Relative Regressivity in Indiana's Sales and Excise Taxes

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Comments Welcome

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Introduction

This document analyzes the regressivity of Indiana's Sales and Excise Taxes and compares this regressivity in border states. This analysis is performed since every new tax proposal involving property taxes calls for increases in Indiana's Sales and Use Tax. Thus, potential changes to the regressivity of our states' taxes are at issue.

The Regressivity of State Taxes

Taxes are progressive, neutral, or regressive. Progressive taxes are those which collect a higher share of income as taxes on households with higher incomes. The federal income tax, which taxes more affluent households at a higher rate is a progressive tax. A neutral tax collects a constant share of income across all income categories, while a regressive tax collects a higher share of income as tax revenue on lower income households. All U.S. state tax systems are regressive, while the Federal tax system is highly progressive.[1] The net effect is a progressive tax system in the United States.

Research on the incidence of taxation has seen considerable activity in recent decades and is one of the main concerns economists place on any tax reform. Any change in tax policy that is neutral will not result in a change of the incidence of taxation, hence no influence on business or consumer behavior. In practice, no changes to tax policy will be neutral. A non-neutral tax change alters the incidence of a tax system, often according to income. Arguments surrounding a non-neutral tax have been made in the United States on constitutional grounds (the equal protection clause), equity and the distortionary effect of non-neutral taxes on the mix of industries, occupations and households in a region.

The arguments in support of non-neutral taxes have merit, but are far too extensive to recount here.[2] In general, economists support a mildly progressive tax policy at the combined federal, state and local level – though this is not a universally held view. In practice however, extreme concern over the relative regressivity of state and local taxes should probably be subordinate to other concerns. The prime reasons for this are that inequities are often geographically concentrated, and so are better addressed with a broader tax base than local or often times even state governments can provide. As a

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[1] By many measures, the U.S. Federal tax system is at its most progressive in 25 years following the large Bush Tax cuts. While the Bush Tax Cuts (the common name of 2001-2002 tax policy changes) dramatically reduced taxes for upper income taxpayers and essentially eliminated Federal tax liability for the bottom half of households by income group. Rates for upper middle income (families earning $50,000 to $150,000 in annual income) also dropped dramatically. The proportional drop was highest on the lowest income taxpayers, and lowest on the most affluent taxpayers. However, the higher the pre-change tax liability, the higher the absolute dollar value of the tax cut.

[2] The political economy of progressivity/regressivity has been discussed by such thinkers as Adam Smith, Karl Marx, Alexis de Tocqueville, Milton Friedman, John Kenneth Galbraith, Ayn Rand and others. In practice the concerns are more than merely redistributive (the more affluent should pay a higher share), but involve such issues as welfare economics (the rich have a lower marginal utility of money), incentives (progressive taxes reduce labor supply among the most skilled) and even representative equity (the top 10% of income earners pay more than 95% of federal taxes but have only 10% of the vote).

practical matter, state and local taxes are a blunt instrument with which to achieve significant equity adjustments. State and local government provide direct services, are in virtually all cases bound by balanced budget requirements and are administratively costly. Federal taxes are a better instrument for addressing the progressivity of taxation since the suite of available policy options (deductions, Earned Income Tax Credit, etc.) provide a more flexible tool to address poverty holistically. When structuring a progressive tax system, Federal taxes are a rapier among the scythes of state and local taxes.

In practice, sales and excise taxes are among the most regressive. The reason for this is that the goods subject to these taxes (food, clothing, gasoline, etc.) are those on which poor residents pay a larger share of their income. The discussion on regressivity of state taxes has also included taxes on gambling, alcoholic beverages and smoking. And, as much as we savor the entertainment value of these activities, we will omit them from our discussion as their consumption is fully an individual choice in ways that consumption of food, clothing and transportation is not. The following sections focus on an analysis of the regressivity of Indiana's taxes on sales of goods – the sales and excise taxes.

Indiana's Sales and Excise Taxes and Regressivity

The Hoosier state levies sales taxes on goods sold. Food purchased for home consumption and prescription drugs are exempted. Table 1 illustrates the comparable sales and excise taxes for Indiana and border states.

Table 1, Regional Sales and Excise Taxes

State	State Sales	Local Option Sales	Gas Tax*** (Per Gallon)	Cigarette Tax (Per Pack)	Spirits Tax** (Per Gallon)	Table Wine Tax** (Per Gallon)	Beer Tax** (Per Gallon)
Illinois	6.25	3.75*	$0.19	$0.98	$4.50	$0.73	$0.19
Indiana	6	none	$0.18††	$0.995	$2.68	$0.47	$0.12
Kentucky	6	none	$0.185	$0.30	$1.94	$0.50	$0.08
Michigan	6†	none	$0.20	$2.00	$10.53	$0.51	$0.20
Ohio	5.5	3	$0.28	$1.25	$8.40	$0.32	$0.18

*Separate 1% tax on food and medicines not included
**Multijurisdictional taxes on alcoholic beverages not included
***Does not include Federal tax, or effective tax on vehicles for local municipalities
†Includes services, January 1, 2008
††Indiana also levies sales tax on gasoline.

