# Property Taxes and Local Policy Affect Housing Values

Financing local government is a difficult task. Officials must operate within the context of state legislation while equitably and efficiently raising revenue to provide services. At the heart of the discussion is the property tax, the primary revenue source for local governments. Many government officials in urban areas across the United States are seeing property tax bases dwindle relative to other areas as they strive for enhanced quality of life in their communities (Ladd & Yinger, 1989; Rusk, 1993). Additionally, they may be faced with regulatory changes in fiscal policy and unfunded mandates from state and federal government to more equitably distribute services and fiscal burden. Often, they are experiencing increased human service needs as demographics in jurisdictions change, and pressing infrastructure needs as existing systems age or become obsolete. Local government officials continually must examine funding alternatives for maintaining and increasing effective public services.

Some cities have restructured the tax base to include other revenue-raising mechanisms. Some have focused on annexation and governmental restructuring as an answer for mitigating revenue loss. No matter what tactic is used to solve fiscal problems, the underlying question is twofold: *Will change increase resources to enhance capacity?* And, *what will be the repercussions of that change?*

In 1998, the Indiana Supreme Court declared that the method used to assess real property in the state was unconstitutional, setting into motion sweeping changes in how the property tax base is calculated and how local government is financed in Indiana. Since the reassessment, homeowners have experienced varying effects on their property tax bills as burdens of funding local initiatives shifted. Some of these shifts could result from changing program expenditures, but some could result from changes in how the property tax base is calculated. The effects
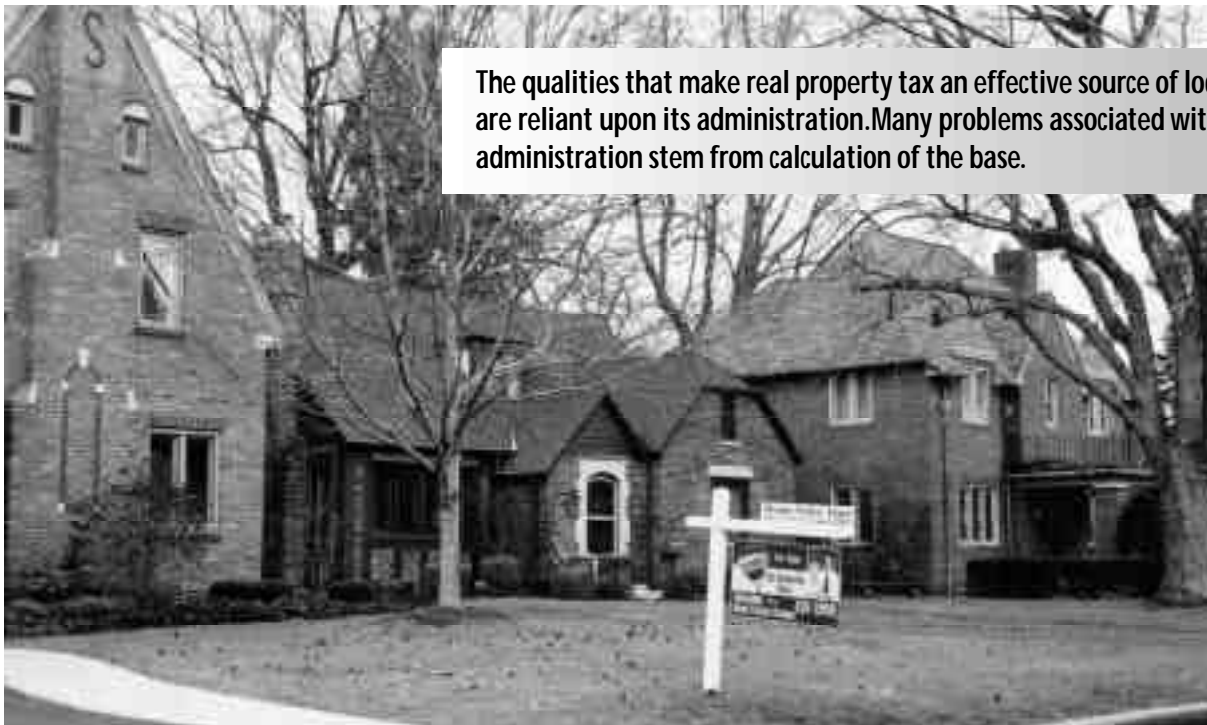
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include shifts in the tax burden from commercial and industrial properties to residential properties, and from new residential properties to older residential properties.

To counter economic and demographic changes and the fiscal woes that have ensued, cities make changes. The number of Indiana cities that have expanded their boundaries to broaden the tax base has grown over the past couple of decades (Lindsey & Palmer, 1998). More recently (August 2004), Mayor Bart Peterson of Indianapolis proposed increased consolidation of Indianapolis and Marion County as part of the Unified Government (Unigov) structure put in place in the early 1970s.

The principles behind the property tax make it a strong local government revenue source, but its implementation has several inherent weaknesses that can create problems in maintaining the fiscal structure of local government. This issue brief explains why local governments in most states continue to rely heavily on property tax as a funding source. The strengths and weaknesses of the tax are explained, using Indianapolis/Marion County as an example. The focus of the analysis is on real property tax. Its findings may be translated, at least in part, to other cities and towns in the state of Indiana.

