SHOW-ME INSTITUTE

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# HOMES, TAXES AND CHOICES

## A REVIEW OF REAL ESTATE ASSESSMENT AND PROPERTY TAXATION IN MISSOURI

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# Homes, Taxes and Choices:
## A Review of Real Estate Assessment and Property Taxation in Missouri.

**By David Stokes and Christine Harbin**

# EXECUTIVE SUMMARY

Local governments in Missouri are primarily funded by property taxes. Property taxes are an *ad valorum* tax, which means they are based on the value of the real estate or other property being taxed. Taxable property in Missouri is appraised at its market value, a ratio is applied to the market value to determine the taxable — or assessed — value, and a tax rate is then applied to that value determining the amount owed in taxes. Property taxes fund schools, counties, cities, fire districts, libraries, and other types of smaller taxing districts.

Property taxes are one of the three main types of taxation in the United States, along with sales and income taxes. Like any tax system, property taxes have benefits and costs. The primary benefit is that they are the most effective mechanism for connecting the public services taxpayers use with the tax dollars they pay. Research has determined that the quality and cost of the public services within an area are capitalized into the price of the property. People make choices on where to locate based on their various demands for public services and their different capacities for paying taxes. Local governments respond to those various demands by implementing differing menus of taxation and public services that appeal to different members of the public.

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## PREAMBLE

Mary and Bill MacKenzie are moving to the Saint Louis area because of a job opportunity for Bill. They have an important decision to make: Where to live? They have two children of grade-school age and will depend (at least in the short term) solely on Bill's salary of $75,000. They would like to limit Bill's commute time and gas costs by living within a 15-minute drive to his new job in downtown Clayton. They hope to buy a house, and have enough money for a down payment from the sale of their prior home in Nova Scotia. However, they are willing to rent instead, if that seems to offer the best value. What options do the MacKenzies have, and how do local governments position themselves for decisions made by people like the MacKenzies?

There are literally dozens of cities, school districts, and other government entities that could serve the MacKenzies, depending on where they choose to live, all of them within a few miles of the Clayton business district where Bill will work. Each of those governments offer services that vary by selection, quality, and price. The price of the services may be explicit in the form of taxes levied, or implicit via the cost of the home they purchase. Some cities will offer services that the MacKenzies don't think they need, like rear-yard trash pickup. Other taxing districts may offer a quality education, but at a higher tax level than the MacKenzies believe they can afford. Hopefully, at least one community offers the right combination of taxes and services that fit within the family's constraints and appeal to Bill and Mary.

The MacKenzies should be able to find a home in a community that fits their preferences. They are purchasing more than a house, or renting more than an apartment. They are making a financial investment in a community that provides a bundle of services directed to their homestead in exchange for taxes. If every family unit that decided where to live were just like the MacKenzies, all governments might offer the same bundles of services. But, of course, family units are not all the same. The differences in size, age, wealth, needs, and — perhaps most importantly — priorities can be vast. Governmental jurisdictions compete for potential residents and offer different bundles in order to appeal to different families, in a manner similar to businesses competing for customers. Those bundles will be made up of services, paid for by taxes, and typically regulated by zoning requirements. The success or failure of the bundle, and of the city itself, over the long run will be measured by population changes and property values. Yet the basic building block of the bundle will be the choices made by millions of families across the county as they make fundamental decisions about where to live and how much to pay for their homes or apartments.

*The municipality of Richmond Heights serves as a national case study of economist Charles Tiebout's theory that people create a market for local government services when they act in their capacity as mobile consumers and homeowners.*

# INTRODUCTION

Local governments in Missouri are funded primarily by property taxes. The tax bases of schools, libraries, and some fire districts[1] consist entirely of property taxes.[2] Counties and municipalities also depend heavily on property taxation, although they make significant use of sales taxes. Missouri's two largest cities are also authorized to enact earnings (income) taxes.[3]

Property tax revenues are generated by applying tax rates to property assessments. Taxable property can include real estate, the improvements built upon real estate (e.g., a house), personal property (e.g., cars or boats), and business property (e.g., factory equipment or the computers used to type and construct this study).[4] Property can also be exempt from taxation if it fits into any of the various categories that the state has authorized for that purpose. Please see Appendix 1 for a list of property tax exemptions.

Every county has an assessor who determines the value of the taxable property within the county, under guidelines set by state law. Taxing districts within that county then set tax rates based upon those assessments — once again doing so under guidelines from state law. Tax bills are sent to every Missouri property owner in October, and the bills are due on December 31 of each year. For property owners, especially people who own their homes outright and do not pay taxes into mortgage escrow, December 31 can be a dreaded day akin to April 15.

The state's current system of property taxation and assessment was instituted in 1985, but Missouri has long used the general system of assessment and taxation to fund government. The state itself does not receive any general fund money through property taxes, although it is otherwise closely involved in the process.

The first section of this policy study provides a description of property assessment and taxation in Missouri. The second part reviews the economic literature on the effects of property taxation and capitalization, which is the method by which levels of taxation and public services are incorporated into property prices. This policy study will be accompanied by a case study on the fiscal effects of these issues on housing prices and assessments in Richmond Heights, a city divided into four separate school districts. The division of this city into four different school districts of varying quality — while all other city services are exactly the same — make for an interesting natural experiment on how school quality can be capitalized into property values. As we will describe in this study, the municipality of Richmond Heights, serves as a national case study of economist Charles Tiebout's theory that people create a market for local government services when they act in their capacity as mobile consumers and homeowners.[5]

## We have three goals for our readers:

**Our first goal is for Missourians to have a better understanding of the workings, costs, benefits, problems, and advantages of our property tax system. Our second goal is that Missourians will note the relationship between school quality, property tax rates, and housing prices. The final goal is for readers to digest the ways in which competition among governments can benefit residents and taxpayers.**

# I. PROPERTY ASSESSMENT AND TAXATION IN MISSOURI

## Property Assessments

Property taxation in Missouri begins with property assessment. Every two years, the local county government reassesses taxable land and improvements. They set property valuations at the market value as of January 1 of the reassessment year. Only counties assess property in Missouri (the sole exception is the city of Saint Louis, which is not located within a county). In most counties, the assessor is elected to four-year terms on a partisan basis. In Jackson County and the city of Saint Louis, the assessor is a nonpartisan appointed position.

There are two categories of taxable property in Missouri: "real" and "personal." Real property comprises land and buildings, while personal property comprises vehicles and equipment.[6] Real property is subdivided into three subclasses: agricultural, residential, and commercial. Both the method of assessing real property and the taxation levels for tax levy purposes depends on the subclass.

The assessment of real property is divided into the value of the land itself, and the value of the improvements (the house or office building) on the land. The values of the land and improvements are added together to form the appraised value. An assessment ratio is then applied to the appraised value to determine the assessed, or taxable, value. The assessment ratio applies the multiplier to the three subclasses of real property. For commercial property, the ratio is 32 percent, for residential property it is 19 percent, and for agricultural property it is 12 percent.

However, Missouri law dictates that both the assessment ratios and the tax rates be uniform for the land and the improvement. For example, take two neighboring homes with a total appraised value of $200,000. Because they are neighbors, we will assume that they pay the same tax rates. If one has land valued at $80,000 and a house valued at $120,000, and the other has land valued at $60,000 and a house valued at $140,000, the total taxes paid will still be exactly the same. There is one exception to this.[7] In Kansas City, the city levies a tax to support roads based only on the value of the land. So, in Kansas City, the owner of the first home above would pay more in taxes. This system is allowed because the land tax there has been historically considered a "fee" for the boulevard and parkway system instead of a "general tax."

The valuation of agricultural property is based on the quality of the soil. There are eight levels of soil quality, with declining tax assessments as the quality declines. The assessor determines the quality of the soil, but state law sets the appraisal for each acre of farmland depending on which level of soil quality it best fits.[8] If agricultural land is not actively being used for farming, it may be assessed according to its highest and best potential current use. This means that an unused acre of farmland located next to a new subdivision may be valued equal to the residential land within the subdivision. During the recession of 2008–09, news agencies reported that some large landowners holding undeveloped property (especially home-building companies) took to farming the land they had been holding for future homes in order to dramatically decrease the tax bill for their property.[9] Once the assessor has graded the soil quality, an assessment ratio of 12 percent is then applied to the farmland appraisal, whether the land is being actively farmed or not.

The valuation of residential property is based on the sales of comparable homes within the area. Larger counties use sophisticated computer programs to determine the assessments because they have numerous homes and sales. Three of Missouri's largest counties (Saint Louis, Jackson, and Saint Charles) and the city of Saint Louis require property purchasers to file certificates of value with the county upon the purchase of property. Those certificates require the buyer to tell the county how much was paid for the property. Needless to say, that information is helpful to assessors in setting residential assessments, often to the chagrin of property owners who would like lower — and, perhaps, less accurate — assessments. Smaller counties, and some large counties like Greene, do not require certificates of value, and assessments are based instead on voluntary requests for sale information or market research. An assessment ratio of 19 percent is then applied to the residential appraisal.


