The "Single Sales Factor" Formula for State Corporate Taxes

A Boon to Economic Development or a Costly Giveaway?

Michael Mazerov

The **Center on Budget and Policy Priorities**, located in Washington, D.C., is a non-profit research and policy institute that conducts research and analysis of government policies and the programs and public policy issues that affect low- and middle-income households. The Center is supported by foundations, individual contributors, and publications sales.

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In a number of states, business representatives are lobbying aggressively for an arcane change in tax law that could dramatically reduce state taxes on the profits of many multistate corporations. Corporate interests are seeking a fundamental change in the so-called "apportionment formula" that is embedded in each state's corporate income tax law and used to determine the share of a multistate corporation's nationwide profit that an individual state may tax. This change is being advanced as a way to stimulate job creation and investment. There is little evidence that would happen. Rather, the cost in lost tax revenue of changing the apportionment formula may impair the ability of states to provide vital services needed by both citizens and businesses.

How Apportionment Formulas Work

When a corporation produces and/or sells goods and services in more than one state, each state requires the business to pay tax on just a portion of its profit. The tax laws of the vast majority of states determine the portion of the corporation's profit that is subject to tax in relation to the shares of the corporation's total property, payroll, and sales located in each state.

Under Wisconsin law, for example, a widget manufacturer that had its only factory and all of its employees in Milwaukee but sold all of the widgets outside the state would have one-half of its total, nationwide profit taxed in Wisconsin. (Like most states, Wisconsin gives the same weight to the location of sales as it does to the location of property and payroll combined.) The remaining half of the corporation's profit could be subjected to tax by the states in which its products are sold. This result reflects a broad consensus that states that provide services to a corporation's property and workers and states that provide a market for the corporation's output should be empowered to tax roughly equal shares of the corporation's profit.

Now, however, multistate businesses in some states are advocating that the traditional "three factor formula" (property, payroll, and sales) be abandoned in favor of a "single sales factor" (or "sales-only") apportionment formula. Under a single sales factor formula, the share of a corporation's total profit that a particular state would tax would be based solely on the share of the corporation's nationwide sales occurring in the state. Thus, under a sales-only formula:

- The hypothetical Wisconsin-based manufacturer described above would owe *no* corporate income tax to Wisconsin because zero percent of its sales were made to Wisconsin customers.

- A second corporation, with ten percent of its sales made to Wisconsin customers, would have ten percent of its total, nationwide profit subjected to corporate income tax by Wisconsin — even if less than one percent of its property and/or employees were located in Wisconsin.

The unilateral decision of a state to change from a property-payroll-sales formula to a single sales factor formula provides tax cuts to some corporations and imposes tax increases on others. Corporations with relatively large shares of their nationwide property and payroll in a state adopting a sales-only formula but a relatively small share of their nationwide sales in that state receive tax cuts. Corporations with relatively little property and payroll in a state adopting a sales-only formula but significant shares of their nationwide sales in that state experience tax increases.

If *all* states adopted a sales-only formula, most of the tax savings received by particular multistate corporations in particular states would be offset by higher tax payments by these same corporations in other states. That is why multistate corporations are pushing adoption of the single sales factor formula in a limited number of states but *not* on a nationwide basis. By creating a situation in which apportionment formulas are not uniform among the states, multistate corporations can minimize their aggregate tax liability for all the states in which they do business by ensuring that the tax cuts they receive in some states are not offset by tax increases in other states. (See the box on the following page.)

The Economic Development Rationale for a Sales-only Formula

Like many proposals to modify state corporate tax codes, the change to a single sales factor apportionment formula is being sold as an economic development incentive that will stimulate the creation of substantial numbers of new, high-paying jobs in any state that adopts it. As previously explained, a change from the traditional three factor formula to a sales-only formula tends to cut the corporate tax payment of *any* corporation that is producing goods in a state but selling most of them outside the state where the production occurs. Accordingly, proponents of the change argue that adopting a single sales factor formula will:

Ford, Kraft, and the Sales-only Formula: What Goes Around Comes Around

Individual corporations generally refrain from publicly expressing support for or opposition to single sales factor apportionment, preferring to leave the lobbying to the state manufacturers' association or chamber of commerce. The Ford Motor Company and Kraft Foods diverged from this practice in recent years; by doing so, the companies exposed the sometimes opportunistic nature of business' pursuit of single sales factor apportionment and the substantial tax savings businesses can receive when apportionment formulas are not uniform among the states.

Ford spearheaded the victorious campaign for a sales-only formula in Michigan to be applied to that state's "Single Business Tax."[1] A report on the campaign in *State Tax Notes* observed: "Most ardently supporting the change [to a sales-only formula] are large, Michigan-based companies led by Ford and Amway." However, just a few years later Ford vigorously opposed Illinois' adoption of the same policy. This time, *State Tax Notes* reported: "Opponents of the [Illinois single sales factor] measure, principally Ford Motor Co.. . . argued that the new rules would be unfair to out-of-state companies. . . ."[2] Ford's inconsistent position on the desirability of single sales factor apportionment in the two states was brought to public attention by Walter Hellerstein, a leading authority on state corporate income tax law and policy. Hellerstein observed: "What goes around comes around."[3]

Kraft Foods is headquartered in Illinois and, according to the *Chicago Tribune*, lobbied for that state's adoption of the single sales factor formula.[4] In early 2001, Kraft opposed Maryland's adoption of the formula.[5]

Ford and Kraft were seeking what any rational multistate corporation would desire: single sales factor treatment in their headquarters and primary production states and three factor treatment in their "market states." The fact that corporations can reap tax savings by exploiting inconsistencies between state tax rules suggests, however, that state officials would be wise to adopt a skeptical stance toward arguments that a unilateral change in their state's corporate tax apportionment policy will lead to more equitable tax treatment of multistate corporations.

[1] "Michigan Single Sales Factor Bill Creates Controversy," *State Tax Notes*, September 21, 1995.

[2] "Single Sales Factor Triumphs, but without Throwback Repeal," *State Tax Notes*, June 1, 1998.

[3] "Letter to the Editor," *State Tax Notes*, June 8, 1998.

[4] "Corporation In Line for Big State Tax Break," *Chicago Tribune*, May 25, 1998.

[5] "Taylor Backing Tax Change," *Baltimore Sun*, January 6, 2001.

- encourage businesses that tend to export most of their production to markets outside their home states to expand their *existing* facilities and payrolls rather than establish new plants in other states; and

- attract out-of-state businesses seeking sites for major *new* facilities that are expected to export most of their output to nationwide or worldwide markets.

These claims are substantially overstated — if they have any validity at all. For reasons discussed below, states adopting a single sales factor apportionment formula are likely to find it a relatively ineffectual incentive for job creation and investment.

A Weak Economic Development Incentive That Is Unlikely to Be Cost-Effective

The claim that adoption of a single sales factor formula is likely to be a potent economic development incentive is contradicted by a large body of research on the effect of state and local taxes on state economic competitiveness.

- A state's business tax structure has been found to have at most a small impact on a state's rate of economic and employment growth. A recently-published article surveyed 33 separate economic studies of the relationship between state business tax levels and private sector employment or investment. Nine of the 33 studies concluded that having low business taxes had *no* statistically-significant impact on state economic development. Even for the remaining 24 studies, the positive economic effects of a state's having low business taxes were quite modest. For example, 19 studies looked at the role that a low business tax burden could play in stimulating the birth of new manufacturing businesses or attracting branch plants of out-of-state firms. Taken together, these 19 studies estimated that having a business tax burden 10 percent lower than that of the average state was associated with just a 2 percent greater number of manufacturing establishments.

- Moreover, the same body of research indicates that the availability of an adequate skilled labor pool, high-quality roads and other public infrastructure, and good public schools and universities has at least as much influence on a state's attractiveness to business as does a relatively low tax burden. The revenue loss associated with adoption of a single sales factor formula could impair the ability of a state to provide good public services needed by business.

Even if a state's adoption of a single sales factor formula could potentially attract some in-state investments, the cost-effectiveness of this economic development strategy is likely to be low — much lower than other possible forms of assistance to business that can be conditioned on actual in-state job creation or investment. Switching to a single sales factor formula automatically provides an immediate tax savings to any in-state business that sells a large share of its goods or services in other states. A business does not have to create a single new job or make even one dollar's-worth of new investment to reap the benefits of the tax cut. Indeed, as Massachusetts has recently discovered (see the text box on the next page), companies can be laying-off employees and still obtain tax savings. If single sales factor apportionment is adopted to promote economic development, much of the corporate income tax revenue foregone by this switch is likely to be captured by companies that are not contemplating expansion because demand for their products does not warrant it.

Massachusetts, Raytheon Company, and the Sales-Only Formula: "Payoffs for Layoffs"

Massachusetts' experience following its 1995 enactment of a single sales factor formula illustrates well the ineffectiveness and wastefulness of the formula as an economic development incentive. Massachusetts enacted the sales-only formula in response to a threat by the Raytheon Company — a major defense contractor and the state's largest industrial employer — to close plants in the state unless it were granted substantial tax relief. A sales-only formula was high on the company's wish-list as a mechanism for such relief. The Massachusetts legislature initially attempted to limit the application of a single sales factor formula to defense contractors, but this proved politically impossible. All non-defense manufacturers were also granted a sales-only formula — albeit on a phased-in schedule.

