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## Why Every State Should Have an Income Tax (and a Retail Sales Tax, Too)

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# WHY EVERY STATE SHOULD HAVE AN INCOME TAX (AND A RETAIL SALES TAX, TOO)

*Herwig Schlunk\**

## *Abstract*

Some states (like Florida and Texas) collect retail sales taxes but no income taxes; one state (Oregon) collects income taxes but no retail sales taxes; most states collect both. This paper examines the decision of a state to collect retail sales taxes, income taxes, or both in light of the state's spending policy and the ability of at least some of the state's residents to strategically migrate to another state (to take advantage of a more favorable mix of taxes and benefits). It concludes that states that rely solely (or even primarily) on either a retail sales tax or an income tax to finance their spending are generally pursuing an irrational and ultimately unstable course. Thus, states that seek to pursue an ultimately stable course must include in their revenue streams both a retail sales tax and an income tax.

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\* Professor of Law, Vanderbilt University Law School. The arguments in this paper are adapted from arguments I have made elsewhere in a completely different context. See Herwig Schlunk, *How I Learned to Stop Worrying and Love Double Taxation*, 79 *Notre Dame L. Rev.* 127 (2003).

## I. INTRODUCTION

Two funny things happened almost immediately after I posted an early draft of this paper on the Social Science Research Network (SSRN). First, a local talk radio host asked if I would discuss it on air; then, a local tax reform group put me on its mailing list.<sup>1</sup> The former wanted to publicly thrash me for promoting increased taxation and all the perceived ills that accompany bigger government. The latter wanted to enlist my support for its promotion of increased taxation to fund a bigger and better government. These reactions to my title—and they must be reactions to my title, since my argument is not one for either increased taxation or bigger government—led me to realize the necessity of an immediate disclaimer: THIS PAPER DOES NOT ADVOCATE INCREASED TAXATION OR BIGGER GOVERNMENT. But, neither does this paper advocate decreased taxation or smaller government. It has no dog in the hunt of the level of taxation or the size of the government.

The questions of how much a state wants to spend—and thus, at least in the long run, how much it needs to tax—and how the state should ideally raise the amount it wants to spend, are logically distinct. This paper does not address the former; only the latter. A state like California or New York might choose to provide all manner of benefits to, and hence to undertake all manner of spending on behalf of, its residents; a state like Tennessee or Texas might choose to provide considerably fewer benefits, and hence to undertake less spending. But whatever the level of benefits (spending), the state must choose how to raise the revenue that will pay for the benefits (spending). For all but the luckiest states, the revenue

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<sup>1</sup> The title of my earlier draft referenced my home state of Tennessee, a state without a broad-based income tax. Accordingly, it caught the attention of local residents. Some Tennesseans get extremely agitated at the mere mention of the possibility of an income tax, a mention that occurs with some regularity (i.e., whenever the state budget is in deficit). And other Tennesseans work tirelessly to get an income tax enacted. See generally John A. Walker III, *Why Tennessee Does Not Have an Income Tax*, 40 State Tax Notes 989 (June 26, 2006).

will come largely from taxes collected from residents. Those taxes, in turn, may be income taxes or consumption taxes (in practice, typically retail sales taxes) or a combination of both. This paper argues for a combination of both. Thus, New York and Texas *should* each rely on both income and consumption taxes; New York's taxes will simply need to be higher as necessitated by its desired level of spending.

My argument is not based on the benefits of diversifying a state's revenue sources, although such an argument may well have merit.<sup>2</sup> Rather, my argument is based on the ability of residents of one state to migrate to another state and the possibility that such migration will (at least at the margin) be strategic: an attempt to "arbitrage" the benefits and the costs of living in the various states. If such migration occurs, and if it occurs to a significant enough extent, it will undermine the finances of any state that chooses to rely either solely (or disproportionately) on an income tax or solely (or disproportionately) on a retail sales tax, instead of on a measured combination of both.

Part II of the paper offers a simple model of a state's finances. The model assumes that states spend money in order to provide benefits to their residents, sometimes in their residents' capacities as income producers and sometimes in their residents' capacities as consumers. It also assumes that states gather the money that they spend by taxing their residents, sometimes in their residents' capacities as income producers (an income tax) and sometimes in their residents' capacities as consumers (generally a retail sales tax). The model is employed to derive some insights into the connection between spending and taxes. In particular, if a state is in competition for residents with other states, a state's finances will generally be stable if and only if the state treats its residents "fairly." That is, a state

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<sup>2</sup> The basic idea would be that an income tax is a more reliable revenue raiser in good economic times, since incomes generally go up more quickly than consumption (with savings accounting for the disparity). Conversely, a consumption tax is a more reliable revenue raiser in bad economic times, since consumption generally falls more slowly than incomes (with consumption financed by savings accounting for the disparity).

must spend amounts collected in taxes from its resident income producers on goods and services that benefit such income producers, and it must spend amounts collected in taxes from its resident consumers on goods and services that benefit such consumers. Any failure to follow the foregoing strategy will, over time, lead income producers and/or consumers to migrate to other states that offer them "fairer" treatment. If a sufficient number of income producers and/or consumers migrate into or out of the state, the state will find itself unable to maintain its original tax and spend policy.

Part III of the paper considers some complicating factors. For example, not all state spending is financed by state taxes; some is financed by outside sources such as federal government grants. Does this alter the conclusion reached in Part II? And some residents may prefer some types of state taxes to others due to the I.R.C. § 164 deduction for certain types of state taxes. Does this alter the conclusion reached in Part II? These and a number of other questions are probed in some detail, but in each case they do not, in fact, alter the conclusion reached in Part II of the paper. Thus, it really is the case that fiscal stability requires a state to spend amounts collected in taxes from its resident income producers on goods and services that benefit such income producers, and to spend amounts collected in taxes from its resident consumers on goods and services that benefit such consumers.

Part IV briefly discusses the findings of the three empirical studies that have addressed some of the issues raised in this paper. Although each such study is quite narrow—they all focus solely on the migration of retirees, who are not necessarily a representative sample of any state's residents (they generally are more mobile and do not earn active business income)—each one produced results that are consistent with my model's predictions. Finally, Part V is a brief conclusion.

## II.: A MODEL OF A STATE'S BUDGET

I begin with a simplified model of the finances of the fifty states. I assume each state makes a governmental spending decision subject to a budget constraint; a state cannot spend any

funds it is unable to acquire. I also assume each state is benevolent: aside from repaying any borrowings (with interest), it spends solely with the intention of benefiting persons with a sufficient nexus to the state, e.g., businesses that conduct business in the state (henceforth, "local businesses") and individuals who are resident in the state. Further, aside from incurring borrowings, each state is able to acquire funds solely by imposing taxes directly on such same persons. From these assumptions it follows that the net present value of each state's expenditures on benefits must equal the net present value of that state's tax collections. Moreover, if each state generally eschews all but very short-term borrowings, it follows that each state's annual expenditures on benefits must on balance equal such state's annual tax collections.

#### *A. Expenditures*

How does, or rather how should, a given state think about its expenditures? The state has a wide menu of goods and services that it can choose to purchase and provide: police protection, roads, schools, a legal system, a safety net of health and welfare benefits, and so on. In order to be provided, such goods and services should ideally pass the following test: they should obviate the need for more costly self-help on the part of the persons who (are intended to and/or do) benefit from the provision of such goods and services.

For example, a state might consider providing policemen and a criminal justice system for the purpose of protecting local businesses: police cruisers would make frequent passes of business establishments, deterring would-be thieves; police detectives would investigate business thefts and arrest perpetrators, further deterring would-be thieves; and courts would try the arrestees and prisons would house them, still further deterring would-be thieves. In the absence of these policemen and this criminal justice system, owners of businesses would resort to incremental self-help to achieve their desired optimal amount of deterrence: they might install steel-reinforced doors or more sophisticated monitoring cameras or hire additional security guards or whatnot. If the aggregate cost of

such incremental self-help measures that would be adopted by all local businesses exceeds the cost of the state-provided benefits, the state should provide the benefits.

What is the effect on local businesses of the state's decision whether or not to provide these benefits? Note that the benefits at issue do not affect the nature of the good or service that any business produces: the ultimate consumer neither knows nor cares whether or how the business protected its assets en route to producing its particular good or service. Thus, so long as a business is operating in a competitive environment, i.e., is a price-taker, the presence or absence of the state-provided benefits does not affect the amount that the business can charge the ultimate consumer of its good or service. It follows that if the state does not provide the benefits, and a business instead incurs incremental expenses to protect itself, such business, or more correctly the individuals who share in the fruits generated by such business, will earn diminished profits. Alternatively, if the state does provide the benefits, and a business therefore does not incur incremental expenses to protect itself, such business, or more correctly the individuals who share in the fruits generated by such business, will earn augmented profits. Since the individuals who share in the fruits generated by the business generally include both the legal owners of the business and the employees of the business,<sup>3</sup> I can summarize the foregoing analysis as follows: a state's provision of policemen and a criminal justice system will, all else being equal, increase the income of the owners of any local business or that business's employees or both.

Of course, a state might also consider providing policemen and a criminal justice system for the purpose of protecting personal residences: police cruisers would make frequent passes through residential neighborhoods, deterring would-be thieves;

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<sup>3</sup> The owners of a business confronted with diminished margins can either settle for pocketing a smaller profit attempt to reduce the price they pay to suppliers, including especially their employees; or most likely do a little bit of both these things. Conversely, the owners of a business greeted by augmented margins can either pocket a larger profit, share the wealth with their suppliers, including especially their employees, or most likely do a little bit of both these things.



police detectives would investigate break-ins and arrest perpetrators, further deterring would-be thieves; and courts would try the arrestees and prisons would house them, still further deterring would-be thieves. In the absence of the policemen and the criminal justice system, homeowners would resort to incremental self-help: they might place bars over their windows or install elaborate security systems or buy guns or whatnot. Once again, if the aggregate cost of such incremental self-help measures that would be adopted by all homeowners exceeds the cost of the state-provided benefits, the state should provide the benefits.<sup>4</sup>

What is the effect on homeowners of the state's decision whether or not to provide these benefits? Note that the benefits at issue do not affect the nature of the good or service that any homeowner consumes: by definition, the housing services provided either by the combination of the house and the state's police protection or by the combination of the house and the homeowner's incremental self-help measures are identical. Thus, if the state does not provide the benefits and a homeowner instead incurs incremental expenses to protect his home, such homeowner will have less cash available to spend on other consumption.<sup>5</sup> On the other hand, if the state provides the benefits and a homeowner therefore does not incur incremental expenses to protect his home, such homeowner will have more cash available to spend on other consumption. I can summarize

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<sup>4</sup> One of the greatest benefits of providing certain services through the state is that it prevents private wasteful competition. For example, if the state provides security services that it administers without favoritism, all of its residents will be equally protected. On the other hand, if individuals invested in their own protection, any one resident's investment affirmatively harms his neighbors – by making such neighbors relatively more vulnerable – thus imposing a cost on them. This encourages (indeed more or less forces) the neighbors to invest as well, thereby leading to an arms race that may culminate in aggregate expenditures that greatly exceed their marginal benefit. (Each individual will want to set his marginal cost equal to his marginal benefit. From a societal viewpoint, however, his marginal cost should be set equal to his marginal benefit reduced by the marginal harm he inflicts on his neighbors.)

<sup>5</sup> Depending on the way in which the state financed the provision of the benefits, some or all of the cost savings would be capitalized into the price of the home. To the extent of such capitalization, a subsequent purchaser of the home would not enjoy a similar windfall.

the foregoing analysis as follows: a state's provision of policemen and a criminal justice system will, all else being equal, increase the level of potential consumption expenditures by homeowners.

There is nothing particularly unique about police protection and criminal justice infrastructure. Thus, a similar analysis could be applied to literally all of the goods and services provided by state government: such goods and services increase the income that can be earned by local businesses and their employees and/or stretch the consumption dollars of residents. For example, good roads enable manufacturers to more cheaply ship their products; this increases their profits and also ultimately their ability to pay wages to their employees. In addition, good roads enable employees to spend less money repairing the automobiles they use to commute to work; thus, the income they earn from their employment is greater.<sup>6</sup> Good schools enable employers to spend less money educating their work force; this increases their profits and ultimately their ability to pay wages to their employees. Similarly, good schools enable potential employees to develop skills that will enable them to perform more complicated tasks; these skills will increase their productivity and hence their wages. A functioning legal system enables entrepreneurs to protect their intellectual property and thereby allows them to create wealth both for themselves and their employees. A functioning legal system also allows employees to spend less time and money protecting themselves from all sorts of workplace hazards, thus increasing the income from their employment. Finally, the existence of a rudimentary safety net of health and welfare benefits allows employers to forego providing these benefits to their employees, thus increasing the employers' profits. Rudimentary health and welfare benefits also allows employees to ask for wages which are greater, when the state's benefits are taken into account,

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<sup>6</sup> The word income in this sentence refers to economic rather than taxable income. The economic income of a wage earner is the excess of the wages he earns over his costs of earning such wages; his direct and indirect commuting costs are one of the costs of earning such wages. The federal income tax, alas, does not tax wage earners on their economic income: certain costs of earning such income, including specifically direct and indirect commuting costs, are not generally deductible.

than they would have been in the absence of the state's benefits.<sup>7</sup>

Focusing now on consumers, good roads enable them to more cheaply visit their relatives; this increases the amount of money in their pockets for other consumption. Good schools enable consumers to spend less money educating their children; this too increases the amount of money in their pockets for other consumption. A functioning legal system enables consumers to avoid spending large amounts of money protecting themselves from unlikely but potentially harmful product defects; this too increases the amount of money in their pockets for other consumption. Finally, the existence of a rudimentary safety net of health and welfare benefits allows consumers to save less to protect themselves and their families from the effects of certain personal catastrophes; this yet again increases the amount of money in their pockets for other consumption.