Local Government Finance and Property Taxes: How Much and Why

Even though the use of property tax as a revenue source has declined over the past several decades, it continues to be the primary funding mechanism for many local governments in the United States (Fisher, 1999; Stiglitz, 1999). One of the most controversial issues related to local government finance is the potential distortion effects the property tax has on housing prices. That is, it is possible that the fixed location of the property tax base and the complexities of assessment may add benefits for some and cost for others.

In principle, real property tax is a good local revenue source for several reasons:

1. Its base is immobile. While capital may be moved at a cost, the land itself is stationary and property owners cannot escape the tax bill (Fisher, 1999).

2. Property tax creates a revenue stream that is established on the benefit principle. The owner of a property within a given governmental jurisdiction is the beneficiary of, and should pay for, that governmental unit's services.

3. The tax was constructed based on the idea that property is a good indicator of wealth. That is, wealthier residents generally make larger investments in property than less wealthy residents, thus they pay more in property tax.

4. Finally, the most highly regarded benefit of the property tax is that it is a transparent local finance tool. It is predictable and allows for local independence in supplying tailored public service packages.

The qualities that make real property tax an effective source of local revenue are reliant upon its administration. Many problems associated with property tax administration stem from calculation of the base. It is a tax on stock, not on a flow of transactions. Only a small proportion of properties in a community are sold during any given period. As a result, the base of the tax is established from estimated property values. The method of assessment for constructing the real property tax base varies by state; however, assessment is difficult, no matter the method. Differences in assessment practices across states make it difficult to generalize the effects of property tax administration across all localities. Still, the fact holds that inefficiencies and inequities are tied directly to the quality of assessment regardless of the method of calculation.

What Capitalization of Property Tax Means and Why It Matters

Applied economic analyses confirm that property taxes are at least partially capitalized, or realized, in the price of a house (see Yinger et al., 1988, for a detailed review). That is, a change in the tax changes the overall value of a home. The change is directly related to a household's housing location decision. For instance, if a household decides to locate in the Indianapolis area, they have several taxing districts from which to choose. Holding all other housing structural qualities and neighborhood factors equal, a household will pay a premium to live in a house that is located in a low tax district versus a house in a high tax district. When housing prices respond as property taxes increase or decrease, the changing tax bill is capitalized in the price of the house. This has important implications locally.

The Individual Household's Perspective

From a household's perspective, a change in tax rate changes the value of the investment made by residents in each district. To illustrate, let's say a potential buyer has a total dollar amount available for a home purchase, and that total includes the sales price of the

house plus the tax bill. If the tax bill decreases, the homebuyer can then direct more home purchase dollars to the price of the house. In other words, all things being equal (including public services received), a house with a lower tax rate will generate a higher sales price than the same house in a higher tax district. If the tax bill increases, the rate of return on housing investment will decrease over time, while a decreasing tax bill will result in a higher rate of return. Like any other investment, a rational owner will sell a property at the point where the cost (financial and opportunity cost) of moving is less than the decreased value of the investment.

The other side of this issue is the benefits that come with the tax. If the benefits demanded offset the cost of the tax bill, then the investment decisions will not change. In fact, in some cases it is possible that the added benefit can increase the price of the house beyond the cost of the tax imposed on a property. These household decisions also have important implications on the public as a whole.

The Public Perspective

There are several components of local government finance that contribute to the establishment of the property tax rate, including the expenditure plan, net assessed value, and the amount of revenues raised from other sources. (See Figure 1.) As governmental units budget, they determine the services they will provide and the costs of those services. The expenditure plan determines the amount of revenue that is necessary to provide services. Revenue is composed of funds available from other sources (e.g., fees, intergovernmental aid, and sales and income taxes), and property tax (technically referred to as the *levy*). The levy is divided by the aggregate net assessed value of the district to determine the property tax rate.

It is clear that after an expenditure plan is approved, the net assessed value is a key component driving the property tax rate. This creates a very complex local finance system. Once an expenditure plan is in place and other revenue sources have been tapped, the assessed value provides the base for all additional revenue needed. Generally, regardless of the assessment method, the valuation of property in the district determines the assessed value. The assessed value and the expenditure plan determine the tax rate. In turn, the tax rate determines the tax bill and has feedback effects through the effective tax rate (the annual tax bill divided by the market value of property) on the property value and then the assessed value. This causes rippling effects throughout the financ-

Figure 1: **Establishing the Property Tax Rate**

* *Public services provided also feed into the house value.*
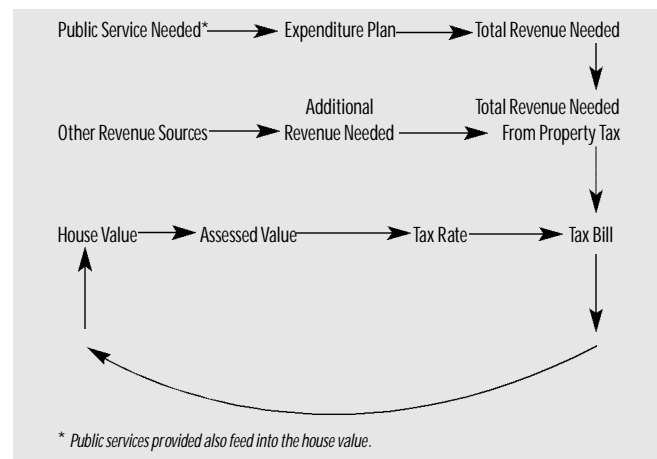
ing of each district that can create varying consequences for local governmental units in the area.

