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Property tax reform for smart growth

MARCH 2000

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ACKNOWLEDGEMENTS

Property Tax Reform for Smart Growth was prepared in support of *Smart Signals: Economics for Lasting Progress.* Mark Haveman, authored the property tax study; John Wells managed the overall Economics for Lasting Progress project.

Professional consultants assisting in the design and development of this study were Mr. Clark Rieke of Minneapolis, and Dr. H. William Batt of Albany, New York. Minnesota Planning would like to thank Tom May and Bart Lossing, Hennepin County Assessors Office; Tom Clark, Minnesota Department of Revenue; and Jack Pasternacki, City of Bloomington Assessors Office for providing the information and data in the development of this report.

Several individuals also provided expert comment and review on drafts of this report, and others generously shared their expertise on property tax fundamentals and basics of site value taxation with the author. The author would like to thank John Burger, Dan Salomone, Tom May, Todd Otis, Steve Hinze, Gordon Folkman and Pam Neary for their special contributions.

Funding was approved by the Minnesota Legislature, ML 1997, Chapter 216, sec. 15, 12(g) from the Minnesota Future Resources Fund as recommended by the Legislative Commission on Minnesota Resources.

On request, *Smart Signals: Minnesota Property Tax Reform for Smart Growth* will be made available in alternate format, such as Braille, large print or audio tape. For TTY, contact Minnesota Relay Service at 800-627-3529 and ask for Minnesota Planning.

For more information or for paper or electronic copies of *Smart Signals: Minnesota Property Tax Reform for Smart Growth,* contact:

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March 2000

Minnesota Property Tax Reform for Smart Growth

A study prepared under the Economics for Lasting Progress project

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Executive summary

Property tax reform which decreases tax rates on building values and increases tax rates on land values offers significant potential for economically and environmentally sound development. That is the core finding of this study which analyzed the influence and impact of the Minnesota property tax on the nature and quality of development.

Minnesota Property Tax Reform for Smart Growth was completed under Economics for Lasting Progress, a two-year policy research study funded by the Legislative Commission on Minnesota Resources. The charge of this program was to evaluate state fiscal and tax policies to determine their influence on long-term economic, environmental and social interests of the state and to identify ways to better align revenue instruments with these objectives.

This study explored the types of economic incentives and disincentives embedded within the Minnesota property tax system. It examined the influence they have with regards to urban form and development patterns, the financial health of cities and social issues such as affordable housing.

Based on the analysis of these economic impacts, a particular reform approach – site value taxation – was investigated because of its potential to improve the economic signals and incentives in the property tax. The study used assessment data from two Minnesota counties to explore the potential impacts of a site value system and evaluate the political and administrative issues of adopting this approach.

The Minnesota property tax system features two types of economic distortion which influence development patterns and activity.

Classification, credits, preferential valuations and other types of property tax expenditures introduce economic distortions into land use and capital investment decision-making. As a result, social goals like affordable rental housing are harmed at the expense of favorable treatment of residential homeownership.

The property tax also features a structural distortion by taxing land values and building values equally. The two components of the property tax – land and buildings – have different economic characteristics and taxing them yields different results. Land value taxation adheres to key principles of sound tax policy such as equity and efficiency while imposing minimum distortions and damage to the economy. Building value taxation is highly distortionary and creates economic disincentives for property development and improvement.

The failure to place a greater emphasis on land values in the property tax has important implications for urban development and form in Minnesota.

Housing is less affordable since land values are able to appreciate at rates faster than wages, building values and the consumer price index. In Hennepin County from 1980-1997, residential lot values appreciated by 150 percent while Minnesota wage growth and the consumer price index grew only 117 percent and 95 percent respectively. Artificially constrained supply of land combined with subsidized demand for land is the principal cause of this disproportional rate of inflation. Placing a greater share of the property tax burden on land values would dampen this inflationary effect and increase the effective supply of land through more compact development.

Property redevelopment and urban renewal often occurs at a rate less than desirable. Taxing land and buildings equally creates an economic incentive for withholding land from development or keeping land underdeveloped in relation to its value. In one commercial area in Bloomington, annual capital gains from appreciation of undeveloped or underdeveloped land are nearly twice the annual property taxes payable on the land. Capital gains from land value appreciation, which result from community growth and

neighboring economic development, exceed the cost of holding onto parcels. Cities pay the opportunity cost – a lack of property redevelopment.

Land use inefficiency and "fiscal zoning" pressures are worsened. Zoning policies, assessment policies and equal tax treatment of land and buildings combine to create an effective land consumption subsidy and bias toward large lots. Average size residential lots in Hennepin receive an 83 percent "cost of ownership discount" for the incremental amount of square footage owned greater than the amount of square footage found in smaller lots. Placing a greater emphasis on land value in the property tax would help correct this subsidy effect and reduce the financial incentive for cities to adopt fiscal zoning practices.

The impact of property tax economics is magnified when combined with the favorable tax code treatment of home ownership.

Housing subsidies such as property tax and mortgage interest deductibility are highly regressive in Minnesota. Benefits accrue to incomes and levels of homeownership above the median and increase as income and housing consumption rises. As a result, most of these subsidies accrue to areas of high income and high levels of home consumption – namely, suburban areas.

Exclusion of capital gains in home sales helps make the "net, net" monthly cost of homeownership (net of tax deductions and net of capital gains effects) largely homogenous in the Twin Cities region, even in inner city neighborhoods.

Together, these tax treatments foster "sprawl" patterns of land use, income segregation between urban and suburban areas and inside central cities.

Government spending to improve housing affordability is more than neutralized by the underlying economic dynamics of the property tax and tax code treatment of housing.

For every dollar spent improving housing affordability in Minnesota, approximately four dollars of effective subsidy flow toward greater home consumption and price capitalization making affordability more difficult.

Without addressing the economic dynamics of disproportionate land value appreciation and tax code subsidies, housing affordability will likely be a chronic urban problem regardless of the amount of money state and local governments devote to the cause.

Site value taxation – a phased-in decrease of tax rates on building values and increase in tax rates on land values – offers several advantages over the existing property tax structure.

From the standpoint of financing local government, site value taxation holds considerable economic logic. Site value taxation recognizes that government investment in infrastructure and general community growth creates private wealth in the form of higher land values. This wealth, unlike wages and interest, is not earned by citizens. Site value taxation "recaptures" the increase in land value that comes from community factors and government investment for public revenue purposes.

In considering the economic, social and environmental implications of the property tax, the economic signals created by site value taxation would:

- Help make all housing more affordable and support home ownership without penalizing other types of housing
- Encourage a better use of land already serviced by public infrastructure
- Support urban redevelopment and potentially reduce the need for government subsidies and public financing of urban renewal projects
- Hold down the inflation of land values so all types of development are more affordable and less risky

■ Reduce the need for cities to use highly prescriptive land use regulations to manage and control growth
■ Financially support the preservation of open space and parkland

As the modeling of site value taxation adoption in Hennepin County illustrates, the rationale behind shifts in tax burdens under a site value system would be linked to broader community interests and development outcomes. Property class would not determine the shift in tax liability. A neglected and poorly maintained home can receive a tax increase while an attractive commercial building in an urban area can receive a tax cut.

In a simplified Hennepin County simulation of site value adoption which assumed a base case of no classification, 62 percent of homeowners, 95 percent of apartment property owners, 60 percent of industrial property owners and 39 percent of commercial property owners would receive property tax cuts.

Site value taxation addresses both the value capture and social goals that classification seeks to accomplish but does so in a more economically efficient way without penalizing rental housing. A phase-out of the classification system could accompany the phase-in of a site value system.

Implementation issues pose both challenges and opportunities for site value taxation.

To make site value taxation functionally and politically feasible, it may be necessary to improve the quality of land value assessments in some areas. The primary issue is to ensure that land value assessments are done as accurately as the entire assessment. Methodologies exist; the key is political commitment and administrative support.

While zoning ordinances can work at cross purposes with the objectives of site value taxation, they can also work in tandem to support community development objectives. By capturing more land value appreciation as a public revenue source – a source which grows as a city grows – site value taxation can help reduce local government dependency on fiscal zoning. To obtain maximum benefit, zoning and land use regulations should focus less on for what purpose the property is used. This would allow natural gradients in land values to create an incentive for mixed use development forms without the danger of overzoning or underzoning particular uses.

Although the economic signals in site value taxation make it a potentially invaluable policy tool for cities and urban growth areas, it may or may not be appropriate for rural areas. To accommodate the diversity of land use, growth and economic conditions in the state, different implementation strategies could be instituted. One strategy would be to create a local option provision allowing local flexibility in establishing taxation rates for land and buildings. This would allow local and regional governments to tailor taxation approaches to the unique land use and economic development conditions in their respective areas. Another strategy would be to require cities of certain size or growth rates to adopt site value taxation since the state has a strong fiscal interest in better “land value capture” at the local level.

Introduction

Economics for Lasting Progress is a two-year policy research study funded by the Legislative Commission on Minnesota Resources. The charge of the ELP project was to evaluate state fiscal and tax policies to determine their influence on long-term economic, environmental and social interests of the state and to identify ways to better align revenue instruments with these objectives.

"Sustainable development" is an approach to growth which strives to recognize the economic, environmental and community consequences of different development choices. It is based on the principle that economic growth cannot be sustained without healthy natural systems and healthy communities. State and local fiscal policies significantly influence whether this vision of development becomes a reality.

Minnesota Property Tax Reform for Sound Development examines one aspect of government finance – the Minnesota property tax system – and its implications for sustainable development in Minnesota. The research presented in this report is based on the collaborative effort of staff from the Minnesota Environmental Quality Board and two project consultants: Clark Rieke, a Twin Cities real estate and site value taxation expert; and Dr. H. William Batt, executive director of Central Research Group, Inc., a public finance consulting firm based in Albany, New York.

The property tax is a high profile and highly charged political issue in the state. It also has direct and indirect connections to an abundance of issues of concern to Minnesotans including public education, economic development, affordable housing and the financial viability of counties, towns and cities. The timeliness of this study is especially appropriate given the renewed calls for property tax reform and the inherent potential in reform to tailor a system to Minnesota's long-term welfare.

The goals of this report are to provide information on the direct and indirect impacts the existing property tax system has on development in Minnesota. Specifically the report explores the following questions:

■ What are the sources of economic distortion in the Minnesota property tax and what are the implications for economic, social and environmental outcomes in the state?

■ How significant is the influence of property tax with regards to the nature and quality of development in Minnesota?

■ What type of reform is necessary for the Minnesota property tax system to support sustainable development objectives and can it be implemented under existing state policies and regulations?

"Property tax reform" as interpreted by most people, also includes changing the complex relationship between local government revenues and state spending. The relationship between the property tax and state support for local government and schools, and the economic distortions in this relationship is an exceptionally rich area for investigation in its own right. However, this report focuses primarily on the design, structure and function of the property tax system and the impacts created by the economic incentives embedded within it.

The report is divided into three sections:

■ The first section identifies and discusses the various sources of economic distortion in the property tax. It explores the implications these distortions have for a number of development-related issues in Minnesota.

■ The second section examines site value taxation – a specific type of property tax reform demonstrating compatibility with sustainable development objectives. It explores theory, practice and implementation issues. Potential tax redistribution under this system, at both property

type and parcel levels, is explored by modeling the system on two Minnesota counties.

■ The final section provides policy and research recommendations for property tax reform.

Implications of the property tax for development in Minnesota

"Local governments depend for financial survival upon a tax system which is not only detrimental to efficient allocation of resources and offensive to popular notions of equity, but also gradually destroys its base." *Minnesota Tax Study Commission, 1973*

The history of the property tax system in Minnesota has been one of constant change and increasing complexity. During its 142-year existence, it has been modified, adjusted, altered and restructured in countless ways – yet the call for reform continues today. It is an issue which stirs great emotion among the public and eternal debate within the legislature.

Despite its contentious history, the property tax continues to have an important role in local government finance. Minnesotans are expected to pay about $4.6 billion in property taxes in 1999 or about 20 percent of total state and local own source revenues.[1] It continues to play a essential role in local finance because it offers several advantages over other forms of taxation. It is a stable and reliable revenue source. It is an open and visible system – owners can compare their tax liabilities with others, and the full magnitude of the tax is obvious. It has an ability to reach broad sectors of the citizenry in order to share in the costs of government. As a result, it is well-suited to the needs and structure of local government and engages citizens in government spending and decision making.

The Minnesota property tax is the "tax of last resort" in terms of financing local government. That is, the property tax levy is determined only after all other non-property tax revenue sources such as state aid and fees have been accounted for. As a result, the property tax is intimately connected to state spending in areas such as education finance, local government aid and economic development programs. This complex relationship between state spending and the local property tax has several implications for the long-term health and welfare of the state.[2] However, this report will focus primarily on structural and administrative dimensions of the property tax and its role in affecting the nature and quality of development in Minnesota.

The simplest and most basic property tax system takes local government revenue needed (after accounting for other sources), divides it by the total assessed market value in the district to determine a property tax rate, and applies this rate to all properties equally. Minnesota's property tax bears little resemblance to this basic approach. The present-day system features a wide variety of exemptions, preferential treatments, limitations, credits and complex calculations. What the state has lost in terms of simplicity and economic efficiency has been replaced with a national reputation among experts as being one of the most complex systems in existence. The primary reason for this added complexity can be linked to a distinctive feature of property tax expenditures. A tax expenditure is a provision in law which limits the tax burden on taxpayers in a certain situation. Unlike any other tax in Minnesota, a property tax expenditure affects the distribution of the tax more than the revenue obtained from the tax. In other words, if certain types of property receive preferential treatment, others will have to pay more. Unlike sales, income and other taxes, the property tax rate is set to meet a specific revenue target.

Because of its powerful redistribution and tax-shifting potential, the property tax has been used as a tool to advance or protect a variety of economic and social interests in the state.

Types of fiscal distortion within the Minnesota property tax

Several different types of fiscal distortions are found in the Minnesota property tax. Most are created by statute, while another is based in the structure of the property tax system.

Tax credits, tax exemptions, preferential valuations and deductions are called **tax expenditures.** Tax expenditures are both public costs (revenue forgone by the government) and effective subsidies because of the redistribution effect. The economic benefits of these subsidies – and the added tax liability for those who must pay more – accrue to the private sector and to Minnesota citizens. Decisions about land use, development and investment are influenced as a result.

■ **Exemptions.** In 1999, over $1 billion in potential property tax revenues are exempt by statute. These types of property include elementary and secondary schools, public cemeteries, hospitals and charitable institutions and public property used for public purposes. Other effective exemptions arise out of "limited market value" which places a cap on annual increases in market value (and therefore property taxes payable) for certain types of rapidly appreciating properties. Another exemption is given on improvements to older homes subject to a number of conditions and qualifications.

■ **Classification.** Certainly the most controversial feature of the Minnesota property tax system, classification gives preferential treatment to certain types of property. Tax liabilities for "favored" property are less than what their market values would indicate. Classification results in a significant redistribution of tax liability, and the numerical value of the tax expenditure is measured by the effective shift of tax burden. Positive dollar amounts are tax expenditures – tax increases that would occur if one rate applied to all property. Negative values represent the effective corresponding shift in tax burden. The

Exemptions	1999 tax expenditures
Exempt real property	$1,092,500,000
Limited market value	14,100,000
Improvements to older homes	4,200,000

State of Minnesota Tax Expenditure Budget, Tax Research Office, Minnesota Department of Revenue.