### *B. Arithmetic*

Solely for purposes of illustration, I will make the foregoing more concrete with a bit of arithmetic. Suppose, as above, that a producer of income would, in the absence of any state-government-provided package of goods and services, spend a certain amount of his income to provide himself with benefits that could, in theory, be provided by the state: protection of property, transportation services, and so forth. Suppose further that due primarily to economies of scale, the state can provide

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<sup>7</sup> Wal-Mart has become notorious for relying on states to provide health care to its lowest paid employees. Except for the bad publicity, and probably in spite of such publicity, this practice surely increases its profits. But relying on states to provide health care also increases the wages, net of the cost of health care, that Wal-Mart pays its employees. For example, suppose that the health safety net provided by a state is worth \$1 an hour for a low-wage employee. Wal-Mart will be indifferent between paying such employee a wage a \$7 per hour without health benefits and a wage of \$6 per hour with \$1 per hour of health benefits. However the employee will prefer the \$7 per hour without health benefits since he can obtain the health benefits from the state "for free." Ultimately, Wal-Mart and the employee will in some manner split the benefit of the state's safety net: perhaps Wal-Mart will pay a wage of \$6.10 per hour, thus pocketing an additional \$0.90 per hour of profit at the expense of the state. But this means that the employee is still \$0.10 per hour better off than he would have been had Wal-Mart provided the health benefits directly.

many of these benefits more cost effectively. For example, suppose that for every \$100 of gross income earned by an income producer, if the state spends \$1 on beneficial goods and services, it can save such income producer \$5 of costs. Under these predicates, the state should spend at least \$1 on such goods and services; even if the state charges the income producer \$1 on average for such goods and services (e.g., through the tax system), the producer will net an additional \$4 of disposable income.

Now suppose, given diminishing returns, that each additional \$1 spent by the state on beneficial goods and services generates progressively smaller cost savings on the part of the income producer. For example, suppose that the second \$1 spent by the state generates \$4 of cost savings for the income producer, the third \$1 spent generates \$3 of cost savings, and so on. Given this benefits technology, the state should ideally spend \$5 on goods and services for every \$100 of gross income earned by an income producer.

Table 1: State Benefits Technology (\$)

Marginal State Spending	Cumulative State Spending	Marginal Cost Savings	Cumulative Cost Savings
1	1	5	5
1	2	4	9
1	3	3	12
1	4	2	14
1	5	1	15
1	6	0	15
1	7	-1	14

Of course, there are lots of reasons why a state might spend more or less than the ideal amount. The most benign reason for misspending is that it is far from clear, no matter how much effort is put into the discovery process, exactly what the true relation is between state spending and cost savings. There are less benign reasons as well. For example, a state might spend more than the ideal amount if its legislative process is captured

by interest groups, so that the state government, in effect, behaves less like a benevolent sovereign and more like a puppet for special interests. On the other hand, a state might spend less than the ideal amount if its residents and their representatives have an irrational fear that additional spending—even additional cost-effective spending—will lead the state into the clutches of the “socialist” bogeyman.

Finally, note that an identical arithmetic analysis can be provided for the case of state-provided goods and services that facilitate consumption. That is, a consumer of income would, in the absence of a state-provided package of goods and services, spend a certain amount of his income on certain benefits that could, in theory, be provided by the state: protection of property, transportation services, and so forth. Again, due primarily to economies of scale, the state can provide many of these benefits more cost effectively. For example, suppose that for every \$95 of gross consumption, if the state spends \$1 on beneficial goods and services, it can save such consumer \$5 of costs. Under these predicates, the state should spend at least \$1 on such goods and services; even if the state charges the consumer \$1 on average for such goods and services (e.g., through the tax system), the consumer will net an additional \$4 of disposable income.

Below, I assume that the state’s technology for delivering benefits that facilitate consumption is essentially identical to the technology illustrated in Table 1.<sup>8</sup> Thus, the first \$1 spent by the state will save the consumer \$5 of expenditures; the second \$1 spent will save the consumer \$4 of expenditures, and so on. Once again, the state will ideally spend exactly \$5 on goods and services that facilitate consumption; once again, for a host of reasons, it might choose to spend either more or less.

### *C. Tax Collections*

There is no such thing as a free lunch. The goods and services provided by a state are costly. Thus, once a decision has been reached to provide a given level of goods and services, a state must find sources of revenue to purchase these goods and

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<sup>8</sup> See *supra* Table 1 p. 646.

services. While there are a host of possible sources that may defray part of a state's expenditures—lotteries, user fees, tobacco litigation settlement proceeds, grants from the federal government, etc.—my model's assumptions reduce the number to the most significant two: borrowing and taxes. Moreover, since borrowing along with its attendant interest expense must eventually be repaid, borrowing does not represent an independent source of revenue: a borrowing decision is merely one that pushes taxation into the future. Thus, a state's only real choice, once it has decided on a spending plan, is whether to collect its taxes today, tomorrow, or partly today and partly tomorrow. And, of course, the state must also decide whom or what to tax.

As a practical matter, the question of whom or what to tax largely devolves into a question of whether to tax broadly-defined income, broadly-defined consumption, or both. Once again, this is not to suggest that other alternatives may not occasionally be available. For example, some states, such as Alaska, are able to extract considerable revenue from narrowly-defined income taxes, often called severance taxes, while other states, such as Nevada, are able to extract considerable revenue from narrowly-defined consumption taxes, often called excise taxes. For most states, however, such alternatives will not be available. And for these states the question remains: income tax, consumption tax, or both.

In answering this question, it should be noted that there is nothing inherently "unfair" in a state enacting either an income tax or a consumption tax. As already demonstrated, the goods and services funded by a state's taxes allow local businesses and residents to earn or keep incremental amounts of income; taxing away some or all of such incremental income to pay for the goods and services that made the incremental income possible would be the very height of fairness, at least when compared to any other alternative. Similarly, the goods and services funded by a state's taxes allow residents to engage in incremental consumption; taxing away some or all of such incremental consumption to pay for the goods and services that made the incremental consumption possible would again be the very

height of fairness, at least when compared to any other alternative. Given this, it should not be surprising that most states, through the combination of an individual (and perhaps also a corporate) income tax and a retail sales tax, do indeed tax both income and consumption.

While it is clearly "fair" for a state to tax both income and consumption, is it in any sense "necessary" for it to do so? That is, can a state choose to tax either the producers of income (at the instant of production) or the consumers of income (at the instant of consumption), but not both, and yet leave all producers and consumers of income as well off as they would have been had it chosen to tax both producers and consumers? It is tempting to think that it can. After all, every producer of income is also a consumer of income; all income produced (i.e., earned) is eventually consumed.<sup>9</sup> Thus, a decision to solely tax income can be viewed as being in part a decision to tax the ultimate consumption of such income, albeit perhaps a long time before such consumption actually occurs. Similarly, a decision to solely tax consumption can be viewed as being in part a decision to tax the income that facilitated such consumption, albeit perhaps a long time after such income was actually earned.

Given this, it is hardly surprising that it is possible to construct parameters under which it is equivalent for a state to opt either for a tax solely on income or for a tax solely on consumption, rather than for a combination of the two. To illustrate, suppose that a state knows all of the following:

The goods and services the state intends to provide to facilitate the earning of \$100 of income by a resident individual will cost the state \$5 to provide.<sup>10</sup>

The goods and services the state intends to provide to facilitate the consumption of \$90 of income by a resident

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<sup>9</sup> True, the consumption may occur a long time after the production (perhaps by an heir many generations distant), but why should that matter?

<sup>10</sup> I make no assumption, in this subsection, as to the value of the benefit the income producer receives from the state's expenditures, other than that such value at least equals the state's costs.

individual will cost the state \$5 to provide.<sup>11</sup>

The relative cost of the goods and services the state intends to provide, in relation to the amount of income or consumption such goods and services facilitate, will not vary over time.

All income produced in the state is ultimately consumed in the state, perhaps by the resident individual who earned the income, perhaps by his heirs.

Under these predicates, the state might consider imposing a 5% income tax (i.e., a tax on the production of income) and a 5.55% retail sales tax (i.e., a tax on the consumption of income). Under such a tax structure, an individual would pay \$5 of income tax as and when he earns \$100 of income, which is precisely the amount of tax necessary to pay for the goods and services that the state provides for his benefit in his capacity as a producer of income. Then, if he immediately consumes \$90 of his after-income-tax income, he would pay an additional \$5 of retail sales tax, which is precisely the amount of tax necessary to pay for the goods and services that the state provides for his benefit in his capacity as a consumer of income. Alternatively, if he invests his \$95 of after-income-tax income, perhaps for 23.5 years at an after-tax rate of 3%, so that his original \$95 will double to \$190, and if he then consumes \$180 of this amount, his consumption will benefit from \$10 of contemporaneous state expenditures, and at a 5.55% retail sales tax rate, this is precisely the amount of tax he will then be required to pay.

While this combination of state-levied taxes is certainly the most natural, an infinite number of other combinations are possible. I will consider only two of these. At one extreme, the state could impose a 10% income tax, with no additional retail sales tax. Under such tax scheme, the state would collect \$10 at the time the individual earns \$100 of income, but would only need \$5 of that amount to cover the cost of the goods and services it provides with respect to his productive activity. Accordingly, it would have \$5 either to spend immediately to facilitate the individual's \$90 of consumption, should the

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<sup>11</sup> I make no assumption, in this subsection, as to the value of the benefit the consumer receives from the state's expenditures, other than that such value at least equals the state's costs.



individual choose to immediately consume his after-tax income, or to invest if the individual instead chooses to invest and hence defer his consumption. Assuming that the state invests at the same rate of return as the individual,<sup>12</sup> and assuming as above that the individual invests for a total of 23.5 years prior to engaging in consumption, the state's \$5 will increase to \$10 at the same time that the individual's \$90 increases to \$180. Thus, when the individual spends his \$180 on consumption, the state will spend its \$10 on facilitating goods and services, and both the state and the individual will end up in exactly the same position they were in under a regime with a 5% income tax and a 5.55% sales tax.

At the other extreme, the state could impose no income tax at all, but simply collect an 11.1% retail sales tax. Under this alternative, and focusing solely on the case of deferred consumption, the state would need to borrow \$5 at the time the individual earns his income since it would have no tax revenue to spend to provide the goods and services that are necessary to facilitate his production of the income. Without loss of generality, and to simplify matters, suppose the state borrows the \$5 from the individual himself. Now, if the individual again waits 23.5 years prior to engaging in consumption, the individual's \$5 invested with the state will grow to \$10, and his \$95 invested elsewhere will grow to \$190. In all, he would have \$200 to spend. Thus, he could spend \$180 prior to the imposition of the 11.1% sales tax. The state would collect \$20 of sales tax, use \$10 to pay off its borrowing, and use the remainder to purchase the \$10 of goods and services that facilitate the individual's consumption. Once again, both the state and the individual end up in exactly the same position they were in under a regime with a 5% income tax and a 5.55% sales tax.

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<sup>12</sup> The state should be able to invest at a higher rate, since it is not taxable. But perhaps for political reasons, states do not generally collect surpluses and invest them for long periods of time. Thus, a state that collects a surplus will almost surely use such surplus to retire its existing debt obligations. If so, it effectively earns the same rate of return on such surplus as it would have paid on its debt obligations. And this, in turn, is the same rate of return as the individual earns.

While the foregoing illustration demonstrates the theoretical possibility that a state could be in a position where it can opt either for a traditional combination of an income tax and a retail sales tax or for a fully equivalent income tax without a retail sales tax or for a fully equivalent retail sales tax without an income tax, it is unlikely that a state will ever find itself in this position. This is because the predicates that allow for the income-tax-only or the retail-sales-tax-only alternatives will generally not be satisfied.

*D. Tax Collections When Expenditures Vary over Time*

The cost of the goods and services a state provides, relative to the amount of income or consumption such goods and services facilitate, may vary over time. In particular, the tastes and expectations of residents as to what goods and services are or are not necessary or appropriate for a state to provide tend to change. Sometimes the political winds are such that a state is expected to provide lots of goods and services. Other times state-provided goods and services are expected to be pared to the bone.<sup>13</sup> Only the traditional combination of an income tax and a retail sales tax can effectively take these changes into account, and thus ensure that each resident individual is taxed appropriately given the goods and services that the state actually provides for his benefit. To illustrate, suppose that

At the time an individual earns \$100 of income, the goods and services the state provides to facilitate such income cost the state \$5. Moreover, at that same time, the goods and services the state provides to facilitate \$90 of consumption cost the state \$5.

At the time the individual spends his after-income-tax invested income, perhaps 23.5 years later, state finances have changed so that the state provides goods and services costing only \$3 to facilitate the production of every \$100 of income. Moreover, at that same time, the goods and services the state

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<sup>13</sup> Neither of these circumstances will necessarily be based on whether the state's expenditures are cost effective, although they may be based on popular perceptions of such cost effectiveness.

provides to facilitate \$94 of consumption also cost the state only \$3.

For purposes of comparison, the three tax regimes that I will have the state consider are either (1) an income tax at a rate of 5% today and reduced to 3% in 23.5 years combined with a retail sales tax at a rate of 5.55% today and reduced to 3.2% in 23.5 years, (2) an income tax at a rate of 10% today and reduced to 6% in 23.5 years, with no accompanying retail sales tax, and (3) a retail sale tax of 11.1% today and reduced to 6.4% in 23.5 years, with no accompanying income tax. Thus, I assume that the state's tax regime always reflects the current costs of the goods and services it provides. I also assume that if the state relies either solely on an income tax or solely on a consumption tax, it will impose a tax rate implicitly based on the assumption that all income is immediately consumed. This may or may not be the most realistic assumption.<sup>14</sup> However, the state must make *some* assumption, and whatever assumption it makes produces the problem I describe below. Thus, for the sake of exposition, I make the stated assumptions.

How do the three alternative tax regimes compare? Under the first regime, with its combination of an income tax and a retail sales tax, the individual earns \$100 today and immediately coughs up \$5 of income tax. He invests his remaining \$95 for 23.5 years, watching the amount double. He then spends \$184 on consumption, coughing up \$6 of sales tax.<sup>15</sup> The state, meanwhile, spends \$5 today on goods and services to facilitate the individual's \$100 of earnings and spends an additional \$6 in 23.5 years to facilitate his \$184 of consumption. Since the state's tax revenues at all times exactly match its spending, the state never has either a surplus or a deficit, and

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<sup>14</sup> It is probably an acceptable assumption when aggregated over all residents, given the very low aggregate savings rate in the United States. See <http://www.bea.gov/national/nipaweb/TableView.asp?SelectedTable=120&ViewSeries=N&Java=no&Request3Place=N&3Place=N&FromView=YES&Freq=Year&FirstYear=1996&LastYear=2008&3Place=N&Update=Update&JavaBox=no#Mid> (last visited Feb. 26, 2009).

<sup>15</sup> I have rounded these numbers, since using the actual numbers, \$184.11 and \$5.89, would diminish the aesthetics of the main text without in any way changing the argument. I will similarly round certain numbers in the paragraphs that follow.

moreover has no need to engage in any borrowing or lending activity.

