PROPERTY TAX REFORM IN INDIANA:
THE ROLE OF TAX RATE VARIABILITY

Cecil Bohanon, Dagney Faulk, and Michael Hicks, Ball State University

INTRODUCTION

Property tax reform has been a continuing process in the United States since the 1970s (and earlier) and in most cases has involved limiting assessed value, local government revenue, local government expenditures, property tax rates, or some combination of these. Historically the least popular tax, legislators in most states have probably asked, “Can the property tax be replaced?” Although reliance on the property tax has been reduced, and there is wide variation in the use of the property tax to fund local government expenditures, no state has completely eliminated the property tax. Indeed, real property tax collections nationwide grew by 12.7 percent from 2000 through 2005 (Tax Foundation, 2007). In most states property tax changes have continued to evolve since the 1970s. Indiana is no exception.

In March 2008 Governor Mitch Daniels signed legislation touted to provide “significant property tax relief” and “permanent protection against future property tax increases.” The 2008 restructuring is the latest in a long line of both legislated and court-ordered property tax changes implemented in the state. Property tax limits were first implemented in Indiana in the 1970s. These initial limits focused on constraining local government revenue. According to Anderson (2006, Table 1), Indiana is one of 43 states in the continental United States that imposed some form of property tax limit, and one of four states that imposed only revenue limits at that time. Other states impose assessment limits, expenditure limits and/or tax rate limits. Indiana is also one of 26 states that do not have mandatory annual assessments. The 2008 property tax restructuring imposed stringent limits on property tax rates and local spending in Indiana in addition to reforms of the assessment process. One of the issues raised by the latest restructuring is why were the initial revenue limits not sufficient to constrain property taxes? We propose that the initial limits and the state property tax system in which they were implemented were not sufficient to prevent substantial regional and temporal variation in assessed value and the resulting property tax rates and property tax payments. This variation in resulting tax rates led to considerable taxpayer discord, for a number of reasons, and prompted the review of the Indiana property tax system.

The purpose of this paper is to examine the most recent property tax restructuring in Indiana—in particular we are interested in examining the relationship between property tax variation (rate and base variation) and property tax restructuring. The paper is organized as follows: The next section provides a brief history of the property tax reform movement in Indiana. The third section considers the role variation in tax rates and assessed value played in initiating the 2008 restructuring. The fourth section provides an overview of the 2008 property tax restructuring and discusses expected effects on property tax variability. The fifth section discusses why reducing rate variability is important—particularly the relationship between rate variability and economic growth. The final section offers conclusions.

PROPERTY TAX REFORM IN INDIANA

Modern property tax reform in Indiana began with the passage of the Bowen Tax Package in 1973. This tax reform package was passed in response to increasing local property tax rates and levies. The reform limited local government’s ability to increase property taxes, set up alternate funding mechanisms for local government and shifted some of the responsibility for revenue generation to the state. The reform package: (1) doubled the sales tax from 2 percent to 4 percent (exempting groceries) and allocated the extra revenue to property tax reduction (through the Property Tax Replacement Credit, PTRC); (2) permitted counties to levy local option income taxes (CAGIT) with most of the revenue used to reduce property taxes; (3) set limits on property tax rates in counties not adopting CAGIT and limits on levies for counties adopting CAGIT; and (4) established tax control boards. School funding was treated separately and increased through a state school aid formula.
In 1979 the General Assembly made additional changes (effective 1980) to the property tax system in response to reassessment and the economic environment (high inflation) of the late 1970s. They are as follows:

1. For civil units, the growth in tax levies was limited to the same growth rate as the Assessed Value Growth Quotient (AVGQ). AVGQ equals the average growth in assessed value over the prior three years, excluding reassessment, which was scheduled to occur every four years. The minimum AVGQ was set at 5 percent and the maximum was 10 percent. School property tax levies were restricted using the school funding formula.