What has Massachusetts received for its $80 million-plus annual "investment" in its manufacturing industries? Although the relatively brief experience of a single state with a sales-only formula does not prove that it is an ineffective development incentive, the initial experience in Massachusetts has not been encouraging:

- Between 1995 and 2000, Massachusetts lost more than 10,000 manufacturing jobs. This 2.3 percent decline was more than seven times larger than the 0.3 percent decline in manufacturing jobs for the U.S. as a whole over the same five years.

- Only seventeen states had a steeper rate of decline in manufacturing jobs than did Massachusetts over this period.

- The *Boston Globe* concluded "More than four years after Massachusetts enacted a controversial tax break to save manufacturing jobs in the state, there's scant evidence the policy has worked as advertised."

The job-creation record has been just as disappointing in the defense industry, which, unlike the rest of the manufacturing sector, was granted single sales factor treatment immediately. Raytheon's performance since 1995 includes the closure or sale of several major Massachusetts facilities and a 3,000-person reduction in its Massachusetts workforce. This has stirred up considerable anger on the part of labor organizations that had supported the company's demand for tax relief. In order to qualify for single sales factor treatment (through 1999), defense contractors were required to maintain their Massachusetts' payrolls at 90 percent of their 1995 levels. In the face of massive layoffs of its blue-collar workforce in Massachusetts, Raytheon managed to meet this requirement largely by increasing the salaries of engineers and managers. This has sparked legislation to renew the job maintenance requirement and to convert the 90 percent of 1995 payroll requirement to 90 percent of 1995 *employment*. The sponsor of this legislation, State Senator Susan C. Fargo, has labeled the single sales factor formula granted to defense contractors "payoffs for layoffs."

Raytheon's defenders assert that no matter how many Massachusetts jobs the company has eliminated, even more would have been lost had the state not enacted the sales-only formula. Raytheon has gone so far as to release data showing that the reduction-in-force in its Massachusetts facilities has been far lower in both absolute and relative terms than that in other states — suggesting that the state's adoption of the sales-only formula was a wise investment nonetheless. There is a problem with this interpretation of the data, however. The state in which Raytheon reduced its workforce the most was Texas — *also a state with a single sales factor formula*. Raytheon has not explained how the single sales factor formula is responsible for the preservation of Massachusetts jobs yet has not had a similar effect in Texas. Moreover, press reports indicate that Raytheon shifted at least one major defense contract from Massachusetts to a plant in Arizona — a state *without* a single sales factor formula.

Unarguably, Raytheon has suffered a considerable decline in its economic fortunes because of cutbacks in defense contracting since the end of the Cold War; some job reduction in Massachusetts may have been inevitable. But that really is the point. Corporations will accept tax breaks gladly if states offer them and will even lobby strongly to obtain such breaks. In the final analysis, however, corporations almost always will locate their investments and employees where fundamental business considerations demand. Most tax breaks simply confer wasteful windfalls on corporations, rewarding them for creating jobs they would have created anyway — or, in Raytheon's case, even for eliminating jobs.

Former Alcoa CEO and now Treasury Secretary Paul O'Neill highlighted this "wasteful" aspect of corporate tax incentives at his confirmation hearing:

> I never made an investment decision based on the tax code. . . . If you are giving money away I will take it. If you want to give me inducements for something I am going to do anyway, I will take it. But good business people do not do things because of inducements, they do it because they can see that they are going to be able to earn the cost of capital out of their own intelligence and organization of resources.

A Potentially Counterproductive Economic Development Incentive

The switch to a single sales factor formula does cut taxes for businesses that sell a relatively large share of their output outside the states where the goods are produced. However, the change also automatically increases taxes on predominantly out-of-state corporations. Even assuming that changes in corporate tax liability resulting from the change to a single sales factor formula could be large enough to influence some corporate location decisions, the fact that the formula imposes tax increases on many corporations renders it a double-edged sword. A state's adoption of a sales-only formula could just as easily lead to net job losses as to net job gains.

- An out-of-state corporation that would pay *higher* corporate taxes if a state switched to a sales-only formula would have an incentive to remove all of its property and employees from that state to eliminate its taxability. Corporations generally take the position that if they have no physical presence in a state — that is, no "nexus" — they cannot be taxed by the state at all, no matter how much they sell to state residents or businesses.

- Removing property and employees from a state to avoid tax increases from the change to a single sales factor formula may seem like a drastic step — and therefore unlikely to occur. In fact, many companies exercising this option could "have their cake and eat it too" because of a little known federal law. That law, "Public Law 86-272," would allow manufacturers and retailers closing plants and offices to avoid tax increases from a sales-only formula to keep their *salespeople* in the state to maintain their local market yet remain exempt from the state's corporate tax.

- A change to a single sales factor formula also can render a state a less desirable location in which to locate a new facility and the jobs that come with it. Consider an Ohio manufacturer that is seeking a location for a new R & D lab. Assume the Ohio company has a substantial share of its sales in Wisconsin but no facilities or employees in the state and thus no nexus that allows Wisconsin to tax it. If the Ohio company sited the lab in Wisconsin, it would become subject to Wisconsin's corporate income tax for the first time. Assume that the lab would represent a

small share of the manufacturer's total nationwide property and payroll. In that case, a single sales factor formula would cause the Wisconsin tax liability arising from the company's decision to locate the facility in Wisconsin to be higher than it would have been had the state retained the current three factor formula. In other words, Wisconsin's adoption of a sales-only formula would be a *disincentive* rather than an incentive for the Ohio company — with significant sales in Wisconsin — to chose Wisconsin as the place to locate the R&D facility.

- In the aggregate, any job gains that might be stimulated by the switch to a sales-only formula in a particular state could well be offset by job losses resulting from the closure of existing offices and plants or by job creation foregone by companies hit with higher taxes.

Changing to a single sales factor formula could be counterproductive to economic development in at least one additional respect. As will be discussed below, the adoption of a sales-only formula can significantly reduce a state's corporate income tax receipts. A state experiencing a large decline in revenues either would have to reduce some spending or increase another tax. Depending on the choice, the loss of corporate tax revenue that results from the formula shift could interfere with the ability of an adopting state to provide high-quality public services sought by businesses when they contemplate locating or expanding in a state. This possibility must be weighed carefully against the purported positive investment incentive effects of changing to a sales-only formula.

Single Sales Factor States Have Not Had Strong Job Growth in Manufacturing

It generally is argued that a sales-only formula will provide its most significant investment incentives to manufacturers. Manufacturers most closely fit the profile of a business that reaps a tax cut from the switch from a three-factor to a sales-only formula, that is, a corporation selling into a nationwide or worldwide market from a relative handful of production locations.

By 1995, five states had enacted a single sales factor formula for manufacturers — Iowa, Massachusetts, Missouri, Nebraska, and Texas. (Massachusetts implemented a sales-only formula immediately for defense contractors and phased it in between 1996 and 2000 for other manufacturers.) The subsequent experience of these states certainly does not indicate that the sales-only formula is a powerful stimulant to investment and job creation by such corporations.

- Massachusetts lost 2.3 percent of its manufacturing jobs (10,400 positions) between 1995 and 2000, and Missouri lost 4.1 percent of its manufacturing jobs (17,400 positions) over the same period. The rate of decline in manufacturing employment in the two states was more than seven times greater than the rate of

decline in total U.S. manufacturing employment, which fell 0.3 percent between 1995 and 2000.

- Nebraska, Texas, and Iowa did experience net growth in manufacturing employment between 1995 and 2000 of 6.9 percent, 5.2 percent, and 4.3 percent, respectively. However, only Nebraska was among the top ten corporate income tax states with the fastest rate of growth in manufacturing employment between 1995 and 2000, ranking seventh.

- Five of the ten states with the fastest manufacturing job growth between 1995 and 2000 still use the traditional property-payroll-sales formula that gives only a one-third weight to sales. This is hardly compelling support for the argument that the greater the weight a state's formula gives to the sales factor, the greater is its advantage in attracting "export-oriented" corporations.

- Recent data on major plant location and expansion decisions also do not lend much support to the argument that adoption of a single sales factor formula is likely to have a major positive impact on a state's economic competitiveness. According to *Site Selection Magazine*, 51 facilities valued at $700 million or greater were placed in states with corporate income taxes between 1995 and 2000. Three of the five states that had a single sales factor formula in effect or phasing in during this period — Iowa, Missouri, and Nebraska — did not capture a single one of these major plant locations/expansions. Only six of the 51 facilities were sited in single sales factor states. Texas lured four facilities, a rate of investment roughly in line with its share of overall U.S. economic output. Massachusetts had an above-average success rate in attracting major plants; its economic output constitutes 2.7 percent of the U.S. total, and in 2000 it landed two plants that comprised 4.5 percent of the 1995-2000 total. However, Massachusetts' disproportionate share was chiefly attributable to a decision by computer-chip manufacturer Intel Corporation to build a major plant in the state. Between 1995 and 2000, Intel placed three and one half times as much investment in non-single sales factor states as it did in single sales factor states — suggesting that Massachusetts's success in luring the company in 2000 should not be attributed to the state's adoption of a sales-only formula.