*The Metropolitan Sewer District is athorized to levy a property tax in Saint Louis city and county.*

Commercial property, which includes businesses, utilities, railroads, and anything not considered residential or agricultural, is the most complicated subclass to assess. The appraisal of commercial property can be done using comparable sales, such as in residential property. More common, though, are the use of either the cost approach, by which the assessor determines what the replacement value of the property would be, or the income approach, by which the assessor bases the value on how much income that the property generates for the owner. A commercial assessment ratio of 32 percent is then applied to the property. Unlike agricultural property, both commercial and residential properties are required to be assessed at 100 precent of fair market value.[10] Missouri does not have limits on annual increases in assessments like many other states do — most famously California, after the passage of Proposition 13 in 1978. Those limits — or, more accurately, the lack thereof — will be discussed more fully later in this study.

Personal property is assessed each year, based on answers to the property information questionnaires sent to property owners every year by the assessor's office. A person owes taxes on personal property based on what he owns as of January 1 of that year. This is different from real property, for which a person can owe prorated taxes based on when he purchases or moves into the property. The standard types of taxable real property are cars, boats, business equipment, farm equipment, livestock, and grain stocks. The appraisals for personal property are based on depreciable valuations every year. Automobiles, for example, are taxed according to their value in the Kelley Blue Book, a service that lists the estimated value of every make, model, and year of car. Personal vehicles and business equipment have a 33 1/3 percent assessment ratio applied, and farm equipment and livestock have a lower ratio of 12 percent applied. Historic autos and grain stores are assessed at even lower ratios: 5 percent and 0.5 percent, respectively. Please see Table 1 in Appendix 3 for an example of how various appraised values translate first to assessments and then to tax dollars.

## Property Assessment Appeals

Property owners in Missouri who disagree with the appraised value of their property have the right to appeal their assessments. People are not allowed to appeal the taxes owed on the property, just the value of the property that then results in the tax levy. Appeals can be filed in each county between May 1 and either the third Monday in June or the second Monday in July every year, and all appeals are first heard by the county's Board of Equalization.[11] Initial appeals are usually decided by the end of summer, and if property owners are not satisfied with the decision made by that board, they can further appeal the valuation to the Missouri State Tax Commission. If property owners are not satisfied by the decision of the Tax Commission, they can file a lawsuit to challenge the assessment — but very few appeals go that far. The appeals that do go that far usually involve large commercial property valuations.

A few counties, including Saint Louis and Greene counties, have an additional "informal" appeal period after reassessments during which property owners can make their case for a different — always lower[12] — valuation. These informal hearings are an opportunity for property owners to make their cases to appeal officers without undergoing the time commitment of the formal appeal process.

## Tax Boards and Commissions

Every county has a three-member Board of Equalization that hears tax appeals, determines tax exemptions, and conducts ratio studies for accuracy of assessments within the county. Members of a county board of equalization generally receive a small stipend for their service, in return for a time commitment that varies greatly depending on whether or not it is a reassessment year. The State Tax Commission is the state board that oversees all of the county assessors and county boards of equalization. The three members of the commission are much better compensated than their county

## Woman Sees Property Assessment Jump $12K

***Becky Peck Says She Plans To Appeal***

**Kansas City News**

A Liberty woman said she will fight Clay County's assessment of how much her picturesque property is worth.

Clay County recently sent out notices informing owners what value the county had placed on their properties. That value is used to calculate property tax.

In Peck's case, the value on her home and the three acres surrounding it increased by $12,000.

"With our economy still in recession, I wonder how that could be," Peck said. "I was expecting a decrease."

She said the only thing she has done to the house since the last assessment is to paint it.

"I think when you have an economy that's in recession, that it shouldn't be up to you to prove them wrong when they've increased the value," Peck said. "How can your value go up in a recession?"

Rick Dankert of the Clay County Assessor's Office said he expected people to ask that.

"That's a very valid question," he said.

Dankert said that when he and his staff examined home sales throughout Clay County last year, they determined that many neighborhoods were worth more than the values listed in the books.

"We had a lot of sales data that pointed us to the direction that some of the houses were still undervalued, tremendously," Dankert said. "We're going to go ahead and make those adjustments as needed."

Dankert also said that about 75 percent of homeowners either saw their values stay the same or drop.

He said about 4 percent of the people who received the notices have said they will appeal it.

Peck will appeal her assessment at the county assessor's office on Friday.

Officials with the assessor's office are confident their assessment process is fair, saying that of 19,000 notices that were sent out informing owners of an increase in the value of their property, only 600 of those owners have filed appeals.


*http://www.kmbc.com/money/27676357/detail.html#ixzz1SlotGa4m*

counterparts, earning $105,000 dollars per year for what is considered to be a full-time job. The State Tax Commission is the primary arbiter of assessment questions and disputes in Missouri. It oversees county assessments, conducts ratio studies, hears tax appeals, sets soil grade guidelines, and assesses some types of property that cross county boundaries, like railroads.

Missouri's primary role in assessments — outside of the State Tax Commission — involves reimbursing counties for their assessment costs. Counties assess all the property, but many more taxing districts benefit from those assessments. The state reimburses counties so that they alone do not bear the costs of a property tax system used by cities, schools, libraries, townships, and many other types of governments, including the state's Blind Pension fund. Because of the 2010 budget shortfall in Missouri,[13] the assessment reimbursement budget for counties was cut significantly from $19 million to $12 million.[14]

## The Property Tax Levy

Once the county assessments are finalized, local governments throughout the state are then able to set their tax rates. State statutes authorize maximum and minimum tax rates for various levels of government (See Appendix 2). Taxing districts may set rates higher than the maximum levels upon voter approval.

Missouri has a large number of taxing districts. According to the 2007 Census of Governments, Missouri has the sixth-highest number of taxing districts out of all 50 states: 3,723. This includes 114 counties, 952 cities, 312 townships, 536 school districts, and 1,809 special taxing districts. All of the counties, cities, townships, and school districts are authorized to levy property taxes, and many of the 1,809 special taxing districts are also so authorized. Once the property assessments are set, those entities among the 3,723 governments that levy property taxes adjust their rates to the new assessment changes and forward them to the county collector and the state auditor, the latter of which is charged with ensuring that the tax rates fall within legal levels. The county collectors then tally the rates from each of the various districts, apply the rates into each assessment to determine the exact tax amount due, and send property owners the bill every October. Each county collector gathers the taxes for various local districts, so taxpayers receive one combined bill instead of a dozen different ones.[15] The collectors then distribute the tax money to the tax districts, keeping a small fee (usually 1 percent of the tax) for their expenses.

The process of reassessment is not intended to result in a tax increase for Missourians. If reassessment increases the value of property within a tax district — which usually, but not always, happens — taxing districts are required to roll back their tax rates to a revenue-neutral level, after adjusting for inflation. Later, the tax district can increase the tax rate either through voter approval or by a vote of the district board. Generally, tax increases in Missouri must be approved by voters, but legislative bodies have two ways to get around this requirement. First, if a tax district is within its authorized range of tax levels and the proposed increase is small enough, legislative bodies can vote to increase taxes. For example, the General Assembly voted to increase gas taxes in the early 1990s. The eventual increase of six cents per gallon was broken into three consecutive two-cent annual increases, because that smaller level of increase did not require voter approval. Second, legislative bodies can directly increase taxes in response to rare decreases in assessed valuation. This is something that many Missouri taxing districts and taxpayers experienced when the 2009 reassessment applied housing prices after the decline in housing prices during 2007 and 2008.[16] In those situations, taxing bodies are authorized to roll rates up to a revenue-neutral level matching the prior year's tax collections without voter approval.[17]

Rollback requirements are calculated using district averages. It is possible and common for individual property owners who see a greater-than-average assessment increase for their area to see a significant tax increase after reassessment.

## The Hancock Amendment

The portion of the Missouri Constitution that requires tax rollbacks when assessments increase is known as the Hancock Amendment, named after Mel Hancock, who led the referendum petition effort to institute the amendments in 1980 and who was later elected to the U.S. House of

*The Saint Louis Zoo is athorized to levy a property tax in Saint Louis city and county.*

*Kansas City Museum at Corinthian Hall is supported by a local property tax*

Representatives in Southwest Missouri. The portions of the Hancock Amendment that relate to local governments are in article 10, sections 16 and 22, of the state constitution.[18] Those sections require that when assessed valuations increase by an amount greater than the consumer price index, governments must roll back the tax rates to offset the assessment increases. Importantly, new construction and improvements are not included in those calculations, so rapidly growing areas (think Saint Charles County or Branson), can see large increases in government revenues without being required to roll back rates because of so much new construction in every two-year period.