Any effect property taxes have on the price of housing will in turn affect future assessed values and tax rates. Those effects, coupled with other factors, such as lower quality housing and decaying neighborhoods (lowering property values) as well as increased human service and infrastructure needs (increasing public service costs), can affect public policy choices, unless those needs are adequately serviced. To address these factors, governmental units can expand their territory to increase the property tax base through annexation or consolidation, they can raise taxes, they can expand economic development efforts to increase assessed value, or they can try to bring in more revenue from other sources.

Applied Analysis of Indianapolis/Marion County

More than 30 years ago, Indianapolis was "consolidated" to include all of Marion County. The unified government (Unigov) incorporated many separately incorporated suburban communities. However, there were several exceptions for what was included in the consolidation. Presently, Marion County has roughly 50 governmental units performing various functions across approximately 100 different taxing districts (Blomquist & Parks, 1993), including townships, school districts, special districts, and service districts. The tapestry of taxing districts and varying tax rates across Indianapolis/Marion County necessarily creates multiple property tax bases.

Indianapolis was like most cities across the nation in the late 1960s—it had experienced suburbanization of its tax base beyond its borders. Unigov alleviated some of that loss in tax base by incor-

porating many of those suburbs. It strengthened the city government by allowing greater potential to obtain necessary resources to leverage public/private partnerships. It also created less competition between the city and suburbs for economic development projects. The growth of the consolidated area became the growth of the city, an important aspect when determining intergovernmental shares. However, some of the benefits were not realized because the tax base of school and other major local service districts remained separate (e.g., police and fire).

Property Tax Capitalization in Indianapolis

This analysis uses data to approximate the sensitivity of housing prices relative to the effective tax rate and capitalization while holding all other factors constant. If there is no capitalization, then it is implied that having separate governmental units within Indianapolis has no effect on property values or on the fiscal structure of the separate districts within. If there is capitalization, economic theory suggests that districts imposing higher taxes will bear greater burdens through greater losses in property values. Additionally, any change in taxes will cause subsequent changes in price if benefits do not change at the same rate, including changes that occur as a result of reassessment.

Analyzing Housing Prices

Property tax capitalization is measured through the use of hedonic price modeling—a statistical technique that estimates the bundle of goods provided by the characteristics of a property, its neighborhood, and public services. The statistical model considers housing unit characteristics such as square footage, number of stories, and age of the housing unit. Neighborhood attributes in the model include effective tax rate, neighborhood racial composition, neighborhood median income, and accessibility to employment.

The focus of this report is on the effective tax rate. Our model allows for the calculation of housing price sensitivity and price capitalization of property taxes while controlling for other factors, including school standardized test scores (ISTEP[1] and SAT[2]) as proxies for quality of public services. The model represents ongoing work which is continually modified and improved (see *Public Choices and Property Values: Evidence from Greenways in Indianapolis* (Lindsey et al., December 2003), for further discussion about the model).

Data Used in the Model

The housing sales data used in this analysis were extracted from the Multiple Listing Service (MLS) database maintained by the Metropolitan Indianapolis Board of Realtors (MIBOR). MIBOR is a realtor association that services Marion County and 11 surrounding counties. The MLS is a service provided by MIBOR and includes all single-family house listings entered by its members. There are more than 200 variables included for each property listed. MIBOR estimates that roughly 80 percent of all sales in their service region are included in their database.

All variables in the model are listed, described, and cited in Table 1. The data set is based on units sold in Marion County during 1999. Each unit sold was merged with location characteristics through the use of a geographic information system.

The semi-annual tax was multiplied by two and divided by the sales price to obtain the effective tax rate. The dataset includes all properties that were successfully geocoded (plotted on a map). Because different people enter these data, extensive data cleaning was necessary. The final data set used for the analysis in this issue brief included 9,346 cases.

Other variables used in the analysis came from public sources. All data collected from the U.S. Census (2003) were collected at the block group geography. The housing data were joined with these data based on the Census block group in which they were located. The school ISTEP and SAT scores were collected from the Indiana Department of Education.

Table 2 (see page 6) shows the estimates of the model and is the basis for understanding how property taxes affect housing values while holding all other characteristics constant. As shown, there is a significant, negative relationship between higher property tax and the sale price of an owner-occupied unit in Indianapolis/Marion County. The coefficient for the effective property tax indicates that a percentage point difference in property tax will lead to a 16.7 percent difference in housing price, holding all other factors constant. This means that if two houses are exactly the same except for their property tax rates (and located in comparable neighborhoods with the same public services), the house with the higher tax rate will sell for a lower price.

The product of the coefficient (.167) and the mean value of the effective tax rate for Marion County (1.13) reveals the percent change in market price relative to the percent change in the tax. The result of that calculation indicates that a 1 percent increase in