2. Taxing units were allowed to appeal to the State Tax Board for an excess levy above the AVGQ normally permitted.

The next major change in the property tax system in Indiana was the court-ordered reassessment that resulted from various court cases occurring between 1993 and 2000. The initial lawsuit, the *Town of St. John vs. State Board of Tax Commissioners*, was filed in 1993. The plaintiffs argued that the method of calculating true tax value in Indiana could lead to different tax values for property with the same market value thus violating the Indiana Constitution, which requires a uniform and equal rate of property assessment and taxation. According to the Indiana Constitution, it is the responsibility of the General Assembly to provide for a uniform and equal rate of assessment and taxation. In total six opinions were issued by the Indiana Supreme Court and the Indiana Tax Court between 1996 and 1998 to clarify how true tax value should be determined. Concurrent with this development was an analysis of the Indiana systems of property tax assessment. In the preliminary “Report of the Indiana Fair Market Value Study” (DeBoer et al., 1996) indicated that both commercial-industrial property and residential property were under-assessed relative to their market value. However, because the degree of under-assessment was greater for residential properties than for commercial-industrial properties, a move to a more objective measure of assessed value would inevitably shift property tax burden from business entities to homeowners. Under realistic assumptions it was estimated that homeowner property tax bills would rise by 31 percent - 39 percent, while business tax bills would typically fall 22 percent – 27 percent.

In 1998 the Indiana Supreme Court ruled that property should be assessed under a system that incorporates an objective reality to determine the true tax value of a property. Objective reality does not have to be the same as market value. Subsequently, the Tax Court required the State Board of Tax Commissioners to implement a new assessment system and specified that the new regulations should be in effect by June 1, 2001, and the reassessment of real property should occur by March 1, 2002. (The previous reassessment took place in 1995 for taxes due in 1996.)

In response to these developments, the 2002 Indiana state legislature worked to offset the upcoming tax shift from business entities to homeowners through a variety of methods: increased funding for homestead property tax credits, a state property tax replacement credit for 60 percent of school operating expenditures, and an increased standard deduction for homeowners. A study by the Indiana Legislative Services Agency (2005) indicated that although statewide average reassessments had more or less followed the pattern predicted DeBoer et al. (1996), the actual tax bills for owner-occupied housing had only increased by 4.3 percent.

In addition to the changes mentioned above, the 2002 legislature also approved a measure to remove inventories from the business personal property tax by 2006. The 2005 LSA study indicated that this so-called inventory tax accounted for 8.7 percent and 7.2 percent of overall property tax collections in 2002 and 2003.

During this same period, the court-ordered reassessment exposed fundamental problems with Indiana’s property tax system. In 2005, the Indiana Fiscal Policy Institute published a Property Tax Equalization Study (Brown, 2005) conducted to measure the accuracy of assessments in each of Indiana’s 92 counties. The key findings of the study included:

1. The current structure of property tax administration in Indiana has resulted in systematic lack of uniformity in assessment practice and assessment results.
2. The data currently collected is not adequate for a market value assessment system.
3. International assessment standards are not being met.
4. Administration and interpretation of assessment is not consistent among counties.

In addition to the administrative problems listed above, the reassessment did finally result in substantial increases in tax burdens for some property owners, especially residential property taxpayers in older homes. As before, the legislature enacted various short-term measures to provide relief to affected taxpayers. However, in 2007 the elimination of the so-called inventory tax, coupled with rising local operating and capital levies and augmented by further increases in residential assessments relative to business assessments, led to a large increase in tax burden for many Indiana homeowners. This sudden and rather unexpected property tax bill increase on a substantial number of homeowners led to calls for numerous property tax changes, including an organized effort for total property tax repeal.

GROWTH AND VARIABILITY IN INDIANA’S PROPERTY TAXES

Indiana’s property taxes, as of just a few years ago, could be viewed as a modest source of comparative advantage for the state. However, this observation belies the high variability in local rates and the rapid growth in many places.

At the state level, property tax receipts have grown faster than incomes, but in some communities property tax rates have grown in excess of 25 percent for three consecutive years. This level of growth is due to changes in assessed value of homes, increases in government spending, and the shift of property tax burdens to a shrinking tax base. It is useful to understand how Indiana finances local operations through the tax base.