Finally, it may also be instructive to take a longer-term view of the experience of Iowa and Missouri, both of which have had a sales-only formula in place for decades. A reasonable starting point for such an examination might be 1979, when manufacturing employment in the U.S. as a whole reached its post-War peak. Manufacturing employment in Iowa *has* risen since 1979, but only by a modest amount. Iowa has generated on net only 1,300 manufacturing jobs since then — an increase of 0.5 percent. This was the lowest growth rate among the 18 corporate income tax states that experienced net growth in manufacturing employment between 1979 and

The Goolsbee/Maydew Forecasts of State Job Gains from a Sales-Only Formula: Re-estimates Produce Dwindling Results

Professors Austan Goolsbee of the University of Chicago School of Business and Edward L. Maydew of the University of North Carolina have conducted research on the employment effects of increasing the weight of the sales factor that is widely cited by single sales factor proponents. Over the past four years, the two economists have conducted studies for state business organizations in Illinois, Minnesota, New York, and Wisconsin that tout the potential impact of a sales-only formula on job creation in those states.

Little noticed in Goolsbee/Maydew's research is a sharp downward revision in the asserted potency of the single sales factor formula in stimulating the growth of manufacturing jobs. Their earliest study, for Illinois, predicted that the state would capture about 16 percent more manufacturing jobs by switching to a sales-only formula. If Goolsbee/Maydew's current forecasting model were applied to Illinois, it would project just a 3.5 percent jump in manufacturing employment — a 78 percent decline from the original forecast. (See Appendix D for a more in-depth evaluation of Goolsbee/Maydew's research.)

Some of the decline in their job-creation predictions reflects decisions by Goolsbee/Maydew to refine their methodology in ways that lead to more conservative forecasts. However, a substantial share of the decline is attributable to incorporating into their model the job-creation record of states that have most recently increased the weight of the sales factor. The fact that doing so "dilutes" the asserted potency of the formula in stimulating job creation is evidence that whatever competitive advantage in attracting jobs states once might have gained by increasing the weight of the sales factor in their formulas, the benefit has substantially diminished as more and more states have done the same.

Apart from the downward trend, there is the more basic question of whether even the most conservative of Goolsbee/Maydews's job creation forecasts are plausible in the real world. Goolsbee/Maydew assert that a state increasing the weight of the sales factor in its formula will capture additional manufacturing jobs in the very first year the new formula is in effect and realize even greater job growth in the subsequent two years. Given the long lead times involved in bringing a major new manufacturing plant "on line," it does not seem plausible that the manufacturing job creation Goolsbee/Maydew purport to find in the first three years following a state's adoption of a single sales factor formula can be attributed to its capture of major new plants. Any job gains seen would reflect decisions by manufacturers already present in the single sales factor state to expand output there rather than in other states in which they have plants.

Detailed data available from Wisconsin provide compelling evidence, however, that the average manufacturer already present in a state switching to a sales-only formula is likely to reap such a small tax benefit from shifting production into that state that the job gains predicted by Goolsbee/Maydew are unlikely to be realized. To satisfy Goolsbee/Maydew's forecast of the number of manufacturing jobs Wisconsin would gain if it adopted a sales-only formula, the average manufacturer that is already taxable in the state and that benefits from a sales-only formula would have to create about 46 additional jobs in Wisconsin. By choosing Wisconsin rather than another state in which it has facilities as the site for those jobs, its net tax savings would be on the order of $12,000 annually — less than $300 per job. It seems highly unlikely that the average manufacturer taxable in Wisconsin — a company with $400 million in annual sales — would be willing to risk disrupting its production by laying-off employees in one plant and hiring them in another for the sake of an annual $300 per job savings. Even if the 46 jobs represented new positions in a growing company, it seems dubious that a potential $12,000 tax cost advantage for one location over another would affect management's decision-making in light of what are likely to be much more significant interstate variations in labor, transportation, and energy costs.

In short, the actual tax savings realized by the average beneficiary of a single sales formula appear to be too small to motivate the corporation to make job location decisions based on them in the relatively short time frame in which Goolsbee/Maydew purport to find such an effect. Accordingly, even the most conservative forecasts by Goolsbee/Maydew of the job gains a state can expect by adopting a sales-only formula seem unlikely to be fulfilled.

2000. Missouri, on the other hand, is one of the 27 states that have *lost* manufacturing jobs since 1979. It lost 61,000 manufacturing positions, a decline of 13.1 percent. Missouri's long-term loss of manufacturing jobs is particularly noteworthy because it allows corporations an *election* between the traditional, equally-weighted property-payroll-sales formula and the sales-only formula. This means that no out-of-state corporation has faced any of the kinds of disincentives for Missouri investment that a *mandatory* sales-only formula can create. The fact that neither of the states with long-term experience with a sales-only formula has a particularly impressive long-term record for attracting or creating manufacturing jobs is a further indication that the formula is unlikely to live up to its billing as a potent economic development incentive.

A Single Sales Factor Formula Is Unfair To Out-of-State Businesses and to Small Businesses

A single sales factor apportionment formula undercuts one of the fundamental rationales for a corporate income tax, which is that a corporation should pay taxes to a state as compensation for the benefits it receives from state services. Corporations benefit from a wide range of governmental services that specifically relate to the extent of property and payroll in a state. States often underwrite local government police and fire protection for the corporation's property and employees. States provide roads and other transportation services to allow access to factories by suppliers and employees and the shipment of goods to markets. States also fund K-12 and higher education services that enable many businesses to find workers with adequate skills. The change from a property-payroll-sales formula to a sales-only formula substantially reduces the corporate tax burden of businesses that arguably are benefitting the most from public services in a state and unfairly shifts the tax burden to out-of-state businesses that benefit from state services to a lesser extent.

It certainly is legitimate for a state in which a business' customers are located to tax a share of its profit even if the business does not engage in production in that state. After all, "market states" also provide services that benefit out-of-state companies — such as the roads they use to transport their goods to their customers and a judicial system that ensures that customers pay their debts. But a single sales factor formula goes too far in imposing corporate income tax liability solely on the basis of customer location rather than in proportion to both customer and production location.

Changing from a three factor apportionment formula to a sales-only formula heightens tax inequities among other groups of corporations as well. For example, large corporations are much more likely to reap tax savings from a sales-only formula than are smaller corporations, many of which may be family-owned. If corporations are not taxable outside their home states, they typically are not permitted to apportion any of their profits to other states for tax purposes. Small corporations are less likely than large corporations to be taxable in more than one state; either all of their customers are in their home state or their out-of-state customers are served without setting up the out-of-state physical facilities that would obligate the business to pay corporate

taxes to other states. If a corporation is not permitted to apportion some of its profit to other states, then by definition it pays tax on 100 percent of its profit to its home state and is not affected by changes in the apportionment formula. Since small corporations are more likely than large ones to fall into this category, large corporations are likely to obtain a disproportionate share of the tax savings that flow from the switch to a single sales factor formula.

High and Uncertain Costs

The change to a single sales factor formula is likely to reduce corporate income tax revenue substantially in any state where the economic base includes a significant number of corporations that export their wares to national or international markets.

- Eight states (California, Connecticut, Illinois, Maine, Massachusetts, New York, Oregon, and Wisconsin) have recently estimated the revenue loss attributable to adoption of a sales-only formula. The estimates indicate that the revenue loss from adopting a single sales factor formula ranges from 1.4 percent to 14.8 percent of a state's total corporate income tax collections, with four of the eight states estimating losses exceeding nine percent of corporate income tax revenue. Where states fall in this range depends upon how significant export-oriented businesses are to the state's economy and the types of corporations that are eligible to apportion their profits on a sales-only basis. In some states a sales-only formula is limited to manufacturers and/or other narrow classes of corporations.

- The loss of corporate income tax revenue arising from adoption of a single sales factor formula can be quite large in dollar terms. Massachusetts estimates that its adoption of a sales-only formula for just a segment of its corporations — manufacturers, defense contractors, and mutual funds — reduced its FY 2000 corporate tax receipts by $130 million. California estimates it would have lost $96 million in calendar year 2000. Illinois estimated a $63 million revenue loss in calendar 2000, the first year its sales-only formula was fully phased in. The higher a state's corporate income tax rate, the higher will be the loss of corporate income tax revenues resulting from adoption of a sales-only formula, since the formula reduces the amount of corporate profit that is subject to tax in the state.

Moreover, switching from a three-factor formula to a sales-only formula is likely to reduce corporate income tax revenue more than most states project when they are contemplating such a change. As explained above, some corporations receive tax cuts when a state switches to a sales-only formula and some are hit with tax increases. The revenue loss that results from the change to a single sales factor formula in many states is the *net* effect of large tax cuts for some businesses with major in-state facilities partially offset by tax increases on businesses that do most of their production out of state. However, state fiscal impact estimates rarely take into

account the possibility that some of the out-of-state businesses that are expected to pay *higher* taxes after a switch to a sales-only formula may in fact pay less tax — or no tax at all:

- Some companies facing a tax increase from the change to a sales-only formula may choose to eliminate their taxability in the state making the change by removing facilities and employees from the state.