Table 1: **Variables included in property value model** *(1999) (n= 9,346)*

Independent Variable	Average Value	Units/Notes	Expected Effect on Property Values
Housing Attribute Variables			
Square feet (100)	16.42	—	Positive
Number of bathrooms	2.04	Number of bathrooms	Positive
No air conditioning	0.15	Value = 1 if no cooling, 0 if air conditioning	Negative
Age	36.21	Years	Negative
Number of garage bays	1.63	—	Positive
Basement	0.41	Value = 1 if basement, 0 otherwise	Positive
Number of rooms	7.09	Number of rooms in house	Positive
Brick facing	0.60	Value = 1 if brick facing, 0 otherwise	Positive
Porch	0.55	Value = 1 if porch or deck or both,0 otherwise	Positive
Number of stories	1.44	—	Negative
Lot less than 1/2 acre	0.85	Value = 1 if lot is less than 1/2 acre, 0 otherwise	Negative
Lot more than 1 acre	0.03	Value = 1 if lot greater then 1 acre, 0 otherwise	Positive
Public Goods and Neighborhood Variables			
Effective tax rate	1.13	Annual property taxes divided by sales price	Negative
Median neighborhood household income	$51,212	Neighborhood defined as census block group	Positive
Center Township location	0.13	Value = 1 if in Center Township, 0 otherwise	Negative
Percentage African Americans in neighborhood	19.16	Neighborhood defined as census block group	Negative
Accessibility to employment	99,080	Measured as sum of ZIP code employment weighted by the negative exponential of distance to the ZIP code	Positive
Housing unit vacancy rate	6.64	Neighbor defined as census block group	Negative
ISTEP scores	57.26	Mean Indiana standardized school test score in school district;indicator of neighborhood school quality	Positive
SAT scores	988.79	Mean Scholastic Aptitude Test score in school district;indicator of school quality and neighborhood socioeconomic class	Positive

effective tax rate leads to a 0.19 percent reduction in sale price. Consequently, a 10 percent increase in the tax will lead to a 1.9 percent decrease in property value, or an average loss of $1,680. The degree of capitalization comparing the absolute dollar change in housing price as a result of a dollar change in the tax also can be identified by using the coefficient produced in the model. After adjusting for the immediate change in tax as a result of the change in price,[3] the model indicates that a $1 difference in tax bill across properties results in a $15 difference in the price of owner-occu-pied housing in Indianapolis/Marion County with neighborhood variables and property attributes held constant. This illustrates that the differences in rates across taxing jurisdictions will significantly reduce the value of owner-occupied units in some areas. It also indicates that an inaccurate assessment method can have varying artificial shifts in tax burden within districts.

As proxies for service provision, ISTEP and SAT scores are also significant.[4] Applying each of the coefficients to the average price of housing indicates that location in a school district with a one-point

Table 2: **Model of residential property prices in Marion County in 1999** (dependent variable = log of sales price)

Variable	B	t statistic	Standard Beta Coeff
Effective tax rate	-0.167	-63.17	-0.266
SAT scores (100)	0.020	2.17	0.018
ISTEP scores	0.001	2.89	0.009
Neighborhood Variables			
Center Township location	-0.264	-26.14	-0.144
Median neighborhood household income (1,000)	0.004	26.25	0.164
Accessibility to employment (1,000)	0.001	8.85	0.067
Housing unit vacancy rate	-0.005	-8.82	-0.047
Percentage of African Americans in neighborhood	-0.002	-18.98	-0.091
Property Attribute Variables			
Square Feet (100)	0.022	37.01	0.273
Number of bathrooms	0.101	19.26	0.143
Number of garage bays	0.086	19.74	0.103
Basement	0.117	17.87	0.092
Brick facing	0.067	10.90	0.053
Lot more than 1 acre	0.124	5.9	0.035
Lot less than 1/2 acre	-0.034	-4.06	-0.020
Front porch	0.050	9.03	0.040
Number of rooms	0.009	5.64	0.032
Number of stories	-0.015	-2.85	-0.014
Age	-0.003	-19.28	-0.142
No air conditioning	-0.244	-29.14	-0.140
(Constant)	10.327	123.95	
% explained (Adj. R^2)	0.85		
F statistic	2553		

difference in those test scores leads to a difference in price of almost $325 for the average house. This figure alone appears quite small. However, the difference is more substantial if scores are compared among school districts within Marion County. One comparison shows almost a $6,000 difference between two equal houses in two different school districts.[5]

The relationship of the Center Township variable with housing price is another noteworthy consideration. This variable was constructed to account for the intangible and unquantifiable difference between Center Township (the largest portion of the old Indianapolis city limits) and the rest of Marion County. It shows that the location of housing in Center Township results in an estimated 26 percent ($24,000) reduction in the value of property, holding all other housing and neighborhood factors constant. This finding might reflect negative connotations of living in the "inner city."

The relationship between the capitalization of the property tax and public service is very important. Based on the benefit principle, households "get what they pay for." But, is that principle realistic? The assumptions that benefits accrue only to those who pay for them, that everyone is perfectly mobile, and that jurisdictions are comprised of residents with like income and similar tastes encounter problems. It is more likely that some residents pay more than their costs for benefits of a public service and subsidize others who pay less than their costs for the same benefit. To the extent that property tax rates vary statutorily across jurisdictions and benefits spill over other jurisdictions, distortions will occur.

Interpreting the Model

Interpretation of the model requires some discussion about the meaning of different statistics. The unstandardized B coefficients are used to estimate the effect of independent variables on price, but because the units of the variables differ, they should not be interpreted in a relative way. That is, larger values of the B coefficients do not necessarily mean that a variable is more important. On the other hand, the standardized Beta coefficients do indicate the relative effect of the independent variables on price. Specifically, the Beta coefficients measure the change in the dependent variable (in standard deviations) that result from a change of one standard deviation in the respective independent variable. Therefore, the larger the value of the standardized coefficient, the greater the predictive power of the variable and the greater its impact on price. A t value of approximately 2 or higher indicates that the effects of the variable are statistically significant at a confidence level of 95 percent or higher. In other words, if the t statistics have values greater than 2, we know with a high degree of confidence that the correlation between the variables is not random. The Adjusted R^2 statistic is an estimate of the proportion of variance in the dependent variable (that is, residential property sales price) that is explained by the equation.