Indiana has 1,008 township assessment offices, of which fewer than 200 operate large-scale assessment activities. All of Indiana’s 92 counties have assessors, who either aggregate assessments administratively or aid smaller townships in their assessment process. Counties have between 8 and 36 different taxing authorities embedded within their jurisdictions, and individual taxpayers frequently have three different activities vying for local property taxes (many have more). As described briefly above, the Indiana code sets spending growth limits for these individual authorities.

Counties aggregate budgetary requests from each county subunit, and submit a budget which is ultimately evaluated and certified by the state’s Department of Local Government Finance. There is no direct fiscal link between the roughly 2,600 taxing authorities and the Department of Local Government Finance. When the budget is certified and assessments completed, the property tax rates are set. This process differs from all other government budgetary process with which we are familiar. Traditionally, the expenditures, not the tax rates, are the dependent variable in the budget formulation. One result of the local government budget process in Indiana is that tax rates on businesses and residents vary from 0.49 percent in Jennings Township to 4.99 percent in the South Bend Penn-Harris-Madison Annex #1 district. This formulary process, along with significant changes in assessment, has resulted in a 6-year-total levy change of between 11.3 percent in Marshall County to 72.3 percent in Hendricks County. Statewide growth in property tax has remained at between twice and four times the rate of inflation over the past five years. See Figure 1.

This high degree of regional variability in property tax rates has been found to contribute significantly to business location decisions in Indiana. Though no formal study has been performed for Indiana, tax rate variability is certainly a contributor to residential location decisions. As an example, simply crossing the Muncie City line into several adjacent townships will result in a 65 percent drop in taxes for identical properties. This translates into a savings of $1,157 annually for the median priced home in Indiana. These stark border effects are rare nationwide. Their effect is exaggerated in Indiana through the multiplicity of townships that dramatically increase the number of residential and business locations affected by large border rate differentials.

THE 2008 PROPERTY TAX RESTRUCTURING

The 2008 restructuring was driven by taxpayer dissatisfaction resulting from perceived inequities and dramatic increases in taxes among some taxpayers in 2007. Horizontal inequities stemming primarily from assessment issues led taxpayers to march on the state capital and to organize a campaign to abolish property taxes in the state. Some Indiana taxpayers experienced dramatic increases in their property tax payments as a result of the reassessment (variation over time). In addition, some taxpayers experienced higher assessed values...
than owners of similar properties nearby (variation among comparable properties).

A variety of property tax proposals were considered. The legislation that was ultimately passed by the General Assembly was based substantially on Governor Mitch Daniel’s proposal. The statute sets rate limits for local governments by capping homeowner property taxes at 1 percent of assessed value (AV), apartment and agricultural land at 2 percent of AV, and business property at 3 percent of AV. Because this provision will substantially lower local government revenue, the state will take over about $3 billion of local spending including the remaining 15 percent of school operating costs, child welfare levies, juvenile incarceration, indigent health care, state fair and forestry levies, preschool special education levies, and police and fire pensions. (The state sales tax increased from 6 to 7 percent to pay for a portion of these costs.) To further limit local spending, the statute requires that referenda be held for new school and local government capital projects.

The statute also addresses issues with the accuracy and fairness of property assessment. The number of assessors is reduced from 1100 assessors (mainly in townships) to 92 county assessors and 42 township assessors (in townships with more than 15,000 parcels). November 2008 referenda will determine if the duties of the 42 remaining township assessors will be transferred to the county. Requirements for assessor certification are increased. The statute limits increases in property tax bills to no more than 2 percent annually for low-income seniors with assessed value of $160,000 or less, and increases the renter deduction from $2500 to $3000.

**PROPERTY TAX RATE VARIABILITY AND ECONOMIC PERFORMANCE**

Both the rate limits and changes to the assessment process should effectively reduce variation in property tax rates among jurisdictions. Property tax variability can be decomposed into two components. Tax rate variability and tax base variability. In Indiana, tax base variability is related to assessed value, which should be closely related to market value for a parcel of property.