## II. USE OF PROPERTY TAXES IN MISSOURI

Property taxes are directed by local governments to various funds. For counties, property taxes primarily go to the general fund, the road and bridge fund, the health fund, the park fund, and the bond retirement (debt) fund. Other funds at the county level that can use property taxes include mental health, senior services, family resources, dispatch/alarm, and disabled services (e.g., sheltered workshop). No county has chosen to enact every one of these options. Some small, rural Missouri counties only operate the general fund and the road and bridge fund.[19]

The cities of Kansas City, Springfield, and Saint Louis levy property taxes for museums and zoos. The city of Saint Louis also has a children's service fund property tax, a dedicated tax for recreation centers, and property taxes to support "county" functions because it is an independent city. Along with the general fund and debt (or bond) retirement, many cities levy a special property tax to fund employee pensions and capital improvements. As discussed earlier, Kansas City levies a unique tax on the assessed value of land only, disregarding its structural improvements, to fund parts of its road system.

The state of Missouri itself levies only one small property tax. It funds the Blind Pension system via a property tax of $0.03 per $100.[20] That fund is established by the state Constitution, and the

Taxes from commercial, residential, agricultural, and personal property fund school districts, cities, etc.

legislature has no authority over it beyond setting the rate each year within a narrow window of options.

School districts are authorized to levy taxes for the general fund, debt service, capital improvements, and teacher pensions. School districts in Missouri include many K–12 public school districts, but also community college districts and special school districts that serve children with special needs.

Water, sewer, ambulance, fire, street light, levee, and library districts all routinely levy property taxes in Missouri to fund their operations, capital projects, and debt. Special business, community improvement, neighborhood improvement, and transportation development districts are all authorized by the state to levy property taxes for road improvements, security details, neighborhood beautification, or many other ostensibly public goods.

The final major property tax levied in Missouri is a surtax on commercial property assessments in each county. This tax was implemented in 1985 to replace a tax on business inventories. The revenues from the surtax go to any taxing body that had a tax on merchants and manufacturing inventory in place prior to 1985. Taxing districts that had not implemented the inventory tax prior to 1985 and districts that have been created since that year are not eligible for surtax funds. The commercial surtax varies from a rate of $1.70 per $100 in Saint Louis County to $0.01 per $100 in Reynolds County. Elected officials are not allowed to raise or lower the tax, and it is exempt from rollback requirements. Each county's voters have the power to lower the tax rate — it cannot be raised — but no Missouri county has ever done so.

The voters and elected officials in Missouri's cities and counties determine which funds that are supported by property taxes those entities will operate, such as a parks fund. If a county does not have a parks tax, it can support its parks department out of general revenue funds. However, if it chooses to institute a dedicated park property tax, general funds can no longer be used to support the parks. These are the kinds of choices that cities and counties make when deciding whether or not to institute direct taxes to support various public goods. Most importantly, the initial creation of any of the above-mentioned taxing funds always requires voter approval.

Once the tax assessments and rates are established, individual tax collections are always divided by the same proportions across all existing funds. Taxes from commercial, residential, agricultural, and personal property all have the same rates and percentages applied to them in order to fund schools districts, cities, etc. The only exceptions to this are the commercial surcharge tax and the Kansas City land tax for the parkway system, both of which have been discussed previously.

The fact that the county acts as the collector for all of these districts, with a few exceptions, can lead people to think that actual county taxes are higher than they are. The breakdown of how much goes to which district is different everywhere, and changes from year to year. An exact breakdown of every property tax in Missouri is beyond the scope of this study.[21] In general, school district taxes can often make up between half and two thirds of the total tax bill. Fire districts are usually the second-highest total, especially in urban areas, followed by cities and counties. Cities that operate municipal fire departments will obviously have higher tax rates than cities served by independent fire districts. The many examples of smaller taxing districts (library, sewer, street light, sheltered workshop, mental health, etc.) generally each make up a small portion of the total bill. Of course, many small taxes can add up to a large total.

### Double Taxation

There is probably no tax more upsetting to people who move to Missouri than the personal property tax on cars: a prime example of double taxation. Individuals pay the same sales tax rate on cars that they do on other purchases,[22] but then also pay an annual tax for the right to own the car. Many of the other items subject to personal property taxes are not subject to sales taxes when purchased, so for those things the issue of double taxation does not apply. [23]

### Property Tax Assistance Programs

As we have mentioned, the state of Missouri does not cap potential assessment increases the way that many other states do. Missouri addresses the issue of property tax increases by rolling back rates instead. It is still possible, however, for property taxes to become extraordinarily high in relation to income for some property owners. The state has a "Circuit Breaker" tax credit program to address this issue. The circuit breaker is a property tax credit available only to lower-income senior citizens and disabled individuals. The credit refunds a portion of the property taxes that applicants pay. There are income restrictions: Only homeowners with a total household income of less than $30,000 (or $34,000 for a married couple) and renters with total household income of less than $27,500 (or $29,500 for a married couple) qualify for the subsidy.

## III. REVIEW OF ECONOMIC LITERATURE ON PROPERTY TAXATION

There is a significant body of economic literature on the subject of how property taxes influence the nature of property ownership and the economic value of the item being taxed. Property taxes have historically been the most common form of taxation. The earliest known historic tax records are clay tablets documenting the system of assessment and taxation in the ancient city-state of Lagash (located in modern-day Iraq), dating from approximately 6,000 B.C.[24] Property taxes have been the dominant tax system for local governments in the United States until very recently, as sales taxes have increased in importance. The historic exception to that was the American South, where political dominance by large plantation owners and Jim Crow–style racism led to primary reliance on head or poll taxes.[25]

The primary positive aspect of the property tax, when compared to other taxes, is that it can be characterized as a "benefits" tax. Alfred Marshall explained the positive side of local property taxes in his groundbreaking economic textbook from a century ago:[26]

> On the other hand beneficial or remunerative rates are those spent on lighting, draining, and other purposes; so as to supply the people who pay the rates with certain necessaries, comforts and luxuries of life, which can be provided by the local authority more cheaply than in any other way. Such rates, ably and honestly administered, may confer a net benefit on those who pay them; and an increase in them may attract population and industry instead of repelling it. Of course a rate may be onerous to one class of the population and beneficial to another. A high rate spent on providing good primary and secondary schools may attract artisan residents, while repelling the well-to-do. "Services which are preponderantly National in character" are "generally onerous"; while "those which are preponderantly Local in character generally confer upon rate-payers a direct and peculiar benefit more or less commensurate with the burden."

As a general rule, people — in most cases in Missouri, that would be a single-family homeowner[27] — pay property taxes to fund things that directly benefit them. Typically, homeowners pay taxes to support schools and libraries that educate their children, roads they drive on, and police and fire departments that protect them and their property. Studies have shown that paying property taxes for effective local public services can increase the property values,[28] increase personal income within an area,[29] and benefit taxpayers in both the short term and the long term. Property taxation functions quite differently than sales and income taxes in this regard. By contrast, when driving even a short distance from their home to purchase goods, people often pay sales taxes that support government jurisdictions they do not live within or benefit from.[30]

Similarly, income taxes do not benefit taxpayers in the same direct way as property taxes. Many taxpayers will never use Medicaid. Most property owners don't receive farm subsidies. Most taxpayers will eventually use Medicare or Social Security, but this does not provide the same immediate benefit as parks or street lights. Even though all Americans benefit from national defense, most of us don't use the military in the same way that we use local roads and schools. There are both positive and negative aspects to all three primary types of taxation. But of the three types of taxes imposed at the various levels of government, local property taxes are the one most likely to bring some immediate return on investment for the taxpayers themselves.

One of the reasons that property taxes have a more immediate return on investment is that property taxpayers have greater information about how that money is directed than with other forms of taxation. The majority of property taxes are specifically directed to certain services that have been deemed by the political process as public goods, and that information is clearly identified on annual tax bills and reassessment notices. As we discussed previously, a portion of your property tax bill goes to the school district, the road fund, the sheltered workshop, and so on. Only a minority of the money goes into general funds that allow discretionary use by elected officials.[31] This largely pre-directed use of the money, along with the easy availability of the information about how the taxes are dispersed, allows voters to make more informed choices when voting on property tax changes in Missouri. It also allows voters and property owners to hold officials more accountable for the perceived success or failure of the expenditures. If your local roads are in poor condition, you can readily find out how much you spend for them and who is responsible for their condition.

Property taxes also satisfy the goals of both progressive and fair taxation. Because property taxes are *ad valorum* — based on the value of the asset — people who own large homes and drive expensive cars pay more taxes than people who live in small homes and drive old cars. However, the rate that everyone pays is equal. In this way, property taxes are less progressive than income taxes, but more progressive than sales taxes.[32]

## Is It "Efficient?"

Throughout this literature review, you will read about how economists discuss the question of property taxation and community sorting in terms of "efficiency." The term "efficiency," as it relates to these questions, can be defined in this way:[33]

> Property tax rates will be efficient if they work like prices and equate the marginal benefit of a government-provided good or service to the marginal cost of providing it.