Differing Tax Rates Across Jurisdictions: Issues with Sorting

Property taxes are embedded in the price of housing as a result of capitalization. Because Indianapolis has multiple jurisdictions with varying levies and assessment levels, the effect of the tax on the price of housing will necessarily differ across jurisdictions. Table 3 shows the average statutory tax rate from a local government database maintained by the Indiana Department of Local Government Finance in 1998 (for taxes due in 1999) and the average effective tax rate of housing units from the MIBOR dataset used in the previous section. It also compares the estimated housing price of a unit that differs only by the average effective tax rate of each township. Among several conclusions, the table shows the importance of analyzing the difference in effective tax rate (annual tax bill divided by market price) and the statutory tax rate (the tax rate based on assessor calculation).

Center Township, the central city township, has the highest average effective tax rate in the housing unit sample and in the data collected from the state of Indiana. Comparisons between the two datasets for some of the townships show some variation between rates. The magnitude of the tax rates differ because the effective tax rate of the sample data is based on a household's actual tax bill and on the value of the property that was determined by the market (the sale price). The assessor data obtained from the Department of Local Finance is based on the average taxable assessed value of governmental units within each district. In 1998, properties in Indiana were assessed on a formula basis targeting roughly 30 percent of "true market value." Transparency and fairness are the major issues raised by these discrepancies, and it is likely part of the basis for which the old system was deemed unconstitutional. For instance, the assessor statutory tax rate in Pike Township would conclude that the township had the second lowest average tax rate of all Marion County townships. The effective tax rate on the housing market, however, indicates that Pike Township actually has the third highest.

The more important rate for this analysis is the effective tax rate on the property that has been used in the model. Application of the average effective tax rates by township to the coefficients shows the varying values that the same unit would yield if the only difference was the average effective tax rate of the township. This variation is less pronounced than if this analysis were extended to include ranges for all taxing districts in Marion County (e.g., school, police, fire, and special districts).

Table 3: **Property Tax Rate and Home Value Comparison** (1999)

Township	Assessor Rate	Average Effective Tax Rate	Predicted Value of Average House Differing only in Tax
Franklin	10.29	0.98	$79,613
Washington	9.32	1.01	$79,154
Perry	10.36	1.05	$78,573
Wayne	9.69	1.07	$78,335
Decatur	9.67	1.08	$78,146
Warren	10.29	1.08	$78,139
Marion	10.27	1.13	$77,480
Pike	9.36	1.15	$77,135
Lawrence	10.40	1.28	$75,336
Center	12.19	1.30	$75,152

It could be argued that even though the higher taxed residents will receive lower valued housing due to capitalization, those residents could be receiving greater benefit from public services that increase the value of their housing. If the tradeoff is dollar for dollar ($1 lost from tax equals $1 gained from public service), there is no distortion. However, Center Township had the highest effective tax rate and the smallest increase in home value benefits from public services, as measured by the relationship of school standardized test scores and housing prices (using Indianapolis Public Schools data). Clearly, this is a limited assessment of services received because it only includes school test scores. There are other public services, such as police and fire, that could be included but are not analyzed here. Also, school districts service very different populations with varying needs. This analysis does not consider those differences. Therefore, this distortion in effective tax rate and public service benefit (school test scores) does not fully reflect the quality or efficiency of the public services. However, it does complement evidence that at least part of the issue could be the structure of the tax base.

Part of the problem with the tax base structure, in Indianapolis at least, is that nearly one-third of the assessed value of all property in Center Township is either abated or exempt (Rosentraub & Nunn, 1994). This means that many property owners in downtown Indianapolis pay taxes on less than 100 percent of the assessed value. For properties that are exempt, there is no property tax bill. Many of those properties benefit the entire county, if not the entire region (college campus, government buildings, museums, etc.), and this raises equity issues. The taxes forgone from those properties result in a higher tax rate for other properties that are fully taxed in that district. Those taxes become embed-