Preferential valuations	1999 tax expenditures
Green Acres	$13,000,000
Open Space Property	5,800,000
Metro Agricultural Preserves Land	4,300,000
Tax Increment Financing	283,200,000

State of Minnesota Tax Expenditure Budget, Tax Research Office, Minnesota Department of Revenue.

Tax expenditures – Minnesota property tax classification system

Type of property	1999 fiscal year impact
Residential homestead 1st tier	$ 601,400,000
Farm homestead	161,000,000
Farm non-homestead	4,000,000
Timber	800,000
Commercial/industrial 2nd tier	($553,200,000)
Apartments	(90,900,000)
Personal	(85,800,000)
Residential homestead 2nd tier	(71,700,000)
Public utility	(67,300,000)
Commercial/industrial 1st tier	(56,700,000)
Residential non-homestead	(28,100,000)
Railroad	(9,300,000)
Subsidized housing	(8,600,000)
Seasonal recreational residential	(2,000,000)
Mineral	(200,000)
Seasonal recreational commercial	(200,000)

State of Minnesota Tax Expenditure Budget, Tax Research Office, Minnesota Department of Revenue.

sum of increases and decreases do not equal zero because of an increase in credits on some types of property and other expenditures.

■ **Preferential valuations.** By statute, certain types of real property (subject to numerous conditions and qualifications) are given preferential treatment in the form of deferred assessments or are assessed at current use rather than "highest and best use" as standard assessment practice dictates. Open space and agricultural lands often benefit from these special valuations. Another type of preferential valuation is tax increment financing in which the increase in property taxes attributable to increased value is used to repay development costs. When the tax increment district is established, an amount equal to the property tax on the current year market value is imposed on the property but only the portion based on its original value goes to the general property tax. The effective tax expenditure is equal to the levy that goes to the tax increment district rather than the general property tax.

Structural distortion: Equal tax treatment of land and buildings

In contrast with tax expenditures which are purposefully created by the legislature, the structural distortion in the property tax is primarily a function of how the system operates. Despite its lower visibility, it also creates effective subsidies and ripple effects in land use decision-making and development activity.

The property tax is actually two taxes: a tax on land values and a tax on building values. Together land value and building value make up the total market value of a property. The Minnesota property tax system treats these values identically by taxing them at the same rate. The distortion arises because land and capital improvements have different characteristics, and taxing them yields different results:

■ Land value is created in part by government investment (roads, schools, sewer systems); by general community growth; by the quality, attractiveness and income potential of surrounding properties; and by natural forces such as being on a lake or near a wooded area. The value of a building is created principally by private investment and market forces.

■ The supply of land is fixed; higher prices do not result in more land being made, nor does taxing it reduce the effective supply. Building supply and improvement is negatively influenced by taxation.

■ Taxing building value increases the cost of its use. When land value is taxed, the tax is "capitalized" into the price of land – that is, the value of the property is reduced. Because land cannot "move" or change in supply in response to higher taxes, the price of land **decreases** when taxed.

Tax theorists and policy experts give the taxation of land values high marks for its close adherence to fundamental principles of sound tax policy such as equity and efficiency while imposing minimum distortions and damage to the economy.[3] The same cannot be said for taxation of improvements. One effective method of discouraging an activity is to levy a tax on it. The nature, timing, quality and scale of development, and the resulting impact on surrounding properties, is all influenced by taxing structures.

Most local government property tax revenue comes from the more distortionary and decidedly "unneutral" taxation of buildings. Even though the tax rate is the same, the majority of property value in most Minnesota counties is based in buildings and improvements. Statewide in 1997, 69.9 percent of total property market value was building value.[4] Of Minnesota's 87 counties, 54 (62 percent) had building values making up 50 percent or more of the total market value.

Effects of fiscal distortion

Each distortion holds the potential for influencing the nature of development and land use in Minnesota. Together, they create a complex mix of economic signals and cause and effect relationships.

The costs and benefits of these distortions are difficult to measure in any precise way, nor are their individual effects on economic and developmental decision-making easily determined. Clearly, the property tax is only one of many factors influencing how, when and where development takes place in Minnesota. However, economic incentives and disincentives created by these distortions can be linked to a number of economic, environmental and social issues in Minnesota. They help explain the trends and patterns in land use, housing and economic development visible today.

Tax expenditures: The challenge of equity without efficiency

An economic truism is that if a good or service is subsidized, people will buy more of it. Likewise, if a good or service is taxed, the price will rise and both affordability and investment activity will be influenced. Property tax redistribution through tax expenditures provides evidence of this axiom.

Homeownership is a legitimate and highly valued social goal in Minnesota, and the Minnesota property tax treats it as such. Single family residential homesteads are the clear winner in the Minnesota property tax classification system. The Minnesota Taxpayers Association reports that the residential homestead property tax in the metropolitan Twin Cities area ranks 26th highest, 11.8 percent below the U.S. average for the largest metropolitan areas of each state. In turn, other properties pick up the shifted tax burden. Minnesota's apartment, commercial and industrial property taxes ranked third, third and fifth in the nation respectively. [5]

However, this reduction in property tax efficiency to support a social objective is not without some developmental trade-offs. A 1997 study by Minnesota Planning noted several development implications related to this homestead subsidy including:[6]

- An economic incentive to build on larger lots which consume more land and are more expensive to serve

- Heightened reliance on the commercial and industrial tax base and greater levels of economic competition among localities to attract this base

- Potential relocation of commercial and industrial businesses outside of the urban core to areas where property tax levies are lower

Perhaps more importantly, a fiscal irony arises when local governments subsequently attempt to remedy problems triggered by these subsidies with other forms of government spending. The ability of the property tax to work at cross-purposes with government programs is especially evident in rental housing. By disproportionately penalizing affordable rental housing via classification, the Minnesota property tax reduces both the physical supply of higher density rental housing stock and the affordability of what does exist.

Effective tax rate on value of new apartment construction in Minnesota	
Property value	$600,000
Effective tax rate	3.778%
Tax liability per year	$22,668
Assume 30 year life, constant value	
Total property tax payments over life of property	680,040
Present value of property tax payments streams for 30 years discounted at 9%	232,891
Effective tax rate on value of new construction	34.2%

Source: Minnesota Planning

Although property tax rates expressed as a percentage are usually small, they apply to capital values and are effectively much higher. Property tax payments over time can be large in relation to the property value and can act like a substantial sales tax on new construction. A "sales tax" levied at 35 percent of value can certainly be expected to influence private sector investment. Reducing the effective rate to 1.128 percent – the effective tax rate of single family residences in Minnesota[7] – would reduce the effective tax rate on new apartment construction to 12 percent.

Property taxes in Minnesota are often the largest single operating expense for apartment owners. Investment returns and therefore investment activity are affected as a result. According to one apartment property developer, each dollar of property tax expense reduces the value of the property by $10 to $14 to potential investors.[8] The Minnesota Multi-Housing Association reports that the property tax accounts for an average of 16 to 18 percent of gross income for apartment owners, which roughly translates into a 25 percent after-tax charge on earnings. Rates of return on rental housing currently cannot compete with other investment opportunities.

What supply does exist is also made less affordable. The Department of Revenue estimates that 19 percent of monthly rental cost is allocated to property tax, which acts much like a sales tax on rental housing usage. The supply and demand disincentives prompted testimony in the 1999 legislative session that the only apartments being built in Minnesota are higher amenity, upper-end units unless some sort of subsidy is involved.[9]

The effects of property tax expenditures on rental housing illustrate the problems of pursuing equity by sacrificing efficiency. Tax expenditures to support social goals can result in developmental trade-offs. Government programs, such as rental assistance are then launched to address trade-offs but typically fail to address economic root causes. These new subsidies typically introduce more economic distortion. The cycle becomes both unsustainable and expensive.

Structural distortions: The hidden effects

What the property tax system does *not* do is as potentially harmful as what it does do. Land, as described earlier, has unique and distinguishing economic qualities. However, the current property tax does not sufficiently recognize and account for the unique characteristics of land nor the beneficial effects of land value taxation. By not placing greater emphasis on land values in the property tax, three effects can occur – with implications for urban form, environmental protection and a number of social concerns.

Effect 1: Decreasing marginal cost of land ownership. Under the current property tax structure, the marginal cost of land ownership decreases as lot size increases, exacerbating urban sprawl pressures and land use inefficiency.

Comparison of single-family residential lot values and lot sizes in Hennepin county
Includes 95% of single-family residential hemesteads

		Parcel count	Mean lot value	Mean lot size (sq ft)	Mean assessed value per square foot
Smallest	4,000 – 5,599 sq. ft*	46,601	$21,90	5,113	$4.28
Below average	5,600 – 8,199	45,126	33,10	6,840	4.84
Average	8,200 – 10,799	45,800	35,52	9,785	3.63
Above average	10,800 – 14,399	43,283	41,54	12,304	3.38
Largest	14,400 – 22,999	47, 320	53,52	17,630	3.04

*Parcel counts in quintiles not equal due to rounding in cumulative percentages
Source: Minnesota Planning and Clark Rieke
Data: Hennepin County Assessors Office

Economically speaking, the right amount of "sprawl" can be described as the amount of sprawl that pays for itself. Debate on this "ability to pay" usually centers on whether or not subsidies exist for expansion and maintenance of urban infrastructure such as roads and sewers. However, another form of subsidy would exist if marginal costs of land ownership decreased with increasing lot size after accounting for differences in values because of location. A property tax approach that favors large lots would create an effective "land consumption subsidy" contributing to sprawl-related development patterns.

The table illustrates the distribution of single-family residential homes in Hennepin County based on lot size with accompanying mean-assessed values of single-family residential lots on a parcel and square foot basis.[10]

In Hennepin county, 95 percent of single-family residential homes have lot sizes between 4,000 and 23,000 square feet, which roughly translates into parcels between one-tenth and one-half of an acre. The homes represented in the table represent typical residential lot sizes and development patterns in the county. The first group contains standard lot sizes found in Minneapolis. The second group contains the larger standard lot sizes found in Minneapolis as well as many first and second ring Minneapolis suburbs. The increase in assessed value per square foot from the first to the second quintiles can be expected given the higher property values typically found in these more affluent areas.

However, as lot sizes increase, the data shows a downward progression of mean-assessed values per square foot. In effect, the marginal cost of land ownership decreases as lot size increases. For example, assuming that homes with "average" lot sizes pay the "below average" residential lot price of $4.84 for the first 6,840 square feet of residential property, the remaining 2,945 square feet in the average size parcel has an effective cost of ownership of only $0.82 per square foot, which translates into an 83 percent "discount."

Why does this effective subsidy exist? One reason is that the property tax fails to correct a critical market imperfection which exists only in land. As demonstrated above, the marginal cost for the extra square footage in larger lots is significantly lower than the average cost per square foot found in standard urban lot sizes. In a competitive market, this condition would not exist. The price of this extra square footage would be bid up by homeowners to a level as high or higher than the average cost per square foot in the standard urban lots. But owners of standard lots in urban areas wanting larger backyards cannot pay the going price per square foot and "move" the land to their lots. And, unlike other goods and services, the marginal cost of land cannot be reduced by manufacturing more of it. The uniqueness of land results in a market imperfection.

A refined, sensitive and long-term approach to correcting this imperfection would be to simply tax the land value portion of property more substantially. The current property tax structure, by diluting the connection between site values and actual tax burden, amplifies this declining marginal cost of residential land ownership and enables higher levels of land use consumption and inefficiency.

It is important to note that the property tax is not solely the cause of this problem, which is compounded by the relationship between zoning policies and assessment practices. Under current assessment policy, the value of each lot is based on location and in the ability to create a home site. But zoning requirements establish the minimum lot size. Doubling the lot size without doubling the number of building sites does not double the lot value under current assessment policies.

If land values were taxed more substantially, minimum lot size ordinances would continue to work at cross purposes with efforts to improve land use efficiency. However, taxing land more substantially would reduce the fiscal motivation for local governments to have these types of zoning ordinances in the first place. This is discussed in more detail in the following section.

Effect 2: Land value inflation. Under the current property tax structure, land values appreciate at rates faster than wages and building values, reducing housing affordability.

A condition necessary for affordable housing is a rate of increase in wages over time that matches the rate of increase in the cost of two basic elements of housing – land and buildings. For the past two decades, building costs have largely stayed in equilibrium with wages. The cost of land has not, and the Minnesota property tax structure allows land to appreciate at a faster rate.

Land is a unique factor in the cost of housing, and land value appreciation has long been identified as a significant but largely hidden issue in housing affordability. A 1978 report by the Task Force of Housing Costs of the U.S

Department of Housing and Urban Development noted that the developed lot as a percent of the cost of a single-family house had risen from 15 percent in 1960 to 20 percent in the late 1970s.[11] Data from Hennepin County shows that this trend has continued. Information from the Hennepin County Assessors office shows that the developed lot for single-family residential homeowners now accounts for 28 percent of the cost of the house compared to only 23 percent in 1980. Importantly, this disproportionate land value appreciation is evident in both new lots *and* existing residences.

Because of confidentiality and other administrative issues, information on trends for vacant (new) residential acreage and lot prices is difficult to obtain.[12] Much of the information is anecdotal in nature and originates from interviews and surveys of builders and developers.

In a survey conducted at the 1999 convention of the National Association of Homebuilders, 51 percent of respondents reported lot prices were somewhat higher and 28 percent reported prices to be significantly higher. In Minnesota, a 1996report of the Builders Association of the Twin Cities found that land price escalation is a major issue for the continuing development and housing affordability of the Twin Cities metropolitan area. According to the report, "many of the developers stated that it would be nearly impossible to buy land at today's prices and develop a single family home for $130,000 or less anywhere in the seven-county metro area."[13]

Another perspective on land value appreciation can be found from the city of Plymouth. Land prices experienced a higher rate of inflation than

Recent inflation rates in Twin Cities metropolitan area residential land prices

	Years	Price per acre (raw land) percentage change
Chanhassen	1990-1993	46.7
Woodbury	1993-1994	106.1
Savage	1994-1996	146.0

Source: Builders Association of the Twin Cities

Rates of inflation in vacant residential land and related housing costs
City of Plymouth, 1984 - 1994

Increase in mean sales price per square foot of a vacant single-family residential lot Mean sale price/mean lot square footage for parcels between 8,000 and 50,000 square feet	96.9%
Comparison statistics	
Median sales price of an existing home in Plymouth (1984-1996)	56.8
Consumer price index	48.8
Composite prices – construction materials	
Framing lumber	77.4
Structural panel	66.7
Producer price index	
Gypsum	0.1
Cement	15.0
Construction employment cost index (total compensation)	44.6

Source: Minnesota Planning
Data: City of Plymouth Housing Rehabilitation Authority
Office of the State Demographer, Minnesota Planning
U.S. Department of Labor, Bureau of Labor Statistics
Bureau of the Census, Manufacturing and Construction Division

construction labor and materials for new housing and appreciated at a rate nearly twice that of the consumer price index. By comparison, the median sales price of existing single-family residential home rose only 56.8 percent from 1984 to 1996.