In other words, a property tax–based system of local public services and community sorting (which will be discussed later in this study) are "efficient" if they result in residents paying property taxes that accurately reflect and pay for the costs of the public goods they desire and receive. The system would be inefficient if it led to taxes or public service provision at a level higher or lower than demanded by a significant number of residents, if it resulted in residents receiving services for which they did not pay, or if it resulted in distortions to the primary market at issue: housing.

## Which Types of Property Should We Tax? Land, Buildings, Cars, or Cows?

> The grounds from which we have drawn the conclusion that the tax on land values or rent is the best method of raising public revenues have been admitted expressly or tacitly by all economists of standing, since the determination of the nature and law of rent.
> — Henry George, 1879[34]

As we discussed in the first section of this study,


Under the current, and common, Missouri system of property taxation, in which land and improvements are taxed at the same rate, surface parking is a good investment.

Missouri taxes all types of property. But which types of property should the government tax, and which should it not? The belief that unimproved land value should be taxed is probably as close to unanimous among economists as any idea in the field.[35] All taxes have unintended negative consequences, but the land tax has fewer than most. Generally speaking, income taxes reduce the incentive to work; sales taxes increase prices and reduce consumption; taxes on property improvements, such as for a building, reduce the incentive to improve property. Each of these three situations is an example of how deadweight loss occurs within these forms of taxation: Economic activity would have occurred, but does not, because of the imposition of a tax. Unlike these three examples, the amount of land that exists is finite, and somebody will own it.[36] A tax on land, without the addition of a tax on the improvements on the land, provides a strong incentive for property owners to maximize the use of their land. If the tax on a vacant piece of property is x, and the tax on anything done with that property is also only x, most rational land owners will try to improve and use the property as much as possible. A farmer will farm it. A developer will build on it. A manufacturer will produce on it. A homeowner may expand the size of the house on it.

Furthermore, income and sales taxes are often readily avoidable in the underground economy. Sales taxes are also easy to evade in the open economy via Internet purchases. Even taxes on improvements are avoidable, for example, by not telling the government when you finish your basement or add a back porch.[37] The frequent avoidance of such taxes requires the tax level to be even higher for recorded activities. A land tax is almost impossible to avoid, allowing the rate to be lower across the board for everyone.[38]

As an illustration, consider the surface parking lots that are prevalent in downtown Saint Louis and Kansas City. Under the current, and common, Missouri system of property taxation, in which land and improvements are taxed at the same rate, surface parking is a good investment. Any improvements to the property aimed at higher returns on investment would be at least partly offset by higher taxes.

If you changed the property tax system to one based solely on the value of land, what might happen to surface parking lots? In all likelihood, some of these surface parking lots would quickly be converted to larger parking garages, and the rest sold or altered to be used for another economic purpose. The demand for parking would remain more or less constant, and the total number of parking spots supplied and the equilibrium price would likely not change. However, many surface-level parking lots would come to be a poor economic use under a system of unimproved land taxation, because that land could be turned into a more profitable office building, factory, or entertainment complex, without leading to any additional taxes on the property for its owner.

## The Tiebout Hypothesis

The diverse issues of property taxation, municipal services, urban sprawl, tax capitalization, and suburban government can be considered together. The economist Charles Tiebout first combined these issues in an innovative and (eventually) fertile nine-page article titled, "A Pure Theory of Local Expenditures," published in October 1956 in *The Journal of Political Economy*.[39] Tiebout proposed that people, acting in their capacity as mobile consumers and homeowners, created a market for local government services. Cities, especially the rapidly growing suburbs of the 1950s, responded to various resident demands by creating different menus of taxation and services, with different cities appealing to different potential homeowners. Homebuyers could choose among the various levels of government services and tax levels provided by cities and select the one that best fit their family's level of needs. City managers — the non-partisan bureaucrats that run most modern suburbs — could be viewed as business managers running an operation designed to attract and maintain the proper amount of residents that best fit the service and taxation level desired by the majority of the residents.

The success of the enterprise — in this case the city — could be simply measured by population growth, stability, or decline. Tiebout emphasized population in his theory but later economists added property values as a measure of the success or failure of the city. These economists' theories support Marshall's description of property taxes as a benefits tax (see page 14) some people would prefer to live in a city with a high level of government services and correspondingly high taxes. To them, the marginal benefits of more public services outweigh the marginal costs of higher taxes. Others would prefer a more independent environment with limited services and lower taxes. For them, the benefits of keeping more of their money are more important than expanded municipal services. Cities that offered quality services at reasonable tax levels would likely expand and grow to their optimum size. Once those cities achieved their optimum size — as measured by the preferences of the population — stability might replace growth as the main objective. Continued success would be measured by increasing property values, not population growth. Cities that offered a combination of poor municipal services and high taxes would likely decline in population, property values, or both.

Two other factors play a major role in this municipal market: zoning and the relative difficulty of incorporating cities. Through zoning (and other land-use rules), a well-run, low-tax city of 5,000 people can prevent the population from growing beyond 5,000 residents, even though many more people may want to live there. The difficulty of incorporating or disincorporating cities is what makes this theory applicable to our lives. Eventually, people have to make a choice of which city to live in within any metropolitan area. One cannot simply declare his own property to be a city with himself as mayor. A person must choose between existing cities (or unincorporated areas, with their own levels of taxes and services). Because of the high stakes involved, homebuyers generally engage in extensive research when deciding where to purchase or build what will likely be their most valuable asset.

Tiebout never proved his own theory.[40] His untimely death at the age of 43 from a heart attack prevented him from even trying. In 1969, Wallace Oates of Princeton University was the first to see the possibility in Tiebout's idea and used it in a comparison of New Jersey cities.[41] Oates found that property values had a negative relationship with the tax rate, and a positive relationship with public school expenditures. As Oates summarized:

> These results appear consistent with a model of the Tiebout variety, in which rational consumers weigh (to some extent at least) the benefits from local public services against the cost of the tax liability in choosing a community or residence.[42]

Bruce Hamilton demonstrated the importance of zoning in the Tiebout model as a method by which cities limit their population growth and control demand for municipal services.[43] Many other economists have confirmed Tiebout's theory and refined the debate since then. Bickers, Salucci, and Stein conducted an analysis of a substantial phone survey in 2002 that asked people in four major cities if they intended to move and why.[44] The responses to the surveys provide clear support for Tiebout's hypotheses, with issues of local service provision being one of the two major reasons people intended to move.[45]

Tiebout provided the theory that local governments have an incentive to provide efficient services in a manner that is not reliant on politics or intervention from higher levels of government. Residents of those areas have a simple mechanism to sort themselves into communities that will efficiently provide the level of services its residents want at a tax level they can afford. Oates provided the first, hard evidence that Tiebout's proposal was correct. Hamilton provided a workable model of how it occurs in the real world. Fischel, Bickers, and many others have provided additional supporting evidence, so that a consensus has emerged, as Oates summarizes:

> On one issue, there is a consensus: capitalization of fiscal differentials is consistent with the view that consumers "shop" among local communities. People (not surprisingly) appear willing to pay more to live in jurisdictions that provide, in particular, such amenities as superior schools and greater safety from crime. The empirical literature thus provides some support for the operation of the "demand side" of the Tiebout model.[46]

## The MacKenzies' Decision and Property Tax Capitalization

Returning to our hypothetical family, the MacKenzies are choosing where to live in the Saint Louis area. Their choice of housing will be informed by a number of factors: house and lot size, school quality, distance from work, safety, tax levels, housing stock, and more. Some of these factors can be easily researched before they decide. Other factors will be difficult to research. Luckily for them, numerous other buyers have made similar choices in prior years, and all the research performed by previous buyers is reflected in the pricing level of the homes or apartments they will consider.[47] The process by which local variables, such as property taxes, are factored into the price of a house is known as capitalization. Holding everything else equal, if one house faces a higher annual tax bill than another house, the sale price of the first home will be lower.[48] Purchasers realize they will have to pay higher taxes on the first home, so they are not willing to pay as much for it. Many other variables can be capitalized into the value of a home. School quality,[49] crime levels,[50] zoning restrictions,[51] political leadership,[52] and more can all relate to Tiebout-style choices on where to live. Generally, taxes are capitalized more exactly into property values, while other factors are harder to measure. For example, the MacKenzies might not be able to research the quality of the fire department and water hydrants serving the homes they look at, but the insurance industry certainly has. That research will be reflected in the price of insuring the house from fire. A poor fire department will result in higher home insurance rates. Those higher insurance rates will lower the price of the house. Often, these factors can work against each other. The capitalized increase in property values via better public schools may be offset by the decrease in property values from the higher taxes used to fund those good schools.