- Companies facing tax increases from the change to a sales-only formula in a state but unable to eliminate their taxability in the state may be able to change their legal structures and their methods of operation to mitigate the tax increases. For example, an out-of-state manufacturer facing a tax increase in a state adopting a sales-only formula could separately incorporate a sales subsidiary in that state. The manufacturer could charge the sales subsidiary an artificially-high price for the manufactured goods, which — in most states — would result in the sales subsidiary having relatively little taxable profit to report. Implementing these kinds of income-shifting strategies entails some additional costs and operational complexities for any corporation. If the tax bill of a corporation increases due to adoption of a single sales factor formula, however, implementing these income-shifting techniques becomes more attractive.

In sum, to the extent that some corporations that would be expected to pay higher taxes under a sales-only formula are able to counteract this impact, the *net* loss of corporate income tax revenues resulting from the change in formulas will be higher than forecasted.

States generally do not have access to sufficient information about the internal operations of their corporate taxpayers to determine which corporations are likely to seek to avoid tax increases resulting from adoption of the sales-only formula. As a result, substantial uncertainty surrounds the estimated revenue impact of the shift from a property-payroll-sales formula to a sales-only formula.

Strategic Vs. Scattershot Economic Development

These are just some of the reasons that switching from the traditional three factor apportionment formula to a sales-only formula is likely to be a relatively ineffectual economic development tool for a state and a potential threat to the revenue-raising capacity and fairness of its corporate tax as well. Beyond its specific shortcomings, the single sales factor formula is an example of the scattershot approach to economic development that most states abandoned long ago. Most states have learned that their best economic development strategy is to focus on providing the high-quality public services that underpin business growth in as cost-effective a manner as possible. To the extent that specific interventions in the marketplace are warranted to eliminate shortages or reduce the costs of capital, labor, or other key business inputs or to direct investment to particularly disadvantaged population groups or geographic areas, states also have

at their disposal a wide array of carefully-targeted tools that have been honed by economic development professionals through decades of trial and error. State officials should not find it difficult to identify and implement much more cost-effective economic development strategies than the enactment of a single sales factor formula, which provides tax breaks to corporations without regard to their in-state job creation and investment decisions.

Renewing the States' Commitment to a Uniform Apportionment Formula

The widespread discussion of the sales-only formula that is taking place at the present time may have one positive benefit, however. It affords the states an opportunity to revisit fundamental principles regarding income taxation of multistate corporations.

Not motivated in any way by a desire to confer economic advantages on particular states, the public officials and corporate representatives who developed the basic property-payroll-sales formula in the late 1950s arrived at a carefully-considered approach to corporate tax apportionment that sought to implement fairly the "benefits-received" principle that underlies the corporate tax. In the ensuing years, the double-weighted sales variant of the three factor formula has been adopted by a large plurality of states and has become the new de facto standard. Rather than pursuing what is likely to be — at best — a meager, temporary, and zero-sum economic advantage through the unilateral adoption of a single sales factor formula, states could recommit themselves to a uniform apportionment policy based on this new standard. States that have adopted greater than 50 percent weighting of their sales factors could phase back down to that level; the few states that retain the equally-weighted three factor formula could begin a transition to the double-weighted sales variant. Given the compelling evidence of its inability to grant economic development wishes, it is not too late to put the single sales factor genie back in the bottle.

I. Why and How Corporate Profits Are "Apportioned" for State Tax Purposes

Most large corporations are multistate businesses; they produce and sell their goods and services in more than one state. When a state chooses to tax corporate profits — as all but five states have — the state must establish rules for determining the share of a multistate corporation's *total* profit that the state may tax.[1]

This requirement for "fair apportionment" of corporate profits among the states is spelled out in a number of U.S. Supreme Court decisions, but it comports with common sense and basic notions of fairness as well. Without rules for dividing up a corporation's annual profit (or "net income") for tax purposes, all states with corporate income taxes might seek to tax the *entire* profit of any corporation doing business within their borders. A corporation doing business in every one of these states could have its entire profit taxed 45 times. Obviously, income division rules for multistate corporations are essential to avoid what most people would view as confiscatory levels of state corporate income taxation. The generally agreed-upon goal is to have a set of rules that distributes 100 percent of a corporation's profit among all the states in which it does business — has facilities and/or makes sales — leaving it to each state to decide whether or not to tax its assigned share.[2]

The Mechanics of Formula Apportionment

Nearly all states have decided to divide the taxable profit of a multistate corporation among themselves through the use of a mathematical formula. The income division formulas currently used by the states are not identical. Nonetheless, there is a high degree of uniformity among the states in their basic approach to what is termed "formula apportionment" of corporate profits. Most states' corporate tax laws have substantially incorporated the provisions of the "Uniform Division of Income for Tax Purposes Act" (UDITPA), a model law written by the

National Conference of Commissioners on Uniform State Laws and formally recommended to the states for adoption in 1957.[3]

UDITPA embodies the so-called "three factor formula" for apportioning corporate income first developed by Massachusetts in the 1920s. Under the standard three factor formula, the share of a corporation's total profit that a particular state may tax is determined by averaging:

- the share of the corporation's total sales that are made to the state's residents (the "sales factor");

- the share of the corporation's total payroll that is paid to employees working in the state (the "payroll factor"); and

- the share of the corporation's total property that is located in the state (the "property factor").[4]

Thus, if 60 percent of Wisconsin Widget Company's property were located in Wisconsin, 50 percent of its payroll were paid in Wisconsin, and 10 percent of its sales were to Wisconsin customers (including businesses), 40 percent — (60 % + 50 % + 10 %) ÷ 3 — of the corporation's profit would be taxable by Wisconsin if the state used the basic three factor formula.

In recent years, a majority of states have adopted variants of the standard formula under which the location of a corporation's sales is given extra weight in determining where the corporation's profits are taxed. The most common choice has been to increase the weight of the sales factor from the one-third weight it has in the UDITPA formula to a one-half weight. This variant of the UDITPA formula generally is referred to as a "double-weighted" sales formula. Rather than adding the property, payroll, and sales factors for a particular state and dividing by three to calculate a simple average of the three factors, the sales factor is counted twice and then the average is calculated by dividing by four.

Expressed as a formula, the amount of Corporation X's profit that is taxable by State A under the double-weighted sales variant of the three factor formula is equal to:

$$\text{Total profit of Corp. X} * \left[\frac{\left(\dfrac{\overset{\text{``property factor''}}{\text{Property of Corp. X in State A}}}{\text{Property of Corp. X everywhere}} \right) + \left( \dfrac{\overset{\text{payroll factor''}}{\text{Payroll of Corp. X in State A}}}{\text{Payroll of Corp. X everywhere}} \right) + 2 * \left( \dfrac{\overset{\text{``sales factor''}}{\text{Sales of Corp. X in State A}}}{\text{Sales of Corp. X everywhere}} \right)}{4} \right]$$

A concrete example can illustrate the rather straightforward operation of this perhaps initially-intimidating formula. The case study on pages 4-5 illustrates how the formula would divide the income of a regional manufacturer among the three states in which it does business.

The Rationale for a Property-Payroll-Sales Formula

According to the U.S. Supreme Court, a state's use of an apportionment formula is intended to yield "a rough approximation of a corporation's income that is reasonably related to the activities conducted [by it] within the taxing State."[5] Basic economic theory teaches that the price a good fetches in the marketplace — and hence the profit the seller earns upon its sale — is determined by the intersection of supply and demand. The three factor UDITPA formula reflects a broad consensus among the states that since public services facilitate both sides of the supply-demand equation, the states in which a particular multistate corporation's *production* occurs and the states in which its *selling* occurs both should be allowed to tax a portion of its profit.[6]

The three factor formula also embodies more specific views of the economic processes by which corporations earn profits:

- The decision to include both property and employee payrolls as the supply-side factors in the UDITPA formula reflects traditional economic distinctions between capital and labor as the basic inputs to the production process.

- The dollar value of sales included in the sales factor of the apportionment formula reflects the role of the market in allowing a corporation to earn a profit, that is, the truism that profits cannot be realized unless sales occur.

- Finally, the recent trend toward the double-weighted sales variant of the UDITPA formula as the new *de facto* standard apportionment formula represents a tacit agreement that "production states" and "market states" should be allowed to tax roughly *equal* shares of a corporation's profit.[7] (Without double-weighting of the sales factor, states in which a corporation's property and payroll are located end up taxing two-thirds of the corporation's profit and the "market states" only one-third.)