Previously developed residential land also exhibits disproportional appreciation in value. This is illustrated in a comparison of appreciation rates of mean residential lot values and mean residential building values from 1980 to 1997 in Hennepin County. Over this period average lot values appreciated by nearly 150 percent.[14]

Meanwhile, building values appreciated by 90 percent, the consumer price index rose 95 percent, and Minnesota wages increased 117 percent. Moreover, higher land value appreciation rates were consistent through the period. In 14 of 17 years land values appreciated at higher rate than building values, and in 12 of 17 years land values appreciated at higher rate than consumer price index.

One possible interpretation of this trend is that lot sizes are simply getting larger and therefore lot values only appear to be appreciating at a faster rate. However, as shown earlier, the marginal cost (assessed value per square foot) of land ownership decreases as lot size increases. Moreover, according to Hennepin County, the average cost per square foot of residential lots over one acre was estimated to be between $1.00 and $1.25 due to their lower locational value.[15] Simple growth in residential lot size is not the explanation.

Rather, the data suggests that Minnesota wage earners have lost ground in housing affordability primarily because of disproportionate land value appreciation. If not for land value inflation, comparison statistics indicate gains would have been made in housing affordability since 1980. Two causes for this disproportionate appreciation are:

- New development features and site preparation costs incorporated into lot prices and land values
- Artificially constrained supply and subsidized demand

A wide variety of development requirements imposed by land use regulations and building codes are factored into lot prices. Impact fees, assessed by communities on developers, are reported in some circumstances to have increased finished lot prices by as much as 20 percent to 50 percent.[16] Many of these features are capitalized into the value of the land. Amenities such as protected natural areas, bikeways, wide roads and special street lighting as well as "standard" elements such as water and sewer service are all reflected in assessed land values.

While this "forced appreciation" undoubtedly explains some of the inflationary pressure, evidence suggests this is not the principal cause. From 1980 to 1997, the number of new single family residential homes in Hennepin County increased from 228,620 parcels to 256,704 parcels – or 12.2 percent. Although a sizeable increase, the sum of these new lot values are quite small relative to the combined residential lot values of 87.8 percent of single-family residential homes in Hennepin County before 1980. In other words, the vast majority of residential properties in the table are likely to have experienced little or no land value appreciation resulting from higher regulatory and development standards. Moreover, as described earlier, the upward trend in lot costs as a percentage of housing costs has risen for 30 years predating many of today's more stringent and costly land use and development requirements.

Percentage appreciation in single-family residential homes, 1980 – 1997	
Land value appreciation	149.2%
Building value appreciation	89.7
Comparison statistics	
Minnesota wage growth	117.4
Consumer price index	94.8

Sources: Minnesota Planning and Clark Rieke
Data: Hennepin County Assessors Office
U.S. Department of Labor, Bureau of Labor Statistics
1998 Economic Report to the Governor, Table 17

Lot and building value appreciation in Hennepin County: single-family residential, 1980-1997					
Year	Average lot value*	Average building value	Percent land value increase over previous year	Percent building value increase over previous year	Percent change in consumer price index
1980	$ 14,667	$ 48,865	–	–	–
1981	$ 16,854	$ 52,568	14.9%	7.6%	10.3%
1982	$ 18,436	$ 56,959	9.4	8.4	6.2
1983	$ 18,664	$ 54,549	1.2	-4.8	3.2
1984	$ 19,713	$ 56,032	5.6	2.7	4.3
1985	$ 20,185	$ 56,539	2.4	0.9	3.6
1986	$ 20,994	$ 57,716	4.0	2.1	1.9
1987	$ 22,186	$ 60,266	5.7	4.4	3.6
1988	$ 24,266	$ 63,677	9.4	5.7	4.1
1989	$ 25,583	$ 67,282	5.4	5.7	4.8
1990	$ 26,947	$ 70,435	5.3	4.7	5.4
1991	$ 27,672	$ 71,743	2.7	1.9	4.2
1992	$ 28,172	$ 72,621	1.8	1.2	3.0
1993	$ 29,410	$ 75,442	4.4	3.9	3.0
1994	$ 30,773	$ 79,248	4.6	5.0	2.6
1995	$ 32,385	$ 84,252	5.2	6.3	2.8
1996	$ 34,162	$ 88,319	5.5	4.8	3.0
1997	$ 36,551	$ 92,713	7.0	5.0	2.3

Source: Minnesota Planning

The more potent and significant factors in land value inflation are simple supply and demand realities. Minnesota features:

■ Heightened demand for land, fed by a growing population, the attractiveness of large lot lifestyles subsidized by tax code treatment of housing (discussed later in this section), and decreasing marginal costs of land ownership.

■ Artificially constrained supply due to a wide variety of government actions and regulations. Two types of governmental intervention which are especially influential are zoning ordinances and urban growth management strategies. Ordinances, such as minimum lot size requirements, parkland and open space set-asides and building size requirements, further reduce the effective supply of land. Similarly, a local form of growth management, the Metropolitan Urban Service Area, influences the effective supply of housing land by prescribing the location of land available for municipal water and sewer services. This "developability" is also capitalized into the price of the land. One local builder reports that some developable acreage within the MUSA had a value in 1994 over three times that of acreage across the street lying outside the area featuring identical site development characteristics. Over the next three years the MUSA land appreciated by an additional 100 percent. [17]

The current Minnesota property tax system enables disproportional land value inflation in two ways. First, it fails to tax land at a higher rate which dampens the inflationary effects. Although part of the Minnesota property tax revenue is based on land values, the beneficial impact is muted since land value typically makes up a smaller portion of total market value and the rate

is equal to that on improvements. For example, in Hennepin County only 28 percent of the total property tax base is land value.

Second, as the following section describes, the property tax exacerbates the issue of artificially constrained land supply by enabling properties within a developed area to remain undeveloped or underutilized in relation to its value.

Effect 3: Low land holding costs. Under the current property tax structure, economic incentives exist for withholding land from development or keeping urban land underdeveloped in relation to its value.

The Minnesota property tax system has subtle but powerful influences on the nature and timing of property development and redevelopment.

If the land value of a parcel is high and the economic return on the property in its current condition is insufficient to pay the tax, the increased property tax liability creates an economic signal that development or redevelopment of the parcel to better use is appropriate. Examples of this type of property turnover can readily be found along new transit corridors and next to major development projects where land values appreciate rapidly. In these areas, properties are sold and new office and commercial buildings are built because these types of development can afford the increased land values.

The problem with the existing system is that the turnover is often slower than economic efficiency would dictate. The current property tax creates a relatively low holding cost for land. An owner can keep a property underdeveloped in relation to its value because capital gains from land value appreciation from community growth and positive spillover from neighboring properties will exceed the cost of holding onto the parcel. The owner benefits, but the city pays the opportunity cost – the lack of redevelopment and the reduction in effective supply of land.

A commercial example of this can be seen in the impact on a commercial-industrial parcel located near the Mall of America in Bloomington. Information obtained from the Bloomington city assessors office demonstrates the redevelopment disincentive in the system. The economics underlying property management for this local light industrial enterprise are shown in the table.

In 1966 the company constructed a one-story industrial building on land assessed at $0.38 per square foot. At that time, the development intensity of this parcel was a respectable 77.7 percent as measured by the assessed building value divided by the total assessed property value.

In other words, it was an appropriate location for a manufacturer of this size, given underlying land

Comparison of capital gains and property taxes payable on land values commercial/industrial parcel Bloomington, Minnesota

Property size	79,260 square feet
Assessed value of land in 1966	$ 30,150 (.38 per square foot)
Assessed value of land in 1999	475,560 ($6.00 per square foot)
Percentage increase in land value 1966-1999	1580%
Average annual rate of appreciation	8.6% for 33 years
Average annual rate of inflation	
Consumer price index, 1966-1999	5.17%
Estimated annual capital gain on land value 1996-1999	$37,000
1999 property taxes payable	28,830
1999 property tax payable on land value	20,782
Ratio of annual estimated capital gain from land to 1999 property tax payable on land	1.8:1

Based on 1999 assessment of $475,560 land value times 4.37 percent effective tax rate
Sources: Minnesota Planning
Data: City of Bloomington Assessors Office

values.

Over the next three decades substantial changes in the area have caused land values to appreciate rapidly. New interstate construction, continued airport development, and finally the Mall of America were three major factors leading to land values appreciating by nearly 1,600 percent in 33 years.[18] This translates into a compounded rate of 8.6 percent per year. By comparison, the consumer price index rose 517 percent during this period at a compounded rate of only 5.1 percent per year – providing some evidence that land values for commercial and industrial properties, like residential, also rise faster than general reinvestment was negligible or zero as evidenced inflation rates. The company's building by rapidly declining assessed values for the building. Today, it is an undistinguished structure, parts of which are highly depreciated and an appropriate target for redevelopment. Land values have made the current use of this property obsolete.

However, the existing property tax fails to help this process of redevelopment along. Rather it enables the property to remain in its underdeveloped state since the capital gains from positive spillover in land value easily exceeds the additional property tax burden resulting from land value appreciation. Over the last several years the company has had an estimated average capital gain of $37,000 annually from land value appreciation. Meanwhile the total property tax payable in 1999 was only $28,230. The estimated capital gains on the parcel more than offset the property tax burden. The failure to tax the appreciating land values more substantially enables this valuable property to remain in an underdeveloped state indefinitely. It is worth noting that commercial and industrial land for $1.30 to $2.40 per square foot can still be purchased in other areas of Bloomington.

This same economic signal exists in raw or unimproved land as demonstrated by another parcel located in the same area of Bloomington. In 1972 a company completed a large office building on 70 acres it had purchased in the 1960s. A significant amount of acreage has remained undeveloped in the 27 years since this construction and features large open air parking areas, lawn and ballfields. In 1972, the land was assessed at $.90 per square foot. By 1999 it had risen to $8.00 per square foot.

In this instance, land values appreciated by nearly 888 percent over 27 years which translates into a rate of 8.4 percent growth per year compounded. Total property taxes paid in 1999 were $1.4 million of which $720,000 were based on land value. However, the average annual estimated capital gain in land based on a compounded growth rate of 8.4 percent, was $1.25 million, or nearly twice the property taxes payable for the land. In this instance, some of the potential capital gain was realized as 18.3 acres were sold in 1999 to another party for $9.86 per square foot – a 23 percent premium over assessed value.

As the above examples show, the current property tax helps to preserve a level of underinvestment in property. By taxing land and improvements equally, "above average" capital gains, that is, gains in excess of appreciation in value suggested by rates of inflation, continually accrue to parcel owners who are the beneficiaries of positive spillover from improved infrastructure, city growth and local economic development activity. "Sprawl" pressures are exacerbated as potential development is pushed further outward.

The multiplier effect: Tax code treatment of housing

The economic distortions in the property tax are inherently influential; their impact is magnified when combined with state and federal tax code treatment of home ownership. The deductibility of property taxes and mortgage interest combined with capital gains exclusions from home sales creates a potent combination of subsidies that can be directly linked to today's urban form. While a recent survey suggested that Minnesotans have a strong preference for low density, suburban

oriented living environments,[19] these development patterns and lifestyles are financially enabled by large incentives embedded in federal and state tax policy. Minnesota developmental patterns reflect, at least in part, incentives arising from the rich mix of subsidies rather than simple market preferences for low-density living environments.

Property tax and mortgage interest deductions: Who receives the benefit in Minnesota?

In a series of white papers on the effect of housing tax expenditures on urban form, Joseph Gyourko, professor of real estate and finance, Wharton School, University of Pennsylvania, and Richard Voith of the Federal Reserve Bank of Philadelphia, noted the effects of regulatory and fiscal policy interaction.[20] Their conclusions, summarized in the table, are that urban form and income clustering today are predictable given the interactive incentives of tax policy and land use regulation.

Importantly, tax code consequences are amplified by the fact that wealthy households and homeowners obtain a disproportionate share of this housing subsidy. Under reasonable and conservative assumptions, the value of housing-related deductions do not exceed the federal standard deduction until home prices exceed the$100,000 level. As interest rates decline, as they have in recent years, the breakpoint price for this effective housing subsidy rises. The value of these housing deductions escalates rapidly as housing prices and incomes rise above the 1996 average market value of $113,000 for a single-family residential home in Hennepin county.[21]

The potential impact of the distribution of these tax expenditures on urban form is where most of the homes receiving the subsidy are located. In Hennepin County, the majority of the beneficiaries of this tax subsidy reside in suburban areas. Some 72 percent of Hennepin County homeowners residing in cities other than Minneapolis own homes above the effective subsidy breakpoint of $100,000, while only 32 percent of Minneapolis homeowners own above the breakpoint.

These subsidies are highly regressive in that the majority of benefits accrue to incomes and levels of homeownership above the median and increase as income and housing consumption rises. The ability to combine housing-related deductions with other non-housing deductions enables some subsidy to go to homeowners below this price breakpoint. However, evidence suggests the extreme levels of structural regressivity in the tax expenditures does not change. According to a study by the Bureau of Labor Statistics, the share of total household expenditures represented by housing is nearly identical between households earning more than $90,000 (31.2 percent of total expenditures) and those earning less than $90,000 (31.3 percent of total expenditures.)[22] In addition,

Interaction of tax and regulatory effects on urban form

Mortgage and real estate tax expenditures	Add: Influence of zoning	Add: Community amenities as a function of community income
Effect Decentralization and sprawl	Added effect: Income sorting, separation of poor and wealthy	Added effect: Decline in center city land values

Source: J. Gyourko and R Voith, Working Paper No. 97-13: "Does the U.S. Tax Treatment of Housing Promote Suburbanization and Central City Decline?"

Distribution of Hennepin County single-family homes by assessed value, 1999

	Less than $50,000	$50,000–100,000	Above $100,000
Minneapolis	10,898	47,549	27,375
Other Hennepin County Cities	828	51,785	134,905

Source: Hennepin County Assessors Office

Estimated value of housing deductions by home price						
Home price	Annual mortgage interest expense	Annual property tax expense	Deductible housing expenses	Deductible housing expenses less standard deduction	Marginal rate	Value of excess housing deductions
40,000	$ 2,633	$ 415	$ 3,049	- 4,051	.15	$ 0
50,000	3,291	519	3,810	- 3,290	.15	0
60,000	3,950	623	4,573	- 2,527	.15	0
70,000	4,608	726	5,334	- 1,766	.15	0
80,000	5,266	867	6,133	- 967	.28	0
90,000	5,924	1,043	6,967	- 133	.28	0
100,000	5,851	1,219	7,070	- 30	.28	0
120,000	7,021	1,622	8,643	1,543	.28	432
140,000	8,192	2,058	10,250	3,150	.28	882
160,000	9,362	2,494	11,856	4,756	.28	1,332
180,000	10,532	2,930	13,462	6,362	.31	1,972
200,000	11,702	3,366	15,068	7,968	.31	2,470
225,000	13,165	3,911	17,076	9,976	.31	3,093
250,000	14,628	4,455	19,083	11,983	.36	4,314
275,000	15,085	5,000	20,085	12,985	.36	4,675
300,000	16,457	5,545	22,002	14,902	.36	5,365

The potential impact of the distribution of these tax expenditures on urban form is where most of the homes receiving the subsidy are located. In Hennepin County, the majority of the beneficiaries of this tax subsidy reside in suburban areas. Some 72 percent of Hennepin County homeowners residing in cities other than Minneapolis own homes above the effective subsidy breakpoint of $100,000, while only 32 percent of Minneapolis homeowners own above the breakpoint.