It is not just current taxes that are capitalized; expectations of future taxes are as well. Fischel compares housing prices in California and Massachusetts in the 1970s and '80s. California homes protected against property tax increases by Proposition 13 were worth more because people knew the constitutional protections against large property tax increases were likely to be permanent.[53] Alternatively, a controversial tax policy in Massachusetts favoring certain homeowners was not fully capitalized into the value of the houses because most people were aware the policy was likely to eventually be changed or overturned, which it was.[54]


*Research has found that landlords are usually unable to pass along the full cost of property tax increases to renters, due to tenant mobility and housing competition.*

The first choice the MacKenzies need to make is whether to own a home or rent. That choice can have implications for future decisions. Homeowners dominate the political landscapes of most suburbs, which are the most appropriate examples to consider for Tiebout's theory because "homeowners are the major stockholders — the risk-bearing, residual claimants — of modern municipal corporations."[55]

Homeowners are more likely to vote and be involved in local politics, while renters too often believe in the "fiscal illusion" that they are not affected by property taxes. One example of this fiscal illusion affecting voting behavior is a 1982 referendum in New Orleans that would have eliminated the homestead exemption in property taxes.[56] Although the change would have improved tax policy for renters, who were more common in the city than homeowners, the change failed by a wide margin.

There is evidence that the MacKenzies will be more likely to support property tax increases if they are renters. Research has found that landlords are usually unable to pass along the full cost of property tax increases to renters, due to tenant mobility and housing competition.[57] This leads to renters supporting greater levels of public expenditures (i.e. voting for higher taxes) without having to pay the full cost of the new taxes and services.[58]

Jorge Martinez-Vazquez and David Sjoquist present an alternate explanation for renters' voting patterns than simple "fiscal illusion."[59] They argue that renters make a rational choice of supporting higher levels of public goods, and that they have different incentives than homeowners. Those different incentives for renters can be as simple as supporting more money for schools because renters may be more likely to have children in school. Support for more government services and the resulting higher taxes may be one of the reasons communities often institute zoning meant to exclude rental property.

If the MacKenzies choose to buy a home, their voting behavior may change over the course of their ownership. If their children attend public schools, they will be more likely to support higher taxes while the kids are in school. As their children grow up and move out, they will be less likely to support higher taxes. Regardless of how they vote, they will be responsible for paying the costs of the electoral outcomes. However, as homeowners prepare to move, they may begin to act more like renters. Researchers have determined that voting property owners are more likely to vote in a way to improve public services, e.g. raising taxes for schools, the closer they are to moving from the community. While living in the community with no intention of leaving, voters take both costs and benefits into account, but as they start planning to leave, voters begin to act in a manner designed to improve the value of their property, knowing that they likely won't face the full cost of their decisions.[60]

## Are Property Taxes and Tiebout Competition Efficient?

Of course, the MacKenzie family is not the only family unit looking to purchase a home or rent an apartment in the Saint Louis area. We can envision a number of buyers in the market. At the same time the MacKenzies are deciding where to live, there is a wealthy retired couple looking to downsize to a condominium. There is another retired couple also looking to downsize, but they are on a fixed pension income and must spend their money carefully. There is a single-mother on a limited income trying to find an apartment in a good school district. There is another young family like the MacKenzies but more committed to their religion and church. There is a young, single executive and a young, single graduate student who have very different monetary constraints and priorities. There is a doctor moving to Saint Louis from Minnesota for a job at a local hospital who has four daughters. Although his income may allow for private schooling, buying a home in a good school district might be a smarter decision for his family.

All of these families and individuals expect different things from government. The young graduate student might want to live somewhere with taxes that fund good public transit, while the young executive might have no need for that service and no desire to pay taxes for it. The retired couple on a fixed income might look for a location with low taxes and limited services to make their money go further each month. The young family committed to their church will care less about the public schools because they are planning to send their children to religious schools regardless of where they live. The single-mother may care about little aside from the quality of the public schools, and she is willing to pay more in monthly rent to live within a certain district. If communities indeed operate based on the incentives Tiebout describes that should allow each of these families to find the most preferred place for them to live and result in a more efficient provision of public services.

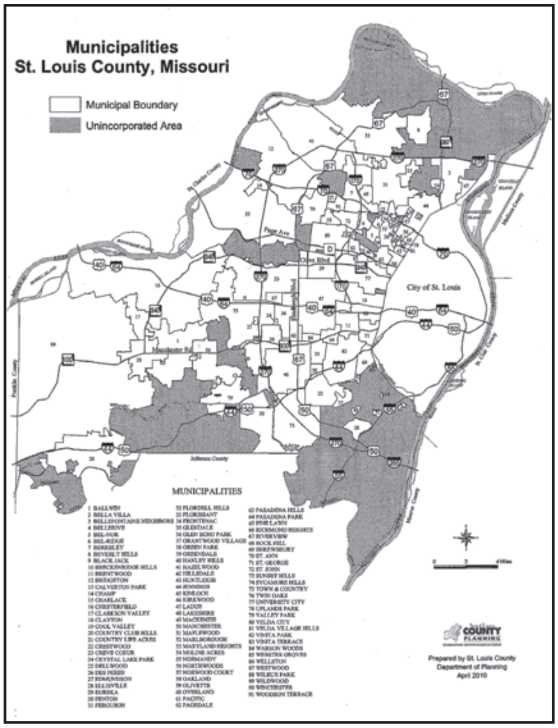
A number of scholars have concluded that cities' responses to these various demands lead to an economically efficient outcome. Sonstelie and Portney constructed model communities based on Tiebout's principles of mobility, information, and public service levels. They determined that under such a model, communities seeking to maximize their property values "leads to an efficient allocation of resources in the local public sector."[61] In short, competition for residents produces better public services.

Jan Brueckner similarly concluded that a model community based around Tiebout's proposals could lead to property value maximization and could "generate public sector efficiency."[62] "Efficiency" in this instance means Pareto-efficiency, or an equilibrium where no one can be made better off without making someone else worse off. However, Brueckner determined that a lump-sum taxing system would be more efficient, but if housing levels are fixed the property tax could also lead to an efficient allocation of services. This means that nobody could receive service benefits or cuts without having to participate in the financing of those benefits or cuts.

Communities in these models achieve an efficient allocation of public services because the majority directly benefits from the local government's particular provision of goods and services, either through direct use of the service or good or through an increase in property values. People who feel they are not benefiting from the exchange may leave the community for one that better suits their needs. Of course, moving is not free. The hypothetical families discussed above are people who have already decided to move. A family is unlikely to move to a new city solely because a small increase in property taxes that they opposed is passed into law. However, enough people will move for other reasons within any metropolitan area that sorting and capitalization will occur over time. Furthermore, if the situation within a city deteriorates enough (e.g. taxes reach extremely high levels, or the school district declines far enough), people will accept the cost of moving for those reasons alone. Everyone has a community that best suits them, whether it is a commune where everybody shares all costs equally, or a hermit living alone in the mountains who consumes very few public resources.

## Objections to Tiebout's Theory and Capitalization

The objections to Tiebout's proposals do not center on the question of whether sorting and capitalization occur — that issue is largely settled — but whether it is a truly efficient mechanism for organizing communities and to what extent capitalization occurs. After all, it is an accepted contradiction that the Tiebout model is identified




*Saint Louis County has 91 municipalities. Few urban counties in the United States give its residents as many ready-made choices of where to live, making it an excellent test of Tiebout's theory.*

and confirmed through capitalization, yet in a theoretically perfect Tiebout community there would be no capitalization at all.[63]

There are economists who dispute the basic idea that a property tax is a "benefits" tax, although they generally focus on the tax on improvements instead of the tax on land. George Zodrow and Peter Mieszkowski have argued that the property tax is a distortionary tax on capital.[64] Like all taxes, it distorts the distribution of a good or service — in this particular case the inefficient, underconsumption of housing — and leads to the underprovision of public services as seen through capitalization. The effects of capitalization of property taxes are similar under both views of property taxes, but under Zodrow and Mieszkowski's view, the use of property taxes instead of user fees or head taxes necessarily leads to a reduced consumption of housing.