Revenue limits constrain property tax revenue, which in turn should constrain the tax rate. Changes to the assessment process will reduce the variability between assessed value and market value. The difference between market value and assessed value is determined by assessment practices. Changes to the property tax structure to include circuit breakers, property tax abatement to businesses and the like will increase the difference between assessed value and taxable assessed value. Exemptions,

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**Figure 1: Cumulative Indiana Property Tax Growth Rates, 2003-2007**

1Certification of 2007 levies are not complete. These data represent only those certified as of this writing.
credits, and deductions cause taxable value to be different from assessed value.

There are benefits to reducing property tax rate variability. In general, taxpayers prefer smooth property tax payments over time to volatile, unanticipated increases in payments. As Anderson (2006) points out, unanticipated increases in property tax payments is one reason that taxpayers support property tax limitations, even if taxpayers have no desire to constrain local government spending authority. Volatile tax payments impede the ability of individuals and businesses to plan consumption and investment. In addition, the economic development literature has shown that businesses are responsive to tax rate differentials over relatively small areas (much of the literature has focused on intra metropolitan differences in taxes). Wasylelko (1997) and Bartik (1991) provide reviews of these studies. Reducing tax rate variability is likely to have a positive impact on economic performance. It is on this later effect that we focus.

We evaluate the role property tax uncertainty plays in economic activity in the state. To perform this analysis, we construct four simple econometric models of property tax variation and economic growth where we measure economic growth as growth in personal income and per capita personal income. The Model A evaluates aggregate county level personal income growth rates from 1988 through 2005 as a function of the 3-year variance of property tax rates. Model B includes the weighted average of property tax variability in adjacent counties. Both models incorporate fixed cross-sectional and period effects. Model C is structured as Model B, but replaces the temporal effects with a common autoregressive term. Model D replaces the growth rate in personal income with growth in per capita income as the dependent variable. The example specification for Model B is:

$$\ln(PI_{i,t}) - \ln(PI_{i,t-1}) = \alpha + \delta \sigma_{i,t} + \phi \tilde{W}_j \sigma_{j,t} + \gamma_j + \tau_t + e_{i,t},$$

where $PI$ is county total personal income, $\sigma_{i,t}$ is the variance of property tax rates over three years, $\tilde{W}_j \sigma_{j,t}$ is the weighted average of the variance of adjacent property tax rates, with the remaining variables comprising a common intercept, cross-sectional and period error terms and a common white noise error term. Clearly endogeneity may be an issue here, but with the absence of a clearly useful identification strategy, we report OLS estimates. Summary Statistics appear in Table 1. Results appear in Table 2.

The results of Model A do not yield statistically meaningful results for property tax variability on income growth. Model B, which includes a measure of regional property tax variability, suggests that a 1 percentage point change in property tax variance (about 20% of the total variance) results in a 3.5 percent decrease in aggregate personal income growth in a county over the nearly two-decade period of observation. The results suggest that high variability in property tax rates reduces growth, with the endogeneity caveats. This result is close in magnitude to Model C’s findings. In Model C we find that the higher the variance in adjacent county property tax rates, the higher own-county personal income growth. This is strong evidence of intrastate shifts in population and income due to property taxes. Model D echoes these results, but employs per capita income growth rates as the dependent variable. From these models it is clear that reduction of property tax rate variability is associated with higher growth rates in personal income and per capita personal income.

### Table 1

<table>
<thead>
<tr>
<th>Summary Statistics</th>
<th>Mean</th>
<th>Median</th>
<th>Maximum</th>
<th>Minimum</th>
<th>Std. Dev.</th>
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<tr>
<td>Personal Income (thousands)</td>
<td>1,430,983.0</td>
<td>621,763.0</td>
<td>28,895,421.0</td>
<td>62,317.0</td>
<td>2,724,140.0</td>
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<td>Per Capita Personal Income</td>
<td>20.3</td>
<td>19.8</td>
<td>43.6</td>
<td>10.2</td>
<td>4.9</td>
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<tr>
<td>(thousands)</td>
<td></td>
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<tr>
<td>Population</td>
<td>63,891.6</td>
<td>32,294.0</td>
<td>863,861.0</td>
<td>5,304.0</td>
<td>106,775.2</td>
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<tr>
<td>Property Tax Rate</td>
<td>7.3</td>
<td>7.7</td>
<td>21.4</td>
<td>1.3</td>
<td>2.8</td>
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<td>n=2,116</td>
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CONCLUSIONS

