.9 dwelling units/acre		<u>0.0</u>
Subtotal		8,980.0
Commercial		
Regional Business		0.0
Community Business		110.0
Existing Neighborhood Business		15.0
Proposed Neighborhood Business		80.0
Extensive Commercial		100.0
Office and Research		<u>330.0</u>
Subtotal		635.0
Industrial		0.0
Open space, including institutional, actual and potential recreational land		11,585.0
Rural		4,870.0
Expressways, Arterial and Major Streets and Railroads		<u>590.0</u>
Subtotal		17,045.0
Total (excluding rivers)		26,660.0
Proposed Number of Dwelling Units	28,620	

Source: Guide for Growth, St. Louis County Planning Commission.

## Public Purchase of Development Rights

An alternative to outright purchase of the land by a public authority or commission is acquisition of development rights. Since high speculative values stem from potential urban development of farm land in fringe areas, surrender of development rights would reduce the remaining value to approximately the capitalized value of the annual net rent. The land would be available for agricultural purposes until needed for urban use and the tax bill of the owner would be reduced. The cost to the county of development rights to the additional acreage needed for urban use during the 21-year period at 1962 values would be \$86.6 million.<sup>8</sup> The difference, \$21.3 million, between this amount and the cost of land purchase (\$107.9 million) represents the agricultural use value which has been established at \$217.11 per acre.

The adoption of either means of public acquisition of development rights would accomplish the following objectives:

1. planned, orderly development around cities;
2. retention of land in agriculture until needed for urban use;
3. lower costs of public services due to reduction of "scatteration;"
4. easing of the tax burden of farmers; and
5. public retention of gains in land values resulting from public expenditures.

## Preferential Assessment

This means of alleviating the tax burden of farmers in expanding urban areas has received more attention than any other. The individual who seeks to earn his living as a farmer looks upon preferential assessment as a logical solution of the high tax problem. His land is used solely for agricultural production, and, in this use, is not worth the amount the assessor has indicated. Therefore, it should be assessed as agricultural land and taxes levied at a rate which can be paid out of farm income.

This reasoning has a ring of equity and fairness and may gain the support of farm organizations and legislators. However, public officials are quick to point out that this procedure ignores the *ad valorem* principle. Further, it gives farmers an unfair advantage over non-farm landowners. Eventually, it is assumed that the land will be needed for urban use, and the farmer, who has been relieved of high taxes can sell his holdings, gain a substantial profit and get unjustified benefits from the capital gains provisions of the income tax law. Because of these possibilities, preferential assessment has not been adopted by many states.

Capitalization of estimated net rent income from the hypothetical 80 acre farm yielded a value of \$237.55 per acre. The assessed value would be \$79.18. The 1962 tax levy of \$4.815 per \$100 assessed valuation would yield a per acre tax of \$3.81. The remaining portion of the gross return would represent interest

<sup>8</sup> Determined as follows: 98,138 acres at \$882.89 per acre (\$1,100 market value less \$217.11 agricultural use value).

on the investment in land. The saving to the owner based on the average per acre tax in the area would be \$7.79 per acre. If the levy were increased to compensate for loss of revenue, the saving would be less, though most of the adjustment would be passed on to non-farm property owners.

Land is being transferred to urban uses in the R-1 school district which contains most of the area included in the study. If the above data were applied to the estimated annual requirement, the annual loss of revenue to all units of government would be \$2,683. It equals 0.056 percent of the revenue for all purposes. On a county-wide basis, average yields of crops are slightly lower than in the Florissant area, resulting in a capitalized net rent value of \$217.11 and a tax of \$3.48 per acre. The tax levy used is representative of the entire county outside of incorporated areas. County assessments include improvements and would need to be adjusted in order to be compared with data being used here. It is assumed that taxation of improvements would not be affected by the proposed changes in assessment and the land tax is the chief problem.

Improvements contributed \$2.29 per acre to real estate taxes in the Florissant area. If this amount were used in the county as a whole, the decrease in revenue per acre would be \$11.90. With an estimated annual requirement for urban use of 4,673 acres, the annual loss of revenue to the county would be \$55,609 or approximately 0.073 percent of the estimated annual revenue. Despite the relatively small amount of revenue involved, legal considerations, administrative problems, and questions of equity make adoption of preferential assessment difficult to achieve. Furthermore, low assessments in themselves cannot be expected to assure the preservation of open space without regulations restricting the land to that use.

