

Undue Taxes and Unintended Consequences

Lori L. Taylor is the principal researcher of the Texas School Finance Project and associate professor of Economics at the Bush School of Government and Public Policy at Texas A&M University. This paper was written when Dr. Taylor was a senior economist and policy advisor with the Federal Reserve Bank of Dallas.¹ Her ongoing research examines teacher compensation, the efficiency of state and local governments and the regional consequences of government policy. Dr. Taylor holds masters and doctoral degrees in economics from the University of Rochester and bachelors degrees in economics and business administration from the University of Kansas. Dr. Taylor recently served as Principal Researcher on the Texas Cost-of-Education Project.

INTRODUCTION

Economic fundamentals require that business capital earns the same rate of return – after taxes – in all markets. If the after-tax rate of return is temporarily high in one market, the lure of extraordinary profits will draw investors and the resulting increase in competition will push returns down to the market rate. Similarly, if the after-tax rate of return is temporarily low in a market, investors will withdraw and no new investors will enter until the rate of return rises to that which is available elsewhere.

This ebb and flow of business capital has serious implications for school finance reform in Texas. In particular, it implies that businesses can absorb school taxes only to the extent that the schools generate benefits for business. Attempts to impose undue taxes on business will have unintended consequences for the Texas economy.

THE BUSINESS BENEFITS OF GOOD SCHOOLS

Business benefits from good schools in a number of ways. Good schools are an obvious source of the skilled workers businesses need to survive. Good schools also attract parents seeking a quality education for their children. In fact, given the mobility of modern society, a school district's ability to *attract* skilled workers may be even more important to business than its ability to *produce* them. The ready availability of skilled labor – whether homegrown or imported – provides the fuel for business growth and helps keep labor costs under control.

On the flip side, areas without good schools have trouble attracting quality workers and therefore have higher labor costs and impediments to growth. A recurring anecdote of the 1990s was that firms wanting to relocate to certain parts of Texas could not get their executives and professional staff to move because the schools were considered inadequate.

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Beyond their own labor needs, businesses also benefit from being surrounded by a well-educated population.² Well-educated individuals earn more than other workers, making them a desirable customer base. Their increased earnings lead them to pay more in sales and property taxes, thereby boosting the tax base and allowing local governments to provide the same level of services with lower tax rates. Finally, a generally high level of educational attainment in a community appears to enhance business productivity (above and beyond its effect on wages).

Crucially, the business benefits of good schools are not confined to the school district in which the business is located. A business need not locate within a good school district to hire its graduates or the parents it attracts. The productivity enhancing benefits of an educated population accrue as much to businesses in the weakest school district in the metropolitan area as they do to businesses in the best school district. Frugal businesses can have their cake and eat it too by locating in a low-tax district just over the line from an educational powerhouse.

Equally important, the benefits businesses receive from public schools are modest compared to the benefits received by students and their parents. A good education greatly enhances the expected earnings of a student. Over the course of a lifetime, the typical high school graduate will earn hundreds of thousands of dollars more than the typical high school dropout. Education is also associated with other benefits such as better health and fewer spells of unemployment. The benefits to business are not even in the same ballpark.

Because businesses must earn a market rate of return, firms will avoid high-tax areas unless the location offers correspondingly high benefits or a break on the other costs of doing business. The business benefits of good schools are relatively modest and businesses can reap those benefits without locating in good school districts. Therefore, school taxes on business capital have two effects. First, most of the school tax burden that originates at the business level is passed to other parties in the form of higher prices for the firm's customers, lower wages for the firm's workers or lower rents for the firm's landlord. Second, whenever business cannot shift the burden, investment suffers.