John Yinger is one of the most prominent critics of the idea that capitalizing property taxes and services into housing prices leads to an effective provision of public services. Yinger disputes that low-income households benefit from living in higher-income areas, where they might pay lower property taxes but receive better services. Yinger writes:

> Bid functions reveal that low-income households are not usually willing to pay as much as high-income households for a high level of public services and would therefore be worse off if they bought housing services at the market prices in a rich jurisdiction.[65]

Yinger and Ross claim there are four primary reasons why local governments do not select the efficient level of public services for the community.[66] Those four reasons are the distortions that the property tax system has on housing prices, the failure of median voter theory, public service capitalization, and preferences for community homogeneity or heterogeneity.[67] To Yinger and others who dispute Tiebout's theory, the property taxes distort the prices the MacKenzies and other families have to pay for housing and force people to pay for services they may not want or need. Yinger states:

> A household would pay more for housing if it moved to the jurisdiction with the optimal service-tax package and therefore would not be better off. [68]

## Tiebout and Saint Louis County: An Example of Tiebout Competition

Richmond Heights, Missouri is the subject of the case study that accompanies this policy study. Richmond Heights is located within Saint Louis County, which has among the most municipalities of any large county in the United States. With just under one million residents, Saint Louis County has 91 municipalities. Few urban counties in the United States give its residents as many ready-made choices of where to live, making it an excellent test of Tiebout's theory. Epple and Zelenitz have written that because the supply of land is fixed, local governments are still able to "levy taxes in excess of expenditures," for the benefit of government itself. They argue that the extreme version of Tiebout's theory goes too far, and local elected officials and voting still matter. However, in areas with a large number of jurisdictions those monopoly powers of government are more limited than in an area with a small number of jurisdictions. As Epple and Zelenitz conclude:

> The presence of a large number of small jurisdictions offering the same amenity levels prevents any one of these jurisdictions from exploiting the elasticity of housing demand but not the elasticity of housing supply.[69]

William Hoyt came to a number of interesting conclusions regarding the Tiebout model and the number of cities. He determined that residents of smaller cities have a greater incentive to participate in local government to maximize efficiency and limit government growth because the efforts of one property owner in a small city have a much greater chance of success than in a large city. Hoyt also argued that property taxes are more fully capitalized into housing values in small cities that encourages property owners in small cities to work harder than their counterparts in large cities to maximize property values via efficient public sector services and lower taxes. His model predicts that:

> …local government expenditures and waste (surplus) should be greater in larger cities and in metropolitan areas that have fewer localities supplying public services.[70]

In her research, Caroline Hoxby has found that property taxation can be an effective mechanism for providing public goods. She writes:

> The Tiebout residential market makes quality verifiable because it produces a measure of quality for cost – in the form of property prices.[71]

Hoxby also determined that property taxes could be an effective method of funding local public services was dependent on the availability of jurisdictional competition to put pressure on government agents, writing that:

> … conventional local property tax finance in a market with a sufficient number of jurisdictions gives agents incentives to produce higher quality.[72]

This process is very similar to the competition among city managers that Tiebout describes.

A key assumption of the Sonstelie and Portney paper described earlier is that the actions take place in a metropolitan area of many communities, such as Saint Louis County. The 91 cities in Saint Louis County offer a wide variety of sizes, tax levels, and services. They compete against each other for residents and businesses.[73] Beyond the 91 cities, towns and villages, there is a substantial unincorporated portion of the county, with its own service levels and tax rates.

The work of all of these scholars supports the basic principle underlying the Tiebout mechanism — property taxes and public service quality are incorporated into housing prices in a manner that gives people the necessary information to make the best choices for themselves. Their work also indicates that the theory consistently applies better in areas with a large number of municipal governments, and there is no large urban area in the United States with more city governments per capita than Saint Louis County.[74] Although not as fragmented as Saint Louis, Kansas City also has a large number of suburban cities for residents to select from. Finally, residents can choose from a substantial number of school districts throughout the state.

So what will the MacKenzie family decide on? As this study went to print, our hypothetical family was still trying to decide. They have narrowed their search to two or three communities. They have also decided their highest priority is a top-flight school district, so their two children can attend good public schools. They also want an area with low property taxes, but have come to the realization that areas near the central business district of Clayton with the combination of both great schools and low taxes are priced out of their reach. They must now decide if they want to trade off a longer commute for Bill to get what they want in other areas. These trade-offs that families make every day as they decide where to live and how to go about investing in their communities are the heart of Tiebout's theory. The accompanying case study on Richmond Heights will demonstrate the theory's operation and measure its impact more precisely.

# IV. CONCLUSION

> …[U]sing land rents as the basis of taxation is an argument that I think makes an awful lot of sense because it is a non-distortionary source of income and wealth.
> — Joseph Stiglitz, Nobel laureate in Economics (2001), in 2002 interview.

Property taxes can be an effective way to fund local government. Property taxes more frequently support entities and services directly used by the taxpayer than sales or income taxes. Missouri's Hancock Amendment — along with the 2007 changes to the reassessment laws — has played a valuable role in keeping property tax rates comparatively low in Missouri.[75] Interjurisdictional competition among the large number of local governments in Missouri provides a structure where governments compete against each other to the benefit of citizens. The current system could be improved by creating an option to adopt two-tiered taxation based on land values, allowing assessments to be performed based on accumulated average increases or decreases instead of valuing every property individually, and applying the rollback provisions of other property taxes to the commercial surtax. State maximum caps on tax rates should be maintained, especially for secondary governments, such as street light districts, which do not receive as much public attention and oversight as cities and school districts. Missouri should also tighten the rules for which entities are allowed to be funded by property taxation to insure that the taxes are used for legitimate functions of local government, and not enacted for pet projects that benefit a select number of people.

# APPENDIX 1

## List of property exempt from taxation in Missouri

*Source: Missouri Revised Statutes*

Certain property exempt from taxes.

RSMo 137.100. The following subjects are exempt from taxation for state, county or local purposes:

(1) Lands and other property belonging to this state;

(2) Lands and other property belonging to any city, county or other political subdivision in this state, including market houses, town halls and other public structures, with their furniture and equipments, and on public squares and lots kept open for health, use or ornament;

(3) Nonprofit cemeteries;

(4) The real estate and tangible personal property which is used exclusively for agricultural or horticultural societies organized in this state, including not-for-profit agribusiness associations;

(5) All property, real and personal, actually and regularly used exclusively for religious worship, for schools and colleges, or for purposes purely charitable and not held for private or corporate profit, except that the exemption herein granted does not include real property not actually used or occupied for the purpose of the organization but held or used as investment even though the income or rentals received therefrom is used wholly for religious, educational or charitable purposes;

(6) Household goods, furniture, wearing apparel and articles of personal use and adornment, as defined by the state tax commission, owned and used by a person in his home or dwelling place;

(7) Motor vehicles leased for a period of at least one year to this state or to any city, county, or political subdivision or to any religious, educational, or charitable organization which has obtained an exemption from the payment of federal income taxes, provided the motor vehicles are used exclusively for religious, educational, or charitable purposes;

(8) Real or personal property leased or otherwise transferred by an interstate compact agency created pursuant to sections 70.370 to 70.430*, RSMo, or sections 238.010 to 238.100, RSMo, to another for which or whom such property is not exempt when immediately after the lease or transfer, the interstate compact agency enters into a leaseback or other agreement that directly or indirectly gives such interstate compact agency a right to use, control, and possess the property; provided, however, that in the event of a conveyance of such property, the interstate compact agency must retain an option to purchase the property at a future date or, within the limitations period for reverters, the property must revert back to the interstate compact agency. Property will no longer be exempt under this subdivision in the event of a conveyance as of the date, if any, when:

(a) The right of the interstate compact agency to use, control, and possess the property is terminated;

(b) The interstate compact agency no longer has an option to purchase or otherwise acquire the property; and

(c) There are no provisions for reverter of the property within the limitation period for reverters;

(9) All property, real and personal, belonging to veterans' organizations. As used in this section, "veterans' organization" means any organization of veterans with a congressional charter, that is incorporated in this state, and that is exempt from taxation under section 501(c)(19) of the Internal Revenue Code of 1986, as amended.

# APPENDIX 2 – Schedule of maximum and minimum property tax rates

| Tax Authority | Minimum per $100 of assessed valuation | Maximum per $100 of assessed valuation (Dollar value) | Purpose | Citation | Requires Vote |
|---|---|---|---|---|---|
| **State** | | | | | |
| • | 0.005 | 0.03 | Blind Pension fund | MO Constitution Art. 3 Sec. 38(b) | |
| **St. Louis and Kansas City (and certain other cities)** | | | | | |
| • | n/a | 0.1 | Hospital | MO Statute Ch. 92 Sec. 92.020(2) | |
| • | n/a | 0.02 | Public Health | MO Statute Ch. 92 Sec. 92.020(2) | |
| • | n/a | 0.02 | Recreation Grounds | MO Statute Ch. 92 Sec. 92.020(4) | Yes |
| • | n/a | 0.1 | Zoological Purposes | MO Statute Ch. 184 Sec. 184.600.1 | Yes |
| • | | Est. by vote | Library | MO Statute Ch. 182 Sec. 182.140 | |
| **St. Louis** | | | | | |
| • | n/a | 1.00 | General Purposes | MO Statute Ch. 92 Sec. 92.010.1 | |
| **Kansas City** | | | | | |
| • | n/a | 1.00 | Municipal Purposes | MO Statute Ch. 92 Sec. 92.030.1 | |
| • | n/a | 1.00 | Debt Service and Capital Improvements | MO Statute Ch. 92 Sec. 92.031.1 | Yes |
| • | n/a | 0.1 | Museum (not art gallery) | MO Statute Ch. 92 Sec. 92.035.1 | Yes* |
| **All Cities** | | | | | |
| • | n/a | 1.00 | Municipal Purposes | MO Statute Ch. 94 Sec. 94.060.1 | |
| • | n/a | 0.85 | Paying for all costs and expenses incurred in the operation of the district, the provision of services or improvements authorized in sec. [71.796] and incidental to the leasing, construction, acquisition, and maintenance of any improvements provided for under sec. [71.790-71.808] or for paying principal and interest on notes bonds authorized for the construction or acquisition of any said improvement | MO Statute Ch. 71 Sec. 71.800.1 | |