### Deferred Taxation

This procedure combines preferential assessment and recovery at a later date when the land is transferred to urban uses. Assessment of agricultural land located in fringe areas would be based on the capitalized value of the net rent income. Obviously, this is a use value and would be kept on record along with an assessment based on current market value. As long as the land remained in agriculture, taxes would be paid on the lower value. When sold to a real estate developer, or transferred to urban use by the owner himself, the difference in taxes determined by the two levels of assessment would become due and payable with interest from the time the deferred taxation was applied to the property.

The immediate objective of deferred taxation is the same as preferential assessment; that is, to relieve the farmer of paying taxes based on speculative value out of income from agricultural use. The chief difference lies in the effort to regain temporarily lost revenue at a later date. This recovery overcomes some of the objections to special treatment and relieves the revenue problem otherwise created.

The analysis under preferential assessment showed an annual revenue loss of \$55,609. To avoid the inequity of levying the deferred tax against other property owners, it would be necessary to secure the amount foregone from other sources. Some form of tax "bill" could be sold to investors or held for collateral by the local government, with the levied but uncollected tax as security. Redemption could take place annually, if uniform urban development occurred. At the time a tract was sold to a developer or developed by the owner, the deferred tax would become due. The amount might prove to be a small proportion of the increased value of the property, but it would serve to capture a part of the capital gain for public use. The interest on the deferred tax would be paid by the owner of the property and would go to the holders of tax bills. The procedure is illustrated in Table 14.

The ten identical tracts in Table 14 radiate out from the urban area. Five of them are initially worth more than their agricultural value because of their potential urban use. The first column shows the taxes that would be paid on the agricultural value (\$100 per year). The second column shows the taxes that would be due if the assessment were based on market value. For tracts 6 through 10 the taxes in the two columns are the same, because it is assumed that these tracts are too far out to be affected in value by the city. The third column shows the revenue loss in the first year from adopting a system of tax deferment. The second year tract one moves into urban use and the accumulated deferred tax is paid. As the city expands, tracts 2 through 6 each appreciate enough in value for their taxes to rise \$100 a year. Each year the process of expansion continues with tract 2 moving into urban use the third year, etc. The revenue loss decreases each year until year six when repayments from deferred taxes equal the amount deferred. However, the units of government affected would have borrowed \$3,500 (\$1,500 + \$1,000 + \$600 + \$300 + \$100) over the first five years. The interest would need to be added to the amount collected in addition to the taxes that were deferred.

Under deferred taxation the loss of revenue would be temporary, pending development of the land in question. If development were to take place at a constant rate, over a specified period, say ten years, the collection of deferred taxes would equal \$55,609 per year, excluding interest on the tax bills. Interest would have to be added to such deferment. The collection of it would offset the interest paid to holders of the bills or bonds.

An estimate has been made of the outcome of the procedure outlined above. A static situation is presented, with the return to the entrepreneur, rate of interest, tax levy, and market value assumed to be constant. The income tax rate is the minimum that is effective in 1965. Development costs are derived from an example presented by H. G. E. Fick, Doane Agricultural Services, Inc., at a conference of assessing officers.

Under the assumptions a developer could give \$1,100 per acre for a ten-acre tract of land, pay the development costs including selling expenses and three

TABLE 14--HYPOTHETICAL EXAMPLE OF DEFERRED PAYMENT OF TAXES ON LAND IN THE URBAN FRINGE\*

Tract	Taxes on value in agr. use	Year 1		Year 2		Year 3		Year 4		Year 5		Year 6	
		Taxes on full value	Revenue deferred	Taxes on full value	Revenue deferred	Taxes on full value	Revenue deferred	Taxes on full value	Revenue deferred	Taxes on full value	Revenue deferred	Taxes on full value	Revenue deferred
	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
1	100	600	500	<u>1/</u>	<u>2/-500</u>								
2	100	500	400	600	500	<u>1/</u>	<u>2/-900</u>						
3	100	400	300	500	400	600	500	<u>1/</u>	<u>2/-1,200</u>				
4	100	300	200	400	300	500	400	600	500	<u>1/</u>	<u>2/-1,400</u>		
5	100	200	100	300	200	400	300	500	400	600	500	<u>1/</u>	<u>2/-1,500</u>
6	100	100	--	200	100	300	200	400	300	500	400	600	500
7	100	100	--	100	--	200	100	300	200	400	300	500	400
8	100	100	--	100	--	100	--	200	100	300	200	400	300
9	100	100	--	100	--	100	--	100	--	200	100	300	200
10	100	100	--	100	--	100	--	100	--	100	--	200	100
Total			1,500		1,000		600		300		100		0

1/ Moved into urban use.