Under the second regime, which features solely an income tax, the analysis becomes more interesting. The individual earns \$100 today and immediately coughs up \$10 of income tax. He invests his remaining \$90 for 23.5 years, watching the amount double. He then spends all \$180 on consumption, since the state imposes no sales tax. The state, meanwhile, spends \$5 today on goods and services to facilitate the individual's \$100 of earnings, and spends an additional \$5.75 in 23.5 years to facilitate his \$180 of consumption. To offset this spending, it collects \$10 of income tax today. After paying \$5 for today's provision of goods and services, it has \$5 remaining which it presumably uses to pay off existing indebtedness, thus effectively investing such amount at a rate that will see the amount double over 23.5 years. Therefore, in 23.5 years, the state has \$10 available to finance its spending on the goods and services that facilitate the individual's consumption. Since it spends only \$5.75 on such goods and services, it pockets \$4.25. Thus, the state has effectively overcharged the individual by this amount for the goods and services it has provided to him.

Finally, under the third regime, which features solely a retail sales tax, the individual earns \$100 today and pays no state income tax. He invests his \$100 for 23.5 years, watching the amount double. He then spends \$188 on consumption, and coughs up his remaining \$12 to pay his sales tax obligation. The state, meanwhile, spends \$5 today on goods and services to facilitate the individual's \$100 of earnings and spends an additional \$6 in 23.5 years to facilitate his \$188 of consumption. To offset this spending, it must borrow \$5 today. The amount owed for this borrowing compounds over the ensuing 23.5 years; at the end of this time, the state owes \$10. Since this \$10 is combined with the state's future expenditure of \$6, the state must now find aggregate revenue of \$16. Alas, its only revenue source is the individual's retail sales tax payment of \$12. Thus, the state has a shortfall of \$4. The state has effectively undercharged the individual by this amount for the goods and services it has provided to him.

Obviously, only the first of these three alternatives is fully satisfactory. Under a properly designed combination of an income tax and a retail sales tax, a state runs a balanced budget with respect to each and every one of its residents. Thus, *importantly*, it does not transfer wealth from one resident (whether in his capacity as a producer of income or a consumer of income) to another resident (whether in his capacity as a producer of income or as a consumer of income).<sup>16</sup>

Neither of the other two tax regimes shares this feature. For example, in the income-tax-only tax regime, the state overcharges the resident (henceforth, Taxpayer #1) in my illustration.<sup>17</sup> This overcharging does not necessarily mean that the state runs an overall budget surplus. To see this, suppose that there is a second resident in the state, Taxpayer #2, who has a consumption and production pattern that is essentially the reverse of that of Taxpayer #1: Taxpayer #2 initially spends \$90, funded by borrowing, and 23.5 years later earns \$191.50, which he uses in part (\$180) to pay off his borrowing and in part (\$11.50) to pay his income taxes. Note that under these assumptions the state does not at any time have an unbalanced budget. However, it has transferred wealth (\$2.12 in terms of net present value or \$4.25 in terms of future value) from Taxpayer #1 to Taxpayer #2.

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<sup>16</sup> Of course, nothing prevents the state from explicitly transferring wealth from one resident to another, for example, through a program establishing a social safety net. But, any such transfer would be explicit and therefore transparent, rather than simply a consequence of the design of the tax regime.

<sup>17</sup> Under the alternative assumption that the relative cost of state-provided goods and services rises over time, the state would have undercharged the resident in the illustration.

## Wealth Transfer under an Income-Tax-Only Regime

	Taxpayer #1			Taxpayer #2		
	Income	Consumption	NPV	Income	Consumption	NPV
Time = 0	100				90	
Tax collections	10		10		0	0
Cost of state benefits	5		5		5	5
Time = 23.5		180		191.5		
Tax collections		0	0	11.5		5.75
Cost of state benefits		5.75	2.875	5.75		2.875

And, of course, the identical result obtains under the retail-sale-tax-only tax regime. In my illustration, Taxpayer #1 is undercharged. But once again, this does not imply that the state's overall budget is in deficit. Thus, suppose Taxpayer #2 has a consumption and production pattern that is essentially the reverse of that of Taxpayer #1: Taxpayer #2 initially spends \$90 on consumption plus \$10 on the retail sales tax, all funded by borrowing, and 23.5 years later earns \$200, which he uses to pay off his entire borrowing. Once again, note that the state does not at any time have an unbalanced budget. However, it has transferred wealth (\$2 in terms of net present value or \$4 in terms of future value) from Taxpayer #2 to Taxpayer #1.

## Wealth Transfer under a Sales-Tax-Only Regime

	Taxpayer #1			Taxpayer #2		
	Income	Consumption	NPV	Income	Consumption	NPV
Time = 0	100				90	
Tax collections	0		0		10	10
Cost of state benefits	5		5		5	5
Time = 23.5		188		200		
Tax collections		12	6	0		0
Cost of state benefits		6	3	6		3

When the mere design of a state's tax regime causes an *unintended* transfer of wealth from one resident to another, it poses a problem. Why is the state rewarding either Taxpayer #1 or Taxpayer #2, as the case may be, and punishing the other? It is doing so for no reason at all. And that is the essence of unfairness. Fortunately for taxpayers, there is a self-help remedy that will overcome the unfairness. Indeed, it will overcome the unfairness even under circumstances where there is no systematic long-term unfairness, no systematic lifetime transfer of wealth from one resident to another, but merely a temporary unfairness, a temporary transfer of wealth from one resident to another. Unfortunately for states, reliance on such self-help remedy will lead to budgetary chaos.

*E. Strategic Behavior on the Part of Taxpayers (Most Simple Case)*

Return to the case above where the tastes and expectations for government expenditures do not vary over time; the government at all times spends \$5 to provide goods and services that facilitate the earning of \$100 of income, and at all times spends \$5 to provide goods and services that facilitate \$90 of consumption. But suppose that the state chooses to finance its expenditures solely with a 10% income tax. Taxpayer #1 earns \$100 today and pays \$10 of income tax, half in respect of state-

provided goods and services that facilitate his earning of the income, and half in the expectation that the state in the future will provide him with adequate goods and services to facilitate his consumption. Taxpayer #2 consumes \$90 today and enjoys a temporarily free ride at the state's expense. Time passes, 23.5 years in all. At the end of this time, Taxpayer #1 spends \$180 on consumption; the state in turn spends \$10 to facilitate this consumption. Or at least it wants to.

But alas it may have no revenue. Why? The state was relying on its receipt of the income tax that Taxpayer #2 would pay when he earns the income he needs to earn to pay off the debt he incurred to finance his original consumption. Indeed, Taxpayer #2 could, as assumed above, earn \$200, pay \$20 of income tax, and thus clear the \$180 required to pay off his debt. If he does this, all is well. But he may follow a different tack. Taxpayer #2 might observe that the state will only spend \$10 for the goods and services that it provides in connection with his production of \$200 of income. Since it is charging him \$20 for these goods and services, it is overcharging him!<sup>18</sup> Thus, Taxpayer #2 might cast a wistful eye at other states—he does, after all, have another 49 to choose from—to see if any of them offers a better balance between the costs it charges in connection with the production of income (i.e., its income tax) and the value of the goods and services it provides in connection with such production. If Taxpayer #2 finds another state with a cost-benefit balance that is more to his liking,<sup>19</sup> he might switch his residence to that state. And in that case, his original home state will not receive the revenue it expected to receive from him.

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<sup>18</sup> It does not matter that the state's \$10 expenditure on goods and services might save Taxpayer #2 more than \$20 of costs relative to the baseline of the state of nature, so that Taxpayer #2 still receives a net benefit even in the face of paying the tax. If the state can purchase the goods and services for \$10, charging \$20 is overcharging, pure and simple.

<sup>19</sup> For example, and most simply, Taxpayer #2 might find a state that offers an identical package of benefits, but that only charges – by means of its income tax – their actual cost of \$10.



## Strategic Behavior under an Income-Tax-Only Regime

	Taxpayer #1			Taxpayer #2		
	Income	Consumption	NPV	Income	Consumption	NPV
Time = 0	100				90	
Tax collections	10		10		0	0
Cost of state benefits	5		5		5	5
Time = 23.5		180		0		
Tax collections		0	0	0		0
Cost of state benefits		10 (?)	5 (?)	0		0

The analysis for a retail-sales-tax-only regime is similar. Taxpayer #1 earns \$100 today and pays no income tax; the state expects that he will later spend this income and thus pay retail sales tax that among other things will effectively offset the \$5 cost of the goods and services with which it currently provides him. Taxpayer #2 consumes \$90 today, pays \$10 of sales tax, and thus ensures balance in the state's current budget. Although he only receives \$5 of state-provided goods and services in connection with his consumption, he does not mind; he expects that the state will give him a free ride when he later earns the income necessary to pay off his consumption-related debt. Time passes; 23.5 years in all. At the end of this time, Taxpayer #2 earns \$200; the state spends \$10 to facilitate his production of income. Or at least it wants to.

But again it may have no revenue. Why? The state was relying on its receipt of the retail sales tax that Taxpayer #1 would pay when he spends the income he previously earned. Indeed, Taxpayer #1 could, as assumed above, spend \$180 on consumption and thus pay \$20 of sales tax. If he does this, all is well. But he may not do this. Instead, Taxpayer #1 might observe that the state only spends \$10 on the goods and services that it provides in connection with his \$180 of consumption spending. Since it is charging him \$20 for such goods and services, it is overcharging him! Thus, Taxpayer #1 might cast a wistful eye at other states—he too has another 49 to choose

from—to see if any of them offers a more favorable balance between the costs it charges in connection with the consumption of income (i.e., its sales tax) and the value of the goods and services it provides in connection with such consumption. If Taxpayer #1 finds a state with a cost-benefit balance more to his liking, he very well might switch his residence to that state. And in that case, his original home state will not receive the revenue it counted on receiving from him.

#### Strategic Behavior under a Sales-Tax-Only Regime

	Taxpayer #1			Taxpayer #2		
	Income	Consumption	NPV	Income	Consumption	NPV
Time = 0	100				90	
Tax collections	0		0		10	10
Cost of state benefits	5		5		5	5
Time = 23.5		0		200		
Tax collections		0	0	0		0
Cost of state benefits		0	0	10 (?)		5 (?)

#### *F. Strategic Behavior on the Part of Taxpayers (Less Simple Case)*

The foregoing illustration of the breakdown of a state's budget posited residents who in the given tax years either earned income or engaged in consumption, but not both. In the real world, many, or even most, individuals in most tax years both earn income and engage in consumption. Nonetheless, many individuals have tax years in which they are net earners of income and other tax years in which they are net consumers. Would this reality change the outcome of my analysis?

Suppose there are only three states (State 1, State 2, and State 3) and they are in all relevant ways identical. Each state initially has three residents: A1, B1, and C1 are the residents of State 1; A2, B2, and C2 are the residents of State 2; A3, B3, and C3 are the residents of State 3. Each resident named A is a net

income producer: he earns 10% more income than the average individual, but consumes 10% less than the average individual. Each resident named B is neither a net income producer nor a net consumer: he earns and consumes the same amount as the average individual. And each resident named C is a net consumer: he earns 10% less income than the average individual, but consumes 10% more than the average individual.

### Initial Distribution of Income and Consumption

	State 1			State 2			State 3	
	Income	Consumption		Income	Consumption		Income	Consumption
A1	110	90	A2	110	90	A3	110	90
B1	100	100	B2	100	100	B3	100	100
C1	90	110	C2	90	110	C3	90	110

Each state wants to provide benefits to both its income producers and consumers. Moreover, each state envisions identical expenditures with respect to income and consumption: it would like to spend an amount equal to 5% of income in ways that will benefit the production of income, and it would like to spend an amount equal to 5.55% of consumption in ways that will benefit consumers. However, each state opts for a different financing scheme. State 1 imposes solely a 10% income tax to fund its benefits expenditures; State 2 imposes both a 5% income tax and a 5.55% consumption (sales) tax; and State 3 imposes solely an 11.1% consumption (sales) tax. The following table sets forth each individual's tax payments.

## Initial Distribution of Tax Payments

	State 1			State 2			State 3	
Resident	Income Tax	Sales Tax	Resident	Income Tax	Sales Tax	Resident	Income Tax	Sales Tax
A1	-11		A2	-5.5	-4.5	A3		-9
B1	-10		B2	-5	-5	B3		-10
C1	-9		C2	-4.5	-5.5	C3		-11

I initially assume that state spending is only marginally efficient: each dollar spent by the state provides its intended beneficiary with a dollar's worth of benefit. Under this assumption, the following table sets forth the benefit each individual receives from state expenditures, with the benefit divided into the benefit received with respect to income producing activity and the benefit received with respect to consumption activity.

## Initial Distribution of Benefits

	State 1			State 2			State 3	
	Earning Benefit	Consuming Benefit		Earning Benefit	Consuming Benefit		Earning Benefit	Consuming Benefit
A1	5.5	4.5	A2	5.5	4.5	A3	5.5	4.5
B1	5	5	B2	5	5	B3	5	5
C1	4.5	5.5	C2	4.5	5.5	C3	4.5	5.5

Finally, the following table shows the net effect of tax payments and benefits receipts for each individual, i.e., the amount of wealth transferred to or from each individual as a result of the states' tax-and-spend policies.

## Initial Distribution of Unintended Wealth Transfers

	State 1		State 2		State 3
	Net Benefit		Net Benefit		Net Benefit
A1	-1	A2	0	A3	1
B1	0	B2	0	B3	0
C1	1	C2	0	C3	-1

Suppose there is a fair deal of resistance to moving (after all, moving is a costly enterprise), even in the face of an unfavorable balance of taxes and benefits. Thus, I assume that a resident of one state will only move to another state if he can improve his net benefit profile by an amount greater than 1. Under this assumption, A1 migrates from State 1 to State 3 and C3 migrates from State 3 to State 1. The following table shows the new alignment of individuals.

## Intermediate Distribution of Income and Consumption

	State 1		State 2		State 3			
	Income	Consumption	Income	Consumption	Income	Consumption		
			A2	110	90	A1, A3	110	90
B1	100	100	B2	100	100	B3	100	100
C1, C3	90	110	C2	90	110			

Following the migration, each state attempts to maintain its original tax-and-spend policy. The first part of this attempt is easy: State 1 continues to impose a 10% income tax; State 2 continues to impose both a 5% income tax and a 5.55% sales tax; and State 3 continues to impose an 11.1% sales tax. The following table sets forth each individual's new tax payments.