*(if tax exceeds $0.02 per $100 of assessed valuation)

## APPENDIX 2 – (cont.)

| Tax Authority | Minimum per $100 of assessed valuation | Maximum per $100 of assessed valuation (Dollar value) | Purpose | Citation | Requires Vote |
|---|---|---|---|---|---|
| **All Cities (cont.)** | | | | | |
| • | n/a | 0.2 | Hospital, public health, and museum purposes | MO Statute Ch. 94 Sec. 94.070.1(2) | |
| • | n/a | 0.002 | Recreation Grounds | MO Statute Ch. 90 Sec. 90.010.1 | |
| • | n/a | 0.03 | Joint Central Fire and Emergency Dispatching Center | MO Statute Ch. 321 Sec. 321.243.1 | |
| • | | Est. by vote | Library | MO Statute Ch. 182 Sec. 182.140 | Yes |
| **Counties** | | | | | |
| • | n/a | 0.1 | Acquisition, planning, improvement, maintenance, operation, and leasing of parks, playgrounds, camping sites, and sanitary landfills | MO Statute Ch. 64 Sec. 64.320 | |
| • | n/a | 0.03 | Joint Central Fire and Emergency Dispatching Center | MO Statute Ch. 321 Sec. 321.243.1 | |
| • | | Est. by vote | Library | MO Statute Ch. 182 Sec. 182.140 | Yes |
| **Towns and Villages** | | | | | |
| • | n/a | 0.5 | Municipal Purposes | MO Statute Ch. 80 Sec. 80.460.1 | |
| • | n/a | 0.2 | Hospital, public health, and museum purposes | MO Statute Ch. 80 Sec. 80.470 | |
| • | n/a | 0.03 | Joint Central Fire and Emergency Dispatching Center | MO Statute Ch. 321 Sec. 321.243.1 | |
| • | | Est. by vote | Library | MO Statute Ch. 182 Sec. 182.140 | Yes |
| • | | Est. by vote | Recreation Grounds | MO Statute Ch. 90 Sec. 90.500 | Yes |

## APPENDIX 2 – (cont.)

| Tax Authority | Minimum per $100 of assessed valuation | Maximum per $100 of assessed valuation (Dollar value) | Purpose | Citation | Requires Vote |
|---|---|---|---|---|---|
| **School Districts** | | | | | |
| • | 2.75 | 2.75* | School Purposes | MO Statute Ch. 163 Sec. 163.021.2/ MO Constitution Art. 10 Sec.11(b) | |
| • | n/a | 0.25 | Education and Training of Handicapped and Severely handicapped children and for vocational education as provided by sec. [162.670-162.995] | MO Statute Ch. 162 Sec. 162.920.1 | |
| **Fire Districts** | | | | | |
| • | n/a | 0.3 | Expenses and Operation | MO Statute Ch. 321 Sec. 321.240 | |
| • | n/a | 0.3 | Emergency Ambulance Service | MO Statute Ch. 321 Sec. 321.225.1 | Yes |
| • | n/a | 0.1 | Pension | MO Statute Ch. 321 Sec. 321.240 | Yes |
| • | n/a | 0.25 | District Support | MO Statute Ch. 321 Sec. 321.241.1 | Yes |
| • | n/a | 0.03 | Joint Central Fire and Emergency Dispatching Center | MO Statute Ch. 321 Sec. 321.243.1 | |

* All Districts have voted to go above this maximum rate

**Other Potential authorities:**

Transportation Districts

Ambulance Districts

Hospitals

Public Water Supply Districts

Public Libraries

Drainage and Levy Districts

Sewer Districts

## APPENDIX 3 – Table 1

| Property Class | Subclass | Appraised Value | Assessment Ratio | Assessed Value | Tax Due at $7 per $100 of assessed valuation |
|---|---|---|---|---|---|
| Real Property | | $ | % | | $ |
| Class 2 | Residential | 200000 | 19 | 38000 | 2,660.00 |
| Class 3 | Commercial | 200000 | 32 | 64000 | 4,480.00 |
| Class 1 | | Agriculture | | | Tax due per acre at $7 rate |
| Soil Rating | 1 | 985 | 12 | 118.2 | 8.27 |
| For 1 Acre | 2 | 810 | 12 | 97.2 | 6.80 |
| | 3 | 615 | 12 | 73.8 | 5.17 |
| | 4 | 385 | 12 | 46.2 | 3.23 |
| | 5 | 195 | 12 | 23.4 | 1.64 |
| | 6 | 150 | 12 | 18 | 1.26 |
| | 7 | 75 | 12 | 9 | 0.63 |
| | 8 | 30 | 12 | 3.6 | 0.25 |
| Property Class | | | | | Tax Due at $7 per $100 of assessed valuation |
| | Car | 10000 | 33 1/3 | 3333 | 233.31 |
| | Boat | 10000 | 33 1/3 | 3333 | 233.31 |
| | Factory Machinery | 10000 | 33 1/3 | 3333 | 233.31 |
| | Tractor | 10000 | 12 | 1200 | 84.00 |
| | Livestock | 10000 | 12 | 1200 | 84.00 |
| | Historic Car | 10000 | 5 | 500 | 35.00 |
| | Grain | 10000 | 0.5 | 50 | 3.50 |

# NOTES

[1] Fire Districts within some areas, primarily Saint Louis County, are not authorized to enact sales taxes. Fire Districts in many other parts of the state are authorized to enact sales taxes. These fire districts are separate from municipal fire departments, which are not independent government entities.

[2] Fees, such as from fire inspections or library fines, and grants from other levels of government also fund these districts.

[3] Saint Louis and Kansas City are the only cities in Missouri with earnings taxes.

[4] The computers used in this project are tax exempt because the Show-Me Institute is a non-profit, educational organization.

[5] Tiebout, Charles M., "A Pure Theory of Local Expenditures," *The Journal of Political Economy*, vol. 64, no. 5, Oct. 1956, pp. 416–424.

[6] There is also a classification for "intangible personal property," such as ownership of a patent or copyright, but that class of property is not taxable in Missouri.

[7] Various tax incentive and abatement programs for select properties would also be an exception, but here we are focused on standard property taxation.

[8] Missouri Code of State Regulations Title 12, Division 30, Chapter 4.

[9] Pokin, Steve, Suburban Journals, June 7, 2010 Online here: tinyurl.com/3rtehym

[10] In reality, not every property in Missouri is assessed at exactly 100 % of market value. There is some leeway given to local assessors.

[11] The third Monday in June applies to first class counties. The second Monday in July applies to all other counties, including first class charter counties and the city of Saint Louis.

[12] The authors are unaware of any appeals to increase property valuations, although that is certainly possible.

[13] Wire, Sarah D., "ANALYSIS: Missouri counties assigned same work for less pay," *Columbia Missourian*, May 2, 2010. Online here: tinyurl.com/43zgmld

[14] Fiscal Year 2011 Missouri state budget, Department of Revenue, pp. 4-8 and 4-9.

[15] Local entities are authorized to opt out of this system, but very few do. A few municipalities within Saint Louis County, such as Westwood, collect their own property taxes.

[16] The 2007 reassessments were done in the first part of 2007, and involved transactions in 2005 and 2006 to determine assessed values as of January 1, 2007, so the beginnings of the fall of housing prices were not caught in that reassessment. Not surprisingly, many homeowners who received their bills in late 2007 — after housing prices began to fall dramatically — were not pleased with this.

[17] For example, if the total assessed valuation of a district declines by five percent, the tax rate can be increased five percent to equal the prior year's revenues without voter approval.

[18] Hembree, Russ, Missouri Legislative Academy, "The Hancock Amendment: Missouri's Tax Limitation Measure," Report 49-2004, December 2004.

[19] We are only discussing funds that are directly supported by a local property tax. There are many other types of funds used by all types of governments as accounting mechanisms for various purposes. For example, grant money from the state might go into one fund, fees and fines from criminal offenses might be directed to another fund.

[20] Missouri state constitution, Article 3, section 38 (B).

[21] The 2010 tax rate book for all the different tax rates in all the different areas of Saint Louis County alone was 1,109 pages long.

[22] Although the distribution method of the car sales tax is different.