This paper examines two issues: (1) the factors that led to the 2008 property tax changes in Indiana—a restructuring which ultimately led to stringent limits on property tax rates and fundamental changes to the assessment process; and (2) the benefits (in terms of economic development as measured by income growth) of reducing property tax variability. The impetus behind the 2008 property tax restructuring were a variety of factors including the court ordered reassessment in the early 2000s, the resulting shift of the property tax burden from business to residential property, variation in assessment due in part to the large number of assessing jurisdictions in the state, the removal of the inventory tax resulting in a shift in property tax burdens to other types of property, and high variability in property tax rates both over time and among jurisdictions.

Using simple econometric models, we also analyze the role that property tax rate variability plays in economic development in a county and among adjacent counties. We find that over a 17-year period own-county variation in property tax rates results in lower own-county income growth and variation in adjacent county property tax rates has a positive effect on county income growth using both aggregate and per capita measures of income growth. These results suggest that the reduction of property tax rate variation can have a positive impact on economic development as measured by income growth.

Notes
2. Other states recently considering major property tax reform include Florida, South Carolina, and Maine.
3. The statute is HEA 1001 (P.L. 146-2008).
4. See Bennett and Stullich (1992) for details.
5. See Bennett (2001) for details.
6. See Indiana State Board of Tax Commissioners (2001) for details.

Table 2
Model Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model A</th>
<th>Model B</th>
<th>Model C</th>
<th>Model D</th>
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<tr>
<td>$\alpha$</td>
<td>0.025497</td>
<td>0.028534</td>
<td>-0.035</td>
<td>-1.2 E-06***</td>
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<tr>
<td></td>
<td>(117.63)</td>
<td>(46.50)</td>
<td>(-8.83)</td>
<td>(-8.27)</td>
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<td>$\delta \sigma_{ij}$</td>
<td>-0.0000455</td>
<td>-0.00016**</td>
<td>-0.000142*</td>
<td>-4.75</td>
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<td></td>
<td>(-1.04)</td>
<td>(-2.02)</td>
<td>(-1.92)</td>
<td>(-1.71)</td>
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<td>$\phi \beta \sigma_{ij}$</td>
<td>3.71E-05</td>
<td>0.0087****</td>
<td>6.18****</td>
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<td></td>
<td>(0.27)</td>
<td>(17.23)</td>
<td>(4.73)</td>
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<tr>
<td>AR (t-1)</td>
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<td>-0.36***</td>
<td>0.27***</td>
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<tr>
<td></td>
<td>...</td>
<td>...</td>
<td>(-15.89)</td>
<td>(9.53)</td>
</tr>
<tr>
<td>AR (t-2)</td>
<td>...</td>
<td>...</td>
<td>0.21***</td>
<td>0.39***</td>
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<td></td>
<td>...</td>
<td>...</td>
<td>(4.42)</td>
<td>(13.1)</td>
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<tr>
<td>Adjusted R-squared</td>
<td>0.55</td>
<td>0.56</td>
<td>0.47</td>
<td>0.34</td>
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<tr>
<td>F-statistic</td>
<td>15.04</td>
<td>13.51</td>
<td>9.78</td>
<td>107.82</td>
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<td>Panel Durbin-Watson statistic</td>
<td>2.24</td>
<td>2.31</td>
<td>1.84</td>
<td>2.04</td>
</tr>
</tbody>
</table>

*** significant at the 99 percent level of confidence.
** significant at the 95 percent level of confidence.
* significant at the 90 percent level of confidence.
References


Hicks, Michael J. Transportation Infrastructure, Regional Clustering and Local Public Finance: Evidence from Wal-Mart’s Expansion. Regional Economic Development 2 (Winter 2006): 100-114.

Indiana Legislative Services Agency. Indiana County Property Tax Summaries. Indianapolis, IN, 2005.