*Map 1:* **Distribution of Housing Prices (Indianapolis/Marion County)**
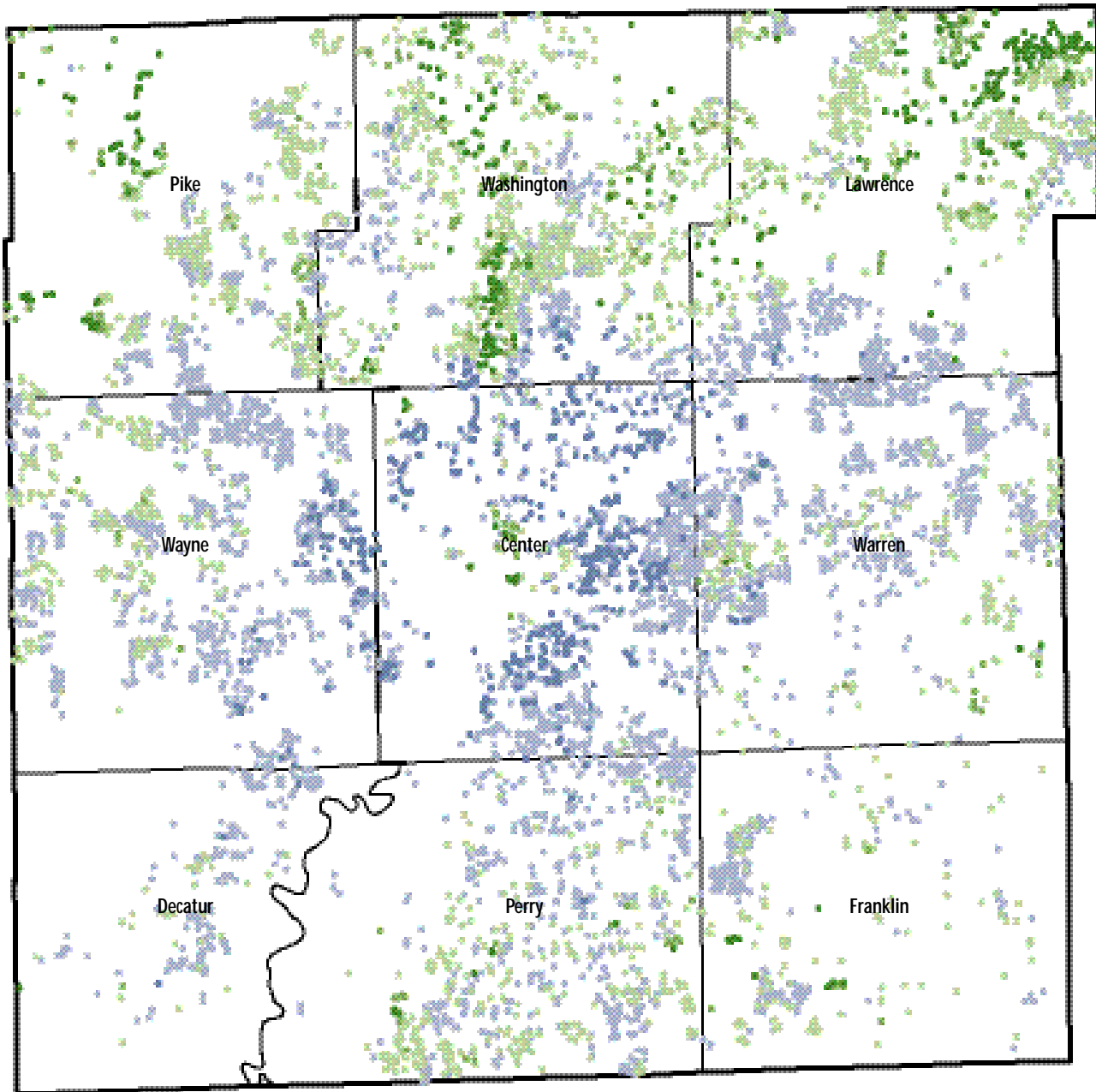
Sales Price Deviations

●	< $32,931	< −1 Standard Deviations
●	$32,931–$111,670	−1 to 0 Standard Deviations
●	$111,670– $190,448	0 to 1 Standard Deviations
●	$190,448–$269,207	1 to 2 Standard Deviations
●	$269,207 or more	2 Standard Deviations or more

Standard deviation is a statistic that is used commonly to measure how closely data is clustered around the average. It also is used to categorize and graphically represent groups around the mean. The maps in this issue brief show the location of properties within various standard deviations of the mean. A negative standard deviation (blue) represents properties that are below the mean. A positive standard deviation (green) represents properties that are above the mean. Roughly 68 percent of the sample of properties is between -1 and 1 standard deviation. They represent the properties that are closest to the mean. Records that are identified as lower than -1 standard deviation and above 1 standard deviation represent properties toward the extremes.