Intermediate Distribution of Tax Payments

	State 1			State 2			State 3	
Resident	Income Tax	Sales Tax	Resident	Income Tax	Sales Tax	Resident	Income Tax	Sales Tax
			A2	-5.5	-4.5	A1, A3		-9
B1	-10		B2	-5	-5	B3		-10
C1, C3	-9		C2	-4.5	-5.5			

Now, a snag arises. State 1 would like to spend \$30 on benefits (\$5 to facilitate B1's income production; \$4.50 to facilitate each of C1's and C3's income production; \$5 to facilitate B1's consumption; and \$5.50 to facilitate each of C1's and C3's consumption), but it only collects \$28 of tax revenue. Thus, State 1 must make an accommodation: I assume that it reduces its desired spending across the board by the fraction 28/30. For similar reasons, State 3 will also need to curtail its spending by a like amount. The following table shows the benefit that the individuals now receive.

Intermediate Distribution of Benefits

	State 1			State 2			State 3	
	Earning Benefit	Consuming Benefit		Earning Benefit	Consuming Benefit		Earning Benefit	Consuming Benefit
			A2	5.5	4.5	A1, A3	5.137	4.203
B1	4.67	4.67	B2	5	5	B3	4.67	4.67
C1, C3	4.203	5.137	C2	4.5	5.5			

And the following table shows the net effect of tax payments and benefits receipts for each individual in light of the first wave of migration.

## Intermediate Distribution of Unintended Wealth Transfers

	State 1		State 2		State 3
	Net Benefit		Net Benefit		Net Benefit
		A2	0	A1, A3	0.33
B1	-0.66	B2	0	B3	-0.66
C1, C3	0.33	C2	0		

Alas, with the passage of time, individual resistance to relocation is sure to decrease. Thus, I assume there will be a second wave of migration, with individuals relocating so long as they can improve their net benefit position by an amount greater than 0.5. Under this assumption, B1 moves from State 1 to State 2, and B3 moves from State 3 to State 2. Note that States 1 and 3 have now lost population, while State 2 has gained population. The following table shows the new alignment of individuals.

## Final Distribution of Income and Consumption

	State 1			State 2			State 3	
	Income	Consumption		Income	Consumption		Income	Consumption
			A2	110	90	A1, A3	110	90
			B1, B2, B3	100	100			
C1, C3	90	110	C2	90	110			

Following this migration, each state once again attempts to maintain its prior tax-and-spend policy. And once again, the first part of this attempt is easy: State 1 continues to impose a 10% income tax; State 2 continues to impose both a 5% income tax and a 5.55% sales tax; and State 3 continues to impose an 11.1% sales tax. The following table sets forth each individual's new tax payments.

## Final Distribution of Tax Payments

	State 1			State 2			State 3	
Resident	Income Tax	Sales Tax	Resident	Income Tax	Sales Tax	Resident	Income Tax	Sales Tax
			A2	-5.5	-4.5	A1, A3		-9
			B1, B2, B3	-5	-5			
C1, C3	-9		C2	-4.5	-5.5			

This set of tax collections poses the same problem encountered in the prior iteration. State 1 would ideally like to spend \$20 on benefits (\$4.50 to facilitate each of C1's and C3's income production; and \$5.50 to facilitate each of C1's and C3's consumption), but it only collects \$18 of tax revenue. Thus, State 1 must make an accommodation: I assume that it further reduces its spending across the board to 18/20 of the ideally desired amount. For similar reasons, State 3 will also need to curtail its spending, with the ultimate effect that it too will spend 18/20 of the ideally desired amount. The following table shows the benefits that the individuals receive in light of these accommodations.

## Final Distribution of Benefits

	State 1			State 2			State 3	
	Earning Benefit	Consuming Benefit		Earning Benefit	Consuming Benefit		Earning Benefit	Consuming Benefit
			A2	5.5	4.5	A1, A3	4.95	4.05
			B1, B2, B3	5	5			
C1, C3	4.05	4.95	C2	4.5	5.5			

The following table shows the net effect of tax payments and benefits receipts for each individual in light of both waves of



migration. Note, importantly, that the net benefit that State 1 temporarily, albeit *inadvertently*, provided to consumers has evaporated, as has the net benefit that State 3 temporarily, albeit *inadvertently*, provided to income producers.

#### Final Distribution of Unintended Wealth Transfers

	State 1		State 2		State 3
	Net Benefit		Net Benefit		Net Benefit
		A2	0	A1, A3	0
		B1, B2, B3	0		
C1, C3	0	C2	0		

Also, note that a lingering effect of a state's attempt to impose asymmetric taxes is that such state attracts disproportionate numbers of individuals who disproportionately benefit from its asymmetric tax structure. At the end of the day, this means that such state will generate less per capita tax revenue than it would have generated absent the asymmetry and the resulting taxpayer migration. It follows that if such state's benefit spending is efficient—i.e., that a dollar of spending provides at least a dollar of benefit, and possibly a lot more—the residents of such states will suffer relative to the residents of states without asymmetric tax structures.<sup>20</sup> For example, suppose in the relevant spending range, that each \$1 spent by a state on benefits provides residents with benefits that they privately value at \$1.50. The following table shows the benefits that the individuals in the last iteration above would receive in light of this multiplier.

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<sup>20</sup> Of course, if the state's benefit spending is inefficient, a lower level of per capita spending is an affirmative good.

## Final Distribution of Gross Benefits if Spending is Efficient

	State 1			State 2			State 3	
	Earning Benefit	Consuming Benefit		Earning Benefit	Consuming Benefit		Earning Benefit	Consuming Benefit
			A2	8.25	6.75	A1, A3	7.425	6.075
			B1, B2, B3	7.5	7.5			
C1, C3	6.075	7.425	C2	6.75	8.25			

And the following table shows the net effect of tax payments and benefits receipts for each individual in light of the multiplier. Note that under these assumptions, if the net benefit threshold for migration falls a tiny bit further, so that individuals migrate whenever they can improve their net benefit by an amount at least equal to 0.5, the remaining residents of States 1 and 3 will migrate to State 2. States 1 and 3 would be empty!

## Final Distribution of Net Benefits if Spending is Efficient

	State 1			State 2			State 3	
	Net Benefit			Net Benefit			Net Benefit	
			A2	5		A1, A3	4.5	
			B1, B2, B3	5				
C1, C3	4.5		C2	5				

*G. Conclusion*

If a state *unwittingly* transfers wealth from one taxpayer to another, even only temporarily, it is not merely acting "unfairly," it is also acting in a self-defeating manner. That is, unless every other even remotely comparable state adopts essentially identical policies, some taxpayers will choose to move or threaten to move to take advantage of the irrationality of the

state's tax-and-spend policies, thereby plunging the state into budgetary chaos. In effect, the state will lose the ability to fully and rationally determine the level of its expenditures; instead, it will cede control of such expenditures to (the most mobile of) its residents.

### III.: COMPLICATING FACTORS

As the foregoing model of state finances paints a simplified picture of reality in a number of significant respects, it is worth asking whether any of these simplifications casts serious doubt on its conclusion. Among the potentially complicating factors I will consider when addressing this question are: (1) the effect of federal grants, (2) the effect of federal income tax rules, in particular I.R.C. § 164's deduction for certain state and local taxes, (3) the effect of local government actions on the choice of where to live, (4) the absolute and relative efficiency of state and local expenditures, (5) the effect of the possible capitalization of taxes or benefits into asset prices, and (6) the relevance of the difference between active income and passive income and hence of active income producers and passive investors. This part will also address the question of whether the mere existence of a state income tax inevitably leads to higher overall levels of taxation (and hence perhaps to waste).

#### *A. Basic Relationships*

In Part II, I posited a relationship—purely for illustrative purposes—between state spending and the cumulative cost savings enjoyed by an income producer as a result of such spending. I now denote cost savings as CSI; CSI is a generally increasing function of state spending SI (although a level may be reached where additional state spending becomes counterproductive); I can therefore write  $CSI(SI)$ . SI, in turn, is the sum of a fraction  $\alpha$  of income taxes IT collected, a fraction  $\beta$  of consumption taxes CT collected, and a fraction  $\gamma$  of federal grants F received,<sup>21</sup> so that  $SI = \alpha IT + \beta CT + \gamma F$ . Thus, I can

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<sup>21</sup> This list of sources of state revenue is not technically exhaustive, but can be treated as if it is. Hence, in what follows, miscellaneous sources of revenue are included

write  $CSI(\alpha IT + \beta CT + \gamma F)$ .<sup>22</sup> Since income taxes are a cost to an income producer, a resident income producer's net benefit from state spending and taxation is  $CSI(\alpha IT + \beta CT + \gamma F) - IT$ .

All else being equal, the last expression above is what an income producer hopes (and seeks) to maximize.<sup>23</sup> On balance, he is happier when relevant state spending is higher (so long as it is not so high that it actually becomes counterproductive), but is happier still if such state spending is borne by others, whether consumers or the federal government. In the simplest case in which all states possess the same technology for turning spending into cost savings and all states in fact choose the same level of spending, an income producer will prefer the state that funds its spending with the smallest amount of income taxes.

Of course, a parallel analysis can be undertaken for consumers. Cost savings  $CSC$  is a generally increasing function of state spending  $SC$  (although a level may be reached where additional state spending becomes counterproductive); I can therefore write  $CSC(SC)$ .  $SC$  in turn is the sum of a fraction  $(1 - \alpha)$  of income taxes  $IT$  collected, a fraction  $(1 - \beta)$  of consumption taxes  $CT$  collected, and a fraction  $(1 - \gamma)$  of federal grants  $F$ , so that  $SC = (1 - \alpha)IT + (1 - \beta)CT + (1 - \gamma)F$ . Thus, I can write  $CSC((1 - \alpha)IT + (1 - \beta)CT + (1 - \gamma)F)$ . Since consumption taxes are a cost to a consumer, a resident consumer's net benefit from state spending and taxation is  $CSC((1 - \alpha)IT + (1 - \beta)CT + (1 - \gamma)F) - CT$ .

All else being equal, the last expression above is what a consumer seeks to maximize.<sup>24</sup> On balance, he too is happier when relevant state spending is higher (so long as it is not so high that it actually becomes counterproductive), but is happier still if such state spending is borne by others, whether income producers or the federal government. In the simplest case, in

in whichever category they best fit. For example, a tax that is largely imposed on non-residents will be included in  $F$  (since it feels like free money to residents of the state).

<sup>22</sup> When  $\alpha = 1$  and  $\beta = 0$ , the state is not transferring wealth either from income producers to consumers or from consumers to income producers.

<sup>23</sup> To maximize income, one must minimize costs (at any given level of gross income); minimizing costs is equivalent to maximizing cost savings.

<sup>24</sup> To maximize consumption, one must minimize costs (at any given level of gross consumption); minimizing costs is equivalent to maximizing cost savings.

which all states possess the same technology for turning spending into cost savings, and all states in fact choose the same level of spending, a consumer will prefer the state that funds its spending with the smallest amount of consumption taxes.

Of course, what ultimately matters is not what any one state does in a vacuum, but how what that state does relates to what other comparable states do. For example, if all states spend only for the benefit of income producers but also impose similar amounts of sales tax on consumers, consumers will have no ability to flee from one state to another to avoid this structural “unfairness.” And if all states take all federal receipts and spend them solely for the benefit of consumers, there will be no ability for an income producer to move to counteract this structural “unfairness.” Rather, mobility on the part of income producers or consumers matters only if (1) different states provide different levels of benefits to either income producers or consumers or both, and/or (2) different states fund in different ways the benefits they provide to income producers or consumers or both.

### *B. Federal Grants*

First, I examine the effect of federal grants on a state’s budget process. Contrary to my model in Part II, the fifty states do not, in fact, limit their expenditures to the amount of their tax collections, not by a long shot. For example, in 2003, per capita spending by the states was \$4,010 per person.<sup>25</sup> However, per capita tax collections were only \$2,026.<sup>26</sup> The lion’s share of the difference was amounts received from the federal government.<sup>27</sup>

Perhaps not surprisingly, given the effects of political influence and the like, there is a wide variation in the amount of funds that states receive from the federal government. In 2004,

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<sup>25</sup> U.S. CENSUS BUREAU, Statistical Abstract of the United States: 2007, 288 available at <http://www.census.gov/compendia/statab/2007/2007edition.html> (last visited Feb. 23, 2009).

<sup>26</sup> *Id.* at 286.

<sup>27</sup> *Id.* at 285.

on a per capita basis, these amounts ranged from a low of \$672 per person in Nevada to a high of \$3,778 per person in Wyoming. Nonetheless, twenty-one of the fifty states received per capita amounts within 10% of the average of \$1,276, while another eleven states received per capita amounts within 20% of such average. Surprisingly, however, only two of the five most populous states were "near" the average:

#### Per Capita Revenue from Federal Government

California	\$ 1,271
Texas	\$ 1,106
New York	\$ 2,138
Florida	\$ 955
Illinois	\$ 995

What is the effect of federal grants on the analysis in Part II? The arithmetic model set forth above helps answer this question. Thus, a resident income producer seeks to maximize his net benefit— $CSI(\alpha IT + \beta CT + \gamma F) - IT$ —from state spending and taxation. Similarly, a resident consumer seeks to maximize his net benefit— $CSC((1 - \alpha)IT + (1 - \beta)CT + (1 - \gamma)F) - CT$ —from state spending and taxation. It follows that so long as  $\gamma$  is neither equal to 0 or 1, so that both income producers and consumers derive some benefit from federal grants, both income producers and consumers will prefer a higher per capita level of federal grants. A free lunch is always preferable to a paid lunch.

That being said, it is nonetheless the case that every state should pursue a structurally sound tax-and-spend strategy, whatever its level of federal grants. The reason for this is that a structurally sound strategy will withstand the fickle vicissitudes of federal spending. Sometimes a state will be blessed with a particularly effective congressional delegation and will reap a surfeit of pork; other times it may be burdened with a particularly ineffective delegation and the pork will (relatively speaking) dry up. Thus, only a foolish state will seek to rely on allocations of generally unpredictable federal grants to mend a structurally unsound tax-and-spend strategy.