Mortgage interest expense: Based on 10 percent down for homes less than $100,000, 20 percent down for homes from $100,000 to $250,000, and 25 percent down for homes greater than 250,000. Assumes 7.5 percent, 30-year mortgage. Figure is the average yearly interest payment over the first five years of the mortgage.

Property tax expenses: Based on 1.282 “blended” Hennepin County tax capacity rate less education credit.

Deductible housing expenses: Interest expense plus property tax expense.

Standard deduction: Assumes 1999 standard deduction of $7,100 for married couples filing jointly.

Marginal rates: Marginal rates are based on incomes generated through estimates of homeowner housing consumption ratios. Ratios used were 2.25 for homes under $70,000; 1.72 for homes $80,000 to $200,000; 1.5 for homes $225,000 to $275,000; and 1.25 for homes over $300,000.

a far larger percentage (75 percent) of these high income homeowners have mortgages than do other households (32 percent.)[23] According to the Internal Revenue Service, the percent of total itemized deductions attributable to housing decreases slowly as income rises.

The elevated levels of mortgage and housing consumption indicated by these statistics demonstrate high income owners and high priced homes remain the principal beneficiaries. Given the spatial distribution of this subsidy, current land use and development patterns are quite predictable.

Capital gains treatment of housing: The great cost of housing equalizer

Exclusion of home sales from capital gains taxes is another influential subsidy with implications for sustainable development issues, particularly housing. Taken together, housing deductions and preferential capital gains treatment create an economic influence so powerful, affordable housing programs appear largely destined to fail.

The accompanying table illustrates the influence of these favorable deductions and capital gains treatment on the median monthly cost of homeownership for a sample of cities in the Twin Cities metropolitan area. Because these implicit subsidies vary across households along income lines, housing-related tax expenditures are concentrated on cities with the highest incomes and highest house values. As a result, while the median sales price of a house of the most expensive city (Plymouth) is 85.1 percent greater than the least expensive city (St. Paul), the estimated monthly cost of homeownership after tax deductions in Plymouth is only 65 percent greater.

The spread in the effective monthly cost of homeownership decreases further when the effect of capital gains is introduced. Since capital gains are now tax free for most homeowners, those in rapidly appreciating neighborhoods obtain the greatest effective "net, net" reduction in the cost of homeownership. Although the cost of entry into suburban areas is often prohibitive, the effective monthly cost of homeownership is quite homogenous across the Twin Cities region.

A comparison of thesecities with a specific core city neighborhood featuring declining property values demonstrates the potent economic disincentive for urban revitalization built into the tax code. Information obtained from the Minneapolis City Assessors Office showed that the value of single residential properties in this city neighborhood declined by an average of 16.8 percent from 1989 to 1998. (Actual median sales price information for properties in this neighborhood, also obtained through the city assessor, showed an equivalent rate of depreciation.) This translates into a loss in value of $86 per month. Projecting this rate of depreciation on a hypothetical house valued at $55,000 in 1989, the 1998 home price would be just over $45,760. Assuming this rate of depreciation continues forward, the effective "net, net" monthly cost of housing is $418 – a sum roughly equal to or greater than that of several first and second ring suburbs.

U.S. household income and corresponding housing deductions

Household income	Mortgage interest and property tax as a percent of total itemized deductions
$ 20,000 – $40,000	63.4%
40,000 – 60,000	61.4
60,000 – 80,000	58.9
80,000 – 100,000	56.9
100,000 – 120,000	56.1
120,000 – 140,000	54.2
140,000 – 160,000	51.6
160,000 – 180,000	50.4
180,000 – 200,000	50.2
200,000 – 250,000	46.5
250,000 – 300,000	42.8

Source: U.S. Internal Revenue Service
Office of Tax Analysis

Monthly cost of home ownership, net deductions and capital gains of selected cities in metro area

City	1998 price	Monthly principal	Monthly interest	Property tax	House payment	Deductible expenses	Tax savings	Net cost after deduction	1989 median price	Average monthly gain/loss	Percent increase 1989-1998	Net, net monthly cost of housing
Minneapolis	$ 92,870	$ 75	$ 509	$ 1,292	$ 753	$ 617	$ 114	$ 639	$ 70,050	$ 211	32.58	$ 428
St. Paul	89,700	72	493	1,216	726	594	110	616	68,700	194	30.57	421
Bloomington	126,900	102	697	1,649	1,010	834	234	777	94,000	305	35	472
Brooklyn Park	14,000	92	626	1,590	919	759	212	707	81,500	301	39.88	406
Plymouth	66,000	134	912	2,335	1,329	1,106	310	1,019	118,500	440	40.08	579
Eagan	117,630	95	646	1,366	925	760	213	712	92,000	237	27.86	475
Eden Prairie	57,000	127	862	2,499	1,282	1,071	300	983	110,000	435	42.73	547
Maple Grove	133,100	107	731	1,880	1,071	888	249	823	88,000	418	51.25	405
St. Louis Park	15,000	93	632	1,565	924	762	213	711	81,021	315	41.94	396
Minnetonka	59,250	129	875	2,465	1,295	1,080	302	992	115,000	410	38.48	582
Burnsville	128,400	104	705	1,691	1,024	846	237	787	97,950	282	31.09	505
Brooklyn Center	94,000	76	516	1,218	755	618	173	582	77,000	157	22.08	424
Fridley	112,000	90	615	1,349	886	728	204	682	79,000	306	41.77	377
Richfield	111,000	90	610	1,562	897	740	207	690	82,000	269	35.37	421
Shoreview	29,200	104	710	1,724	1,032	853	239	793	95,000	317	36	476
Woodbury	149,800	121	823	1,991	1,192	989	277	915	96,500	494	55.23	422
Comparison property												
Phillips neighborhood	$45,760	$ 37	$ 251	$ 561	$ 377	$ 298	$ 45	$ 333	$ 5,000	$ (86)	-16.8%	$ 418

Notes and assumptions

- 1998 and 1989 median sales prices obtained from Sales Ratio Office, Property Tax Division, Minnesota Department of Revenue
- Monthly principal and interest based on average payment over the first five years of a 7.5 percent, 30-year mortgage, 10 percent down.
- Property tax is annual tax liability based on 1998 tax capacity rates for each city, less Minnesota education credit.
- House Payment includes hazard insurance and mortgage insurance based on outstanding mortgage balance.
- Tax savings is based on projected marginal tax rates for estimated 1998 median family income in each city; 1998 income based on 1990 median family income for each city, adjusted for inflation and 13.6 percent real per capita income growth in Minnesota from 1990-1998. Marginal rates were 28 percent for all cities except St. Paul and Minneapolis which were .184 and .185 respectively. These blended rates occur where itemized deductions result in bracket shift.

The only apparent competitive advantage offered by core urban areas to potential homeowners – cost of homeownership – often does not exist. Attractive suburban areas can effectively compete with, and often beat, the effective cost of homeownership offered in inner city neighborhoods.

Implications of tax code subsidies: The inadequacy of affordable housing programs

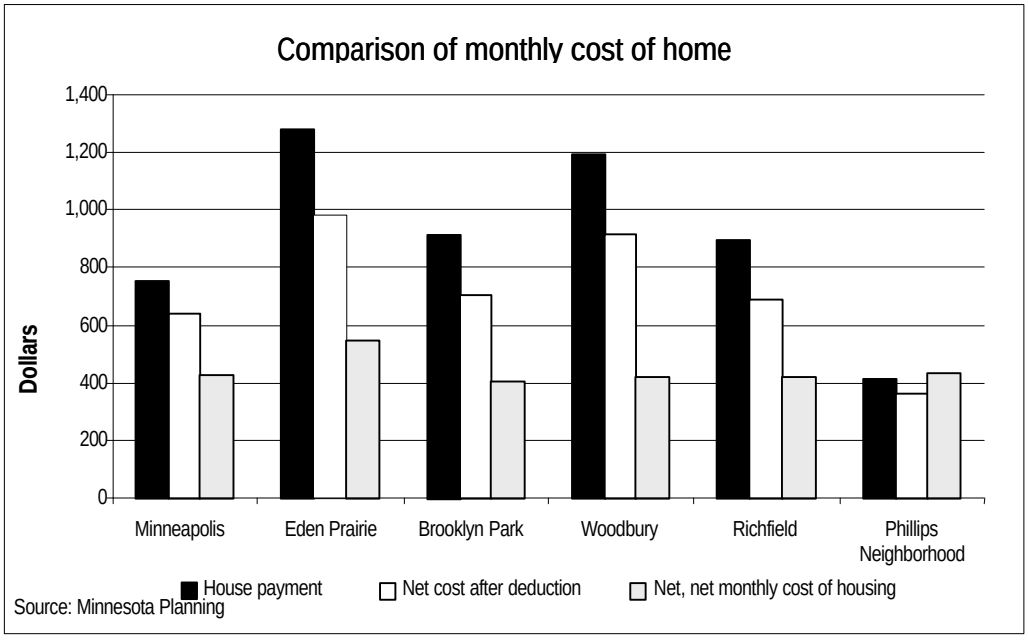
Tax-code based subsidies and preferential capital gains treatments have several implications for urban form and affordable housing:

■ The effective subsidy makes housing less expensive and increases the quantity of housing purchased, resulting in "sprawl" related patterns of land use. When combined with a decreasing marginal cost of land ownership, greater consumption of housing resources and land can be expected to occur in those areas receiving the greatest tax benefits, namely, the suburbs.

■ Multi-housing development interests are undercut; a clear economic incentive exists for homeownership over apartment living. A modest two-bedroom apartment with a rent of $650 may be 30 percent more expensive housing option than a four-bedroom home in an attractive suburb when capital gains are considered.

■ Segregation based on income will be fostered between urban and suburban areas *and* within a central city. For those receiving tax based subsidies within the city, the benefits will likely be capitalized into higher home prices since the ability to consume more housing land and resources on existing lot sizes is inherently limited. As a result, income segregation and large home price discrepancies are likely to occur even within the urban areas. A 1995 report by Minnesota Planning reported that the price gap between higher value and lower value homes in Minneapolis and St. Paul grew considerably from 1984-1996. The inflation adjusted value of 10th percentile homes fell 35.5 percent from 1984 to 1996 while the value of 90th percentile homes rose 3.6 percent – a predictable phenomena given the underlying subsidies.[24]

Most significantly, government attempts to improve affordability are more than neutralized by the economic influence of tax code subsidies. According to the Minnesota Housing Finance Agency, approximately $443 million of federal and state housing assistance was spent in Minnesota in 1997 under a variety of programs for renters and homeownership.[25] These "progressive" housing subsidies can be compared



with "regressive" subsidies based in state and federal tax code treatment of housing. According to the Minnesota Department of Revenue, $315 million of state individual income tax expenditures were based in property tax and home mortgage interest deductibility – 82.3 percent of which went to incomes of $50,000 or more.[26] Combined with an estimated $1.4 billion in housing-related federal income tax expenditures in Minnesota, regressive housing subsidies total approximately $1.7 billion or almost four times the amount spent on housing assistance.[27] For every dollar spent on improving housing affordability in Minnesota, four dollars of effective subsidy flow toward greater home consumption and price capitalization making affordability more difficult.

The impact of all this on housing economics might also be thought of in terms of the competitive market for purchasing home resources. Buyers with incomes above the median (marginal tax rates at or above 28 percent) are therefore paying on average less than 72 cents on the dollar for housing labor, lumber and land. Meanwhile most buyers with incomes below the median (with marginal rates at or slightly above 15 percent) are paying approximately 85 cents on the dollar. The housing assistance subsidy, in effect, buys down the subsidy gap, but cannot establish equality.

Rental housing economics fair no better in the subsidy chase. A 1994 study of renters receiving assistance found rental assistance has more of a housing effect (increased housing expenditures) than a welfare effect (reducing rent burden.) In other words, those receiving the assistance were more likely to seek higher valued housing and spend roughly 30 percent of their income on shelter regardless of the subsidy amount.[28] The net effect is to bid up the price of rental housing resources and encourage development of higher-priced units leaving a wake of even less affordability both with regards to demand and supply.

Although housing may be made more affordable to individuals on a case by case basis, the fundamental economics do not change. In the face of these fiscal distortions, affordable housing will continue to be a chronic urban problem regardless of the amount of money state and local governments devote to the cause.

Three principles for a "sustainable" property tax

The taxation of improvements discourages intensive developments of sites and so contributes to urban sprawl. As the metropolitan complex spreads into the countryside, land prices are pushed up….

The very process which accelerates the encroachment of the metropolis into the countryside simultaneously causes the decay of the inner city. As structures depreciate, the tax on improvements penalizes their repair. Construction on new sites becomes more attractive than renovation…

Any machine which is not kept in repair incurs higher maintenance costs and more frequent breakdowns. A city which decays is analogous: the cost of providing basic services escalates and social problems multiply. As structural depreciation continues without renovation, the property tax base shrinks commensurately…

Thus, the policy of taxing improvements eradicates productive farmland as it prevents realization of the reason for the cities existence – concentration of financial, commercial, industrial and distributional functions with nearby housing for their participants. The economic costs of this policy are gigantic: the costs of the social problems exacerbated are beyond measure.

Study on the Property Tax in Minnesota Minnesota Tax Study Commission, 1974, pp.151-152

Nearly 30 years ago the domino-like cause and effect relationships of the property tax were recognized. The predicted results provided a glimpse into Minnesota's future.

Many government programs have been established to address this social, environmental and economic fallout of current development behavior. Property tax reform offers a way to change the economic dynamics underlying this behavior. The challenge for policy-makers is to design a property tax system which neutralizes the distortions and establishes economic signals, which supports, rather than discourages, the efficient use of land and urban infrastructure.

The weaknesses and flaws of the existing system point to three guiding principles for property tax reform – principles which meet the conditions of sound tax policy while advancing desirable developmental outcomes.

Principle 1: Restore economic efficiency to the structure of the Minnesota property tax.

Economic distortions are a primary enemy of sustainability, and the number and influence of distortions in the Minnesota property tax system has only increased over time. The multi-tiered Minnesota classification system and other forms of preferential treatment builds economic inefficiency into the property tax system which in turn triggers economic, social and environmental spillover effects. Reducing the statutory distortions through class rate compression and restoring simplification is a foundation for improving the sustainability of the Minnesota property tax.

The Minnesota property tax system fails to recognize that economic efficiency is a precondition for greater equity. The equity efforts (via redistribution of tax liability) creates greater economic inefficiency which leads to other equity issues and development impacts. As unpalatable as property tax increases are, Minnesotans are paying more in other taxes to address the problems these distortions create.

Principle 2: Tax land values more, tax building values less.

Two themes consistently arise from a review of property tax impacts 1) the damage done by taxing improvements and 2) the damage done by *not* taxing land values. High levels of taxation on improvements triggers the causal chain described by the Minnesota Tax Study Commission. In

Minnesota, the weight of property tax burden is placed on capital improvements.