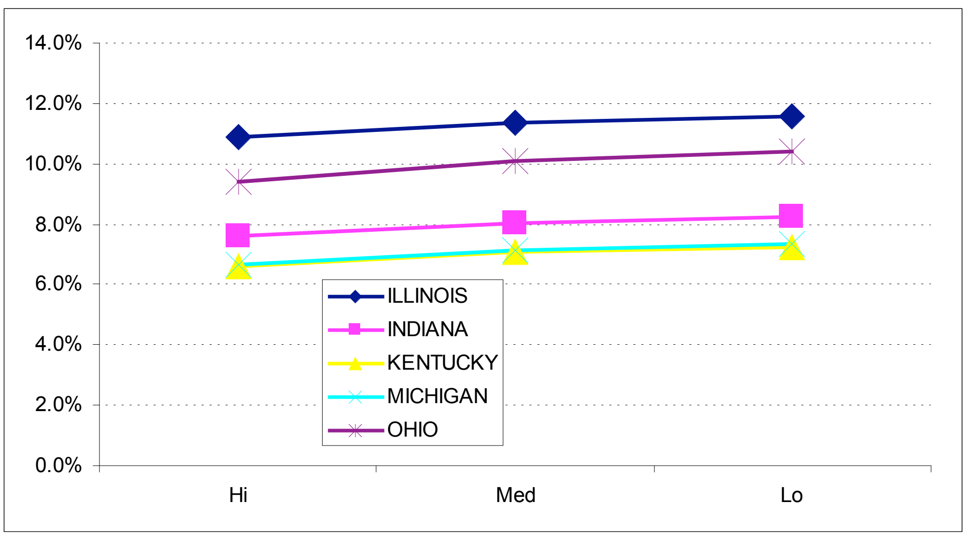
As is clear from these data, Indiana has a relatively low suite of sales and excise taxes. As of this writing, none of these state sales taxes include services, a significant and growing portion of the economy. However, on January 1, 2007 Michigan will begin the taxation of services, making their sales tax a broader tax.[3]

[3] Michigan also debated a sales tax increase of one percent as part of a heavily contested budget debate that resulted in a temporary government shut-down.

In order to more fully compare the relative tax burden and regressivity of sales and excise taxes we expand the estimates from our microsimulation of consumer sales tax burdens presented in our analysis of Governor Daniels' plan. Recall that for the microsimulation we estimated the sales tax burden of three households in Indiana. One was at the state median income, while the others were at the middle of the 1st and 4th quartiles of income. We chose these as they were the most representative of Indiana households (incomes ranging from about $35,000 to $125,000).

To this simulation we added automobile use for the representative family, using a standard car making 20 mpg driven 12,000 miles per year. This permitted a treatment of the gasoline excise tax. This inclusion led us to overstate the regressivity slightly, since the income elasticity of gasoline will be lower at higher incomes.[4] Nevertheless, the comparison of this excise tax is an important part of overall state tax regressivity. Figure 1 illustrates the tradeoff between median family incomes in the low, median and high range with the share of total income paid in sales and excise taxes across these five states. Importantly, we used the proposed sales tax rate of 7 percent for Indiana.

Figure 1, Tax Burdens and Regressivity of Indiana and Border States



So, the proportion of earnings paid by Hoosier households to sales and excise taxes fall in the median, even subsequent to the proposed tax increase (there is no relative change). A more detailed analysis of the incidence of these taxes yields a measure of regressivity, the income elasticity of taxes. {Note: there are two common income elasticities reported. One measures growth of tax revenues over time in comparison to changes in regional income, the other the responsiveness of tax rates across income groups.} We calculate this as the percent change in effective sales and excise tax payments due to a one percent change in income. A zero value of this estimate is a

[4] Recall from the earlier document that Gasoline is also subject to the sales tax, in addition to the gasoline excise tax.

neutral tax, while positive is a progressive and negative value a regressive tax. See Table 2.

Table 2, Tax Elasticity Across Income Groups

Illinois	**-0.5879**
Indiana	**-0.5537**
Kentucky	**-0.5691**
Michigan	**-0.6153**
Ohio	**-0.8614**

These data illustrate that Indiana has the most neutral sales and excise tax system of the five contiguous states. This finding confirms a 2003 study by the Institute on Taxation and Economic Policy.[5] This study finds that in overall tax regressivity, Indiana ranks in the middle of these border states; however the addition of other tax instruments makes the overall state tax systems relatively neutral. As a reference, the most recent analysis of the United States gives an overall tax elasticity estimate of 1.55, a relatively progressive system (which includes state and local taxes).[6]

As we noted at the outset, we recognize and have digested extensive analysis of the debate regarding non-neutral taxation. One result is that we favor a mildly progressive tax system. However, our analysis here suggests that the concern over regressivity of Indiana's sales tax, while not unimportant, should be weighed against other more pressing concerns such as stability, ease of administration and horizontal equity.

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[5] This study was performed prior to tax changes in several states, so its rankings are not currently appropriate, nonetheless it gives the same relative rankings for states prior to the more recent changes.

[6] Even Indiana's 'flat' income tax rate of 3.4 percent is progressive due to the basis on federal-type exemptions. The most recent estimates I have seen are 1.11-1.17 for the income elasticity of the tax.