Map 2: **Distribution of Effective Tax Rate (Indianapolis/Marion County)**
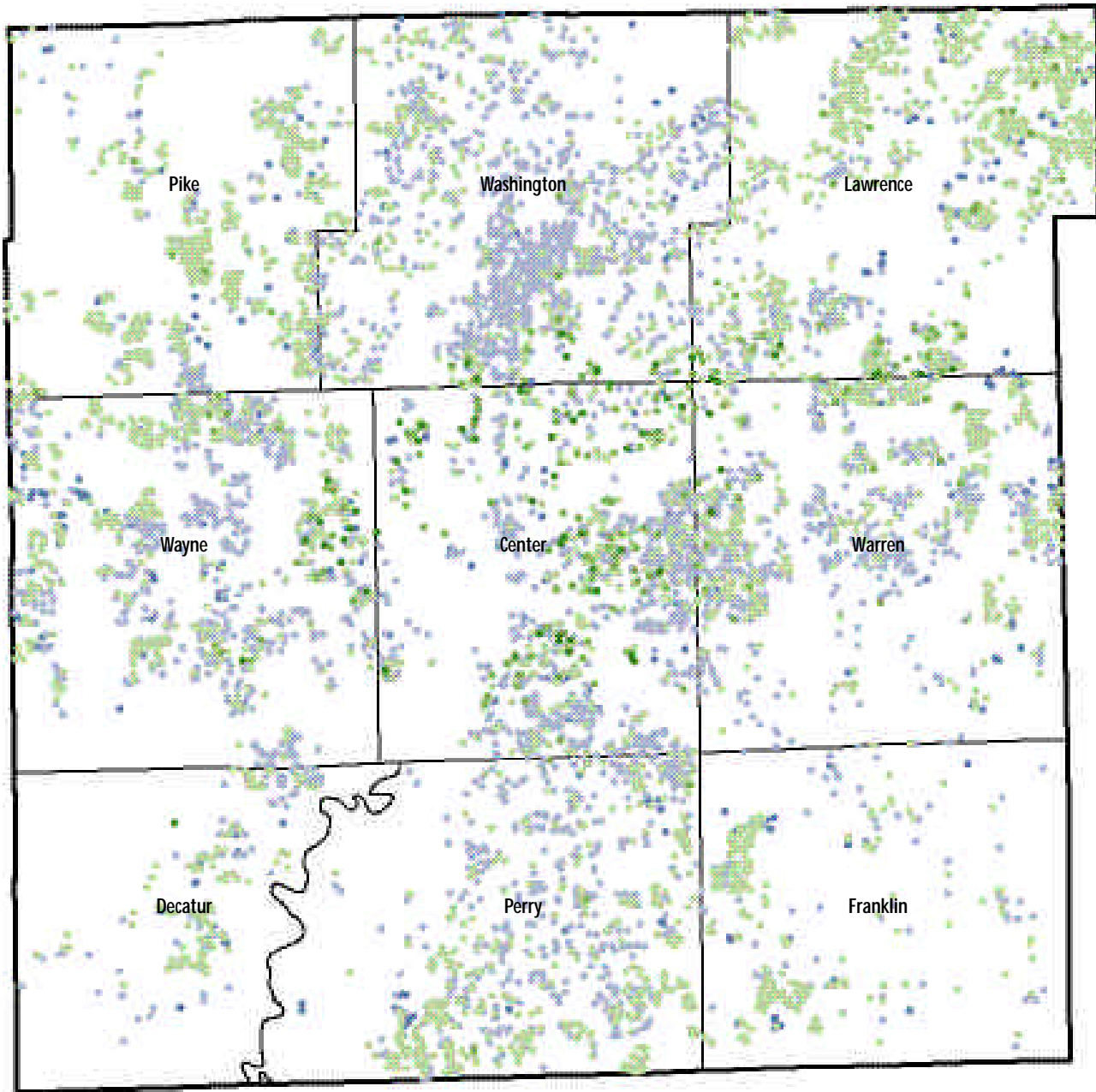
Effective Tax Rate Deviations

●	< 0.135%	< −1 Standard Deviations
●	0.135% − 1.129%	−1 to 0 Standard Deviations
●	1.129% − 2.123%	0 to 1 Standard Deviations
●	2.123% − 3.117%	1 to 2 Standard Deviations
●	3.117% or more	2 Standard Deviations or more

Table 4: **Variations in Effective Tax Rate**

Township	Effective Tax Rate	Standard Deviation Variation	Coefficient of Variation
Perry	1.05	0.44	0.42
Lawrence	1.28	0.62	0.49
Warren	1.08	0.56	0.51
Pike	1.15	0.63	0.54
Franklin	0.98	0.53	0.54
Wayne	1.07	0.74	0.70
Decatur	1.08	0.97	0.90
Center	1.30	1.68	1.30
Washington	1.01	1.45	1.43

ded in the value of the property. The taxes forgone that become embedded as a loss in the value of housing in the host district (as cost), become embedded as an increase in the value of property in other districts that also benefit from that "expenditure." Therefore, the extent to which households benefit from exempt or abated properties in another district is the extent to which residents in the host district are subsidizing others in the region.

Such subsidization further exacerbates present and future fiscal problems. Because much of the property that is subsidized in Indianapolis is concentrated in the central urbanized area (likely the same as other cities across the nation), the effect of the housing market distortion due to funding public services is concentrated. A circular effect can ensue in that concentrated area, as mentioned previously. The areas that are subsidized experience the "bidding up" of prices equal to the net benefit of the subsidy received from other higher taxed regions in which buyers are willing to pay less. This creates a wedge in affordability for housing and can contribute to the concentration of more costly (in public service terms) demographic groups that demand more public relief, further necessitating the amount of expenditures needed and higher tax bills. As residents' housing prices increase in one jurisdiction due to a higher property tax bill without a subsequent increase in benefit, decreasing returns are experienced, and it limits the ability of those residents to sell present property and make similar investments in the other lower priced public service jurisdictions.

Map 1 (see page 8) reflects that issue. It shows the standard deviation from the mean sale price for the sample of 9,346 housing units sold in 1999. As illustrated, most of the lowest priced houses are located in Center Township and former Indianapolis city limits. This limits the accessibility of options for lower income residents to move to lower taxing districts. While it would be misleading to attribute all housing affordability problems to the property tax, it

does show that lower priced housing that is affordable to lower income residents is located in the township with the highest aggregate effective tax rate (Center Township) and the largest amount of exempt and abated property that benefits the region as a whole.

Differing Tax Rates Among Neighboring Properties: Intra-Jurisdictional Issues

The capitalization of property taxes also raises issues if the effective tax rate differs substantially among neighboring properties. Map 2 (see page 9) shows the distribution of the effective property tax based on the standard deviation of the mean for all of Marion County. The pattern would be consistent within all taxing districts if the property tax were administered perfectly within each jurisdiction. Even though all districts are not traced on the map, there does not appear to be much of a pattern among the properties. This raises implementation issues.