2/ Minus sign indicates gain--repayment when property moved to urban use.

years of waiting costs and net \$1,100 per acre to cover enterprise, management, and risk if he sold half-acre lots for \$2,100.

In the example presented in Table 15 the figures represent the amount a developer was willing to pay for a ten-acre tract to be divided into one-half acre lots in 1960. The market value of similar lots was \$1,500 each without utilities.

TABLE 15--DEVELOPMENT AND SELLING COSTS ON LAND PLATTED  
AS ONE-HALF ACRE RESIDENTIAL LOTS

Sale Proceeds:		
20 lots @ \$1,500	\$30,000	
Less Selling Expense 25% (advertising and commissions)	<u>7,500</u>	
Net Proceeds	\$22,500	
Estimated Time Required to sell lots--3 years Discount--Deferred Proceeds 8%	\$ 1,800	
Net Value of Proceeds		\$20,700
Development Expense:		
Surveying and platting \$20/lot	\$ 400	
Title Certificates and recording \$5/lot	100	
Roads 1040' @ \$5	5,200	
Grading \$65/lot	<u>1,300</u>	
Total Expense		<u>\$ 7,000</u>
Net to Developer and Land Owner		\$13,700
Developer required 50% for enterprise, management and risk		<u>\$ 6,850</u>
Amount offered land owner (\$685/A)		\$ 6,850

Source: Manual of Procedure for Rural Properties in St. Louis County, Missouri,  
Doane Agricultural Service, Inc., St. Louis, Missouri.

By increasing the land cost from \$685 per acre to \$1,100, the lot price was increased from \$1,500 to \$2,100. As indicated earlier, the average value of the residential lots in a recent subdivision, determined from assessed values, was \$2,613 in 1959. These lots averaged about one-fourth acre each. If they were sold by the developer at this price, application of the example indicates the land could have been purchased at \$3,141 per acre and would have yielded the same amount to the developer to cover his enterprise, management, and risk.

Land in and near the Florissant area has been selling at prices ranging from \$1,400 to \$4,000 per acre depending on location, frontage and availability of utilities. Application of the Doane example indicates that the lower priced land

could be subdivided into half-acre lots selling for approximately \$2,500 each and return a satisfactory amount to the developer. The \$4,000 per acre land would need to be subdivided into one-fourth acre lots selling for approximately \$3,200 each to accomplish the same objective. The \$4,000 land had all utilities available, the \$1,400 land had electricity only. Current zoning regulations permit the lot sizes used in the examples above.

As indicated earlier, land in rural-urban fringe areas is assessed high in relation to its net return in agriculture. However, it is often assessed low in relation to its potential urban use. In the Florissant area the average per acre capitalized earnings value of farm land was \$237.55; the average value based on assessments was \$723.36 and the highest value, \$2,869 on a tract near Florissant which has since been platted as a subdivision. The latter tract would be similar to the \$4,000 per acre land above. Another recently subdivided area, part of a larger tract similar to the \$1,400 per acre land, had a value based on assessment of \$515.16 per acre the year the plat was filed. It seems clear that assessments and taxes can be considered very high or very low depending upon the interests of those rendering the opinion.

An example presented by Dr. Barlowe<sup>9</sup> indicated that a developer could give \$1,100 per acre, pay development costs plus brokers' fees and earn a profit equal to his purchase price if he sold the lots at \$3,000 each. The example was based on a 20-acre tract subdivided into half-acre lots with paved streets, sidewalks, curbing and all utilities except sewage disposal. The example is based on half-acre lots which are large for most subdivisions. One-fourth acre or smaller lots appear to be more common and the cost per lot would be lower.

A brief analysis of costs, taxes, and returns on an acreage held for development is presented in Table 16.

### Legal Basis for Tax Deferment

The principle of special treatment to keep taxes in line with income from real estate has precedent in Missouri legislation. The Missouri State Forestry Law was passed in 1946.<sup>10</sup> It aids in overcoming three major obstacles to private ownership of timber land for sustained yields. The first two have been the burning of woodlands and the stealing of timber. The act minimizes these by granting power to the Conservation Commission to enforce the law against burning woodland and clandestine cutting of trees.