BUSINESS AND THE TEXAS SCHOOL FINANCE SYSTEM

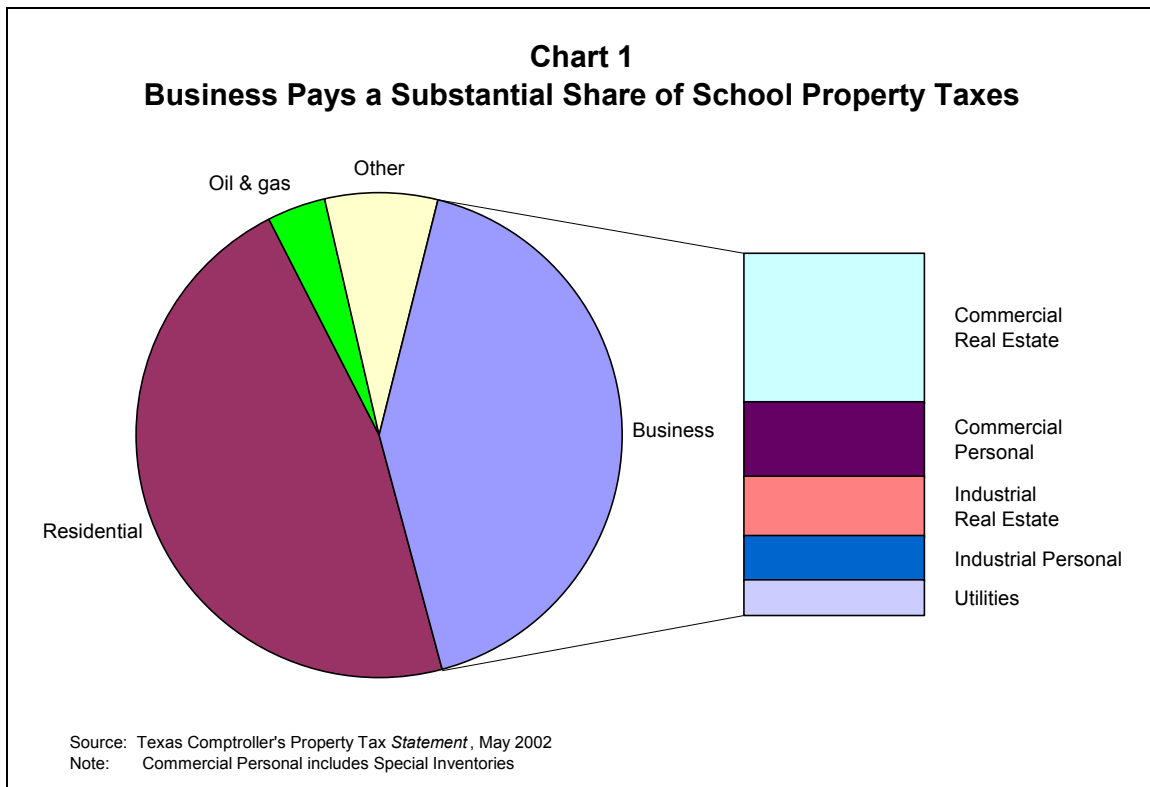
The Texas school finance system is best characterized as a guaranteed yield with recapture. The state guarantees that school districts will be able to raise a minimum amount, per weighted pupil, for each penny of tax effort. If the district raises less than the guaranteed amount the state makes up the difference. If the district raises substantially more than the guaranteed amount, the "excess" is distributed to other school districts through a process known formally as recapture and informally as "Robin Hood."

The Texas system relies heavily on property taxes. Local property taxes represented 48 percent of actual state and local revenues in 2001, and 53 percent of budgeted state and local revenues for 2002.³ Illinois is the only state that relies more heavily on local property taxes to finance elementary and secondary education.⁴ On average, local

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property taxes account for less than 28 percent of state and local revenues for elementary and secondary education.

In turn, those property taxes fall heavily on business (see Chart 1, below). On average, 38 percent of school district tax revenues derive from taxes on commercial and industrial property, and another 4 percent from property taxes on utilities.⁵ Real estate generates roughly two thirds of the property taxes paid by business in Texas; the remaining one third comes from taxes on business personal property and inventories.



Furthermore, the business tax burden has been increasing over time. Between 1997 and 2001, school property taxes paid by business increased by 38 percent while business property values increased by only 28 percent. School property taxes paid by commercial and industrial firms increased by 45 percent, 9 percentage points faster than the growth in taxable values.