The unique characteristics of land and the minimal distortions created by its taxation have led some policy experts to describe the taxation of land values as "the perfect tax."[29] Others have described it as the economic foundation for sustainable development.[30] Regardless of what its actual economic potential may be, evidence in Minnesota suggests that land values and taxation of land values unifies such seemingly diverse topics as sprawl, affordable housing and urban redevelopment. A property tax system which shifts burden away from desirable outcomes (growth and development) and toward land offers promise for the long-term interests of Minnesota.

Principle 3: Restore a level of local flexibility and accountability in the property tax.

The strength of the property tax is in accountability, linking government-provided services and amenities with the desire of the citizens of the jurisdiction to pay for them. It also helps create a context where the true costs and consequences of local development decisions are paid by the property owners and citizens. This linkage has been significantly influenced by the expanded role of state government in local finance. Such a relationship suggests "reform for sustainability" needs to examine broader tax policy issues and the fiscal relationship between state and local government.

The degree of local accountability via the property tax is also influenced by the limited flexibility local governments have in property tax structure and design. While there is a definite and

compelling state interest in ensuring a level of uniformity and consistency in property taxation throughout the state, greater levels of discretion would allow local and regional governments to tailor taxation approaches to development issues and adopt approaches that foster, rather than conflict with, community planning objectives.

Site value taxation as a sustainable development approach to property tax reform

Higher land taxes, especially when accompanied by reduced taxes on structures, look like an idea businessmen ought to embrace and promote. The benefits in the form of jobs and increasingly compact development are not only lasting but flow to the whole community.

"Higher Taxes that Promote Development," *Fortune,* August 8 1983

Property tax "reform" in Minnesota has historically focused on incremental changes in classification rates and other measures which shift tax burden across property types. Structural changes in property tax assessment and administration has seldom received much attention. This chapter will examine the feasibility and efficacy of adopting site value taxation as an approach to property tax reform.

History and overview of site value taxation

The roots of site value taxation in the United States can be traced to Henry George, a late 19th century economist, philosopher and land reformer. George wrote extensively on the unique and influential role land has in micro and macroeconomics. *Progress and Poverty* was the most influential and popular book on economic and social development in its time selling over 4 million copies. George advocated removing taxes from labor and capital and replacing them with taxes on land values. His premise was simple: since public expenditure and community growth create private wealth through land value appreciation, government activity should be financed by the taxation of the value created.

Site value taxation (or the split rate tax)[31] is a modern day variation on George's theme of land value taxation. Site value taxation "splits" the property tax into its two components: a tax on land value and a tax on building values. Land values are "uptaxed" over time at a differential rate greater than the buildings and improvements which are "downtaxed" over time. Differential rates are phased in over an extended period of time to allow real estate markets and property owners to adjust to the capitalization effects. Although site value taxation can be implemented as "revenue neutral" property tax reform, many advocates encourage its adoption within a broader tax reform package which places greater emphasis on taxing land values and reducing income taxes accordingly.

Site value taxation has some historical presence in Minnesota policy debates. In 1973, the Minnesota Tax Study Commission wrote a favorable review and analysis of site value taxation. Throughout the 1970s and 1980s, a dedicated group of legislators made continuous but largely unsuccessful efforts to introduce site value taxation into Minnesota property tax reform legislation. [32]

Today, the basic concept of site value taxation is held in high regard by an unusual mix of organizations and individuals, not normally considered to be policy bedfellows. Eight Nobel laureates in economics have endorsed site value taxation.[33] It has been praised by both the Sierra Club[34] and *Fortune* magazine. As interest grows in tax policies that provide market incentives to address social problems and externalities, the concept of site value taxation has enjoyed a bit of a renaissance in public policy circles.

The conceptual benefits of site value taxation are numerous and can be summarized from different perspectives:

Tax policy perspective. Tax economists generally praise site value taxation for its ability to achieve economic efficiency and equity together while imposing minimal distortions to the economy.[35] Using a tax base that has fixed supply (land) is the best way of assuring against economic distortions, inefficiency and deadweight losses to the economy.

Development perspective. Site value taxation reduces the penalty for improving property. It dampens land value inflation thereby reducing development risk and making all types of development more affordable. By raising the holding cost of land and reducing the cost of redevelopment, it encourages infill development and redevelopment of underutilized properties. Investment is channeled into productive capital expansion rather than unproductive speculative activity in land holding. In total, the developmental effects of site value taxation have been likened to "a gentle rain which makes what should decay, decay faster and what should grow, grow stronger."[36]

Environmental perspective. Centrifugal pressures for urban sprawl are reduced by encouraging best use of higher value, already serviced land. The capitalization effect makes urban high value land parcels more economically competitive with the outlying areas. It encourages land to be used more efficiently and fosters greater levels of density improving the economic viability of mass transportation.

Governmental perspective. Land value appreciation – created by community growth and public infrastructure – provides a growing revenue base to pay for increased demand for city services and public amenities.

The principles of site value taxation holds considerable appeal, but the degree to which a government adopting such a system will realize the benefits depends on other conditions or factors:

Demand characteristics of submarkets. Actual impact will be greatly influenced by the characteristics of market demand for redevelopment within specific areas. The amount of pent up demand for redevelopment, the influence of the property tax on a firm's cost of capital, and the amount of underutilized land in an area all influence the degree to which site value incentives will stimulate investment.

Existence of externalities. Site value taxation is highly attractive in a free market context. However, land, housing and economic development efforts are far from a "pure" free market. Urban land development features rehabilitation subsidies, low interest loans, zoning restrictions and limitations on property conversions. All complicate the cause and effect relationships and potentially dilute site value impact.

Scale of implementation. Site value impacts also depend on the scale it is implemented. Its redevelopment potential is likely to be strongest when applied at a city level since the downtaxing of capital improvements becomes a source of comparative advantage with other municipalities. If an entire metropolitan region adopts the system, this comparative advantage is muted. Conversely, the sprawl mitigation effects are likely to be strongest only if the whole metropolitan region adopts the system.

In short, site value taxation sends the right signals, but the incentives vary in significance relative to other factors. Other contextual issues will strongly influence which benefits are realized and how significant the benefits will be.

Site value taxation in practice

Despite considerable economic, developmental and philosophical appeal, site value taxation systems remain relatively rare. Certain countries, most notably, Australia, New Zealand, Taiwan,

Denmark and South Africa have long established histories with this approach to taxation. Other pockets of activity have arisen in British Columbia, as well as in developing countries such as Estonia.

In the United States, experience with site value taxation began in two Pennsylvania cities. In 1913 the Pennsylvania legislature passed a law requiring Pittsburgh and Scranton to increase their property tax rates on land and decrease their rates on buildings in five steps so that by 1925, land would be taxed at twice the rate of buildings. In the 1970s as the Pennsylvania economy was being racked by the collapse of the steel industry and its economic shock effects, the state legislature passed a home rule provision allowing cities to fix their own property tax rates. Since that time 15 other Pennsylvania cities have implemented a site value tax system.

The vast majority of research studies on the Pennsylvania experience have concentrated on only one dimension of site value taxation: its effects on building and construction activity. In this regard, the literature is generally favorable although opinions differ on how much of this increased activity can be directly attributable to a change in tax policy. One study of Pennsylvania towns adopting site value concluded that "on average a one percentage point increase in the tax differential between land and buildings will yield an increase in the total value of construction of 17.8 percent."[37] A more tempered conclusion was reached in a landmark study on Pittsburgh's experience with site value taxation and its linkage to the city's remarkable boom in building construction and development.[38] In this study, the authors could not conclude that tax reform *in itself* was capable of generating major urban renewal efforts, but credited site value taxation with providing a fertile foundation for these redevelopment efforts to occur. They also concluded that site value largely lived up to its theoretical reputation as a non-distortionary tax noting that, "land value taxation provides city officials with a tax instrument that generates revenues but has no damaging side effects on the urban economy."[39]

Officials from Pennsylvania cities that have adopted site value taxation generally demonstrate enthusiasm for this approach and recommend it to other cities as being an important element in their redevelopment efforts. The Mayor of Harrisburg stated that "the two-tiered system is an important ingredient in our overall economic development activities…we have no hesitation in recommending your serious and favorable consideration to such a two-tiered real estate tax rate policy for the City of Allentown based on our positive experience with the same." [40] Similar statements of support have been made by officials from Pittsburgh, Washington, New Castle, Scranton and Hagerstown.

Some cities have implemented site value taxation but later repealed it. In several cases the reasons for repeal appear to have had little to do with economic impacts, or lack thereof. A study of repeals in Amsterdam, New York, Uniontown and Hazelton, Pennsylvania noted that "ultimately elections and politics rule the property tax.[41] A number of administrative issues pertaining to assessments, discussed later in this section, were also important contributing factors.

Tax redistribution under a site value taxation system

Changes in tax liability from implementing a site value system differ from tax redistribution in a classification system. Tax shifts are based on "how well" the property is used relative to its land value rather than on property type or class.

Fundamentals of site value incidence: Building to total value ratio

By uptaxing land values and downtaxing improvement values, the split rate property tax favors greater land use efficiency and development intensity per dollar of land value. At

the individual parcel level, change in tax burden will be determined by two simple factors:

The ratio of building value to total property value for the site; and how this ratio compares to the average in the county, or city or whatever taxing jurisdiction is implementing the approach.

Total property value equals building value plus land value. The building to total value ratio (BV/TV) is a measure of the intensity of development and building investment per dollar of land. For a property with a total assessed value of $100,000 of which $70,000 is building value, the BV/TV ratio is 70 percent.

This same calculation can be done for the sum total of all properties in a taxing jurisdiction to arrive at a jurisdiction-wide average for a county or city. To determine whether a property would pay more or less under a split rate system in a particular jurisdiction, the BV/TV ratio of the parcel is compared to that of the jurisdiction average. Those with higher values, reflecting better than average land use efficiency and property development relative to the underlying value of land will pay less. Properties below the jurisdictional average pay more.

Some simple scenarios illustrate how the fundamentals of a split rate system works. Assume the county average BV/TV is 70 percent: that is, 70 percent of the total market value of property in the county is building value and 30 percent is land value.

Under the existing system the same tax rate is applied to both land and building value. The base case shows the tax liability for a $100,000 property which matches the county BV/TV average, and has an effective 1.5 percent tax rate. The total tax liability for this property is $1,500, of which $450 comes from land value and $1,050 comes from building value.

Under Scenario 1, a split rate tax is imposed by the county. Land values are to be taxed at twice building values, but revenue neutrality is desired (that is, the same amount of total revenue is collected from the property tax). A simple algebraic calculation determines that the effective tax rates need to be 2.308 percent on land and 1.154 percent on buildings to be revenue neutral. By applying the split rate system the tax revenue obtained from land value and building value changes. However, because the property matches the BV/TV average for the entire taxing jurisdiction, the property still yields $1,500 in tax revenue.

Scenario 2 assumes that a property has a building investment per dollar of land value lower than the county average. The owner of this property is penalized for a lower ratio of improvements to underlying land value in the form of a higher property tax bill. Conversely, the owner of the property in Scenario 3, which exceeds the county norm for development intensity and land use efficiency, receives a tax cut.

Relationship between individual parcel and jurisdiction averages: Reasons for building value to total value outliers

There are many possible permutations of site characteristics affecting BV/TV ratios. Moreover BV/TV ratios change over time as development dynamics in and around piece of property change. As a result, parcels deviate from the statistical norm for many reasons. However, they can be summarized as four general conditions.

How site value taxation works

Assume — County average, building to total value ratio (BV/TV): 70%
Effective tax rate of 1.

Base Case — $100,000 property with building investment per dollar of l land which matches county average
$70,000 building and $30,000 land

Land portion	(30,000 x .015) =	$ 450
Building portion	(70,000 x .015) =	$1,050
Total property tax		$1,500

Scenario 1 — Same property, split rate tax, revenue neutral,
land value taxed at twice building value

Land value tax rate	2.308%	
Building tax rate	1.154%	
Property Tax payable		
Land portion	(30,000 x .02308) =	$ 692
Building portion	70,000 x .01154) =	$ 808
Total		$1,500

No change in tax liability

Scenario 2 — Property with lower building investment per dollar of land
$40,000 land and $60,000 building
Split rate tax, revenue neutral, land value taxed at twice building value

Land value tax rate	2.308%	
Building tax rate	1.154%	
Property tax payable		
Land portion	(40,000 x .02308) =	$ 923
Building portion	(60,000 x .01154) =	$ 692
Total		$1,615

Property tax increase for property under split rate system: $115

Scenario 3 — Property with higher building investment per dollar of land
$20,000 land and $80,000 building
Split rate tax, revenue neutral, land value taxed at twice building value

Land value tax rate	2.308%	
Building tax rate	1.154%	
Property tax payable		
Land portion	(20,000 x .02308) =	$ 462
Building portion	(80,000 x .01154) =	$ 923
Total		$1,385

Property tax decrease under split rate system: $115

Higher than average BV/TV ratios occur when:

■ Building values are average but land values are below average – an example would be a quality residential home in a struggling inner city neighborhood.

■ Building values are above average while land values are average – an example would be a premium office building in an undistinguished commercial or retail area.

Since the split rate tax rewards higher than average BV/TV ratios, both these types of properties would receive tax cuts. Economic signals are sent to invest in depressed urban areas and in areas with opportunity for revitalization, rather than abandon them.

Lower than average BV/TV ratios occur when:

■ Building values are average but the land values are appreciating – for example, a storage warehouse in an area of prime retail real estate.

■ Building values are below average relative to total land value – for example, a single one-story building on two acres of highly developable land.

1999 building to total value ratios for selected cities in Hennepin County			
Above average		Below Average	
Minneapolis	76.9 %	Deephaven	48.3%
Champlin	76.9	Wayzata	52.6
Bloomington	75.1	Mound	61.3
Plymouth	74.9	Excelsior	65.3
Brooklyn Park	73.8	Golden Valley	67.7
Crystal	75.7	Edina	69.8
Brooklyn Center	74.3	St. Louis Park	69.8
Minnetonka	73.4	Eden Prairie	69.9

Source: Minnesota Planning
Data: Hennepin County Assessors Office

In the first example of lower than average ratios, the property is underimproved and should be redeveloped to a higher and better use given underlying land values. The added property tax burden sends a economic signal for that to happen. In the latter example, the tax burden creates an incentive to build more efficiently.

The BV/TV ratios for taxing districts, whether they be counties or cities, represent the statistical norm for the density of development. This statistical norm largely reflects the collective impact of market forces, land value trends and land use regulations on city development. It also may reflect the interests of the community with respect to the desired density of development.

If a split rate system is implemented at the city level, below county averages of building investment per dollar of land would not necessarily be penalized. For example, if the city of Deephaven implemented a site value system, a property with a BV/TV ratio of 50 (over 25 percent below the Hennepin County average) would still receive a tax cut. However, larger regional interests might be served by having the county portion of the property tax be based on a split rate system.

If all taxing districts do not adopt a split rate approach, the impact of split rate is diluted. For example, in Pittsburgh the tax rate on land is six times that on buildings. However, because the school district and county tax operate under a one-rate system, the net effect is only a 2:1 ratio.

Simulation of site value adoption in Hennepin County

What might the nature of tax shifting under a split rate system in Minnesota look like? Information was obtained from the Hennepin County Assessors Office allowing BV/TV ratios to be calculated for many different classes and subclasses of property. In addition, a statistical summary of land use was created to obtain a better understanding of the degree of shift that would occur *within* a class. Together they provide

a better understanding of the potential redistribution of tax liability under a site value system.