The third phase of the law which is of primary concern establishes a tax deferment plan. In order to encourage better management and protection of privately owned forest land, a tax reduction is allowed on land devoted entirely to growing trees. Timber tracts of 40 or more acres, valued at not more than \$10

<sup>9</sup> Raleigh Barlowe, *Land Resource Economics* (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1958), p. 230.

<sup>10</sup> Missouri Conservation Commission, *Form FC 101* (Jefferson City: State of Missouri, December, 1962).

TABLE 16--SUMMARY OF COSTS AND RETURNS FROM LAND HELD FOR URBAN DEVELOPMENT IN THE FLORISSANT AREA OF ST. LOUIS COUNTY, MISSOURI (BASED ON INITIAL AGRICULTURAL VALUE)

	Per Acre
Value of land for agricultural use (1962 County average)	217.11
Deferred real estate taxes (21 years)	249.90
Interest on deferred tax at 5 per cent	<u>137.45</u>
Total Accrued cost in 1983 prior to sale	604.46
Assessed acreage valuation (1962-1983) and sale price (1983)	1,100.91
Excess of market value over initial value	883.80
Federal capital gains tax (one-half of \$883.80 @ 14%)	61.86
Local capital gain tax (deferred tax plus interest)	387.35
Original value	217.11
Total cost including Federal tax	666.32
Net return over all costs	<u>434.59</u>

per acre, can be classed as forest crop land. Upon approval of such classification by the Conservation Commission, the land is assessed at \$1 per acre for a period not to exceed 25 years. Local tax rates are applied to this \$1 per acre valuation. Land owners must practice fire protection, grazing control, and other recommended forest management practices in order to qualify for the special tax treatment. Owners of forest crop land must furnish written notice to the Conservation Commission of their proposed cutting plans. When timber is cut, the owner pays a yield tax to the state of 4 percent of stumpage value during the first ten years after classification, 5 percent from 11 to 20 years, and 6 percent from 21 to 25 years. After 25 years, no yield tax is levied.

To supplement the local tax revenue, the state pays 15 cents per acre annually to the counties on each acre classified as forest crop land. The state also pays 15 cents per acre annually on all state owned forest land located in each county.

County collectors keep records of all taxes which would have been paid had the land not been classed as forest crop land. Should the owner or the state remove the land from its forest crop classification, the owner must pay all back taxes plus 5 percent interest, less taxes paid on the \$1 assessment.

There is a similarity between this procedure and deferred taxation of farm land in urban-fringe areas. It appears to require the same amount of deviation



from the *ad valorem* principle.

With respect to adherence to the *ad valorem* principle, assessment practice seldom follows the legal requirements. Chapter 53, Section 030, Revised Statutes of Missouri, 1959, provides; "Every assessor shall take an oath or affirmation to support the constitution of the United States and of this State, to demean himself faithfully in office and to assess all of the real and tangible personal property in the county in which he assesses at what he believes to be the actual cash value. He shall endorse this oath on his certificate of election or appointment before entering upon the duties of his office."

Fractional, rather than full, value assessment is standard practice. Nevertheless, it is doubtful if the deferred taxation plan outlined here could be adopted under present legislation. It deviates from the usual stipulation, implied or otherwise, in not requiring prompt collection of the full *ad valorem* tax levy.

Even though land in a fringe area may not be needed for urban uses for several years, it is customary to assign it a value which reflects, at least partially, the proximity of urban development and the speculative value based on sale of one or a few similar tracts. The validity of designating urban use as the highest and best use under these circumstances can be questioned. It might be just as logical to consider agricultural use as the highest and best until the land actually is needed for other purposes.

Land taken out of agricultural use by levying taxes that exceed net rent income and allowed to remain idle for several years while awaiting development is not in its best use. Some of it may remain idle for years while the owner waits for a higher price. Often urban development bypasses this land and is extended to lower-priced tracts farther from the city. This is sometimes referred to as "leapfrogging" and is one of the causes of greater revenue requirements for public facilities. Utility services must be extended through and beyond the idle land to these outer areas. Also, government services need to be provided either by an extension of county facilities or by the incorporation of another town or city.

Tax delinquency is a problem which has been associated with suburban land. During the Great Depression many vacant lots were tax delinquent. Delinquency has also resulted from the construction of public improvements in advance of the economic capacity to sustain the cost, and from over-enthusiastic subdivision of lands in advance of their need for urban development. It appears that there is need for development of criteria for determining a best use classification of land in the rural-urban fringe. Deferred taxation offers an opportunity to avoid forcing land into idleness while awaiting transfer into another use. It also permits the payment of reasonable profits to landowners and developers while maintaining an adequate flow of tax revenue to local governmental units.