What follows is a concrete illustration in the context of

three states—Kentucky, Georgia and Tennessee—that are assumed to be equivalent in all relevant ways, except for their tax-and-spend strategies. Kentucky has higher per capita spending and therefore is deemed to provide greater per capita benefits than Georgia and Tennessee; Georgia and Tennessee in turn provide similar levels of per capita benefits, but fund them in radically different ways. To wit, in 2003, Kentucky's per capita spending was \$4,094, Georgia's was \$3,376, and Tennessee's was \$3,317.<sup>28</sup> Kentucky collected \$2,043 per capita in taxes, almost exactly evenly divided between income taxes (\$1,018) and consumption taxes (\$1,025).<sup>29</sup> Georgia, in turn, collected \$1,634 per capita in taxes, with a slightly larger fraction coming from income taxes (\$870) than from consumption taxes (\$764).<sup>30</sup> Tennessee collected \$1,617 per capita in taxes, of which the lion's share came from consumption taxes (\$1,301), since Tennessee does not have a broad-based individual income tax.<sup>31</sup> Finally, Kentucky had per capita federal receipts totaling \$2,051; Georgia's per capita federal receipts amounted to \$1,742; and Tennessee's were \$1,700.<sup>32</sup>

Suppose that all three states attempt to balance their spending equally between items that benefit income producers and those that benefit consumers. Under this assumption, Kentucky spends \$2,047 on behalf of each income producer and

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<sup>28</sup> *Id.* at 288.

<sup>29</sup> *Id.* at 286. Kentucky's total tax collections amounted to \$8,463 million, of which \$4,006 million were sales taxes of various sorts, \$238 million were generally consumption related license taxes (motor vehicles and hunting), \$3,459 million were income taxes of various sorts, and the remainder were business-related property taxes and business-related license taxes. *Id.* at 286-87. Thus, Kentucky can be treated as collecting almost exactly half of its taxes from consumption and half from income production.

<sup>30</sup> *Id.* at 286. The division of taxes into consumption taxes and income taxes for Georgia follows precisely the division for Kentucky.

<sup>31</sup> *Id.* .

<sup>32</sup> *Id.* at 285. Actually, Kentucky had per capita federal receipts totaling \$1,423; Georgia's per capita federal receipts totaled \$1,014; and Tennessee's were \$1,489. However, as noted above, all items that are not taxes imposed on residents are included in the federal receipts category. Thus, for each state, the amount of per capita federal receipts for purposes of this paper is the excess of per capita state spending over per capita state tax collections.

each consumer; Georgia in turn spends \$1,688 apiece; and Tennessee spends \$1,659 apiece.

Finally, because money is fungible, essentially any assumption can be made as to how the states match inflows and outflows. For example, I could assume that each state puts all of its available revenue, from whatever source derived, into a single pot, and then takes funds out of that pot in order to pay for its spending. In that case, given my assumptions about uses of funds, exactly 50% of all income tax revenue would be devoted to spending for the benefit of income producers; exactly 50% of all consumption tax revenue would be devoted to spending on behalf of income producers; and so on. However, I will not make this assumption. Instead, I will assume that each state, to the greatest extent possible, funds spending for the benefit of income producers from income tax revenue and spending for the benefit of consumers from consumption tax revenue; it then uses all remaining revenue to fill the gaps that remain.

Thus, Kentucky devotes all of its \$1,018 of per capita income tax revenue to provide benefits for income producers, devotes all of its \$1,025 of per capita consumption tax revenue to provide benefits for consumers, and uses its federal grants to pay for \$1,029 and \$1,022 of additional per capita benefits for income producers and consumers, respectively. Georgia devotes all of its \$870 of per capita income tax revenue to provide benefits for income producers, devotes all of its \$764 of per capita consumption tax revenue to provide benefits for consumers, and uses its federal grants to pay for \$818 and \$924 of additional per capita benefits for income producers and consumers, respectively. Finally, Tennessee devotes all of its \$316 of per capita income tax revenue to provide benefits for income producers, devotes all of its \$1,301 of per capita consumption tax revenue to provide benefits for consumers, and uses its federal grants to pay for \$1,343 and \$358 of additional per capita benefits for income producers and consumers, respectively.

Note that under the foregoing allocation scheme, no state, not even Tennessee, directly diverts revenue either from income producers to consumers or from consumers to income producers.



However Tennessee does so in effect. To see this, and what effect it has on behavior, insert the foregoing numbers into the net benefit function. A Kentucky income producer receives a net cost saving of  $CSI(IT_{KY} + 0.502F_{KY}) - IT_{KY} = CSI(\$2047) - \$1018$  and a Kentucky consumer receives a net cost saving of  $CSC(CT_{KY} + 0.498F_{KY}) - CT_{KY} = CSC(\$2047) - \$1025$ . A Georgia income producer realizes a net cost saving of  $CSI(IT_{GA} + 0.470F_{GA}) - IT_{GA} = CSI(\$1688) - \$870$  and a Georgia consumer realizes a net cost saving of  $CSC(CT_{GA} + 0.530F_{GA}) - CT_{GA} = CSC(\$1688) - \$764$ . Finally, a Tennessee income producer realizes a net cost saving of  $CSI(IT_{TN} + 0.790F_{TN}) - IT_{TN} = CSI(\$1659) - \$316$  and a Tennessee consumer realizes a net cost saving of  $CSC(CT_{TN} + 0.210F_{TN}) - CT_{TN} = CSC(\$1659) - \$1301$ .

Given the foregoing, an income producer who has equivalent opportunities in Kentucky and Tennessee will almost surely prefer earning income in Tennessee, since although he will receive somewhat smaller cost savings in Tennessee (however much cost saving an extra \$388 of government spending will buy), he will incur significantly lower tax costs there (\$702).<sup>33</sup> On the other hand, a consumer who has equivalent opportunities in those two states will clearly prefer consuming in Kentucky, since he will both receive greater cost savings (however much cost saving an extra \$388 of government spending will buy) and incur lower tax costs (\$276) in Kentucky. Meanwhile, an income producer who has equivalent opportunities in Georgia and Tennessee will prefer earning income in Tennessee, since although he will receive slightly smaller cost savings in Tennessee (however much cost saving an extra \$29 of government spending will buy), he will incur significantly lower tax costs there (\$554). And a consumer who has equivalent opportunities in those two states will clearly prefer consuming in Georgia, since he will both receive greater cost savings (however much cost saving an extra \$29 of government spending will buy) and incur significantly lower tax

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<sup>33</sup> It is reasonable to assume that at the margin, state spending produces benefits roughly commensurate with costs. Thus, the added state benefits derived by an income producer in Kentucky should be somewhere in the neighborhood of \$388, and hence nowhere near their effective relative "cost" to him of \$702.

costs (\$537) in Georgia.

All of this may well prove to be fatal to Tennessee's finances. This is because some persons who predominantly produce income—such as entrepreneurs and high wage earners—will opt to move to Tennessee to take advantage of Tennessee's relatively much more generous treatment of income producers, while some persons who predominantly consume—such as retirees—will opt to move to Kentucky or Georgia. If a great enough number of persons make these choices, then Tennessee will face high demand for government services beneficial to *income producers* but will have insufficient *consumption tax* revenue to pay for such services. Federal receipts by themselves will be unable to predictably fill in the hole. And so, in the long run, even Tennessee's attractiveness to income producers will wane. In short, unlike Kentucky and probably Georgia, Tennessee's finances are unstable.<sup>34</sup>

What can Tennessee do to overcome this instability? It has only two choices. First, it can change its tax collection policy by collecting a larger fraction of its revenue from income producers and a smaller fraction from consumers. If it does this, it will be somewhat less attractive to income producers, who will no longer be able to come to the state for as great of a free ride. Simultaneously, it will be slightly less unattractive to consumers, who will no longer be furnishing quite as great a free ride to income producers. If the change in tax collection policy is sufficiently great, stability might ensue.

Second, Tennessee could opt to change its benefits policy.

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<sup>34</sup> Kentucky and Georgia may at first blush appear to be unstable too because they will experience migrations opposite those of Tennessee. That is, some income producers will leave those states, not because those states treat them unfairly, but because Tennessee treats them too well. Some consumers will move to those states, not because those states treat them so well, but because Tennessee treats them unfairly. But neither of these migratory flows need be a concern, since Kentucky's and Georgia's spending and taxation can adjust to handle them. That is, both states can *always* simply provide services to each group based on the amounts they charge each group. Thus, if and when there are fewer income producers, Kentucky and Georgia will collect less in income tax and can simultaneously reduce their expenditures for the benefit of income producers in like amount, which would be a perfectly logical response since there would be fewer income producers clamoring for benefits. And an identical analysis holds with respect to consumers.

That is, it could decide to forego providing an identical amount (in terms of cost) of benefits for both income producers and consumers, and could instead devote a larger share of its spending to consumers. Once again, such a change would make Tennessee less attractive to income producers and more attractive to consumers, and thus would stem the flow of migrants.

### *C. Internal Revenue Code Section 164*

Pursuant to I.R.C. § 164, taxpayers are allowed to deduct certain state taxes when determining their federal taxable income. For purposes that are relevant to my discussion, these taxes include income tax or alternatively, for taxable years between 2004 and 2008, at the election of the taxpayer, general sales tax.<sup>35</sup> In general, a deduction of state income or sales tax will reduce the ultimate cost of paying such tax by the amount of the federal income tax that is saved as a result of the deduction. For example, if  $\delta$  is the marginal federal income tax rate for a given taxpayer, and thus the fraction of such taxpayer's federally deducted state tax effectively rebated by the federal government, then  $(1 - \delta)IT$  is the true cost of his state income tax payment if and only if he chooses to (and is able to) deduct such income tax payment, and  $(1 - \delta)CT$  is the true cost of his state sales tax payment if and only if he instead chooses to (and is able to) deduct such sales tax payment.

What does this mean for Kentucky, Georgia, and Tennessee? Note first that a Kentucky resident will generally choose to deduct his state income tax if he is predominantly an income producer, but will choose to deduct his state sales tax if he is predominantly a consumer. A Georgia resident, in contrast, will be somewhat predisposed to deducting his state income tax; only if he consumes in amounts significantly in excess of his income will he benefit from instead deducting his state sales tax. Finally, a Tennessee resident will generally deduct his state sales tax whether he is predominantly an income producer or a consumer. Plugging the effect of these

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<sup>35</sup> I.R.C. §§ 164(a)(3) and (b)(5) (2008).

deductions into the cost savings equations, average income producers in Kentucky and Georgia realize cost savings of  $CSI(\$2047) - (1 - \delta)(\$1018)$  and  $CSI(\$1688) - (1 - \delta)(\$870)$ , respectively, while average income producers in Tennessee realize cost savings of  $CSI(\$1659) - \$316$ .<sup>36</sup> From this it follows that average income producers will almost surely continue to prefer Tennessee to Georgia, but may or may not also continue to prefer Tennessee to Kentucky.<sup>37</sup>

Meanwhile, average consumers in Kentucky realize cost savings of  $CSC(\$2047) - \$1025$  if they do not find it in their interest to deduct their state sales tax on their federal income tax return and  $CSC(\$2047) - (1 - \delta)(\$1025)$  if they do find it in their interest to deduct such tax; average consumers in Georgia realize cost savings of  $CSC(\$1688) - \$764$  since they generally do not find it in their interest to deduct their state sales tax on their federal income tax return; and average consumers in Tennessee uniformly realize cost savings of  $CSC(\$1659) - (1 - \delta)(\$1301)$ . In spite of the available federal deduction for sales tax payments, the average Tennessee consumer will almost surely continue to prefer Kentucky's regimen of costs and benefits (whether or not he elects to deduct Kentucky sales tax).<sup>38</sup> Similarly, the average Tennessee consumer will prefer

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<sup>36</sup> For reasons explained below, an average Kentuckian is likely to deduct his state income tax, notwithstanding the fact that he might pay slightly more state sales tax than income tax.

<sup>37</sup> For example, if the relevant marginal federal income tax rate  $\delta = 0.2$ , a Kentuckian would incur incremental tax costs vs. his Tennessee compatriot of \$498 and would receive incremental benefits that cost \$388. If state spending at the relevant margin is not too efficient, the Tennessee trade-off would be preferable; if state spending is relatively efficient, the Kentucky trade-off would be preferable. And one can easily imagine marginal federal income tax rates where Kentucky would have a clear advantage. For example, if  $\delta = 0.31$ , a Kentuckian would incur incremental tax costs vs. his Tennessee compatriot of only \$386 and would receive benefits that cost a couple dollars more. In such case, the Kentucky option would almost surely be preferable.

<sup>38</sup> For example, if the relevant marginal federal income tax rate  $\delta = 0.2$ , a Tennessean would still incur \$16 of incremental sales tax cost vs. his Kentucky brethren who opt not to deduct their Kentucky sales tax, but would be deprived of benefits costing \$388. Even if the relevant marginal federal income tax rate were increased to  $\delta = 0.31$ , a Tennessean would still long for Kentucky. In such case, he would save \$127 of sales tax cost by remaining in Tennessee, but would continue to be deprived of benefits costing \$388.

Georgia's regimen of costs and benefits.<sup>39</sup>

Thus, while the current incarnation of section 164 may somewhat mitigate the temptation of Tennessee's consumers to flee to Kentucky and Georgia, it will not succeed in stopping most of such flight. Thus, Tennessee will continue to be unable to stabilize her finances; income producers will continue to flock to the state demanding benefits; and consumers will continue to flee the state and thus deprive it of the funding necessary to pay for such benefits.

Before leaving the subject of section 164, it is worth pointing out that for a number of reasons its effect on behavior is far smaller than even the prior discussion would suggest. First, in the case of any taxpayer who opts to deduct sales tax rather than income tax (thus including the Tennessee taxpayers in the prior paragraphs), truly extraordinary record-keeping is required to achieve the maximum level of allowable deduction. In recognition of this fact, any such taxpayer is allowed to take a deduction calculated by the Treasury Department to reflect "average consumption."<sup>40</sup> By definition, this amount will be too low for taxpayers who spend an unusually high percentage of their income (e.g., it will be systematically too low for young couples establishing their first households and for retirees who are living off saved capital) and will be too high for taxpayers who spend an unusually low percentage of their income (e.g., it will be systematically too high for empty nesters who have shifted their focus to saving for retirement).<sup>41</sup> Thus, such taxpayers will receive unintentionally incorrect deductions, which will muddy the effect of section 164.<sup>42</sup>

Second, section 164 deductions are so-called itemized deductions and as such are limited in a number of ways. For

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<sup>39</sup> For example, even if the relevant marginal federal income tax rate is set as high as  $\delta = 0.31$ , a Tennessean would still incur \$134 of sales tax cost above and beyond that which he would incur in Georgia; he will receive no offsetting benefits, since Georgia actually provides slightly greater consumer benefits than Tennessee in any event.

<sup>40</sup> I.R.C. § 164(b)(5)(H)(ii)(II) (2008).