There are two likely explanations for the growth in school taxes on business property. First, the revenue level guaranteed by the state is not indexed for inflation or property value appreciation. Therefore, barring a change in the guarantee, the only way that a school district can increase its spending per weighted pupil is to increase its tax rate.⁶ The rising cost of education gives school districts a strong incentive to increase their tax rates and thereby the taxes on business capital. In addition, because the guarantee is not indexed for property value appreciation, the state's school finance obligations fall when property values rise. By shifting the school tax burden from the state to the school district, the lack of indexing for property appreciation also shifts the school tax burden

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onto business property.

Second, even if the guarantee were indexed, a school finance system based on a guaranteed yield with recapture removes an important incentive for districts to minimize the tax burden on business. In traditional public finance models, good government attracts businesses and individuals. That attraction bids up property values, rewarding good governments with increased property tax revenues. Under the Texas school finance system, there is no fiscal reward to choosing business-friendly policies.⁷ Similarly, policy decisions that discourage business investment have no detrimental impact on school district revenues. By removing much of the downside to increasing business taxes, a guaranteed yield with recapture fosters higher taxes on business property.

THE UNINTENDED CONSEQUENCES

The structure of the school finance system has had unintended consequences for the Texas economy. The most obvious has been to discourage capital investment in Texas. During the 1990s, population and employment in Texas grew much faster than the national average, but the capital stock did not. Between 1990 and 1999, manufacturing employment grew 9 percent in Texas and dropped 3 percent in the nation as a whole. Meanwhile, the stock of real manufacturing capital grew 20 percent in both Texas and the nation.⁸ In other words, capital per worker in manufacturing grew at less than half the national rate in Texas.

Texas' stock of real manufacturing capital would be nearly 12 percent larger had capital per worker grown at the national rate. Undoubtedly, a respectable fraction of the shortfall in capital investment can be traced back to taxes on business capital.

By discouraging investment, the school finance formula has hindered economic growth and development. Texas grew more rapidly than the national average during the 1990s because its remarkable ability to attract labor more than offset its comparative inability to attract capital. However, unbalanced growth does not generate the gains in living standards created by balanced growth. There is no telling how much healthier the state could be had there been a better balance between capital and labor.

One major drawback to unbalanced growth is lower wages. Increases in capital per worker enhance productivity and productivity determines wages. Whenever labor is growing faster than capital, there is downward pressure on wages.

In fact, no matter how you slice it, the finance formula suppresses wage growth. As a general rule, the capital-intensive businesses most impacted by the finance formula produce goods for a national or international market. There is no opportunity for such firms to pass their tax burden on to their customers. Therefore, either investment must fall – which suppresses wages – or wages and rents must adjust to keep the after-tax rate of return near the national norm. Research suggests that landlords seldom bear the full burden of taxes on business real estate, so at least some of the burden must fall on workers through lower wages.⁹

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POLICY IMPLICATIONS

On the one hand, the Texas school finance system encourages school districts to increase taxes on business capital. On the other hand, school districts that attempt to impose undue taxes on business create an array of unintended – and undesirable – consequences. Something’s got to give.

Because school districts cannot successfully impose taxes on business capital, they shouldn’t even try. An obvious solution is to remove business capital from the tax base of local school districts.

Removing business capital from the local tax base is very straightforward. Business inventories and other personal capital would become fully tax exempt. Business real estate would become partially exempt. The value of real estate improvements would not be part of the property tax base for education. The value of business land is not capital, and would remain in the school tax base, as would any business value that arises from natural endowments like oil.

Because Texas has already severed the link between tax base and school revenues, removing business property from their tax base would have little effect on revenues for most school districts. Districts where the state makes up the difference between local values and the guaranteed yield would receive additional state aid equal to the revenue they would have raised on their business capital.¹⁰ Districts that have revenue recaptured by the state would pay correspondingly less in “Robin Hood” payments.

The resulting loss in revenue could be at least partially replaced by a state or regional tax on both capital-intensive and labor-intensive businesses. The business benefits from good schools spill over school district boundaries. It is only fitting that the tax obligations of business also spill over district boundaries. Similarly, the business benefits of good schools accrue to both labor-intensive and capital-intensive firms. Taxing capital-intensive industries no more heavily than labor-intensive ones would remove pressures that skew economic development in Texas toward labor-intensive industries.