Where agricultural land is taxed on the basis of its market value in a different use, the annual payment sometimes exceeds the rent income. Under these

conditions the owner must pay the taxes out of incomes that should be attributed to the land, or from savings. Capital gain is regarded under the Federal income tax as being income at the time it is received. If deferred taxes are paid at this time, no hardship is imposed on the owner, and he is not forced to liquidate his holdings prematurely. Thus, the procedure described here avoids the stumbling block of forcing a property owner to pay the taxes on it out of capital or other sources of income.

## ZONING AS AN ORDERLY DEVELOPMENT DEVICE

The legal foundation upon which zoning rests is the police power of the state. This power is not inherent in municipalities but is derived from statutes based on state constitutions or legislative authority. However, zoning is essential to the orderly development of cities and may be the key to effective use of the power to tax real estate.

A New Jersey decision, in discussing the police power of the municipality has this to say: "The 'police power' is the succinct phrase used to express the sovereign right of a state to promote, within constitutional limits, good order, safety, health, morals, and the general welfare of society."<sup>11</sup>

Federal and state courts have upheld the actions of municipalities in regard to zoning, so long as their ordinances have been passed pursuant to a state enabling act and are comprehensive in scope. Courts have stated the principle, however, that the power of zoning regulation is not unlimited. The action taken must bear a substantial relation to public health, safety, morals, or welfare and must comply with the due process clause of the Constitution. Throughout test cases, the statement is made that the interests of individuals are subordinate to the public good.

Planning commissions are recommendatory bodies as created under most enabling statutes. Zoning decisions rest finally with the elective legislative body, although provision is usually made to avoid ignoring reports and recommendations of planning commissions. A two-thirds or three-fourths majority may be required to change zoning regulations or boundaries of which a planning body has disapproved.<sup>12</sup>

The scope of zoning has slowly but steadily expanded to include amenities and aesthetic objectives as well as planned, orderly development of the land itself.

Henry Fagin<sup>13</sup> cites five planning bases for timing control (tempo and sequence) of urban development: (1) the need to economize on the costs of muni-

<sup>11</sup> E. C. Yokley, *Zoning Law and Practice* (Charlottesville, Va.: The Michie Co., 1953), p. 16.

<sup>12</sup> *Ibid.*, p. 265.

<sup>13</sup> Henry Fagin, "Regulating the Timing of Urban Development," *Land Planning in a Democracy* (Durham, North Carolina: Duke School of Law, 1955), p. 300.

cipal facilities and services, (2) the need to retain municipal control over the eventual character of development, (3) the need to maintain a desirable degree of balance among various uses of land, (4) the need to achieve greater detail and specificity in development regulation, and (5) the need to maintain a high quality of community services and facilities.

In the state of Washington, statutes empower planning agencies to disapprove a subdivision which is not in the public interest. Mountain Lake, New Jersey, which has acquired most of its remaining developable land and sells a limited number of building lots annually, is regulating the absolute tempo of its growth.<sup>14</sup>

One suggested system of control<sup>15</sup> is a set of building sequence districts called *zones of building priority* which are superimposed on basic land use districts on the zoning map. The zone assignments express the sequence of development most advantageous to the municipality for economizing on municipal costs and for securing the desired character of development. The availability of building permits under the suggested controls is determined separately for each broad zoning classification—residence, business, manufacturing, etc. The number of permits made available from time to time is derived from: findings as to the current balance among different types of development; findings as to the status of specific private and public projects proposed to be encouraged by the municipality in the public interest; and findings as to the current capacity to assimilate the proposed structures in view of the progress of municipal programs for facilities and services.

Although this planned development will result in increased property values in total, a form of compensation may be warranted in some cases to offset individual losses. This compensation may take the form of municipal purchase; differential tax rates between zones of building priority; municipal option to buy agricultural land after a stated period of continued farming use; or it may involve adopting the British method—municipal purchase of development rights.

Under Missouri law, in counties such as St. Louis, the county court is authorized and empowered to provide for the preparation, adoption, amendment, extension, or carrying out of a county plan, and to create a county planning commission. This commission has the power to make, adopt, and publish an official master plan of the county. It has the authority to approve or disapprove improvements, plats, and subdivisions and to divide the unincorporated territory into districts as deemed best suited to implement the plans.