<sup>41</sup> Cf. Herwig J. Schlunk, *A Lifetime Income Tax*, 25 VA. TAX REV. 939 (2006).

<sup>42</sup> In the case of Tennessee, the bias against those – in particular, retirees – who consume disproportionately large percentages of their income, will be increased.

taxpayers who do not have any significant amount of itemized deductions, such deductions are valueless, since the taxpayers will instead elect to take the federal standard deduction.<sup>43</sup> For taxpayers who have a significant amount of income, and hence in general a significant amount of state tax payments and other itemized deductions, the amount of such deductions that are allowed in the calculation of federal taxable income is subject to a phase-out.<sup>44</sup> Both these rules limit the benefits of the section 164 deduction, and hence push taxpayers in the direction of making decisions that are less distorted by the effects of such deduction.

Third, for the rapidly increasing percentage of mostly middle and upper income taxpayers who are subject to I.R.C. § 55's alternative minimum tax, no deduction is allowed for state tax payments.<sup>45</sup> Thus, for such taxpayers, the value of the federal income tax deduction for state income or sales tax is 0. Hence, such taxpayers will make residency and migration decisions utterly undistorted by the effects of the interaction of the federal income tax and the state tax structure.

The bottom line is that the section 164 federal income tax deduction somewhat haphazardly reduces the cost, but not the benefit, of some state spending.<sup>46</sup> A state might be tempted to use this fact strategically: it might attempt to further benefit its residents by imposing on them, to the maximum practicable extent, only taxes that are deductible for federal income tax purposes. Prior to 2004, a state engaging in such strategy would have relied predominantly on an income tax; in the period from 2004 to 2008, it would have relied either predominantly on an income tax or predominantly on a sales tax; and beginning in 2009, assuming no extension of the current election, it would

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<sup>43</sup> I.R.C. § 63(c) (2008).

<sup>44</sup> I.R.C. § 68.

<sup>45</sup> I.R.C. § 56(b)(1)(A)(ii) (2008).

<sup>46</sup> To make this claim it is also necessary to assume that federal disbursement to states are not systematically reduced to reflect the loss of tax receipts from taxpayers residing in such states as a result of the section 164 deduction. I am not aware of any evidence that suggests that federal disbursements to states are higher for states that impose lower levels of state tax and that hence impose less "cost" on the Treasury.

once again rely predominantly on an income tax. Unfortunately, such an attempt by a state to benefit its residents is problematic.

First, in the case of a state that engages in flip-flopping—switching from income tax collections to sales tax collections and back to income tax collections in response to winds from Washington—its residents will never know exactly what to expect, and will thus be unable to effectively plan their economic activity (whether income-producing activity or consumption activity). This uncertainty is likely to accelerate rather than retard outbound migration.

Second, even if a state does not alter its tax collection strategy in response to Washington, but simply tries to maximize its residents' deductions through each change to section 164 by uniformly collecting predominantly an income tax, such strategy will still, as noted above, result in a significant (albeit possibly unintentional) transfer of resources from income producers to consumers and thus, so long as other comparable states do not follow identical strategies, to an outflow of income producers and an inflow of consumers and, in the long run, to budgetary instability.<sup>47</sup> Thus, although it leaves some federal money on the table, a state is best served by determining its tax collection policy on the basis of its spending policy, and not on the basis of federal income tax policy.<sup>48</sup>

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<sup>47</sup> Of course, the very worst strategy for a state is to impose asymmetric taxation that is predominantly of a type that is not deductible for federal income tax purposes, as such strategy leads to a great transfer of resources from one group of residents to another but does so without any compensating benefit in the form of a partial indirect refund of outlays from the federal government. This is precisely the sin of states like Tennessee that have long gone without a broad-based income tax.

<sup>48</sup> States as a whole would be best served if the federal government got out of the business of indirectly affecting state tax policy by means of section 164. An optimal federal policy would either repeal the deduction for state taxes, whether income taxes or sales taxes, or allow a deduction for all state taxes, including both income taxes and sales taxes. In either of these two cases, there would be no asymmetry between income taxes and sales taxes and state legislators would thus be able to have a completely clear conscience in ignoring deductibility issues when determining their tax policy.

#### *D. Local Spending and Taxation*

Most local governments engage in spending to provide benefits for local income producers and consumers.<sup>49</sup> This spending is largely a substitute for state spending: to the extent that a locality funds its own police force, the state will have less reason to provide such locality's residents with police protection; to the extent a locality funds its own schools, the state will have less reason to provide such locality's children with basic education; and so on.

There is good reason to believe that local government spending will generally be more efficient than state government spending: the closer the spending decision is to the ultimate beneficiaries, the more it can and will be tailored to their peculiar wants and needs. Phrased in the terminology of this paper, the "technology" employed by local governments to deliver benefits to local income producers and consumers will likely be superior to the technology employed by state governments.

This phenomenon can be illustrated by making the following modification to the benefits technology hypothesized in Table 1. It will continue to be the case that the first \$1 spent by the state generates \$5 of cost savings on the part of an income producer; the second \$1 generates \$4 of cost savings; and so on. However, as reflected in Table 2, to the extent that any \$1 is spent not by the state, but instead by a local government, it will now generate an additional \$1 of cost savings. Thus, if an income producer has a choice of two similar localities, and if in each locality he will be benefited and burdened with, for example, \$6 of spending and taxes, but if in the first locality a higher proportion of the spending is administered by the local government, he will prefer such locality, since the net cost savings he receives from the combination of state and local spending will be greater.<sup>50</sup>

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<sup>49</sup> Per capita spending by local governments in 2002 (the last year reported) amounted to \$3,959, while per capita spending by state governments totaled \$4,010. See U.S. CENSUS BUREAU, *supra* note 26, at 288, 292.

<sup>50</sup> To be concrete, suppose that in Locality #1, the local government spends \$4 and



Table 2: Local and State Benefits Technology

Marginal Local and State Spending	Cumulative Local and State Spending	Marginal Cost Savings	Cumulative Cost Savings—Only Local Spending	Cumulative Cost Savings—Only State Spending
1	1	6 or 5	6	5
1	2	5 or 4	11	9
1	3	4 or 3	15	12
1	4	3 or 2	18	14
1	5	2 or 1	20	15
1	6	1 or 0	21	15
1	7	0 or -1	21	14

Does the higher efficiency of local spending mean that income producers and consumers as a whole would be better served if state governments essentially ceded spending and taxation determinations to local governments? Unfortunately, it does not. The main reason for this somewhat surprising answer is that localities, like states, compete with one another for income producers and consumers. To attract income producers and consumers, they tend to lower taxes to a point that is suboptimal, i.e., to a point which does not provide adequate revenues for the provision of beneficial—i.e., efficient—public goods.<sup>51</sup> To the extent that a state taxes and spends on behalf of its local governments, it can counteract this tendency and mitigate the harmful effects of tax competition between its local governments.

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the state government spends \$2, while in Locality #2, the local government spends \$3 and the state government spends \$3. In such case, the income producer will receive a benefit worth \$19 in Locality #1, but a benefit worth only \$18 in Locality #2.

<sup>51</sup> "A central message of the tax competition literature is that independent governments engage in wasteful competition for scarce capital through reduction in tax rates and public expenditure levels." John Douglas Wilson, *Theories of Tax Competition*, 52 NAT'L TAX J. 2, 269-304 (1999). See also Richard Baldwin and Paul Krugman, *Agglomeration, Integration and Tax Harmonization*, Nat'l Bureau of Econ. Research, Working Paper No. 9290, 2002, available at <http://www.nber.org/papers/w9290> (last visited Feb. 23, 2009).

For example, in Table 2, one could imagine a local government, competing with other local governments but left to its own devices with respect to taxation and spending, imposing an income tax (or equivalent property tax) of \$2 on income producers, from which such income producers would reap a cost savings of \$11, or an after-tax net benefit of \$9.<sup>52</sup> Such same local government, still competing with other local governments but having a backstop of \$3 of state taxation and (unfortunately somewhat less efficient) state spending, might choose to impose an income tax (or equivalent property tax) of \$1 on income producers. If so, the local tax burden would be lower, but of course the aggregate state and local tax burden would be higher. Significantly, the concomitant aggregate state and local spending level will be closer to the optimum and so the income producer will actually be better off: he will reap cost savings of \$15, or an after-tax net benefit of \$11.

There is also another reason why a state should not cede all taxation and spending decisions to local governments: there are some decisions that are best made with a big picture, rather than a small picture, in mind. Thus, a state government will be better able than a local government to coordinate spending on such infrastructure as road systems: good roads in Memphis and Nashville will be of little benefit to businesses attempting to ship goods from one city to the other if there are not also good roads in the localities between Memphis and Nashville. Similar coordination issues arise with all manner of state spending.

While the fact of local taxation and spending will not obviate the need for state taxation and spending, it will nonetheless, to some extent, mitigate the effects of any disproportion in such taxation and spending. In large part, this is because a typical local jurisdiction's tax and spend arsenal does not permit significant disproportion.

Of the tax revenues collected by local governments in 2002,

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<sup>52</sup> The reason it would engage in this clearly suboptimal strategy is that over the very short-run its residents are likely to be more sensitive to the level of taxes that they directly pay than to the level of spending on benefits that they only indirectly receive. The constant low-tax pandering will only with a lag lead to noticeably deteriorating infrastructure.

roughly 73% came from property taxes, while 17% came from sales taxes, and only 5% came from income taxes.<sup>53</sup> Moreover, while local property taxes constitute a large fraction of an average taxpayer's aggregate state and local tax bill (amounting to nearly 28% of the total), local sales taxes do not constitute a terribly large fraction of taxpayers' aggregate state and local *sales tax* bill (amounting to only 17% of that total), and local income taxes constitute an even smaller fraction of taxpayers' aggregate state and local *income tax* bill (amounting to only 9% of that total, and amounting to 0% in all but the handful of localities, most prominently New York City, that impose a local income tax).<sup>54</sup>

Are property taxes, like income taxes, taxes on income producers? Or are they, like sales taxes, taxes on consumers? The answer is that they are both. When a property tax is imposed upon a business, it is a tax on an income producer (in his capacity as such). When a property tax is imposed on a residence, it is a tax imposed on a consumer (in his capacity as such). Thus, a local jurisdiction that imposes a broad-based property tax (and they all do) will almost by definition impose a tax both on its resident income producers and on its resident consumers; its tax instrument is simply too blunt to spare one constituency at the expense of the other.

Moreover, a local jurisdiction's spending will generally not admit a significant disproportion either. In many cases this is obvious. In the case of a jurisdiction that is primarily business in character (e.g., a warehouse or factory district), taxes necessarily will be collected primarily from businesses, but spending necessarily will be primarily for the benefit of those very same businesses: there simply won't be anyone else upon whom to lavish spending. And the same result will hold in the case of a jurisdiction that is primarily residential in character. But what of a jurisdiction which contains significant numbers of both businesses and residences? Given the small size of the typical local jurisdiction, it will almost certainly be the case that

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<sup>53</sup> See U.S. CENSUS BUREAU, *supra* note 25, at 290.

<sup>54</sup> See *id.* at 288, 290.

most benefits spending will necessarily benefit both the income producers and the consumers in the jurisdiction. For example, a police patrol that passes businesses will almost inevitably pass residences as well. Thus, spending on the police patrol must properly be characterized as spending both for the benefit of income producers and for the benefit of consumers.<sup>55</sup>

The fact of local taxation and spending with its inherent built-in lack of disproportion—its fairness—ensures that some significant portion of the aggregate of state and local taxation and spending will be conducted proportionately. It does not, however, eliminate the need for a state to conduct its taxation and spending in a proportional way. To demonstrate this, I return to the example of Kentucky, Georgia, and Tennessee. In 2002, Kentucky localities collected per capita taxes of \$686 and engaged in per capita spending of \$1,528; Georgia localities collected per capita taxes of \$1,204 and engaged in per capita spending of \$2,448; and Tennessee localities collected per capita taxes of \$894 and engaged in per capita spending of \$2,619.<sup>56</sup> For purposes of analysis, I fit these numbers into my prior formulae by assuming that half of the tax collections come from income producers and that half of the expenditures are for the benefit of income producers; similarly for consumers.

Thus, an average Kentucky income producer realizes a net cost saving of  $CSI(\$2047 + \$764) - (\$1018 + \$343) = CSI(\$2811) - (\$1361)$  and an average Kentucky consumer receives a net cost saving of  $CSC(\$2047 + \$764) - (\$1025 + \$343) = CSI(\$2811) - (\$1368)$ . An average Georgia income producer realizes a net cost saving of  $CSI(\$1688 + \$1224) - (\$870 + \$602) = CSI(\$2912) - (\$1472)$  and an average Georgia consumer realizes a net cost saving of  $CSC(\$1688 + \$1224) - (\$764 + \$602)$

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<sup>55</sup> Of course, some such overlap is inevitable with respect to state spending as well. However, given the wider geographic reach of most states, the degree of overlap will often be less. For example, if a state concentrates its police patrols in areas that are primarily business in character, it is by no means inevitable that a significant part of the residential population of the state will benefit.

<sup>56</sup> See U.S. CENSUS BUREAU, *supra* note 25, at 288, 290. To avoid double counting, any expenditure that is funded by revenue provided by such locality's state government is not counted as a local expenditure; such expenditure is instead treated as a state expenditure.

= CSC(\$2912)—(\$1366). Finally, an average Tennessee income producer realizes a net cost saving of CSI(\$1659 + \$1310)—(\$316 + \$447) = CSI(\$2969)—(\$763) and an average Tennessee consumer realizes a net cost saving of CSC(\$1659 + \$1310)—(\$1301 + \$477) = CSC(\$2969)—(\$1778).

Given the foregoing, an income producer who has equivalent opportunities in Kentucky and Tennessee will prefer earning income in Tennessee, since he will both receive greater cost savings (however much cost saving an extra \$158 of government spending will buy) and incur significantly lower tax costs (\$598) in Tennessee. On the other hand, a consumer who has equivalent opportunities in those two states will almost surely prefer consuming in Kentucky, since although he will receive somewhat smaller cost savings in Kentucky (however much cost saving an extra \$158 of government spending will buy), he will incur significantly lower tax costs there (\$410). Meanwhile, an income producer who has equivalent opportunities in Georgia and Tennessee will prefer earning income in Tennessee, since he will both receive greater cost savings (however much cost saving an extra \$57 of government spending will buy) and incur significantly lower tax costs (\$709) in Tennessee. However, a consumer who has equivalent opportunities in those two states will almost surely prefer consuming in Georgia, since although he will receive somewhat smaller cost savings in Georgia (however much cost saving an extra \$57 of government spending will buy), he will incur significantly lower tax costs in that state (\$412). Thus, the presence of local government taxation and spending will not produce stability for Tennessee's fiscal system.