3

The Three Factor Formula in Action: The Better Boxes, Inc. Case Study

Better Boxes, Inc. (BBI) manufactures corrugated cardboard boxes in Georgia and sells them directly to customers in Georgia, Florida, and South Carolina. BBI's total profit in 1998 was $2,000,000. The other financial statistics relevant to BBI's apportionment calculation for 1998 were as follows:

	Property	Payroll	Sales
Georgia	$25,000,000 (HQ and manufacturing plant)	$4,000,000 (HQ, sales force and manufacturing plant)	$6,000,000
S. Carolina	$5,000,000 (warehouse)	$1,500,000 (warehouse)	$13,000,000
Florida	$500,000 (sales office)	$500,000 (sales force)	$1,000,000
TOTALS	$30,500,000	$6,000,000	$20,000,000

BBI's profit taxable by Georgia:

$$= \text{Total profit of BBI} * \left[\frac{\left(\frac{\text{Property of BBI in Georgia}}{\text{Property of BBI everywhere}} \right) + \left(\frac{\text{Payroll of BBI in Georgia}}{\text{Payroll of BBI everywhere}} \right) + 2 * \left(\frac{\text{Sales of BBI in Georgia}}{\text{Sales of BBI everywhere}} \right)}{4} \right]$$

$$= 2,000,000 * \left[\frac{\left(\frac{25,000,000}{30,500,000} \right) + \left(\frac{4,000,000}{6,000,000} \right) + 2 * \left(\frac{6,000,000}{20,000,000} \right)}{4} \right]$$

$$= 2,000,000 * \left[\frac{.82 + .67 + 2*.3}{4} \right]$$

$$= 2,000,000 * .52$$

$$= 1,040,000$$

Fifty-two percent of BBI's nationwide profit of $2 million — or $1.04 million — is taxable by Georgia.

BBI's profit taxable by South Carolina:

$$= \text{Total profit of BBI} * \left[\frac{\left(\frac{\text{Property of BBI in S Carolina}}{\text{Property of BBI everywhere}} \right) + \left(\frac{\text{Payroll of BBI in S Carolina}}{\text{Payroll of BBI everywhere}} \right) + 2 * \left(\frac{\text{Sales of BBI in S Carolina}}{\text{Sales of BBI everywhere}} \right)}{4} \right]$$

$$= 2,000,000 * \left[\frac{\left(\dfrac{5,000,000}{30,500,000} \right) + \left(\dfrac{1,500,000}{6,000,000} \right) + 2 * \left(\dfrac{13,000,000}{20,000,000} \right)}{4} \right]$$

$$= 2,000,000 * \left[\frac{.16 \ + \ .25 \ + \ 2 * \ .65}{4} \right]$$

$$= 2,000,000 * .43$$

$$= 860,000$$

Forty-three percent of BBI's nationwide profit of $2 million — or $860,000 — is taxable by South Carolina.

BBI's profit taxable by Florida:

$$= \text{Total profit of BBI} * \left[\frac{\left(\dfrac{\text{Property of BBI in Florida}}{\text{Property of BBI everywhere}} \right) + \left(\dfrac{\text{Payroll of BBI in Florida}}{\text{Payroll of BBI everywhere}} \right) + 2 * \left(\dfrac{\text{Sales of BBI in Florida}}{\text{Sales of BBI everywhere}} \right)}{4} \right]$$

$$= 2,000,000 * \left[\frac{\left(\dfrac{500,000}{30,500,000} \right) + \left(\dfrac{500,000}{6,000,000} \right) + 2 * \left(\dfrac{1,000,000}{20,000,000} \right)}{4} \right]$$

$$= 2,000,000 * \left[\frac{.02 \ + \ .08 \ + \ 2 * \ .05}{4} \right]$$

$$= 2,000,000 * .05$$

$$= 100,000$$

> Note that all of BBI's $2 million profit is assigned for tax purposes — "apportioned" — to one of the three states in which it does business. That is, $1,040,000 + $860,000 + $100,000= $2,000,000. As will be discussed below, this results from the fact that all three states use the same formula. Had one or more of the three states used different formulas, more or less than 100 percent of BBI's profit might have been apportioned to the three states in the aggregate.

Five percent of BBI's nationwide profit of $2 million — or $100,000 — is taxable by Florida.

II. Winners and Losers from a "Single Sales Factor" Apportionment Formula

The property-payroll-sales apportionment formula embodied in the Uniform Division of Income for Tax Purposes Act reflects a broad, 40-year-old consensus among the states on a fair approach to taxing the profits of multistate corporations. In the last few years, however, business representatives have been lobbying aggressively — in a steadily-growing number of states — to undermine this consensus. Major business organizations in a number of states have sought to repeal the three factor formula and put in its place a "single sales factor" or "sales-only" apportionment formula.

Under a single sales factor formula, the share of a multistate corporation's nationwide profit that is taxable in a particular state is determined solely by the proportion of its nationwide sales occurring in that state.[8]

- If Georgia were to adopt a single sales factor formula, a manufacturer producing all of its widgets in Georgia but selling all of them in South Carolina would owe no corporate income tax to Georgia.

- Conversely, a South Carolina widget manufacturer with all of its sales in Georgia would have 100 percent of its profit apportioned to Georgia were Georgia to adopt a single sales factor formula.

- In the Better Boxes, Inc. case study presented in Chapter I, the share of BBI's profit that would have been taxable in Georgia, South Carolina, and Florida would have been 30 percent, 65 percent, and five percent respectively had all three states adopted a sales-only formula — the same as the share of the company's sales that occurred in each state.

Figure 1
State Corporate Income Tax Apportionment Formulas

(Covering manufacturers and most general corporations)

States with Equally-Weighted Property-Payroll-Sales Formula

Alabama	Dist. of Columbia	Montana	Rhode Island
Alaska	Hawaii	North Dakota	Utah
Delaware	Kansas*	Oklahoma	Vermont

States with Property-Payroll-Sales Formula with Sales Weighted 50 % (Double-Weighted)

Arizona*	Idaho	New Hampshire	South Carolina
Arkansas	Indiana	New Jersey	Tennessee
California	Kentucky	New Mexico	Virginia
Colorado*	Louisiana	New York	West Virginia
Florida	Maine	North Carolina	Wisconsin
Georgia	Mississippi*	Oregon*	

States with Property-Payroll-Sales Formula with Sales Weighted More Than 50 %

Minnesota (75 % Sales)	Ohio (60 % Sales)	Pennsylvania (60 % Sales)

States with Single Sales Factor Formula (Sales Weighted 100 %)

Connecticut*	Iowa	Massachusetts*	Nebraska
Illinois	Maryland*	Missouri*	Texas

States without Corporate Income Taxes

Michigan	South Dakota	Washington	Wyoming
Nevada			

Notes on specific states:

Arizona: Effective January 1, 2002, corporations may use the existing formula with the sales factor weighted 50 percent or elect a formula with a 65 percent sales factor weight. The availability of the election is contingent upon the state reaching certain revenue targets in its 2001 and 2002 fiscal years.

Colorado: State's formula is actually a property-sales formula with both property and sales weighted 50 percent. Corporations may also elect equally-weighted property-payroll-sales formula.

Connecticut: Single sales factor formula limited to manufacturers.

Kansas: Corporations with high Kansas payroll factors relative to sales and property factors may elect a property-sales formula with sales weighted 50 percent.

Maryland: Single sales factor formula enacted 2001, retroactive to the beginning of that year. Limited to manufacturers.

Massachusetts: Single sales factor formula limited to manufacturers and defense contractors.

Mississippi: Manufacturers selling directly to consumers and retailers use a single sales factor formula.

Missouri: Taxpayers may also elect an equally-weighted property-payroll-sales formula.

Oregon: Sales factor weighted 80 percent effective May 1, 2003.

Some states also allow alternative apportionment formulas not described here for narrow classes of corporations.

Since the mid-1980s, organized business interests in six states — Connecticut, Illinois, Maryland, Massachusetts, Nebraska, and Texas — have convinced state legislatures to enact a single sales factor apportionment formula for the corporate income tax.[9] (See Figure 1 for a breakdown of current state apportionment formulas.) During the past few years, business organizations also have been lobbying actively for a sales-only formula (or a formula with a substantially similar effect) in Arizona, California, Kansas, Maine, Minnesota, New Hampshire, New Jersey, New York, North Carolina, Oregon, Pennsylvania, Rhode Island, and Wisconsin.[10]

Who Wins with a Single Sales Factor Formula?

Generally speaking, when a state switches from a three factor apportionment formula to a sales-only formula, it provides an *automatic* income tax cut to any corporation with a large share of its nationwide property and payroll in the state but a large share of its sales *outside* the state. Manufacturers are most likely to fit this profile, typically producing goods for a regional, nationwide, or worldwide market from a relative handful of plants. Thus, it is not surprising that the leading advocates of changing to a single sales factor apportionment formula have been state manufacturers' associations.

The Better Boxes, Inc. case study in Chapter I illustrates how changing to a single sales factor formula tends to provide tax windfalls to manufacturers in the states in which they produce their wares. BBI has 82 percent of its property in Georgia and 67 percent of its payroll there, but it makes only 30 percent of its sales in the state. Under the current three factor formula (with double-weighted sales), 52 percent of BBI's profit is taxable in Georgia. But if Georgia were to convert to a sales-only formula, only 30 percent of BBI's profit would be taxable there, the same share that BBI's Georgia sales represent of its total sales ($6,000,000/$20,000,000 equals .30). Given Georgia's six percent corporate tax rate, the drop in the total Georgia apportionment percentage for BBI from 52 percent to 30 percent would result in a drop in BBI's Georgia corporate tax liability from $62,400 to $36,000 — a 42 percent decline. This drop in BBI's corporate tax liability would be automatic. It results only from the mathematical relationship between the shares of BBI's company-wide property, payroll, and sales that are located in Georgia — that is, the fact that most of its property and payroll are in Georgia but most of its sales are not. The company would not have had to make any new investments or hire any new employees to obtain the tax savings.