Any county court which has appointed a planning commission must create a county board of zoning adjustment to hear and decide appeals, to hear and decide matters referred to it upon which it is required to pass under county zon-

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<sup>14</sup> *Ibid.*, p. 299.

<sup>15</sup> *Ibid.*, p. 303.

ing regulations, and to vary or modify the application of regulations or provisions where deemed necessary.

In St. Louis County, zoning regulations may have contributed somewhat to orderly development of the Florissant area. Typically, the area was zoned for single family residences with a one-acre minimum for lots on county or state roads and a three-acre minimum on private roads.

A 50 percent reduction in lot size has been noted on tracts which have been platted for development. One-acre requirements are reduced to 20,000 square feet; those which had been 20,000 square feet are reduced to 10,000.

Subdivisions are being established in the Rural and Open Space categories of land use as zoning requirements are relaxed to allow smaller lot size. The Land Use Plan indicates that rural land will not be needed for urban use prior to 1980 and Open Space should be retained as such indefinitely. The Land Use Plan has not as yet been adopted by the county.

### Zoning and Deferred Taxation

Zoning, in its role of enforcing the recommendations of a land use plan, is essential to the implementation of deferred taxation. Any area which is experiencing substantial growth can expect to encounter difficulties in the transfer of land to more intensive uses. Individual opinions differ concerning the rate, extent and direction of growth. The real estate market tends to become more imperfect as it reflects these opinions. Opportunities arise for substantial capital gains for those who make accurate predictions of the future. Individual and group opinions differ concerning the appropriate character of the prospective expansion. Those who desire planned, orderly growth, with a minimum amount of "scatteration" and the preservation of esthetic values should expect opposition from those who consider planning and zoning as "socialistic" activities which deprive individuals of their rights in property.

Without planning and zoning, however, "leapfrogging," "scatteration," overextension and duplication of public services, idle, bypassed land and the absence of scenic attractions are the usual results of rapid growth.

These undesirable characteristics may be a high price to pay for avoidance of public control over land use. One alternative is to engage the services of experienced, qualified people who can develop a land use plan, present it to the electorate and gain acceptance of it. Once the plan is accepted, zoning regulations can be established to designate land as industrial, commercial, residential, agricultural, etc., with the necessary sub-classifications. At this point, a satisfactory method of taxing the various categories must be devised.

If zoning regulations are rigidly enforced, agricultural land will have a lower market value than urban classes so long as it is restricted to that use. However, since it is located near enough to a metropolitan area to be involved in zoning, it will likely sell at a price greater than its agricultural value. Deferred taxation can be applied so only a part of the total real estate tax will be collected while

the land is zoned for agricultural use, the remainder becoming due when the land is developed for urban use. When the land is rezoned for a higher imminent use it can be taxed according to market value. This procedure would encourage the owner to sell or develop the land rather than hold it for speculative gain. Zoning and deferred taxation, used jointly, can keep land in agricultural use or encourage a shift to urban use.

As indicated earlier, a portion of the capital gain from real estate transactions can be captured by the local government while maintaining satisfactory returns to land owners and developers. This added revenue can be used to provide public services which contribute much to the additional value of real estate.

### Metropolitan Area or Regional Planning

Frustrations among public officials resulting from the existence of 98 separate communities with about 200,000 population in unincorporated areas in St. Louis County should lead to some form of metropolitan or regional planning body with authority to achieve some degree of consistency in developing and financing public facilities.

Consolidation of settlements, currently under consideration, should be continued as a step toward closer harmony and greater economy. A recent proposal, the result of a three year study, would create a new city which would be the third largest in the state. It would comprise 50 square miles of presently unincorporated though substantially developed land. Proponents claim that the new city could provide police and fire protection and other municipal services with a tax rate of 30 cents on each \$100 of valuation. Further attempts to achieve some form of consolidation of St. Louis County and the City of St. Louis may be made. St. Louis City had its boundary established in 1876. These limits have never been changed. Since that time the city has been steadily surrounded by towns of various size and characteristics and by large residential, business and industrial areas which remain unincorporated.

The result is a mixture of three forms of local government along the city-county border; the City of St. Louis, St. Louis County, and the various towns and cities of the metropolitan areas.