### *E. Efficiency of State Expenditures*

Purely for illustrative purposes, I posited a state benefits technology complete with diminishing marginal returns in Table 1, and then amended it to incorporate a somewhat more efficient local benefits technology in Table 2. Neither of these technologies was intended to bear any particular relationship to reality; it is a probably unanswerable, empirical question as to exactly how much benefit any or even a typical income producer

or consumer derives from state or local government expenditures.

Indeed, at one extreme, it is theoretically possible, albeit highly improbable, that income producers and consumers derive no (or even negative) benefit from state and local government spending. To wit, anti-tax crusaders and other anti-government types frequently oppose all taxation and hence a fortiori all government spending (at whatever level of government) by making the argument that only the people themselves know what they really want. If so, then the people should be allowed to spend their own money, rather than having it taxed away by politicians who will invariably spend it less wisely. Implicit (or perhaps even explicit) in this argument is the notion that at least for the typical income producer and consumer, the state's spending of the marginal \$1 of income or sales tax revenue, as the case may be, will generate less than \$1 of beneficial cost savings.

While an excess of cost over benefit may in fact exist at a given state's margin<sup>57</sup>—another probably unanswerable empirical question—it is highly unlikely that cost will exceed benefit in such state at every possible level of taxation and spending. This is because much state spending is devoted to public goods that would be underprovided, or not provided at all, if not for state government. Indeed, at the extreme, a society without taxes and spending of any kind is a society without government: a society in the state of nature. Perhaps Marsha Blackburn and Phil Valentine are sufficiently strong and clever that they would prefer to live in the state of nature; I however must sadly confess that I am not.<sup>58</sup> My bedrock working assumption, therefore, is that some level of state taxation is absolutely indispensable in order for income producers and consumers to maximize their utilities. If this is not true, and if any and all state spending is counterproductive, then a potential migrant's optimal decision would be trivially easy: migrate to

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<sup>57</sup> I allowed for this possibility in Tables 1 and 2.

<sup>58</sup> Cf. Walker, *supra* note 1.

whichever state offers the lowest level of taxation.<sup>59</sup>

Once the state of nature is rejected as a serious policy choice, and the existence of some level of beneficial state taxation and spending is conceded, the analysis becomes more interesting but also more complicated. The difficulty is that the optimal level of state taxation and spending may be different in different states. One reason for such differences is that a state like California, with a high population, might benefit from economies of scale in the provision of benefits; if so, it should be able to deliver more benefits per \$1 of tax revenue than could a state like Wyoming with a low population. Another reason is that topography may be relevant to spending efficiency: providing good roads may be cheaper in a flat state like Kansas than in a mountainous state like Colorado. And other factors—location, climate, population density, natural resources, the presence of complementary businesses, etc. may come into play as well.

One way to illustrate the dramatic, but also perhaps somewhat surprising, effects of disparate state benefits technologies is to work through a simple hypothetical. Thus, consider a head-to-head comparison of two states, State A and State B. For simplicity, each state has only two residents, one income producer and one consumer. Hence the global population consists of IncA, IncB, ConsA, and ConsB. Suppose that each state wants to provide \$1 of benefit to each income producer and each consumer, but that in order to do this, State A must spend \$1 for each income producer and each consumer, while State B must only spend \$0.50 for each income producer

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<sup>59</sup> Technically, the absence of state (and local) government would not result in the state of nature, since the federal government would presumably remain in place. But just as taxation and spending by a state is primarily a backstop to inadequate levels of local taxation and spending, so is taxation and spending by the federal government primarily a backstop to inadequate state taxation and spending. (For example, without such backstop, there would likely be inadequate spending on national defense, and what spending there was would likely be uncoordinated and duplicative.) A backstop, however, is not a substitute. A state that is protected from foreign attack, but that has no roads and schools and police force, would not be a particularly hospitable place for most income producers and consumers. Indeed, it would be a state not worth the expense or the trouble to protect from foreign attack.

and each consumer. In other words, State B's benefits technology is twice as efficient as State A's.

Suppose that State A decides to impose both an income tax and a sales tax: it collects \$1 of income tax from each income producer and \$1 of sales tax from each consumer. State B, on the other hand, decides to give income producers a pass; it funds all of its benefits by simply imposing \$1 of sales tax on its consumer. The net effect of these strategies is that neither consumer has any incentive to relocate. Each consumer, whether residing in State A or State B, pays \$1 of tax and receives \$1 of benefit. Thus, while ConsB may have some cause to complain of "unfairness," he has no recourse in the face of such unfairness.

However, note that income producers may have a reason to migrate. IncA pays \$1 of tax and receives \$1 of benefit, which is not in itself unfair, but he notices that IncB pays no income tax and yet receives the same \$1 of benefit. This fact may motivate IncA to relocate to State B. Suppose he does so. Now State B has three residents, including two income producers. If it continues to eschew an income tax, it must increase the amount of sales tax it collects from ConsB. To wit, ConsB must pay \$1.50 of sales tax, as this will fund the requisite \$3 of benefits. Now ConsB pays \$1.50 of tax but receives only \$1 of benefit, while his counterpart in State A, ConsA, pays \$1 of tax and receives \$1 of benefit. ConsB may thus be motivated to relocate to State A.

Where does it all end? Both consumers will reside in State A, paying \$1 of sales tax and receiving \$1 of benefit, and both income producers will reside in State B, paying no income tax and receiving no benefit! Thus, even though the states have different benefits technologies, in equilibrium, symmetry is restored between the amount of taxes each individual pays and the amount of spending that is conducted on his behalf! Alas, this is not a general result: one can imagine technologies where asymmetries could persist in equilibrium. On the other hand, symmetry will always be an available equilibrium. And it will always be an available equilibrium that has much to recommend it: it will be the only equilibrium that is devoid of surreptitious



transfers either from income producers to consumers, or from consumers to income producers; it will be the only equilibrium that is truly “fair.”

Moreover, while an asymmetric equilibrium in the case of two states can readily be concocted, there is reason to believe that such equilibrium is unlikely. This is because a given state is not in competition with only one other state, but with forty-nine other states, and some of those states are likely to have very similar attributes and hence very similar benefits technologies to its own. And it turns out that when technologies are similar, an asymmetric equilibrium will not result.

For example, one can view the dilemma of a state like Tennessee as follows. First, Tennessee generally need not concern itself too much with whether its benefits technology is better or worse than that of Alaska or California; the attributes of Tennessee, Alaska, and California are sufficiently different that migration decisions between such states are unlikely to be greatly affected by state taxation and spending policy.<sup>60</sup> However, Tennessee should concern itself with whether its benefits technology is better or worse than that of Kentucky or Georgia; the attributes of Tennessee, Kentucky, and Georgia are sufficiently similar that migration decisions between such states may well be affected by state taxation and spending policy. But

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<sup>60</sup> More generally, not all relevant differences in locations result from state or local government spending and taxation. Aspen’s breathtaking views, San Diego’s temperate sun, Alaska’s crude oil reserves, Boston’s universities, and New York’s concentration of financial intermediaries are not the result of state and local government spending and taxation. Yet any of these features, and many others too, may be as or more important to many income producers or consumers when they are faced with the decision on where to locate. (I have not yet met a professor who turned down an appointment at Harvard because he disliked Massachusetts’ tax and spend policies!) Since all such features benefit or burden only persons working and/or living in the given location, the benefits and burdens should generally be fully reflected in a combination of income (i.e., salary) differentials and cost of living (i.e., property value and rent) differentials. Cf. Michael S. Knoll & Thomas D. Griffith, *Taxing Sunny Days: Adjusting Taxes for Regional Living Costs and Amenities*, 116 HARV. L. REV. 987, 1008-12 (2003). The phenomenon of capitalization will be addressed below. The bottom line is that while such features may be a cause of migration, they will ultimately be fully reflected in prices (i.e., there will be an equilibrium, and it will be stable), and thus the presence or absence of such features will not lead to financial instability for state governments in the same way that a faulty tax and spend policy will.

of course it is precisely because the attributes of Tennessee, Kentucky, and Georgia are similar that there is no reason to suppose that their state benefits technologies will be very different. Thus, with respect to such states, equilibrium will likely only result when each state adopts a symmetric taxation and spending policy.

### *F. Capitalization*

The analysis so far has assumed that state taxes and expenditures are not capitalized into asset prices, and that individuals are accordingly able to avoid the cost of state tax policy and capture the benefit of state spending through the simple expedient of migration. But this assumption may be false.

To illustrate, consider an income producer IncA residing in State A, whose business assets in a world without state taxes and benefits would generate net cash flow in perpetuity of \$90 per year. These assets, in a world with 10% interest rates, have a fair market value of \$900. Now suppose that State A imposes \$4 of income tax and lavishes \$4 of spending upon IncA. In conformity with Table 1, assume the spending allows IncA to enjoy annual cost savings of \$14. Thus, IncA's business assets now generate—at least so long as State A's tax and spending policy remains unchanged—net cash flow of \$100 per year. Assuming full capitalization of taxes and benefits (as well as no change to the 10% interest rate), such assets now have a fair market value of \$1,000.

Living next door in State B is another income producer, IncB, whose business assets in a world without state taxes and benefits would generate net cash flow in perpetuity of \$85 per year. These assets, in a world with 10% interest rates, have a fair market value of \$850. Now suppose that State B, in the spirit of Tennessee, imposes no income tax upon IncB, but nevertheless somehow manages to lavish \$5 of spending upon him. In conformity with Table 1, assume the spending allows IncB to enjoy annual cost savings of \$15. Thus, IncB's business assets now generate—at least so long as State B's tax and spending policy remains unchanged—net cash flow of \$100 per

year. Assuming full capitalization of taxes and benefits (as well as no change to the 10% interest rate), such assets now also have a fair market value of \$1,000.

One could hardly blame IncA if he covets State B's more pro-income-producer tax and spending policy: in such state he would pay 4 less in income tax and would receive 1 more in cost savings. However, what happens if IncA decides to migrate to State B? Assuming, importantly, that IncA's business assets are not mobile, he must sell them and then use the proceeds to buy alternative business assets in State B. A sale of his assets would generate \$1,000 of proceeds; such proceeds would exactly suffice to buy IncB's business assets. However, if he buys IncB's business assets, he would continue to generate exactly \$100 per year of cash flow, after taking taxes and spending into account. Because state tax and spending policies are fully reflected in asset prices, migration cannot make IncA better off, notwithstanding State B's preferable policies. Accordingly, there will be no migration, and thus State B's asymmetric tax and spending policy will be stable!

Alas, full or even partial capitalization is exceedingly unlikely. First and foremost, IncA's business assets will include, and indeed may even be limited to, his human capital. This asset is generally extremely mobile: it does not need to be, indeed generally cannot be, sold in State A and repurchased in State B. Without a need to sell and repurchase, IncA can simply transport his business asset (i.e., himself) across state lines: his asset will continue to generate \$90 per year before taking taxes and spending into account; he will net an additional \$15 per year due to State B's tax and spending policy; thus, migration will make sense. And the same result will obtain for many assets other than human capital: intangible property including intellectual property is generally very mobile; much personal property is very mobile as well. It is only when one is in the realm of real property—factories and warehouses and the like—that capitalization of any type becomes a problem.<sup>61</sup>

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<sup>61</sup> Even real business property is somewhat "mobile" in the sense that its supply is not fixed in the long run. The shorter the time frame for bringing new real business property on line, the smaller the degree of capitalization will be even with respect to

What does full capitalization look like in the realm of real property? No rational income producer will assume that a state's tax and spending policy, in particular an unsustainable tax and spending policy, will remain unchanged in perpetuity. Thus, the most that is likely to be capitalized into the fair market value of real business property is the effect of a baseline sustainable tax and spending policy *plus* the effect of at most a few years' worth of asymmetry. Thus, for example, IncB's property might take a fair market value of \$960 rather than either \$1,000 (assuming full capitalization of State B's asymmetric tax and spending policy) or \$950 (assuming full capitalization of only a baseline sustainable symmetric policy a la State A).<sup>62</sup> Note that this property value, in spite of fully capitalizing the best expectations of future tax and spending policy, might nonetheless induce IncA to migrate to State B: it all depends on whether IncA has a different assessment from the market as a whole as to the length of time that State B will maintain its ultimately unsustainable tax and spending policy.<sup>63</sup>

Even in the realm of real property, there will often be only partial capitalization rather than full capitalization. The major reason is that any state tax and spending policy will impact different income producers differently. For example, one income producer may be able to reduce the impact of his state income tax burden by virtue of section 164's deduction, while another

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such property.

<sup>62</sup> This value assumes that State B's policies will be maintained for approximately four years prior to reverting to something sustainable. The calculus performed by a potential buyer with \$1,000 to spend, such as IncA, is as follows. If \$960 will buy an asset that generates \$85 of annual cash flow (ignoring the state's contribution), \$1,000 will buy an asset that generates \$88.50 of perpetual cash flow (again ignoring the state's contribution). A sustainable state tax and spending policy, a la State A, will add \$10 per year of net cash flow, thus guaranteeing that the owner of a \$1,000 asset will receive at least \$98.50 per year in perpetuity. But due to the asymmetry of State B's tax and spending policy, the owner of the asset will in fact temporarily generate an additional \$5 per year of net cash. If such extra net cash is generated for exactly four years, it will properly compensate IncA for the fact that the long-run cash flow of his State B asset is slightly below that of his State A asset.

<sup>63</sup> If the \$5 of extra net cash flow referenced in the prior footnote is generated for less than four years, then IncA will, with 20-20 hindsight, have overpaid for the State B asset; if such extra net cash flow is generated for more than four years, IncA will, with 20-20 hindsight, have underpaid for the asset.

may not be able to do so. One income producer may derive a benefit from a particular length of state road, while another may not be able to do so. Thus, what will be capitalized is at most the cost and the benefit obtained by the marginal income producer. And that leaves the door wide open to migration by income producers who are not at the margin.