Why Winners Win:

(1) Non-Uniform Apportionment Formulas Create "Nowhere Income"

If a single sales factor formula can provide tax savings as large as those realized by BBI in the previous example, a question naturally arises: why haven't the multistate corporations that successfully lobbied the legislatures of Connecticut, Illinois, Massachusetts, Nebraska and Texas to adopt a sales-only formula taken this campaign to every state with a corporate income tax? Indeed, why haven't these businesses seen to it that the national trade associations they normally turn to for representation on tax policy matters before legislative bodies — organizations like the

Committee on State Taxation and the National Association of Manufacturers — are actively working in every state to enact a single sales factor formula?

The principal answer to these questions is that much of the tax savings realized by some multistate corporations when a state adopts a sales-only formula would vanish if *all* of the states adopted the same formula. To see why *nationwide* adoption of a single sales factor formula would not be advantageous for most multistate corporations, refer again to the Better Boxes, Inc. case study. Under a three factor formula (with double-weighted sales), BBI had 52 percent of its profit subject to tax in its headquarters state of Georgia, 43 percent subject to tax in South Carolina, and five percent apportioned to Florida. If all three states adopted a single sales factor formula, those percentages would change to 30 percent, 65 percent, and five percent, respectively, but the three percentages would still total to 100 percent — meaning that all of BBI's profit would be taxable in one of the three states.[11]

But consider what happens if BBI's lobbyists can convince the Georgia legislature to adopt a single sales factor formula *while South Carolina and Florida retain the three factor formula.* If Georgia *alone* switches from a three-factor formula to a sales-only formula, the share of BBI's profit taxable in Georgia drops from 52 percent to 30 percent while South Carolina and Florida continue to claim 43 percent and five percent respectively as their taxable share of BBI's total profit. The total of 30 percent plus 43 percent plus five percent is 78 percent. Georgia's solitary switch to a sales-only formula has rendered 22 percent of BBI's total profit what tax administrators refer to as "nowhere income" — income that is not taxed by any of the states in which it does business.[12]

The inherent potential of apportionment formulas that are non-uniform among the states to create "nowhere income" is the chief explanation for why this policy change is being sought on a state-by-state rather than nationwide basis. State manufacturers' associations opportunistically are seeking individual state adoption of a sales-only formula in the hope that their members can grab a valuable tax windfall without at the same time stimulating all states to adopt the formula and thus negate much of the tax savings. In every state, it is likely that at least some major multistate corporations would receive tax cuts if the state switched to a sales-only formula. So, while the multistate business community collectively is unlikely to seek uniform nationwide adoption of a single sales factor formula, many states can expect concerted efforts to enact a sales-only formula to emerge in the next few years — if they have not begun already.

Why Winners Win:

**(2) A Single Sales Factor Formula Expands "Nowhere Income"
In States Not Adopting the "Throwback Rule"**

The previous section demonstrated that when a state switches to a sales-only formula, it is likely to provide a windfall corporate income tax cut to a substantial number of corporations producing goods within its borders but selling them to customers in other states. The non-uniformity in formulas created when one state unilaterally adopts a sales-only formula can render a significant portion of the profits of such corporations "nowhere income" — profit not taxed by any state.

There is a second mechanism by which a state's switch to a sales-only formula can create "nowhere income" for in-state corporations with a relatively large proportion of their sales outside the state. "Nowhere income" can arise from a mismatch between the law that governs when a state can subject an out-of-state corporation to a corporate income tax and the inclusion of a sales factor in the apportionment formula.

The mismatch is created chiefly by a little-known federal law, Public Law 86-272. P.L. 86-272 provides that an out-of-state corporation cannot be subjected to a state's corporate income tax merely because it solicits sales within the state's borders, *provided*

- the corporation is selling *goods*,

- the sales are actually approved and executed outside the state,

- the goods sold are shipped into the state, and

- the company does not own any facilities or inventory located in the state.

P.L. 86-272 even immunizes corporations from income tax liability in states in which the companies have a sales force, provided the salespeople work out of their homes or visit from out of state. If a corporation selling goods limits the actions of its sales personnel to the solicitation of orders and closely-related activities, it can make unlimited sales in a state without having any obligation to pay corporate income tax to the state. Of course, with electronic commerce Web sites and mail-order catalogs, it is quite feasible for a corporation to make substantial sales in a state with *no* direct physical contact with its customers; such a "remote seller" also generally will be protected from income tax liability in its customers' states by P.L. 86-272 so long as it does not own property in such states.

P.L. 86-272 restrictions on the ability of states to subject out-of-state corporations to income taxes can interact with the sales factor in the apportionment formula in a way that can allow a corporation to receive large amounts of "nowhere income." Take, for example, a

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manufacturer that has 90 percent of its property and payroll in Rhode Island but just 15 percent of its sales in that state. Assume the other 10 percent of the corporation's property and payroll and 10 percent of its sales are in Massachusetts. Finally, assume that the remaining 75 percent of the corporation's sales are in states other than Rhode Island and Massachusetts and that the corporation is not obligated to pay corporate income tax to these other states because orders are solicited by salespeople who visit from Rhode Island and P.L. 86-272 therefore applies. Under Rhode Island's equally-weighted property-payroll-sales formula, this corporation will have 65 percent of its total nationwide profit taxed in Rhode Island — (90 % RI property + 90 % RI payroll + 15 % RI sales) ÷ 3. An additional 10 percent of its profit will be taxed by Massachusetts. (Massachusetts taxes manufacturers with a single sales factor formula, and this corporation has 10 percent of its sales in Massachusetts.) The remaining 25 percent of the corporation's profit not subjected to tax by either Rhode Island or Massachusetts is "nowhere income" because the corporation is not taxable in any other state.

Now consider what happens to this corporation's state income tax liability if Rhode Island switches to a single sales factor formula. Since only 15 percent of the corporation's sales are in Rhode Island, only 15 percent of its profit will be taxed in Rhode Island under a sales-only formula. Massachusetts will continue to tax 10 percent of the corporation's profit under *its* sales-only formula. Since the corporation is not taxable in any other state, fully 75 percent of its total profit is now "nowhere income." *Rhode Island's switch to a sales-only formula has increased the share of this corporation's profit that is not taxed by any state in which it does business from 25 percent to 75 percent.*

The purpose of an apportionment formula is to divide the profit of a multistate corporation for tax purposes among all the states in which it earns that profit. When the drafters of the Uniform Division of Income for Tax Purposes Act agreed that a sales factor should be included in the apportionment formula to allow states in which a corporation's customers were located to tax a share of that profit, they realized "nowhere income" would ensue if a corporation had sales in any state in which it was not taxable. To avoid this result, the drafters included in UDITPA the so-called "throwback rule."[13] The "throwback rule" provides that if a corporation is not taxable in a state in which it makes sales, those sales are to be treated as if they were made to customers located in the state from which the goods fulfilling the sale were shipped. In the previous example, if Rhode Island had adopted the throwback rule as part of its corporate income tax apportionment statute, the 75 percent of the corporation's sales shipped from Rhode Island into other states in which the corporation was not taxable would have been deemed to be Rhode Island sales; they would be "thrown back" into the numerator of Rhode Island's sales factor. With 90 percent of its sales now treated as Rhode Island sales for apportionment purposes (15 percent actually in Rhode Island and 75 percent deemed to be there due to the throwback rule), 90 percent of the corporation's profit would be taxable in Rhode Island under a sales-only formula. Since 10 percent of the corporation's profit would remain taxable in Massachusetts, the two states together would tax 100 percent of the corporation's profit. In other words, Rhode Island's implementation of the throwback rule would ensure that the corporation would not have any "nowhere income."

Despite the recognition of UDITPA's authors that a throwback rule would be needed to avoid the creation of "nowhere income" until such time as corporations were automatically subject to corporate income tax in every state in which they had sales, a large number of states either never adopted the throwback rule or repealed it at some point. (See the text box on the right.) A state's failure to implement the throwback rule tends to expand greatly the amount of "nowhere income" received by corporations when that state switches from a property-payroll-sales formula to a single sales factor formula. It therefore is not surprising that many of the states in which a sales-only formula has been sought most aggressively do not have the rule (e.g., Connecticut, Maryland, Minnesota, New York, North Carolina, Rhode Island), and that business organizations often seek repeal of the throwback rule after they achieve adoption of a sales-only formula (e.g., Illinois, Nebraska).

States Without "Throwback" Rules
Arizona
Connecticut
Delaware
Florida
Georgia
Iowa
Kentucky
Louisiana
Maryland
Minnesota
Nebraska
New Jersey
New York
North Carolina
Ohio
Pennsylvania
Rhode Island
South Carolina
Tennessee
Virginia

A Single Sales Factor Formula Creates Losers, Too

As discussed above, if a state unilaterally changes to a single sales factor formula, it automatically will reduce the income tax liability of any corporation that sells a relatively large share of its output in states that have not adopted a sales-only formula.[14] However, the converse is also true; the change to a sales-only apportionment formula will increase the tax liability of corporations with a relatively large share of their nationwide sales in the state but a relatively smaller share of their nationwide property and payroll within the state's borders.