As previously indicated, state laws regarding *ad valorem* taxation are not followed in property assessment. Variations are common within and among taxing jurisdictions and between kinds of property. Much personal property is completely omitted from the tax rolls. Despite these variations deferment of taxes has encountered serious opposition in most states. It seems doubtful that legality is the principal reason for objection. A more logical explanation would be the fact that present violations of the *ad valorem* principle result in the feeling that preferential assessment would aggravate existing inequalities.

Among the chief reasons that have been cited in opposition to a proposal for deferred taxation are the following: (1) a revenue problem is created for local units of government, (2) it is difficult to determine which tracts should be class-

ified as farms, and (3) nonfarmers holding land for speculative gain may benefit more than the farmer.

With respect to (1) it cannot be denied that a temporary loss of revenue would occur. However, in an area where need arose, urban expansion would be taking place and as land owners were induced to sell or develop their tracts through implementation of zoning plans, deferred taxes would become due. The temporary revenue shortage could be relieved by the sale of tax bills or bonds that could be retired with the money collected when the bills are paid out of capital gains.

The difficulty under objection (2) is not insurmountable. In fact, it has been resolved in several states. Furthermore, assessments based on market value would be the major problem, since an error in classification as farm land would be erased when deferred taxes were collected.

The third objection is no doubt valid. However, it should be avoidable by using a carefully devised means of landowner-use classification. Also, any advantage would be temporary, as the deferred taxes would be collected eventually.

Regardless of the above objections, deferred taxation has advantages over preferential assessment from the standpoints of "fairness" and equality. In addition, it results in a greater amount of revenue for use by local governments and reduces the attractiveness of real estate speculation.

As indicated in the discussion of the Missouri Forestry Law, the deferred taxation proposal for rural-urban fringe areas does not represent a greater departure from *ad valorem* principles than does the former plan. It appears that, if the public wants a program of deferred taxation, it can be devised, legalized, and implemented satisfactorily.

## SUMMARY AND CONCLUSIONS

The general property tax is looked upon with disfavor by many people but it provides such a large proportion of the income of local governmental units, particularly school districts, and serves the needs of these units so well that it seems destined to remain. These facts lead to a search for methods of improving the system. One of the problems encountered in the application of this tax is associated with assessment of farm real estate in rural-urban fringe areas. The problem grows out of basing assessments on market values that reflect urban rather than agricultural use. As population moves into previously rural areas both assessments and levies increase due to the expanded need for public services. Since most of the recent population growth has occurred in areas surrounding cities, many acres of farmland have become involved.

Dissatisfaction with taxes on farm land in urban fringe areas is widespread for the following reasons:

1. Farmers cannot pay real estate taxes based on urban values out of earnings from the land when it is in representative agricultural use.

2. Unless farmers augment their incomes with nonfarm employment or can afford to become land speculators, they are forced to sell their land prematurely and miss a once-in-a-lifetime opportunity for capital gains.
3. Often land is sold to real estate interests years in advance of its need for urban development and nonuse results.
4. Some individuals suffer hardships due to premature sales, others reap large profits.
5. The system of taxation presently in use contributes to patterns of urban development which are believed to be undesirable.

Major criteria in property taxation are that (1) the amount an owner is required to pay be related to the income received from the taxed asset, and (2) that payments be proportional to this income both within and between tax jurisdictions.

This study showed that urban expansion had raised the price of land in metropolitan fringe areas and that inequalities in assessment of real estate were widespread, both within and between tax jurisdictions. The two counties containing the largest cities in Missouri have about 12.7 percent of the total assessed value of farm land in the state. In 1963, the assessed value per acre was \$545.46 in Jackson County and \$445.11 in St. Louis County. In the counties contiguous to St. Louis it was \$83.22 in St. Charles, \$79.64 in Jefferson, and \$33.65 in Franklin. It was \$32.64 in the state.

The findings of this study in the Florissant area of St. Louis County indicate that much of the dissatisfaction with existing tax systems is justified. The estimated gross rent derived from a hypothetical farm in the Florissant area was \$15.69 per acre. The average real estate tax per acre on ASC tracts was \$12.71. The portion of rent remaining after payment of the real estate tax (\$2.98) would represent 5 percent interest on an acreage value of \$59.60, although the \$12.71 tax indicated a market value of \$792 per acre.

Prior to the 1959-60 appraisal in St. Louis County, the differences between assessments of similar properties in the same tax district often were as great or greater than the variations between districts. As a result of the appraisal, land assessments were raised significantly on tracts of 80 or more acres. The changes on the land itself were not significant on smaller tracts, but improvements were assessed higher on units smaller than 20 acres and on those from 45 to 80 acres.