Finally, it is likely that the degree of capitalization is greater for benefits or taxes tied directly to property, rather than for benefits or taxes not tied directly to property. For example, if the state has furnished a road that gives easy access to a factory, the reduced transportation costs are essentially a feature of the factory. Or if a state has ensured peace and quiet by providing an adequate social safety net, the favorable business environment it fosters is also essentially a feature of business property located in the state. And, of course, if a property tax encumbers a piece of business property, such tax is very directly a feature of the encumbered property. The effects of all of these items are therefore relatively likely to be capitalized into the fair market value of property. However, the effects of an income tax that has a different impact on every income producer and that is not in any sense tied to any one piece of property is relatively unlikely to be capitalized into the fair market value of property.

What result? Looking again at IncA, his property may well increase in value to reflect the \$14 per year of cost savings he receives from State A, but is unlikely to decrease in value to reflect the income taxes he pays to State A. Thus, assuming a 10% interest rate, his property is likely to have a fair market value of \$1,040. Similarly, IncB's property may well increase in value to reflect the \$15 per year of cost savings he receives from State B, and thus might take a fair market value of \$1,000. Under these predicates, IncA has every incentive to move: doing so will increase his annual net cash flow by \$4. Indeed, under these predicates an income producer's decision-making becomes trivially easy: he always wants to go to whichever jurisdiction imposes upon him the lowest income tax burden. But that desire is precisely what makes the finances of such jurisdiction unstable: there will be inadequate revenue to pay for all of the

benefits demanded by the influx of income producers.

For consumers, the analysis is somewhat different. By definition, every resident consumer owns or leases an immobile real asset: his residence. Thus, a higher degree of capitalization of state taxes and benefits into asset prices or living costs is inevitable. But for similar reasons to those set forth above, capitalization is likely to be partial rather than full.<sup>64</sup> Moreover, for the same reasons set forth above, state benefits and property taxes are much more likely to be capitalized into fair market value than are state sales taxes, since potential sales taxes are much more tenuously tied to a consumer's residence (after all, they can be avoided and/or indefinitely deferred by the expedient of simply not consuming). Thus, in spite of some degree of capitalization, and as was the case with income producers, savvy consumers are likely to short-circuit a more nuanced calculus and migrate to those jurisdictions that offer them the lowest sales tax burden. That migration is precisely what may make the finances of such jurisdictions unstable: there will be inadequate revenue to pay for all of the benefits demanded by the influx of consumers.

#### *G. Active Income Producers and Passive Investors*

The discussion so far has lumped all income producers into a single category. They have been deemed to pay (or not pay) state income taxes based upon their income and their home state's income tax policy; and they have been deemed to receive benefits (cost savings) from their home state based on such state's expenditures for the benefit of income producers. There is nothing objectionable to this in the case of income producers who actively produce income in a state, be they individuals who earn income from their labor in the state or businesses that earn income from their capital deployed in the state.

However, the description generally fails to accurately describe income producers who are resident in a state to the

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<sup>64</sup> Cf. Louis Kaplow, *Fiscal Federalism and the Deductibility of State and Local Taxes Under the Federal Income Tax Law*, 82 VA. L. REV. 413, 447 (1996) (noting that "perfect capitalization" rarely describes reality).

extent that they earn passive income: interest, dividends, rents, capital gains, and so on. Such residents directly or indirectly own capital that with significant likelihood is not deployed in their state of residence (after all, they may invest in any one of the remaining forty-nine states, or anywhere else in the world). To the extent that such residents earn passive income that is taxed in their home state but that is derived from capital located elsewhere, it will be next to impossible for their home state to engage in expenditures that facilitate or in any way benefit their production of income. Rather, it is only the state in which their capital is actually deployed that will be able to provide appropriate benefits.

The appropriate state response to this fact should be obvious; the model I introduced above can be easily generalized. Taxpayers actually need to be divided into three groups rather than just two: to (active) income producers and consumers must be added (passive) investors. Following such division and applying precisely the same methodology as above, fiscal stability (and fairness) requires every state to impose taxes on each of these three groups in an amount that is proportional to its expenditure on benefits for such group. Since it is next to impossible for a state to spend any significant amount of money that will benefit passive investors in their capacity as such, it follows that a state should generally not impose any tax at all on passive investors. Thus, a state like Tennessee, which does not impose an income tax on active wage income, but does impose an income tax on passive interest and dividend income, has got its income tax policy exactly backwards!

To be clear, I am not suggesting that passive investors should receive a pass on taxation. But they generally don't. A passive investor owns capital that is actively deployed somewhere. It is to that somewhere that the passive investor should and generally does (directly or indirectly) pay a tax that reflects the benefits he receives from that somewhere. For example, if the passive investor owns corporate stock, his direct and indirect tax bill could and probably should be limited to a corporate income tax imposed directly upon the corporation. And if the passive investor owns a debt instrument, his direct

and indirect tax bill should probably consist solely of a withholding tax upon the interest he receives, where the proceeds of such withholding tax are appropriately divided among the states in which the borrower conducts its business. Finally, if the passive investor owns rental property, his direct and indirect tax bill could (and indeed usually does) take the form of an income tax imposed upon him by the state in which the rental property is located.

*H. Does the Presence of an Individual Income Tax Lead to Higher Overall Levels of Taxation?*

One reason that activists in a state (like Tennessee) that lacks an individual income tax (or, in the case of Tennessee, a broad-based individual income tax) generally oppose the imposition of such a tax is a fear that the very existence of such a tax, even at an arbitrarily low rate, will inevitably lead to higher overall levels of taxation in the state. The story is a simple one. Politicians love to spend taxpayer money.<sup>65</sup> Thus, they constantly try to increase the level of state spending. But in the long run, they can only succeed if they can find additional revenue. Alas, state revenue comes from a limited number of sources, and these can only be tapped so often. Thus, there is some constraint on spending growth. But if a state that has not heretofore enacted an income tax enacts an income tax, it will have an additional source of revenue.<sup>66</sup> This means that there will be less of a constraint on spending growth. Ergo, there will be more spending. And more spending generally means higher overall levels of taxation.

As already noted, there is much reason to believe that

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<sup>65</sup> Of course, the reason they love to spend taxpayer money is that taxpayers love it when they do. Moreover, this love is rational so long as the spending on balance is efficient. The activists assume that the spending is not efficient. They further assume that the taxpayers who support it are duped: the taxpayers only see the benefits but never think about the costs.

<sup>66</sup> Of course, every state has an income tax as a *potential* source of revenue. In a state without a current income tax, it is quite difficult to tap this source since tapping it requires actually enacting an income tax. In a state that already has an income tax, it is relatively easy to tap this source since tapping it merely requires raising tax rates.



higher overall levels of state spending, and concomitant higher overall levels of taxation, are a good thing since spending in most states is probably suboptimally low.<sup>67</sup> Nonetheless, the emotional appeal of the an-income-tax-will-lead-to-bigger-government argument should not be underestimated since it will always be possible to find, in any state's budget, some truly shameless examples of wasteful pork.

But is the argument even true? Do states that impose an income tax really have a higher level of overall per capita taxation than states that do not impose an income tax? Of the seven states that did not impose any individual income tax whatsoever in 2004, per capita taxes were lower than average in three states, essentially average in two states, and above average in the remaining two states.<sup>68</sup> For the same states, taxes collected as a percentage of income were lower than average in three of them, essentially average in three more, and above average in only one state.

#### Taxes in States Without an Individual Income Tax

	Per Capita Taxes	Taxes as a Percentage of Income
Alaska	\$ 2,035	5.99%
Florida	\$ 1,756	5.58%
Nevada	\$ 2,031	6.01%
South Dakota	\$ 1,378	4.56%
Texas	\$ 1,368	4.45%
Washington	\$ 2,239	6.39%
Wyoming	\$ 2,974	8.68%
U.S. Average	\$ 2,026	6.13%

It is interesting to compare the seven states without any individual income tax to the five states without any general retail sales tax. Of these five states, per capita taxes were lower than average in three states, essentially average in one state,

<sup>67</sup> See Wilson, *supra* note 51.

<sup>68</sup> This list does not include Tennessee since Tennessee does impose an income tax, albeit one limited to interest and dividend income.

and above average in the remaining state. For the same states, taxes collected as a percentage of income were lower than average in two states, essentially average in two more, and above average in only one.

#### Taxes in States without a General Retail Sales Tax

	Per Capita Taxes	Taxes as a Percentage of Income
Alaska	\$ 2,035	5.99%
Delaware	\$ 2,862	8.01%
Montana	\$ 1,754	6.34%
New Hampshire	\$ 1,544	4.22%
Oregon	\$ 1,700	5.56%
U.S. Average	\$ 2,026	6.13%

What do these results demonstrate? Very little, I think. Nonetheless, they certainly belie a powerful link between the existence of an individual income tax and a high overall tax burden. Moreover, any such link is no stronger than the link between the existence of a general retail sales tax and a high overall tax burden.

More significantly, it seems clear that most states that opt to impose only one of the two classic types of taxes have found a viable alternative—albeit still a tax—to such taxes. For example, Alaska, which imposes neither an individual income tax nor a general retail sales tax derives most of its tax revenue from income and severance taxes imposed on corporations (primarily oil companies). Texas and Wyoming also derive significant revenues from severance taxes. Nevada follows a different tack, deriving significant revenue from selective sales taxes that primarily impact gamblers and tourists. Delaware derives significant revenue from corporate licensing fees. And Washington is one of the few states to derive significant revenue from a state property tax (timberland). Therefore, I would argue that it is not so much that states keep taxes low by eschewing the imposition of an individual income tax, a retail sales tax, or both but that some states have found an alternative

constituency generally largely concentrated outside the state upon which to foist a portion of their tax burden. These states are thus able to persuade local residents—through their eschewing of one type of tax or the other—that they are philosophically opposed to high levels of taxation, even though they manifestly are not.

None of which is to say that people should not flock to states that have found a way to finance themselves that does not rely on taxing local residents. From the perspective of a prospective income producer or a prospective consumer, the ability of a state to finance benefits by taxing outsiders is free money, and thus a definite plus. But for states that have no such viable outside sources—including prominently my home state of Tennessee—it is fruitless to try to emulate such lucky states.

#### IV. SOME EMPIRICAL SUPPORT

Several empirical studies have examined some of the claims made in this paper.<sup>69</sup> Unfortunately, they all focus solely on location choices and/or migration of retirees, thus excluding much of the relevant population. Nonetheless, their conclusions are uniformly consistent with what one would expect, given my arguments.

Duncombe, Robbins, and Wolf find that retirees are attracted by locations with “comparatively high public sector spending on public safety and recreational services.”<sup>70</sup> In other words, they recognize state and local government spending that directly benefits them and act as one would expect in light of such information. Moreover, retirees “avoid [locations with relatively high] inheritance, property and sales taxes.”<sup>71</sup> Since all retirees are consumers, this is hardly a surprise. Finally,

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<sup>69</sup> William Duncombe, Mark Robbins & Douglas Wolf, *Retire to Where? A Discrete Choice Model of Residential Location*, 7 INT. J. POPUL. GEOGR. 281, 281-93 (2001); Karen Conway & Andrew Houtenville, *Do the elderly “vote with their feet?”*, 97 PUBLIC CHOICE 663, 663-85 (1998); Richard Cebula, *A Brief Empirical Note on the Tiebout Hypothesis and State Income Tax Policies*, 67 PUBLIC CHOICE 87, 87-89 (1990).

<sup>70</sup> Duncombe, *supra* note 69, at 290.

<sup>71</sup> *Id.*

“whites, but not non-whites, are also repelled by income taxes.”<sup>72</sup> At first blush, this seems harder to explain. However, if it is the case that white retirees as a rule have more retirement savings than non-whites,<sup>73</sup> the explanation is obvious. A retiree with savings is a passive income producer, and so will avoid any state that taxes his (necessarily passive) income, since such state will find it impossible to provide him with corresponding benefits. On the other hand, a retiree without savings and hence without taxable income, should prefer a state that imposes a tax on (passive) income because such state will have an additional revenue source that from his vantage looks exactly like a federal receipt or a tax imposed on persons outside of the state: it is a revenue source that is potentially available to provide the proverbial free lunch.

Conway and Houtenville find that “states with high tax shares (reflecting low federal aid or chronic surpluses, and a higher price for public services) experience greater out-migration.”<sup>74</sup> In other words, retirees prefer states with benefits that are paid for by persons other than themselves. They also find that relatively high income taxes lead to out-migration, but to them more surprisingly that “heavy reliance of personal income taxes *increases* in-migration.”<sup>75</sup> I do not find this surprising at all. As just noted, income taxes on retirees are necessarily imposed on passive income, and thus are accompanied by no corresponding state benefits. As a result, one would expect retirees who own assets that generate passive income to migrate to states with relatively low income taxes, and one would expect retirees who do not own a significant amount of such assets to migrate to states with relatively high income taxes and a concomitant opportunity for a free lunch.

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<sup>72</sup> *Id.*

<sup>73</sup> The average net worth of non-Hispanic white households in 2000 was \$198,184 while that of Hispanic households was \$51,908 and that of black households was \$35,284. Hous. and Household Econ. Statistics Div., U.S. Census Bureau, Table 5: Asset Ownership of Households 2000 (2005) available at [http://www.census.gov/hhes/www/wealth/1998\\_2000/wlth00-5.html](http://www.census.gov/hhes/www/wealth/1998_2000/wlth00-5.html) (last visited Feb 23, 2009). It is plausible that similar numbers would obtain for retirees.

<sup>74</sup> Conway & Houtenville, *supra* note 69, at 678.

<sup>75</sup> *Id.* at 678-79.

Finally, Cebula, in a much narrower study that focused not on relative income tax rates but simply on the presence or absence of a state income tax, found that “elderly consumer-voters express a strong preference for states without personal income taxes.”<sup>76</sup> His study looked solely at in-migration, and is therefore completely consistent with Conway and Houtenville. The story once again is that retirees who own assets that generate passive income will try to relocate to states in which they are not taxed for the provision of benefits they cannot and do not receive.

## V. CONCLUSION

Most states—including my home state of Tennessee—have only one viable stable tax and spending policy. Whether the state desires to provide lots of benefits to its residents or only a few, it is of paramount importance that it properly charges the costs of such benefits to the constituencies to which the benefits are provided. Thus, to the extent that a state provides benefits to income producers, it must impose an income (or equivalent) tax on such income producers to pay for their benefits. And to the extent that it provides benefits to consumers, it must likewise impose a sales (or equivalent) tax on consumers. Since every state provides at least some benefits to both income producers and to consumers, it follows that every state must, so long as it desires fiscal stability, impose both an income tax and a retail sales (or equivalent consumption) tax.

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<sup>76</sup> Cebula, *supra* note 69, at 89.