No matter which level of government imposes the taxes, business capital must still earn the same after-tax rate of return in all markets. Currently, taxes on business property raise roughly 20 percent of state and local revenues for public education. It seems unlikely that Texas businesses reap 20 percent of the benefits from the public education system. Therefore, a revenue-neutral shift of taxing authority to the state or regional level will not lead business to bear the full burden of school taxes. However, more closely aligning the scope of the benefits with the scope of the taxes would increase the extent to which business would be able to bear its share of the school tax burden.

CONCLUSIONS

The Texas school finance system raises substantial revenue from taxes on business

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property. However, little of that tax burden is actually borne by business. Most of the school tax burden that originates at the business level is passed to other parties in the form of higher prices for the firm's customers, lower wages for the firm's workers or lower rents for the firm's landlord. Furthermore, attempts to impose taxes on business capital have discouraged investment in Texas.

In effect, Texas' school finance system has placed a portion of the states' economic development policies in the hands of educators and then given them little incentive to choose wisely. Texas would be better served by a school finance system that aligned the interests of school districts with the economic objectives of the state as a whole. A clear and simple strategy for achieving such an alignment would be to remove business capital from the local tax base for education.

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ENDNOTES

¹ The views expressed in this article are the author's and do not necessarily reflect the views of the Federal Reserve Bank of Dallas or the Federal Reserve System.

² For a review of the literature on the business benefits of elementary and secondary education, see Taylor (1999).

³ The data are from the Texas Education Agency's website. Actual revenues for 2002 were not yet available when this report was written.

⁴ Cross-state comparisons are based on 2001 data from the U.S. Census Bureau's files on public elementary and secondary education finance.

⁵ This discussion excludes agricultural and oil and gas properties since much of the value of such property derives from a natural endowment rather than capital improvements. The data come from various issues of *Statement*, a monthly newsletter on the property tax that is published by the Texas Comptroller.

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⁶ Rising property values can paper over the problem temporarily because the state uses a lagging measure of local tax base to calculate the district's local revenue under Tier II of the finance formula. In each period, a district's revenues under Tier II equal the guaranteed amount plus the taxes received on any recent appreciation in the tax base. If appreciation slows, revenues fall (all other things being equal).

⁷ Of course, for the minority of districts with property values above the guarantee but below the level subject to recapture, increases in property values do translate into increases in school district revenue. Therefore, these districts retain the incentive to consider the business impact of their policies.

⁸ See Brown and Taylor (2003).

⁹ For example, Man (1995) finds that Phoenix property owners pay only 60 percent of the property taxes on commercial real estate while property users pay 40 percent. Similarly, McDonald (1993) finds that Chicago landlords pay only 55 percent of property taxes on commercial real estate while the remainder is passed through to tenants in the form of higher rents. For the same reasons taxes on business capital are passed through to workers and customers, rent differentials resulting from property taxes also tend to be passed through to workers and customers.

¹⁰ As discussed in note 6, districts with rising property values receive more revenue than strictly guaranteed under the finance formula. For most districts, state aid under Tier II is

$$GYA = \$25.81 \times WADA \times DTR \times 100 - DTR \times V_{business\ capital} - DTR \times V_{other\ property}$$

where WADA is weighted average daily attendance, DTR is district tax rate and $V_{business\ capital}$ and $V_{other\ property}$ are lagged values of business capital and all other taxable property, respectively. Therefore, district revenues are

$$R = GYA + DTR \times V_{business\ capital} + DTR \times V_{other\ property}$$

or

$$R = G + DTR \times (V_{business\ capital} - V_{business\ capital}) + DTR \times (V_{other\ property} - V_{other\ property})$$

where $G = \$25.81 \times WADA \times DTR \times 100$. Depending on implementation, some districts could lose revenues equal to their tax rate times the change in the assessed value of business capital (personal property, special inventories and real estate improvements). Given the current weakness in the economy, however, it is reasonable to expect that such appreciation will be slight in many districts. Furthermore, districts where the assessed value of business capital is falling would clearly benefit from excluding business capital. The analysis for Chapter 41 districts is symmetrical.