It is important to note that the following analysis assumes a "base case" of all properties being taxed equally – no classification – and a tax system with one rate for both land and improvement values. Actual tax shifts would be based on the effective tax rate for these properties after accounting for classification, exemptions, deductions and credits.

In a sense, the multitude of classes, tiers and the plethora of special provisions and adjustments makes every parcel's levy in Minnesota essentially unique. The concept of a "baseline comparison" to evaluate actual tax redistribution for a county the size of Hennepin was not possible given the available resources for this study.

Histograms were assembled for four major property classes in Hennepin County describing the frequency of parcel distribution based on building to total value ratios. The Hennepin County BV/TV ratio is 71.8. If Hennepin county property taxes were collected using a split rate system, every parcel in the county with a BV/TV ratio less than 71.8 would receive a tax increase while every property above the county average would receive a tax cut. Moreover, the incidence of a split rate tax is proportional to the degree that any ratio is above or below the average for the district. For example, a property in Hennepin County with a BV/TV ratio of 81.8 (+10 from the county average) would receive a tax cut twice as large as a property with a BV/TV ratio of 76.8 (+5 from the county average).

- **Apartment Properties.** Under a split rate system, apartments would benefit significantly in Hennepin County. Nearly 95 percent of properties would receive some form of a property tax cut. While the distribution is heavily skewed above the county mean, the histogram also shows the existence of undermaintained and highly depreciated apartment units at lower BV/TV levels. The additional property tax burden can be expected to help encourage the sale of these properties to a party who will redevelop them as better apartment housing stock.[42]

- **Single-family residential (non-lakeshore).** Residential homesteads show a remarkably normal distribution around the county mean. Under a split rate system, 61.6% of single family residential homesteads would receive some tax cut. However, because of the concentration of homesteads around the mean, significant increases or decreases in property tax bills would be rare. Increases or decreases would often be very small and insignificant to homeowners.

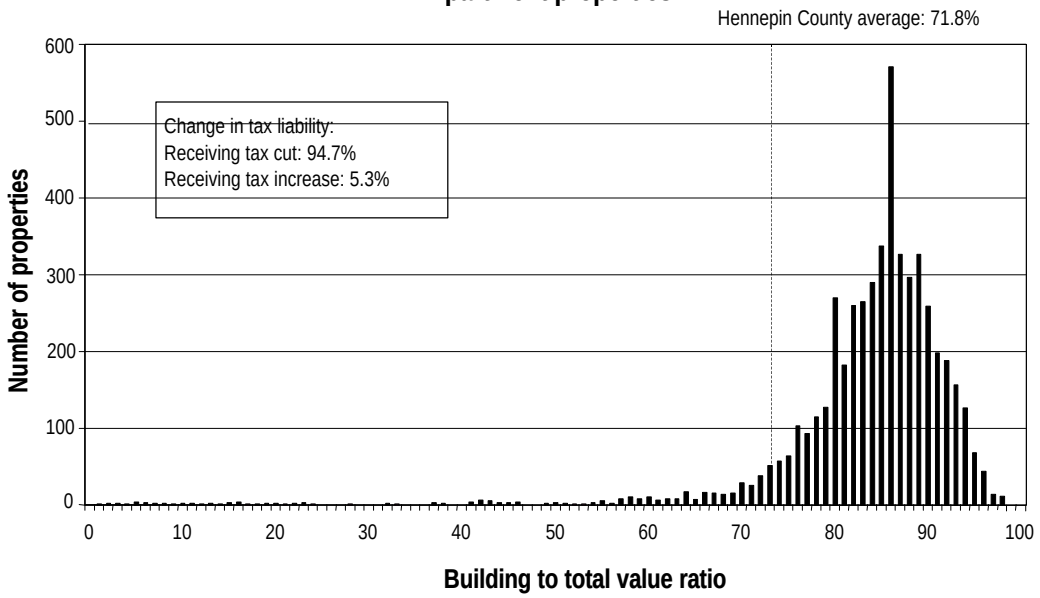
- **Commercial Properties.** Commercial properties show the greatest distributional spread in BV/TV ratio of any major property type. The majority of commercial properties, 60.6 percent, would receive some level of tax increase under a split rate system. Since land use inefficiency (low capital improvement per dollar value of land) is penalized, retail properties featuring large open air parking lots would frequently receive a tax increase.

- **Industrial Properties.** Unlike their commercial counterparts, industrial properties show higher levels of concentration around the county mean. Although the majority (59.7 percent) of industrial properties would receive a tax cut, the extended "tail" in low BV/TV regions suggests there are industrial properties with extra land that would receive a significant tax increase.

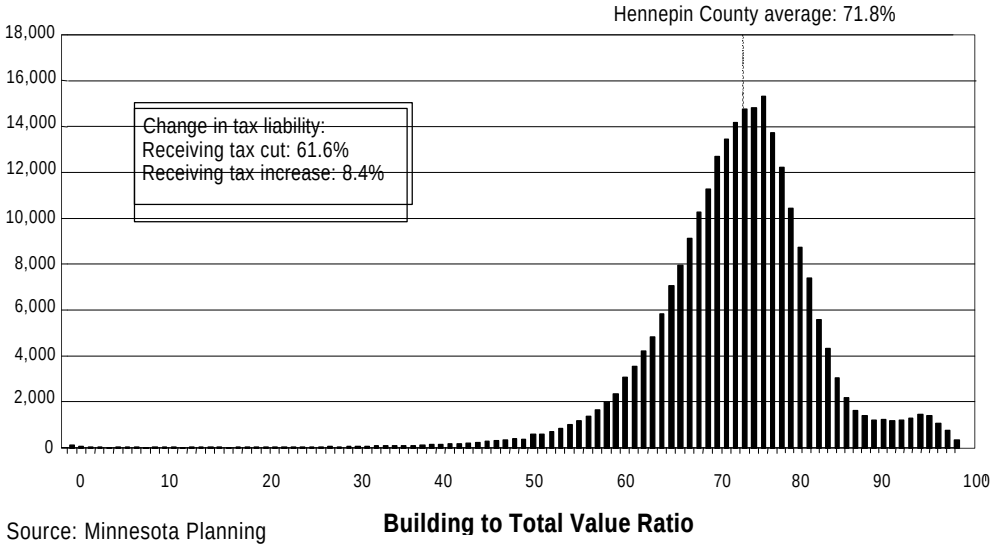
Under a split rate system, property type does not determine the shift in tax liability. As the histograms show, "winners" and "losers" can be found within each class of property. A poorly maintained home may receive a tax increase while an attractive five-story office building featuring underground parking may receive a substantial tax cut. Under a split rate system, the logic behind the tax shift is now linked to desirable development outcomes which a city or county may want to encourage such as greater land use efficiency and greater levels of building improvements relative to land value.

A more detailed look at specific types of residential, commercial and industrial property shows how these types would fare *on average* under the split rate system. Again, the building and land value relationship in each parcel would determine actual changes in tax liability. In below-average property subtypes, some parcels would receive a tax cut; in above-average property subtypes, some parcels would receive a tax increase.

Apartment properties

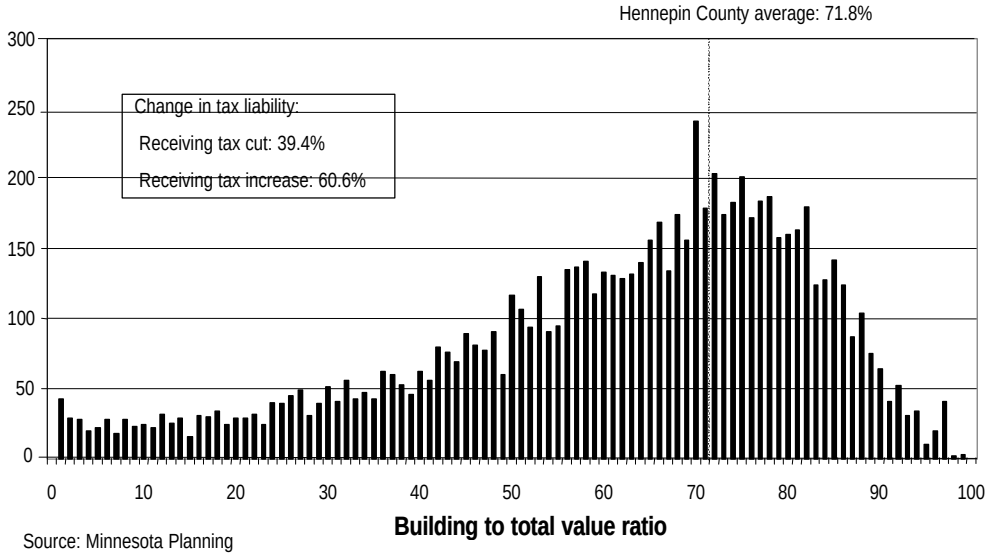


Single-family homes (non-lakeshore)



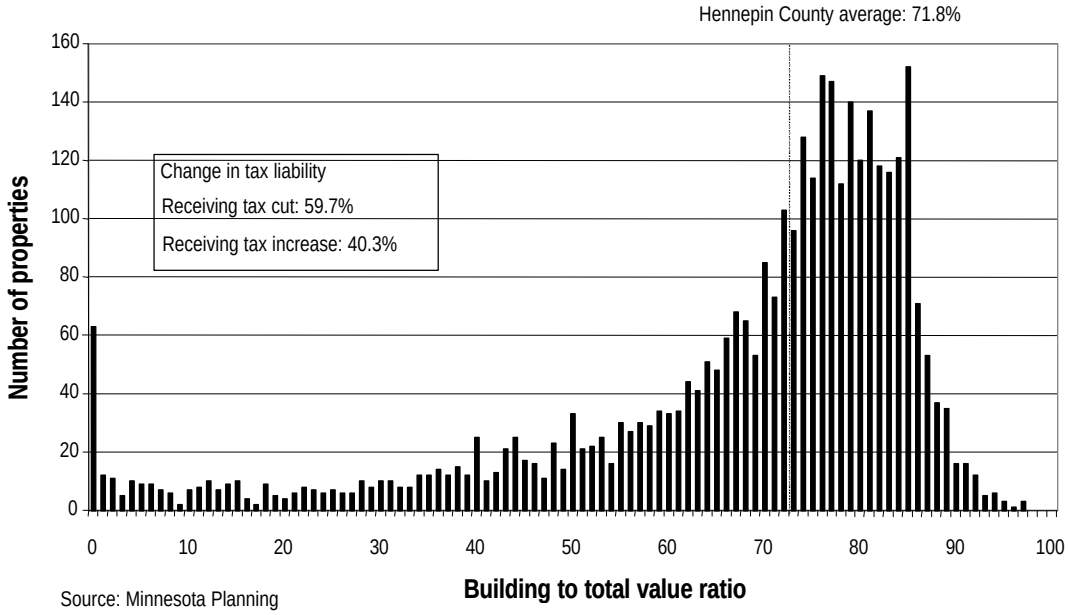
Source: Minnesota Planning

Commercial properties



Source: Minnesota Planning

Industrial properties



Source: Minnesota Planning

Average building to total value ratios for residential, commercial and industrial property subtypes

Hennepin County average, all properties: 71.8%

Residential subtypes

Mean values below county average		Mean values above county average	
Property type	Mean BV/TV	Property type	Mean BV/TV
Mobile home parks	11.8%	Nursing homes	89.9%
Seasonal residential recreational	34.3%	Cooperative housing	88.8%
Residential lakeshore	48.2%	Apartments	86.8%
		Apartment condominiums	86.4%
		Condominiums	85.1%
		Low income housing	83.2%
		Townhomes	80.6%
		Triplexes	77.5%

Commercial / industrial subtypes

Automobile showrooms	33.7%	Hospitals	87.7%
Service stations/ fuel only	38.9%	Light manufacturing	76.9%
Department stores	41.8%	Industrial engineering	76.2%
Convience stores	45.3%	Hotels	72.8%
Service stations with garage	50.1%	Premium office buildings	72.3%
Community shopping center	51.2%	Fitness centers	71.8%
Neighborhood strip malls	53.5%		
Fast food restaurants	54.7%		
Other restaurants	56.8%		
Supermarkets	57.3%		
Banks	59.6%		
Bars/taverns	61.9%		
Cinema theaters	64.5%		
Motels	64.6%		
Retail stores	65.6%		
Office buildings	67.0%		
Parking structures	67.7%		
Industrial manufacturing	68.8%		

Source: Minnesota Planning
Data: Hennepin County Assessors Office

As expected, higher development densities are beneficiaries of the split rate system while high land use properties typically pay more. A review of the commercial industrial property subtypes shows that retail stores and complexes – largely as a result of one-story development and extensive parking lots – would receive a significant share of new tax liability. However, many economists would argue that placing a greater burden on these properties holds economic logic since their low ratios represent economic inefficiency, wasted community value and significant opportunity costs to the city. It is analogous to the economics of a factory with empty building spaces and unutilized production capacity.

Classification in the Minnesota property tax system, which currently taxes these types of properties more heavily, addresses this issue although in a distortive and inefficient way. The implementation of a site value system would eliminate this reason for classification.

As the histograms and tables show, the other principal reason for classification – promoting equity and social values like homeownership – are also supported through site value taxation but are achieved without sacrificing economic efficiency or unnecessarily penalizing other forms of residential living. Over time, the need for classification is reduced or eliminated by the phased-in implementation of a site value system.

Simulation of site value adoption in Olmsted County, Minnesota

To obtain a more detailed understanding of actual shifts in tax burden under different implementation scenarios, the Central Research Group of Albany, New York was contracted to run a simulation of site value taxation adoption in Olmsted County and the city of Rochester, Minnesota. Rochester and the county of Olmsted was selected for several reasons:

- The size of the tax roll was sufficiently large yet manageable for purposes of parcel-level analysis.
- The city of Rochester is the commercial, political and social center of Olmsted county and is relatively unaffected by other political and economic forces that would distort its land use configurations and values.
- Rochester is contained entirely within Olmsted county.
- Statistical measures suggested that assessment quality in the county is high.

Four different implementation scenarios were explored, one to establish a baseline comparison:

Alternative 1: Current property tax – no classification

Tax shift with all differential classifications eliminated, and one tax rate imposed throughout each political jurisdiction on both land and improvements. (This assumes that nonprofit and government organizations retain their tax exempt status, but that no other exemptions will continue.)

Alternative 2: 100 percent land value tax
Tax shift with the burden imposed on land value alone, eliminating all classifications.

Alternative 3: Split rate (site value) 50 percent revenue from land values

Tax shift with an equal proportion of revenues drawn from the land and improvement components of the entire tax base. This option also eliminates all classifications.

Alternative 4: Split rate (site value) 50 percent revenue from land values; with simplified" classification system

Tax shift by creating three classes: a) farm and timber property, b) residential property, and c) commercial, industrial property, utilities and railroads taken together. The tax base is then set at a percentage of full market value for each class (that is, taxable value), at rates of 25 percent, 50 percent, and 100 percent respectively. Half the revenue is then drawn from the land component

and half from the improvement component, using two rates applied to the taxable values of each of the three classifications.