Better Boxes, Inc. can again be used to illustrate this effect of changing to a sales-only formula. Suppose this time that it is South Carolina rather than BBI's home state of Georgia that decides to change to a single sales factor formula. BBI has only 16 percent of its property in South Carolina and 25 percent of its payroll there, but South Carolina accounts for fully 65 percent of its sales. Even with sales double-weighted, BBI has only 43 percent of its nationwide profit subject to tax in South Carolina under a three factor formula. However, if South Carolina converts to a sales-only formula, BBI will have 65 percent of its profit subject to tax in South Carolina — more than a 50 percent increase in its South Carolina tax liability. Indeed, BBI will now be subject to tax by the three states on *more than 100 percent* of its total nationwide profit. South Carolina will claim the right to tax 65 percent of BBI's profit, while Georgia and Florida will retain their claims under the three factor formula of 52 percent and 5 percent respectively — for a total of 122 percent of BBI's profit subject to tax by the three states in which it does business. Effectively, the three states will be taxing 22 percent of BBI's profit *twice* due to the non-uniformity of their apportionment formulas.

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Tax increases for predominantly out-of-state corporations like those seen in this BBI example are by no means rare occurrences when a state changes to a single sales factor formula:

- The California Franchise Tax Board estimated that had the state implemented single sales factor apportionment for the 2000 tax year, 8,900 corporations would have experienced tax increases and 5,800 corporations would have experienced tax cuts.[15]

- The Wisconsin Department of Revenue estimated that if the state had had a single sales factor formula in place in 1996, 3,997 firms would have paid higher taxes while just 2,426 firms would have enjoyed tax cuts.[16]

- The Maine Department of Revenue Services reached a similar conclusion, estimating that 1,371 firms would have experienced tax increases in tax year 2000 if the state switched to a single sales factor formula while about half as many — 700 — would have experienced tax cuts.[17]

- Illinois revenue officials estimated that their state's adoption of a single sales factor formula would increase taxes on 7,586 corporations and cut taxes for 7,014.[18]

- Arizona concluded that 57 percent of a sample of multistate corporations would have experienced a tax increase in 1994 under single sales factor apportionment and 43 percent a tax decrease.[19]

Even though there usually are many corporations that would pay higher corporate taxes if a state changed from a three factor formula to one based on in-state sales alone, the interests of the winners have tended to prevail when such a formula change has been considered seriously by a state legislature. In fact, the predominantly out-of-state corporations that would pay higher taxes if a state changed to a sales-only formula rarely even testify against the proposal — despite frequent complaints from the multistate business community about other state tax policies that allegedly impose disproportionate tax burdens on out-of-state corporations. (See Appendix A.)

There appear to be two principal explanations for this acquiescence by out-of-state corporations to a change in tax policy that can impose large tax increases on them:

- Out-of-state corporations hit with tax increases may be confident that they eventually will be able to convince the states where they would *benefit* from a change to a sales-only formula to switch as well and don't want to be seen attacking a policy that they will support elsewhere. (Occasionally, however, corporations try to have it both ways; see the text box on page ix).

- Out-of-state corporations that would experience tax increases if a state switches to a sales-only formula sometimes can restructure their operations to nullify the tax increases they would otherwise suffer.

As will be discussed in the following two chapters, this latter possibility has important implications — both for the impact on state revenues of changing to a sales-only formula and for the alleged economic development incentive effects of the formula as well.

III. The Impact of a Single Sales Factor Formula on State Corporate Tax Revenues

Changing a state's apportionment formula from a three factor formula to a sales-only formula will reduce the income tax payments of some corporations and increase the tax liability of others. Public officials contemplating such a change need to know its *net* revenue impact in order to weigh its potential costs against its potential benefits. They might also wish to have a sense of how much confidence they can place in estimates of the net revenue impact of converting from the three factor formula to a single sales factor formula.

Changing from a property-payroll-sales formula to a single sales factor formula is problematic along both of these dimensions. The change is likely to reduce corporate tax revenue significantly in most states in which it is likely to be enacted, is likely to cost more than most states project when considering such a change, and is likely to increase the uncertainty surrounding corporate tax revenue estimates.

A Costly Change in Tax Policy

The previous chapter demonstrated that when a state switches from a property-payroll-sales apportionment formula to a sales-only formula, some of the corporations subject to its corporate income tax will receive tax cuts and some will be subject to tax increases.[20] Whether the *net* effect of those tax increases and tax cuts on state corporate tax revenue will be positive or negative and the magnitude of that net effect depend entirely on the composition of the state's corporate tax base. If most of its corporate taxes are paid by large multistate corporations that have major manufacturing facilities in the state and the output of these plants is sold primarily outside the state, then it is likely that the state will experience a net revenue loss. On the other hand, if there are relatively few big production facilities in a state and the state's corporate tax base is dominated instead by out-of-state corporations that are selling products to the state's

resident businesses and individuals without much in-state property and personnel, then it is possible that the state would actually gain revenue from switching to a single sales factor formula.

While it is mathematically possible for a state to gain revenue from switching to a sales-only formula, that outcome is relatively unlikely to occur in the real world. First, as indicated above, a large number of states have not implemented the throwback rule. In such states, it is quite unlikely that aggregate tax increases on predominantly out-of-state corporations would outweigh tax cuts for in-state corporations selling a large share of their output outside the state; the lack of a throwback rule tends to substantially multiply the tax cuts received by the latter group of businesses. (Indeed, even if every state with a corporate income tax *simultaneously* adopted a single sales factor formula and therefore no "nowhere income" would arise from the non-uniformity of state formulas, there would still be a substantial increase in aggregate "nowhere income" due to the absence of throwback rules in so many states.)

Second, there is the more fundamental political reality that a single sales factor formula is unlikely to be lobbied for or enacted in a state in which it would result in a net increase in corporate tax revenues. As demonstrated above, the sales-only formula already tends to impose tax increases on a greater number of corporations than receive tax cuts; state business organizations would find it even more difficult to push this policy change in a state where it also results in a *net* corporate tax increase. For their part, elected officials rarely vote for changes in tax policy that lead to net increases in revenue absent a compelling reason. They likely would find it quite difficult to explain how a net corporate increase could have a positive impact on economic development in their state — the principal rationale for the sales-only formula. (See Chapter IV.)

Given these considerations, it is not surprising that the states that have analyzed the issue in recent years have concluded that changing from a three factor apportionment formula to a single sales factor formula would lead to a significant *net reduction* in their corporate income tax receipts.

- Eight states — California, Connecticut, Illinois, Maine, Massachusetts, New York, Oregon, and Wisconsin — have recently estimated the revenue loss attributable to changing from a three factor formula (with double-weighted sales) to a sales-only formula. As Table 1 indicates, all eight analyses concluded that corporate income tax collections would be reduced significantly. The revenue loss estimates range from 1.4 percent of corporate tax revenues in California to 14.8 percent of corporate tax receipts in Oregon.[21]

- The revenue impact on a state of changing to a single sales factor formula can be quite substantial in dollar terms. For example, Massachusetts estimates that its corporate tax revenues were $131 million lower in fiscal year 2000 because of the ability of manufacturers, defense contractors, and mutual funds to apportion their

profits using a sales-only formula. California estimates it would have lost $96 million in calendar year 2000. Illinois estimated a $63 million revenue loss in calendar 2000, the first year its sales-only formula was fully phased in. The higher a state's corporate income tax rate, the higher will be the loss of corporate income tax revenues resulting from adoption of a sales-only formula, since the formula reduces the amount of corporate profit that is subject to tax in the state.

A Sales-Only Formula Is Likely to Be More Costly than Estimated

As large as the estimated corporate income tax revenue losses shown in Table 1 are, there are good reasons to expect the *actual* losses to be even greater once a single sales factor formula has been in place for a few years in a particular state. The estimates fail to account for the fact that a state's enactment of a sales-only formula creates opportunities and incentives for corporations to restructure their operations in ways that can substantially increase the revenue drain.[22]

Out-of-State Corporations May Circumvent Tax Increases

The corporate income tax revenue losses shown in Table 1 are *forecasted net* losses; tax cuts for in-state corporations with most of their sales out of state are partially offset by tax increases for predominantly out-of-state corporations.[23] The predicted tax increases offset a substantial share of the predicted tax cuts.

- In Wisconsin, for example, the predicted tax increases for some corporations offset more than one-third of the tax cuts to be received by other corporations.

- In Illinois the forecasted tax increases offset more than 50 percent of the forecasted tax cuts.

- In Maine the predicted tax increases offset nearly three-fourths of the predicted tax cuts.[24]

Out-of-state corporations that would be expected to pay higher taxes, however, can take steps to nullify or mitigate such tax increases. In other words, a significant portion of the increased taxes on predominantly out-of-state corporations that are expected to offset tax cuts for in-state corporations might never materialize.