[23] Grain stores, livestock, and farm equipment are not subject to sales tax. Boats are, but certain classes of boats are exempt from sales taxes if registered with the Coast Guard for reasons beyond the purpose of this paper to explain. Business property is a very wide category and may or may not be subject to a sales tax.

[24] Carlson, Richard H., "A Brief History of Property Tax," Sept. 1, 2004.

[25] Ibid, pp. 6-7.

[26] Marshall, Alfred, "Principles of Economics, Appendix G" London: Macmillan and Co., Ltd., Eighth Edition, 1920 Online here: tinyurl.com/3u864b3

[27] According to the 2010 census, the Missouri homeownership rate is 70 percent, and 80 percent of housing units are single-family.

[28] Glaeser, Edward, "The Incentive Effects of Property Taxes on Local Governments," *Public Choice*, vol. 89, 1996, p. 96.

[29] Skidmore, Mark and Nicole Bradshaw, "Taxes and Growth: A Review of the Evidence," Show-Me Institute Policy Study No. 23, 2010, p. 8.

[30] Automobiles are an exception to this, perhaps because the sales tax bills on cars are so large. You pay your car sales tax based on where you live, not where the dealership is located.

[31] The breakdown varies too much by location to give exact estimates. One of the authors, Mr. Stokes, calculated that about 15% of his real property tax bill in Saint Louis County goes to general funds, with about 85% going to directed uses. In rural areas and smaller counties, the percent going to general funds in probably higher, but directed — or earmarked — funds will almost always be the majority of the tax.

[32] We are using "progressive" here in a positive — or factual — sense, not as a normative statement arguing for or against it.

[33] This definition comes from Professor Mike Podgursky of the University of Missouri Department of Economics, who is also a member of the Show-Me Institute Board of Directors and a Show-Me Institute affiliated scholar.

[34] George, Henry, "Progress and Poverty: An Inquiry into the Cause of Industrial Depressions and of Increase of Want with Increase of Wealth: The Remedy," Doubleday, Page & Co., 1879, 1912 ed. Online here: tinyurl.com/3e9ujg6

[35] We do not mean here that land should be the only thing taxed, just that it should be taxed.

[36] That "somebody" may be the government, either for public purposes such as parks, or because of private distress, such as tax delinquency. In the latter cases, most governments have a process in place to return the land to the private sector — the proverbial, "Sold on the courthouse steps."

[37] Thanks to the Orwellian use of technology (such as Google Earth) by governments, the avoidance of property taxes on some improvements, such as swimming pools and home additions, is becoming more difficult.

[38] Legrain, Phillipe, "The Renegade Economist", Apr. 12, 2010 Online here: tinyurl.com/3o9zsuy

[39] Tiebout, Charles M., "A Pure Theory of Local Expenditures," *The Journal of Political Economy*, vol. 64, no. 5, October 1956, pp. 416–424.

[40] Fischel, William A., "Municipal Corporations, Homeowners, and the Benefit View of the Property Tax," Apr. 2, 2000.

[41] Oates, Wallace E., "The Effects of Property Taxes and Local Publics Spending on Property Values: An Empirical Study of Tax Capitalization and the Tiebout Hypothesis," *The Journal of Political Economy*, vol. 77, no. 6, November 1969, pp. 957-971.

[42] Ibid, p. 968.

[43] Hamilton, Bruce, "Zoning and Property Taxation in a System of Local Governments," Urban Studies, vol. 12, 1975, pp. 205-211. It should be noted that Tiebout did mention zoning in his original essay.

[44] Bickers, Kenneth, Lapo Salucci, and Robert Stein, "Assessing the Micro-Foundations of the Tiebout Model," Urban Affairs Review, vol. 42, no. 1, September 2006, pp. 58-80.

[45] The other major reason was job changes.

[46] Oates, Wallace, "On Local Finance and the Tiebout Model," The American Economic Review, vol. 71, no. 2, Papers and Proceedings of the 93rd Annual Meeting of the American Economic Association, May 1981, p. 94.

[47] Obviously, the issues of tax rates and service levels are not the only factor in housing prices. Housing prices respond to the supply and demand equilibrium within every area, and factors of local public services adjust from that point.

[48] Yinger, John, Howard Bloom, Axel Borsch-Supan, and Helan Ladd, "Property Taxes and House Values," Studies in Urban Economics, Academic Press, Inc., 1988, p. 4.

[49] Chiodo, Abbigail, Ruben Hernandez-Murillo, and Michael Owyang, "Nonlinear Hedonics and the Search for School Quality," Federal Reserve Bank of Saint Louis Working Paper Series, working paper 2003-039E, Revised September 2009.

[50] Brasington, David M., "Edge Versus Center: Finding Common Ground in the Capitalization Debate," J*ournal of Urban Economics*, vol. 52, issue 3, November 2002.

[51] Polakowski, Henry, and Susan Wachter, "The Effects of Land-Use Constraints on Housing Prices,"*Land Economics*, vol. 66, no. 3, August 1990.

[52] Epple, Dennis, and Allan Zelenitz, "The Implications of Competition among Jurisdictions: Does Tiebout Need Politics?" *Journal of Political Economy*, vol. 89, no. 6, 1981.

[53] Fischel, p. 36.

[54] Ibid, p. 34.

[55] Ibid, p. 2.

[56] Moomau, Pamela, and Rebecca Morton, "Revealed Preferences for Property Taxes: An Empirical Study of Perceived Tax Incidence," The Review of Economics and Statistics, 1992, pp. 176-179.

[57] Carroll, Robert, and John Yinger, "Is the Property Tax a Benefit Tax? The Case of Rental Housing," *National Tax Journal*, vol. 47, no. 2, pp. 295-316.

[58] If these ideas on renters apply in Missouri, it should follow that places with more renters would have higher taxes than those with more homeowners. In the accompanying case study of Richmond Heights, three of the four school districts within Richmond Heights have a significant number or renters, while one (Ladue) does not. It is not surprising then to see that Ladue has the lowest average property tax rate. However, Brentwood, which has a substantial number of rental properties (mostly in the Brentwood Forest area), has an average tax rate almost as low as Ladue's.

[59] Martinez-Vazquex, Jorge, and David Sjoquist, "Property Tax Financing, Renting, and the Level of Local Expenditures," pp. 424-431.

[60] Brueckner, Jan, and Man-Soo Joo, "Voting with Capitalization," *Regional Science and Urban Economics*, vol. 21, 1991, pp. 453-467.

[61] Sonstelie, Jon, and Paul Portney, "Profit Maximizing Communities and the Theory of Local Public Expenditures," *Journal of Urban Economics*, vol. 5, 1978, p 276.

[62] Brueckner, Jan, "Property Value Maximization and Public Sector Efficiency," Journal of Urban Economics, vol. 14, 1983, p. 13.

[63] A theoretically perfect Tiebout community would be so precisely sorted according to the demands of the residents that everyone would get the exact public goods that they desire. It would be paid for by perfectly set tax levels, without the need to adjust prices to compensate. Of course, sorting will never be that exact, which is why prices will always adjust and capitalization occurs.

[64] Zodroa, George, and Peter Mieszkowski, "Pigou, Tiebout, Property Taxation, and the Underprovision of Local Public Goods," *Journal of Urban Economics*, vol. 19, 1986, pp. 356-370.

[65] Yinger, John, "Capitalization and the Theory of Local Public Finance," *Journal of Political Economy*, vol. 90, no. 5, 1982, p. 926.

[66] Yinger, John and Stephen Ross, "Sorting and Voting: A Review of the Literature on Urban Public Finance," *Handbook of Regional and Urban Economics* , Volume Three, 1999, p. 2045.

[67] Alesina, Alberta, Reza Baqir, and Caroline Hoxby, "Political Differences in Heterogeneous Communities, " National Bureau of Economic Research, November 1999.

[68] Ibid, p. 937.

[69] Epple and Zelenitz, p. 1214.

[70] Hoyt, William H., "Leviathan, Local Government Expenditures, and Capitalization," *Regional Science and Urban Economics*, Vol. 29, 1999, p. 168,

[71] Hoxby, Caroline, "The Productivity of Schools and other Local Public Goods Producers," *Journal of Public Economics*, vol. 74, 1999, p.27.

[72] Ibid, p. 20

[73] The competition for residents is beneficial. The competition for businesses, in the form of Tax Increment Financing, is often not.

[74] It is interesting that Tiebout wrote his famous article while teaching at Northwestern, in Cook County, Illinois. Cook County also has a relatively large number of cities. It has even more municipalities than Saint Louis County, but not when measured on a per capita basis. Furthermore, Cook County is dominated by the city of Chicago to a much greater extent than Saint Louis County is influenced by the city of Saint Louis.

[75] According to the Tax Foundation, Missouri ranks 36th in property tax collections per capita (where first would be the highest taxes and 50th the lowest).

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