All scenarios were modeled under revenue neutrality; that is, the total amount collected from the property tax would remain the same. In addition, two sets of operations were performed with each alternative for this study: the first set examined the tax redistribution when the whole county is treated as one tax jurisdiction, and the second when the separate taxing jurisdictions are maintained. A copy of the consultants' report is available by contacting the Minnesota Environmental Quality Board.

The results of the Olmsted/Rochester simulation highlights a relatively simple but crucial issue: site value taxation adoption is fundamentally dependent on accurate assessments of land values. Without high quality land value assessments the whole feasibility of a site value system is compromised. Tax burden shifts which are directly opposite of what would be expected can occur.

The report cites several pieces of evidence suggesting land values – especially commercial and industrial land values – are underassessed. Evidence includes:

■ Aggregate land values make up only 25.2 percent of total property value in Olmsted County, 18.6 percent of total value in Rochester, and even lower proportions in surrounding towns. Minnesota has a state average of 32.7 percent (which includes vast amounts of farmland) and national data sets show land values typically comprise 30 to 40 percent of total value.

■ Large discrepancies exist between the building to total value ratio of a township and center cities in the township. For example, the township of Dover has a BV/TV ratio of 28.3 percent while the small town of Dover has a BV/TV ratio of 78.8 percent.

Because evidence suggests that land value gradients are quite flat, rather than peaking in urban areas as they normally do, the results of site value implementation creates surprising and counterintuitive results. Large shifts in property tax burdens occur, with anticipated "winners" and "losers" reversing roles. Moving to site value taxation in the Rochester area might be more sound and just in principle, but the process of getting there, both technically and politically seems quite difficult.

Compounding the implementation problem is a property issue rather unique to Rochester. Many of the higher value urban land parcels are owned by the Mayo Foundation, a nonprofit organization, exempt from the property tax. The effect of removing some of the highest value urban parcels in the city from the property tax base effectively "flattens" urban land value gradients and helps explain the unexpected results from the simulation. It also helps explain why residential homestead properties in Rochester have a much larger share of the current property tax burden than would be expected under the Minnesota classification system.

The split rate system under the modified classification system demonstrated results more consistent with expected site value taxation results. Classification helped "neutralize" the land valuation and property tax exemption issues. Such a result suggests that simplified classification may not only be a worthwhile thing to do from the standpoint of improved efficiency, but also a necessary "transition step" in site value implementation. Simplified classification may allow areas to implement a site value system without placing undue burden on properties receiving the fallout from inadequate land valuation.

The simulation highlights another key issue. Current statistical methods used to evaluate assessment accuracy and reliability focus on the relationship between the total assessed value of a property and its selling price. Rochester and Olmsted county assessments score extremely well using these statistical measures. Under a site value taxation system, however, the components as well

as the sum matters. Accuracy in land value and building value, as well as total value is essential.

Implementation issues: Feasibility of site value taxation adoption

As with any tax policy, the feasibility of site value tax adoption is influenced by issues other than economics. Administrative challenges of a new tax system can be significant. In addition, a wide variety of state policies and programs already exist to address the economic, environmental and social issues that site value taxation claims to influence. These policies and programs, unlike site value taxation, have long histories and well-established support bases. The potential for adoption of site value taxation is fundamentally influenced by whether it complements or clashes with these policy instruments.

While many implementation issues merit examination, four particularly influential ones are discussed in this report.

Administrative issues

Property assessment and valuation is the cornerstone of the property tax. As such, it is also the starting point for evaluating the feasibility of site value adoption. If site value taxation creates more administrative problems for property tax professionals in a context already charged with high potential for legal appeal, implementation is unlikely.

The International Association of Assessing Officers, the professional development and standards organization for assessment professionals, has no stated position on site value taxation. But the importance of quality land value assessments is well established in this professional body:

Accurate land values are crucial to an effective assessment system. They contribute to the accuracy of appraisals of improved parcels and ensure that land owners pay their fair share of taxes. Accurate land values promote well-informed land use decisions by both the public and private sectors. Urban economists and planners have long recognized that outdated land values contribute to inefficient land use and undesirable growth patterns.

Property Appraisal and Assessment Administration
International Association of Assessing Officers, 1990, p.177

Based on literature reviews and discussions with assessment professionals, the administrative feasibility of site value taxation appears to rest on two primary issues:

■ **Land valuation.** The ability to identify site value and improvement value separately for each parcel in a taxing jurisdiction is the linchpin for site value implementation. Although assessors do this routinely, it is not a trivial matter. A site and its improvements are complementary and combine to form the productive capacity of a property. It is much simpler to obtain a site value for vacant land than for developed property. As the Olmsted County simulation illustrated, undervaluation of the land component compromises the possibility of site value taxation.

Tax experts differ on the ability to establish quality estimates for land values on improved properties. Some claim high quality land valuation measures are an elusive goal in that most computer assisted mass appraisal models – tools used by assessors – do not separate land values from total property values. Others, however, argue forcefully that existing methodologies combined with the use of computer-aided statistical analysis and geographical information system technology makes land valuation not only more accurate, but also easier and cheaper than determining values for the existing property tax. It is apparent that information technology advances have significant implications for site value taxation and technology trends are increasing the feasibility of implementing such a system.

A more fundamental concern is that "without a site value tax, assessors have no incentive to devote time to creating high quality assessments of land values."[43] For assessors under a one-rate

system, an accurate total property value is all that matters. Meanwhile, business property owners have financial reasons for wanting the building and improvements portion of the assessed value (an asset on the balance sheet) to be as high as possible. Situations can be found where significant differences exist in assessed land value per square foot for adjacent properties having the same property use as well as sudden shifts in building and land valuations. Such circumstances indicate that land values may be being used as an "adjustment variable" to ensure that total property values are in line with neighboring parcels but that improvements are kept high to reduce administrative appeals.

The change required ensures that land value assessments are done as diligently and as accurately as the assessment of total property value. Methodologies exist; the key to enabling this is political commitment and administrative support. Accurate assessments of land values can shift additional tax burden onto influential interests.

Evidence obtained in Hennepin County suggested that land values were typically of high quality, reflected reasonable and prudent analysis, and made economic sense. County assessment professionals there appear to do quite a good job on land valuation. This may not be the case in other areas of Minnesota. As a result, the administrative feasibility of site value adoption should be evaluated on a location by location basis. Clearly, the establishment of a site value taxation system "ups the ante" as far as diligence to establishing accurate land values is concerned. Neither the administrative issues nor the potential political fallout should be underestimated.

■ **Administrative cost and defensibility.** A related issue to property valuation is the subsequent change in workload demands and administrative costs prompted by this reform. Site value taxation places greater demands on information technology and the need to build new models and computer codes to calculate the tax. However, discussions with local professionals suggest that this is not likely to be a major issue, at least in metropolitan regions.

A principal concern among assessors would be the defensibility of a site value system and the supporting valuations in court. The experience in Pennsylvania was mixed, some studies have noted an increase in appeals of land valuations. However, the Chief Assessor of Allegheny County in Pittsburgh has commented, "I like the graded (site value) tax because it makes my job easier. Land is easier to assess than buildings. I wish I didn't have to assess buildings."[44]

While differences of opinion remain concerning the administrative challenges, it is clear that the issue of defensibility is linked to the issues of assessment quality and political support. In areas where assessments are outdated, where information technology is lacking, or where some other property tax system modification or political pressure exists, site value taxation can be expected to trigger more appeals. However, it is important to realize that *any* reform will trigger its share of administrative appeals. As one Hennepin County assessment specialist noted, "anytime you do something new, there's a lawyer ready to follow up."

Land use regulation and zoning issues

A second implementation issue concerns the relationship between the site value system and existing policies regulating land use. Minnesota, like the rest of the United States, relies heavily on a wide variety of "command and control" strategies to influence urban form, growth and land use patterns. Examples included zoning ordinances, urban growth management plans and a bevy of specific land use regulations which create implicit limitations on certain types of development.

Given that land use regulation and zoning are a permanent fixture in development today, a pragmatic way to examine site value taxation is to explore what it can offer by introducing market-oriented incentives and efficiency into this

system. In this context, the "value capture" ability of site value taxation offers two important contributions to land use planning and zoning strategies.

■ Site value taxation, through value recapture, reduces the incentives for cities to adopt exclusionary zoning practices.

As a function of population size, the per capita local costs of city development are "U" shaped. Per capita costs are more expensive for jurisdictions with populations under 2,500 as minimum required infrastructure for schools, roads and urban services are established. Similarly, per capita costs grow for cities over 50,000 as police protection and other urban services associated with larger cities are incurred. The points of greatest efficiency are those locations featuring populations between 10,000 and 25,000.[45]

This dynamic helps explain the evolution of suburbs and the motivation for fiscal (or "exclusionary") zoning. The equation for local government finance is simple: ensure income rises as fast or faster than the demand for services. Many cities adopt zoning practices which influence both sides of the equation. Ordinances are passed to establish minimum lot sizes, mandatory three-car garages and other developmental characteristics ensuring low-density development and thereby a lower demand for services. At the same time, the developmental costs of these features are such that only households with above-average incomes that can afford this type of development. The resulting urban form is low density to keep demand for city services in check, and made up of high-income homeowners who can pay for services with modest tax rates. The fiscal pressures to preserve this status quo are understandably strong.

Site value taxation offers a way to reduce the dependency on fiscal zoning by allowing cities to capture more land value appreciation as a public revenue source, a source which grows *consistently* and *reliably* as a city grows. One study which simulated a split rate system in Vancouver, Washington found that a phased-in 3:1 tax rate differential between land and buildings would result in a 40 percent recapture of "windfall" gains (gains in excess of inflation) from land value appreciation whereas the conventional property tax would only capture 22 percent.[46]

The potential impacts are multiplied on a regional or citywide basis with subsequent investments in public infrastructure. For example, in a 1997 study, land value appreciation was calculated for an area comprising two miles either side along a nine-mile stretch of new interstate highway near Albany, New York. The study concluded that in 1995 dollars, the total capital cost (construction and right of way) was $129 million. Land values for the 30,516 acres comprising the study area increased by 736 percent over 30 years or by $3.6 billion.[47]

During the initial growth spurt, as cities invest in infrastructure and approach their per capita cost area of greatest efficiency, land values appreciate. Site value taxation can provide a solid revenue base for anticipated growth in demand for city services. Recapture can continue when per capita costs again begin rising allowing a city to forego other, more economically harmful, tax increases.

■ Site value taxation can help fiscally support the preservation of open space and park lands.

Site value taxation, with its emphasis on highest and best use of land, may cause concerns about overdevelopment and the elimination of open spaces around urban edges and within center cities. Although these areas potentially would be taxed more heavily under a site value regime, the ability of a city to retain these areas via zoning or as parkland can be enhanced under site value taxation. Since the land values of adjacent parcels with access to such amenities increases, this enhanced value can make up for, or even surpass, whatever loss of revenue these sites may have provided.

An example of this positive land value spillover from open space recently unfolded in New York City. Mayor Rudy Giuliani proposed that the publicly owned vacant parcels used by neighborhoods as community gardens be sold and developed as private properties added to the tax roll. The neighborhoods resisted and won the right to retain the gardens by proving that the vacant parcels more than contributed to the added tax base of the city.[48]

An additional attractiveness of site value taxation is that the price of open space preservation is paid by the people directly benefiting from the preservation activity. Resistance to further development often takes place once individuals have established their own residences in a desirable area. As a result, conservation easements, land trusts and other types of land preservation initiatives are implemented. Site value taxation simply ensures that there is a greater level of fiscal accountability in such land protection efforts and that the cost to the community is paid by properties whose market value increases as result of protection efforts.

Site value taxation also supports public access to open space and recreational resources. Without public access, high land values are typically concentrated among properties immediately adjacent the resource. Evidence of this can be found in Hennepin County where single-family residential lakeshore properties – especially in suburban areas – feature some of the lowest building to total value ratios in the county. Contrast this with Minneapolis, featuring higher levels of public access. As a result, the land value gradient decreases more gradually and the land value tax burden is effectively shared by a much larger population base. Site value taxation, as a result of the "amenity burden," can be expected to encourage greater access to natural resources and a higher tax base for the taxing jurisdiction.

Zoning ordinances and other land use regulations can be used in tandem with site value to support community development objectives. However, to obtain maximum benefit, zoning and land use regulations should focus less on inequity use and more on performance criteria. Natural gradients in land value as a result of the traffic corridors and public infrastructure combined with higher taxation of these values creates an incentive for mixed use development forms without unnecessary regulatory interference or the danger of overzoning particular uses.

Agricultural and rural development issues

In many rural Minnesota counties land values already provide the majority of the property tax base. In such areas there would be a concern that farmers, already under financial duress, would receive an even greater share of tax burden under a site value system. Whether farm properties would receive more of the county property tax burden under a site value system would depend on whether the value of land per capita is actually higher in farm areas than in the small communities within the counties. One way to avoid this potential problem would be to implement site value taxation only within cities.

The development incentives in site value taxation could also be expected to place greater development pressures on currently undeveloped lakeshore areas in outstate Minnesota. To the extent that this lakeshore is currently privately owned, the tax burden could be expected to encourage accelerated lakeshore development activity. It could also be expected to exacerbate an already emotionally charged issue concerning property tax fairness given the rapid rates of appreciation in seasonal recreational land values.

As a result, the economics of site value taxation may not be appropriate for rural, agricultural and recreational areas. The same economic and development incentives that make site value taxation a potentially valuable policy tool for cities and urban growth areas, may make it inappropriate for certain outstate areas.

In order to properly accommodate the diversity of land use, growth and economic conditions in the

state, the legislature could consider different strategies. One strategy would be to create a provision allowing local flexibility in establishing taxation rates for land and buildings. While there is a definite state interest in ensuring a level of consistency in property taxation throughout the state, local discretion in establishing tax rates for land and buildings would allow local and regional governments to tailor taxation approaches to unique land use and economic development conditions. Another option would require cities of certain size or growth rate to adopt site value taxation since the state has a strong fiscal interest in better "value capture" at the local level.

Another potential issue of concern are agricultural lands near urban areas. Already under pressure from urban growth, higher taxation of land values would create an economic incentive to develop these lands. The continuation of preferential valuation programs such as the metropolitan agricultural preserves program would be needed to complement site value implementation if the protection of such land is considered to be a desirable social goal.

However, it is important to note that site value taxation also helps correct the economic dynamics that drive development to periphery of urban areas in the first place. Current "leapfrog" and fragmented development patterns, by definition, exposes more agricultural land to urban development activity and puts more agricultural land "at risk" from higher valuations. By encouraging infill development, greater development density and making urban land parcels more economically competitive, less agricultural land would be exposed to the threat of urban land valuation.

Economic development issues: Tax increment financing

Site value taxation encourages the development and redevelopment of property. In Minnesota several economic development programs have been established to advance this same objective. While site value taxation relies on market forces, state economic development programs rely primarily on various grants, loans and subsidies to encourage development activity. This mix of economic signals and incentives raises questions about the feasibility and implications of both approaches operating concurrently.

Among economic development efforts, tax increment financing is the largest and most widely used economic development tool in the state. A 1996 report of the Office of the Legislative Auditor reported that all of Minnesota's large cities, 90 percent of medium-sized cities and about one-fourth of small cities had at least one tax increment financing district in 1995. Under TIF the assessed valuation of real property in a designated development area (the TIF district) is frozen for tax purposes based on assessed values prior to development. Taxes on subsequent property value increases as a result of redevelopment are redirected toward an earmarked fund rather than the general fund. This earmarked fund is used to directly pay for project costs or retire bonds issued to pay for the project.