Among tenure groups the improvements on owner operated units were assessed lower while the land held by business and professional men, investment firms, retired persons, utilities, and miscellaneous rural residents were raised in value.

Tracts located near existing urban development and arterial highways tended to be assessed at higher values than those located at some distance from residential areas and good roads.

Regarding taxes, the amount paid per acre on units smaller than 20 acres was significantly higher than that paid on the larger tracts. Miscellaneous owners paid significantly less per acre than did owner-operators, landlords, and partnerships. Real estate interests, owners of land adjacent to an urban development, and people who had recently acquired land paid higher taxes per acre than did other title holders.

Numerous inequalities exist in the property tax system. Often the amount of tax paid is not related to income from the property in its present use. Assessment and levy-determining procedures sometimes force land into the hands of investors whose major interest is capital gains.

The following procedures that have been suggested or used for dealing with tax problems in urban fringe areas were evaluated:

1. Public purchase of land that is in process of transfer from agricultural to urban uses;
2. Purchase of development rights by public authority;
3. Preferential assessment of land as long as it remains in agricultural use; and
4. Deferred taxation.

Critical examination of these procedures led to the conclusion that deferred taxation was the most workable alternative to the present method of obtaining public revenue. Under it the land would be assessed at earnings value in its present use, agriculture for example. A duplicate set of books would show its assessed value based upon the price it would bring if sold. Taxes would be paid on its earnings value and interest bearing tax certificates or bonds sold for additional revenue up to the amount that would be received under conventional assessment procedure. When the land was sold at a price in excess of its use value or when zoned for urban development all deferred taxes as well as interest that had been paid on the certificates or bonds would be collected.

The deferred taxation procedure has at least two advantages over the other proposals. First, assessing land at its earnings value while in agriculture allows the farmer to continue his business if he wishes. Through the use of zoning ordinances land can be retained in agriculture until needed for urban development. Second, local governmental units which often have difficulty in securing adequate revenue are assured of no shrink in income because of their right to sell tax certificates or bonds secured by liens on real estate. These securities can be redeemed from capital gains when the land is transferred to urban use. When paid in this manner, the tax resembles a capital gains tax rather than a property tax. Actually it does represent payment to the public of a portion of the gain in land value which arises from population growth.

Critics of the deferred tax plan contend that it confiscates all of the speculative gain and stifles development of new homes and new industries. The analysis



reported here did not substantiate this claim. A titleholder under present conditions in the Florissant area would be required to pay in deferred real estate taxes approximately \$1.60 annually for each \$100 of increase in the value of his property. The average per acre value in St. Louis County land increased from \$375 in 1950 to \$898 in 1960. Obviously only a part of the gain would be taken for the deferred tax.

The analysis showed that a developer could pay \$1,100 per acre, the county average value in 1962, for a 10-acre tract, pay the costs of development including selling expenses and three years waiting costs, and net \$1,100 per acre to cover enterprise, management, and risk if he sold half-acre lots for \$2,100 each. The average value of residential lots in the subdivision that was traced through its entire period of development in 1959 was \$2,613 and the lot size was about one-fourth acre. A \$4,000 per acre tract of land could be developed and sold as one-fourth acre lots at \$3,200 each with the same ratio of return to the developer, i.e. \$4,000 per acre to cover enterprise, management and risk. The sale of lots at \$2,500 each would return approximately \$2,000 per acre to the developer of \$4,000 per acre land.

A deferred taxation plan needs to be implemented in conjunction with zoning regulations which have been carefully planned and accepted by the public. This procedure can be followed. Counties under Missouri law are empowered to prepare a land use plan and to implement it through zoning regulations.

Deferred taxation may be resisted in the courts since, temporarily at least, it fails to meet the requirements of *ad valorem* taxation. In reality it can be considered a variation in the method by which *ad valorem* taxation is applied. One variation already exists under the State Forestry Law which permits qualified owners of timber land in Missouri to have these tracts assessed at \$1 per acre for a period of 25 years. The owner pays a yield tax to the state when timber is cut from land on which he has received the benefit of the low assessment. The State pays an annual supplemental tax to the counties in which these timber lands are located. It is believed that this law sets a precedent for the deferred tax plan described here.

It appears that deferred taxation could be used effectively to correct many existing inequalities and to promote orderly transfer of land from agriculture and forestry to urban uses.