As mentioned, the state of Indiana has changed its assessment practices since the time the data for this analysis were collected. These data show the equity issues that arose under the old assessment methodology. Some properties were valued subjectively at different rates. That means that houses within the same taxing district could bear varying effective tax rates and fiscal burdens. Table 4 supplements Map 2 by comparing the coefficient of variation within each jurisdiction. A greater coefficient reflects greater disparities. The apparent problems with the administration of the property tax as well as the additive issues associated with separate jurisdictions results in neighbors with widely divergent tax bills. As shown, Washington Township and Center Township have the greatest variations in effective tax rate. Much of the disparity in those two townships may be attributable to the fact that they contain many of the oldest properties in the county and the old assessment method made it difficult to assess old structures.

Property Tax Has Remained a Major Source of Revenue for Most Governmental Operations

In principle, the property tax has several positive features as a revenue source. However, time has changed the structure of the tax base across many cities, creating burdens for some to the benefit of others. Property taxes are reflected, at least partially, in the value of property. Inter- and intra-jurisdictional issues of property tax and its impact on housing values have raised concerns surrounding its implementation.

As local governments experiment with ways to administer the tax more fairly and with more transparency, perhaps the right mix of local fiscal policy will bring the implementation of the property tax in line with the underlying principles that make it an effective revenue source. But policymakers will still face questions. For instance, as economic dependency extends beyond city jurisdictions into regional areas, what inefficiencies arise and how do we address them?

Political boundaries will not go away. Those political boundaries drive local fiscal policy. Evidence-based research is needed to filter some of the political commentary and provide effective answers to improving the quality of life in regions. This issue brief comes at a time when evidence-based research is needed to inform fact-based fiscal policy decisions.

ENDNOTES

[1] Indiana Statewide Testing for Educational Progress

[2] Scholastic Aptitude Test

[3] This adjustment requires comparing the changes in property value and the present value of the flow of increased tax liability. The calculation takes the immediate change in tax as a result of change in price. The formula is as follows: capitalization= B/(1 + B tax rate)

[4] While ISTEP and SAT scores may not be the best proxies for all public service provision, they illustrate the balance between service provision and fiscal burden.

[5] The difference in ISTEP scores between the two school districts was 13.3 in 1999. The difference in SAT scores at the same time was 40.

REFERENCES

Blomquist, W., & Parks, R.B. (1993). *Unigov: Local government in Indianapolis and Marion County, Indiana.* Indiana University–Purdue University Indianapolis, School of Public and Environmental Affairs, Center for Urban Policy and the Environment.

Fisher, G.W. (1999). The real property tax. In W.B. Hildreth & J.A. Richardson (Eds.), *Handbook on taxation.* New York: Marcel Dekker.

Ladd, H., & Yinger, J. (1989). *America's ailing cities.* Baltimore: Johns Hopkins Press.

Man, J.Y. (1995). The incidence of differential commercial property taxes: Empirical evidence. *National Tax Journal,* 48(4), 479–496.

Metcalf, G.E. (1994). The lifetime incidence of state and local taxes: Measuring changes during the 1980s. In J. Slemrod (Ed.), *Tax progressivity and income inequality* (pp. 59–94). Cambridge, England: Cambridge University Press.

Phares, D. (1980). *Who pays state and local taxes?* Cambridge, MA: Oelgeschlager, Gun, and Hain.

Plummer, E. (2003). Evidence on the incidence of residential property taxes across households. *National Tax Journal,* 56(4), 739–754.

Rosentraub M.S., & Nunn, S. (1994). *City and suburbs: Linkages, benefits, and shared responsibilities.* Indiana University–Purdue University Indianapolis, School of Public and Environmental Affairs, Center for Urban Policy and the Environment.

Rusk, D. (1993). *Cities without suburbs.* Washington, DC: Woodrow Wilson Press.

Stiglitz, J.E. (1999). *Economics of the public sector* (Third Edition). New York: W.W. Norton & Company.

U.S. Census Bureau. (2003). United States Census 2000. Retrieved March 18, 2004, from http://www.census.gov/main/www/cen2000.html

Yinger, J; Bloom, H.S., Boersch-Supan, A., & Ladd, H.E. (1988). *Property taxes and house values: The theory and estimation of intrajurisdictional property tax capitalization.* San Diego, CA: Academic Press.

Central Indiana's Future:
Understanding the Region and Identifying Choices

Central Indiana's Future:Understanding the Region and Identifying Choices, funded by an award of general support from Lilly Endowment, Inc.,is a research project that seeks to increase understanding of the region and to inform decision-makers about the array of options for improving quality of life for Central Indiana residents. Center for Urban Policy and the Environment faculty and staff,with other researchers from several universities, are working to understand how the broad range of investments made by households, governments, businesses, and nonprofit organizations with-in the Central Indiana region contribute to quality of life. The geographic scope of the project includes 44 counties in an integrated economic region identified by the U.S.Bureau of Economic Analysis.

Housing and property values are a vital part of the local economy, and property taxes are the primary financing tool for local governments. Because of this,property taxes are always an important issue for policymakers. However,since 1998,when the Indiana Supreme Court said that the method then used to assess real proper ty in the state was unconstitutional,property taxes have become a critical issue. The author of this issue brief combined independent analysis with the Center's ongoing work on these topics.

Central Indiana Region

The Center for Urban Policy and the Environment is part of the School of Public and Environmental Affairs at Indiana University–Purdue University Indianapolis. For more information about the Central Indiana Project or the research reported here, contact the Center at 317-261-3000 or visit the Center's Web site at www.urbancenter.iupui.edu.

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