While TIF provides development incentives, it does so with significant potential for free market distortion and administrative abuse. If the proverbial "level playing field" is to be the framework in which enterprises are to be judged, efforts should be made to foster that leveling. TIF works in exactly the opposite manner by favoring selected enterprises, which may find it economically viable to locate in the area without assistance.

TIF also requires the state to share in the costs of financing local development, since the state compensates local school districts for revenue losses through increased state aids. House Research estimated that total state costs were $100 million in 1994 assuming development would have occurred elsewhere in Minnesota. An Office of the Legislative Auditor report highlighted several other concerns regarding TIF implementation and administration including:

■ Tax increment dollars being used as a general purpose funding source
■ Mixed quality of financial reporting
■ Missing documentation on how TIF districts were meeting statutory tests for need[49]

The linkage to site value taxation is based in the nature of assistance provided. Frequently cities will pick up the cost for land preparation purchasing abandoned and underutilized sites, demolishing existing structure, and preparing them for redevelopment and sell them to the new owner, often at a substantial discount. The incentives created by site value taxation are such that all these activities happen more readily without government subsidy and without negatively influencing other taxing jurisdictions.

■ In effect, site value taxation helps create TIF-like results without the administrative burden, without the potential for political abuse, without treating certain private enterprises favorably, and without the revenue loss to the county governments and school districts, and without economic distortions. Redevelopment incentives extend to all areas, not just politically defined ones. As site value taxation is implemented, the need for TIF is reduced. Site value taxation is a way to allow the market forces more influence in creating economic redevelopment.

Conclusions and recommendations

The Minnesota economy is robust and the quality of life is generally high for its citizens. However, a number of issues pose challenges for the long-term economic, environmental and social welfare of the state. Issues such as sprawl, affordable housing, central city decline, and environmental protection are regular features in daily newspapers. In response to these concerns, state and local governments propose a variety of new programs and policies – many with ambitious visions and large price tags. Few efforts are made, however, to understand and address the underlying economic dynamics which trigger development behavior and cause these impacts, and the principal enemy of sustainable economic development.

On the surface the Minnesota property tax system is an unpopular yet seemingly benign source of local government finance. But the statutory and structural economic distortions built into the system influence land use, development patterns and social issues such as housing affordability and inner city renewal. In light of the economic incentives and disincentives created by the property tax and related tax code treatments, today's development trends and impacts are both understandable and predictable.

Property tax reform requires economics for lasting progress. "Sustainable" property tax reform revolves around several themes.

Greater levels of economic efficiency need to be restored in the property tax system. With its heavy reliance on classification and tiered rate structures, the property tax pursues equity without addressing efficiency. Economic distortions trigger new equity issues, new "fixes" and new distortions. Property tax policy often works at cross-purposes with the government programs it financially supports.

Property tax reform also must include structural changes to property tax administration in the way properties are taxed. Overtaxing structures and capital improvements discourages the very things we want to encourage. Concurrently, undertaxing land values causes the only factor of production with effectively limited supply to be used inefficiently and illogically. The result is concurrent misuse, abuse underuse, and overuse of this important resource with large economic, environmental and social consequences.

Greater levels of local accountability need to be restored in the property tax system. In the investment world a "moral hazard" is created when investors assume high-risk positions on the assurance that government will bail out the

investor should the enterprise or government default. Similarly, when the economic, social and environmental costs of development can be passed on to other tax payers, prudent decisions regarding public infrastructure investment, land use and government spending will be adversely affected. The Minnesota property tax offers the opportunity for this type of accountability to be established, but the complex linkages to state spending must be reexamined.

Site value taxation abides by all three reform themes. This study concludes it is an important element in Minnesota property tax reform and an especially appropriate reform strategy for cities and urban growth areas.

From the standpoint of financing local government, site value taxation is both economically just and economically logical. Site value taxation recognizes that government investment in infrastructure and general community growth creates private wealth in the form of higher land values. As a result, a logical approach to financing government activity is to capture the increase in land value that comes from community factors and government investment and use it for public revenue. It would also offer a way for communities to pay for new city services while avoiding more harmful forms of taxation.

In considering the economic, social and environmental implications of the property tax, this study concludes that the economic signals created by site value taxation offers at least six potential advantages:

- Help make all housing more affordable by supporting home ownership without penalizing rental living
- Encourage a better use of land already serviced by public infrastructure
- Encourage urban redevelopment and potentially reduce the need for government subsidies and public financing of urban renewal projects
- Hold down the inflation of land values so all types of development are more affordable and less risky
- Reduce the need for cities to use heavy-handed land use policies to manage growth and reduce the financial motivation for cities to adopt exclusionary zoning practices
- Financially support the preservation of open space and parkland

Perhaps most significantly, the rationale behind shifts in tax burdens under a site value system would be linked to broader community interests and development outcomes a city may desire.

Caution and care in reform, however, are essential. Despite the complexity and confusion of the property tax, Minnesota's economic behavior has adjusted to it and substantial long-term capital decision-making has been made in light of it. As important as a good property tax structure is, stability and predictability is also extremely valuable. Some level of market disruption can be expected in any type of reform agenda. Structural property tax reform should proceed cautiously with ample time for real estate market adjustments. For this reason, most advocates of site value taxation recommend a minimum 10-year implementation time frame for the differential rates.

The property tax is not a panacea for curing Minnesota's development ills. But it is also not "just" a revenue source for local government. Intelligent design and structure of the Minnesota property tax system can provide cities and local government with a reliable and sound source of revenue while encouraging development activity and patterns which meet economic, social and environmental needs. The property tax system lacks the high profile, "quick fix" appeal that many new government programs have. But like a personal health maintenance program, property tax reform can be expected to achieve reliable and steady returns year after year to Minnesota citizens. It will also help those government programs which work to improve the quality of life for Minnesotans, work more productively and efficiently.

Recommendations

■ Improve the economic efficiency in the property tax system by scaling back the number of property classes, eliminating the tiered rates within classes and compressing class rates. Establish three general classes – agriculture property, residential property and employment property – to reduce the subsidy gaps and investment distortions occurring within property types.

■ Return the property tax to its central role in local government and development finance. Make adjustments to the state aid system so that accountability in local development decision-making is reestablished.

■ Explore enabling legislation allowing site value taxation to be adopted where it is most needed and best applied. One option is to allow local governments to adopt site value taxation if they so desired and set their own differential rates of land and improvement taxation. Another option is to require cities of certain size or growth rates to adopt this system since the state has a strong fiscal interest in better value capture at the local level.

■ Increase the potential effectiveness of site value taxation by making necessary adjustments to land use regulations and economic development programs. For example, prevent any taxing jurisdiction from allowing a property tax abatement or concession on the land component of real property.

■ Investigate the economic and administrative potential of a multi-district site value taxation system to address metropolitan regional development concerns. Options might include the replacement of the county tax with a regional site value based system or the replacement of the one-rate tax in each individual metropolitan county with a site value tax. Consolidate taxing districts to minimize the potential dilutive effects on site value taxation in metropolitan areas.

■ Explore the designation of particular levies such as school district levies for bonded debt, school referendum levies for operating expenses or the general education levy to be assessed under a site value taxation approach.

■ Explore the potential for establishing site value transportation taxing district to recapture land value appreciation to pay for the capital costs of new public infrastructure investments.

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[1] *Understanding Your Property Taxes*, 1998 Edition, Minnesota Taxpayers Association, p. 5.

[2] For a discussion of the effects arising from the relationship of the property tax to other state and local government finance programs, see Reforming Minnesota's Local Property Tax and State Aid System: Ending the Fiscal Illusion" Minnesota Taxpayers Association, 1992

[3] A theoretical discussion of how land taxation meets the principles of sound tax theory is beyond the scope of this paper. For economists the unique feature of land taxation making these objectives simultaneously possible is the concept of "economic rent" or "unearned income." For appraisal and assessment professionals, this defining characteristic is described as "surplus productivity." Both professional disciplines recognize the unique characteristics of land value taxation.

[4] Sales Ratio Unit, Minnesota Department of Revenue.

[5] *50 State Property Tax Comparison Study*, Minnesota Taxpayers Association, 1999.

[6] *Pathways to Sustainable Development Briefing Paper: Settlement*, Minnesota Planning, 1997, p.100.

[7] Effective tax rate taken from *50 State Property Tax Comparison Study*, Minnesota Taxpayers Association, 1999.

[8] Letter from Mark Sween, Principal Financial Group, Inc. to David Theis, Chair, Affordable Housing Rental Task Force, August 30, 1999.

[9] Testimony of Jack Horner representing the Minnesota Multi-Housing Association before the House property tax subcommittee, January 1999.

[10] Information from Hennepin County Assessors Office and the assessors offices of cities within Hennepin County is used throughout the analysis and discussion of structural distortions. One county was analyzed for the sake of research efficiency and data consistency. Readers should not interpret the findings from Hennepin County as being representative of this county only; structural distortions by their very nature will exist in varying degrees in all counties. Nor should readers interpret the findings as reflecting unfavorably on county and city assessment practices. From discussions with property tax experts and assessment professionals, the quality of assessments in Hennepin County is regarded as excellent and endorsed by project consultants and researchers during data review and analysis.

[11] "How to Bring the Cost of Housing Back Within Reach of All American Families," Dr. C. Lowell Harriss, Professor of Economics, Columbia University.

[12] Two especially noteworthy problems: 1) land price is seldom separated from building price in the sale of new residential homes; and 2) for assessment purposes, county assessors must focus attention on tracking land sales within classes of property. They can provide little information for price changes for lands in "transition" (for example, from farmland to residential development).

[13] *The High Cost of Sprawl, Urban Land Supply Analysis and Recommendations for Managing Growth,* The Builders Association of the Twin Cities, Appendix B, page 7.

[14] Average lot values calculated by taking total land value and dividing by total parcel count.

[15] Mean assessed values for lots over 1 acre in Hennepin County were calculated to be $.59 per square foot. However, assessors office staff noted that this was likely low due to the use of unedited data.

[16] Building Association of the Twin Cities study, Appendix B, page 5.

[17] Conversation with Gary Laurent, April 1999.

[18] Land values were adjusted for the 1972 statutory change in assessment practice.

[19] *Evaluation of Urban Growth Economic and Environmental Costs and Benefits*, Minnesotans for an Energy Efficient Economy, 1999.

[20] Working Paper No. 97-13: "Does the U.S. Tax Treatment of Housing Promote Suburbanization and Central City Decline?"
Working Paper No. 98-23: "The Tax Treatment of Housing: Its Effects on Bounded and Unbounded Communities."
In progress: "The Price Elasticity of the Demand for Residential Land: Estimation and Implications of Tax Code-Related Subsidies on Urban Form."

[21] Average market value from *Revenue Residential Homestead Property Tax Bulletin: Taxes Payable 1996*, Minnesota Department of Revenue.

[22] "Spending Patterns of High-Income Households," *Issues in Labor Statistics*, U.S. Department of Labor, November 1998.

[23] Ibid.

[24] "Statewide Housing Rising after Sharp Drop," Minnesota Planning State Demographic Center, August 1998.

[25] *State of Minnesota 1998 Consolidated Housing and Community Development Plan*, Minnesota Housing Finance Agency. Also includes local and municipal bonding; does not include rural housing service assistance.

[26] *State of Minnesota Tax Expenditure Budget, Fiscal Years 1998-2001*, Minnesota Department of Revenue.

[27] Likely a conservative estimate. Total U.S. mortgage interest and real estate tax expenditures in 1998 were estimated to be $69 billion. One-fiftieth or 2 percent of that total comprises the Minnesota estimate of 1.4 billion. While Minnesota's residential property taxes are below national average, the rate of homeownership is the highest in the nation. In addition the estimate does not include capital gains exclusions which in 1998 was an income tax expenditure of $ 9.1 billion nationally, or $182 million when prorated to Minnesota on an equal share basis.

[28] "Rental Assistance and Spending Behavior," *Monthly Labor Review*, May 1994.

[29] H. William Batt, "Solving the Problem of Urban Sprawl," Presentation to the Conference of Georgist Organizations, 1998.

[30] Fred Harrison and Galina Titova, *Land Rent Dynamics and the Sustainable Society*, Lincoln Institute of Land Policy, 1997.

[31] The concept has many names – "two tier tax," "two rate tax," "graded property tax" and "incentive taxation" being others commonly found in literature. The principle is the same: uptax the land value component and downtax the building component.

[32] Spearheaded by former representative John Burger (R-Plymouth), who ran for governor in 1982 on this platform and remains a tireless advocate for site value taxation.

[33] As reported by the Center for the Study of Economics, Columbia, Maryland.

[34] Testimony by James Clarke of the Sierra Club, Maryland Chapter, before the Ways and Means Committee of the Maryland House of Representatives, January 1997.

[35] In classic form, Milton Friedman has described land value taxation as "the least worst tax."

[36] Clark Rieke, Minnesota real estate and site value taxation expert in conversation with the author.

[37] Florenz Plassmann, "The Impact of Two-Rate Taxes on Construction in Pennsylvania," Doctoral Dissertation, Virginia Polytechnic Institute, 1997, p.122.

[38] Average annual value of building permits increased 70.43 percent in Pittsburgh between 1960-1979 and 1980-1989. Only one other midwest city had a positive value. The 15 city rust belt average was -14.42 percent.

[39] Wallace Oates and Robert Schwab: "The Impact of Land Taxation: The Pittsburgh Experience," *National Tax Journal* , Vol. L, No. 1.

[40] Stephen Reed, Mayor, Harrisburg, Pennsylvania in a letter to Patrick J. Toomey, Chairman, City of Allentown, Government Study Commission, October 1994.

[41] Donald Reeb, *The Adoption and Repeal of the Two Rate Property Tax in Amsterdam, New York*, Lincoln Land Institute, 1998, p.28.

[42] The additional burden being passed on to tenants is unlikely according to the laws of economics. It would not succeed if it was tried. Rent prices are already at the highest price the market will bear. Attempting to pass it on would result in tenants finding a more viable site at either 1) places reducing rents as a result of tax decreases or 2) new buildings being constructed or renovated for rental since the profitability of developing and owning such properties has improved.

[43] Andrew Reschovsky, "Can the Land Value Tax Play and Important Role in Financing State and Local Governments?" Land Value Taxation, *Can it and Will it Work Today?*, Lincoln Land Institute, 1998.

[44] From a presentation on land value taxation by Joshua Vincent, Director, Center for the Study of Economics.

[45] Robert Burchell, and David Listokin. *Determinants of Municipal and School District Costs.* Report prepared for Sterling Forest Corporation, Tuxedo, NY 1996.

[46] Thomas Gihring, "Incentive Property Taxation, A Potential Tool for Urban Growth Management," *Journal of the American Planning Association*, Winter 1999.

[47] H. William Batt, *Value Capture as a Tool in Transportation, An Exploration in Public Finance*, December 1997.

[48] H. William Batt in conversation with the author.

[49] *Tax Increment Financing*, Office of the Minnesota Legislative Auditor, 1996.