Removing Property and Jobs from States Changing to a Sales-Only Formula

Some corporations doing business in a state that converts from a property-payroll-sales formula to a sales-only formula are likely to be in a situation in which they have a significant share of their sales in the state but only a very small share of their property and payroll located

Table 1
Estimated Revenue Impact of Adopting a Sales-Only Apportionment Formula

State	Eligible Corporations	Year Covered by Estimate	Top Corporate Tax Rate	Revenue Loss (millions)	Pre-loss Corp. Tax Revenues (millions)	Revenue Loss as % of Tax Revenues
CA	All	CY00	8.84 %	$96	$6727.5	1.4 %
CT	Manufacturers, broadcasters	FY02	7.5 %	$53.6	$543.9	9.9 %
IL	All	CY00	4.8 %	$63	$1128	5.6 %
ME	All	CY00	8.9 %	$5.7	$127	4.5 %
MA	Manufacturers, defense contractors, mutual funds	FY00	9.5 %	$130.8	$1159.8	11.3 %
NY	Manufacturers	FY05	7.5 %	$38.6	$2543	1.5 %
OR	All	FY03	6.6 %	$68.2	$459.4	14.8 %
WI	All	FY01	7.9 %	$80	$640	12.5 %

Sources:

California: Calendar year 2000 revenue loss: final report of California Controller Kathleen Connell's *Tax Simplification Task Force 2000*, p. 26. Calendar year 2000 Bank and Corporation tax revenues estimated by averaging FY00 and FY01 figures in *Governor's Budget, May Revision, 2000-01.*

Connecticut: FY02 revenue loss: Office of Fiscal Analysis, *Highlights of the Revised FY01 Budget and Statutory Formula Grants to Municipalities*, May 3, 2000. FY02 corporate income tax revenues in absence of formula change: Office of Fiscal Analysis table, "Out-Year Revenue Projections Including Governor's Proposed Revenue Changes As of March 3, 2000" in OFA, *Analysis of the Governors' Proposed Revisions for the FY01 Budget.* Estimated FY02 corporate tax revenues of $490.3 million increased by $53.6 million estimated revenue loss from formula change.

Illinois: CY00 revenue loss: reported in Christi Parsons and Ray Long, "Corporations in Line for Big State Tax Break," *Chicago Tribune*, May 25, 1998. (Illinois never published a fiscal note on H.B. 2363, enacted May 1998.) FY00 corporate tax revenues: Illinois Bureau of the Budget, Quarterly Financial Report for FY00, Second Quarter FY00, p. 7. Estimated FY00 corporate income tax receipts reflecting single sales factor formula of $1,065 million increased by $63 million estimated revenue loss from formula change.

Maine: CY00 estimated revenue loss: *Final Report of the Commission to Study Single-Sales Factor Apportionment*, January 2000, Appendix D-1. CY00 corporate income tax revenue: estimated by averaging budgeted amounts for FY00 and FY01.

Massachusetts: FY00 estimated revenue loss: Massachusetts FY01 *Tax Expenditure Budget*, p. 63. Further breakdown of total tax expenditure between double-weighted sales factor for all corporations and single sales factor for eligible corporations provided by Kazim Ozyurt, Massachusetts Department of Revenue, personal conversation, April 26, 2000. FY00 projected corporate income tax revenues: Massachusetts, Department of Revenue, "Monthly Report of Tax Collections through February 29, 2000." Estimated FY00 corporate income tax collections of $1,029 million reflecting single sales factor increased by $130.8 million estimated revenue loss from formula change.

Oregon: Legislative Revenue Office Revenue Impact Statement for H.B. 2281, February 12, 2001, and current-law corporate income tax revenue forecast for FY02-FY03 biennium in governor's proposed budget. Figures shown are one-half of the reported amounts for the FY02-FY03 biennium.

New York: FY05 estimated revenue loss, New York Division of the Budget. FY02 estimated Article 9-A franchise tax collections under current law, New York State *Executive Budget 2001-02, Appendix II*, p. 178.

Wisconsin: FY01 revenue loss estimate: Legislative Fiscal Bureau Paper #111, *Corporate Income and Franchise Tax — Single Sales Factor Apportionment Formula*, June 7, 1999, p. 8. FY01 corporate income tax revenues: LFB January 24, 2000, revenue estimate, p. 6.

there. As discussed above, such corporations would experience substantial corporate tax increases as a result of the shift from a property-payroll-sales formula to a sales-only formula. Such corporations may seek to terminate the ability of the state changing to a single sales factor formula to subject them to a corporate income tax.

Corporations generally take the position that removing all of their property and employees from within a state would eliminate that state's legal right to impose a tax on their profits.[25] However, the need to take such a drastic step has been mitigated by Public Law 86-272. As previously discussed, this law provides that corporations cannot be subjected to a state's corporate income tax merely because they have personnel within the state's borders, provided those personnel are engaged only in the solicitation of sales of goods and provided they work out of their homes or visit from out of state.

To see how Public Law 86-272 can help an out-of-state manufacturer avoid some of the higher corporate income taxes that result when a state shifts to a single sales factor apportionment formula, consider again the Better Boxes, Inc. case study. Suppose once again that South Carolina decided to implement a sales-only formula. Recall from the previous discussion (see page 13) that if South Carolina implemented a sales-only formula, BBI would have 65 percent of its profit apportioned to South Carolina and 52 percent of its profit apportioned to its headquarters state of Georgia — 117 percent of its actual total profit taxed by the two states.

In reaction to South Carolina's change in the formula, BBI could sell its warehouse in South Carolina and buy one in Georgia. The case study assumes that BBI solicits business in South Carolina by sending in traveling salespeople based at the Georgia headquarters. Public Law 86-272 would permit BBI to continue doing so without being subject to corporate income tax in South Carolina were the company to close its warehouse there. As the calculation shown in Appendix B demonstrates, BBI's transfer of its warehouse operations to Georgia would increase its total Georgia apportionment percentage from 52 percent to 63 percent. However, because it no longer would be taxable in South Carolina, it would pay tax on just 63 percent of its profit rather than 117 percent — 46 percent less than the amount of profit that would have been taxed by Georgia and South Carolina if BBI had remained taxable in the latter state when it switched to a single sales factor formula.

If South Carolina had estimated the revenue impact of converting to a single sales factor formula the way most states do, it would have counted on the increase in BBI's South Carolina tax liability (resulting from the jump in its apportionment percentage from 43 percent to 65 percent) to help offset tax cuts that South Carolina-based corporations would receive. If BBI closed its South Carolina warehouse, however, not only would BBI's South Carolina tax liability *not* help offset tax cuts for South Carolina-based corporations, but the fact that it no longer would have any tax liability in the state actually would *compound* the revenue loss resulting from changing the formula because South Carolina would lose the 43 percent of the corporation's

profit it had been taxing before. If this scenario were to transpire in a significant number of cases when states convert from a three factor formula to a sales-only formula, the corporate income tax revenue loss from doing so could be substantially greater than states are likely to project.[26]

Exploiting the Absence of "Combined Reporting"

For some out-of-state corporations facing significantly higher tax liabilities in a state switching to a sales-only apportionment formula, limiting their presence in the state to a visiting sales force or to salespeople who work out of their homes would not be an option.

- Some corporations may have so many salespeople in a state that it would not be feasible to have them work out of their homes; a central office would be needed.

- Other corporations may need to have personnel in a state providing direct services to their customers, such as installing their products, repairing them, or training purchasers in their use.

- Some corporations may have built a warehouse or research and development facility in a state switching to a sales-only formula and would not wish to incur the cost and suffer the disruption of operations that would be entailed in moving them out of a state.

In all three cases the corporation would be engaging in activities in the state sufficient to obligate the business to pay corporate income tax to the state.

However, there is another strategy for counteracting higher tax liabilities resulting from the adoption of a sales-only apportionment formula — one that does not require the physical removal of a corporation's property and personnel from the state adopting the single sales factor formula. The out-of-state corporation can avoid the higher taxes that would result from the adoption of a single sales factor formula by:

- separately incorporating whatever activities or physical presence establishes its taxability in the single sales factor state, and

States That Do Not Require "Combined Reporting"
Alabama
Arkansas
Connecticut
Delaware
District of Columbia
Florida
Georgia
Indiana
Iowa
Kentucky
Louisiana
Maryland
Massachusetts
Mississippi
Missouri
New Jersey
New Mexico
New York
North Carolina
Ohio
Oklahoma
Pennsylvania
Rhode Island
South Carolina
Tennessee
Texas
Vermont
Virginia
West Virginia
Wisconsin

- using a variety of bookkeeping techniques to transfer taxable profits out of the single sales factor state.

If a multistate business creates a separate corporation to "house" personnel and property physically present in a state that switches to a single sales factor formula, the business may be able to offset almost completely the increase in its tax liability that would occur because of the formula change. For example, if an out-of-state manufacturing corporation needs to have a sales office in Wisconsin but otherwise has no need to be physically present in the state, it can separately incorporate this office and the salespeople who work there as a retailing subsidiary. Then, the parent manufacturer can sell its manufactured goods to the retailing subsidiary at a high price that allows the subsidiary to earn at most a nominal profit.[27] The subsidiary then resells the goods to the business' existing customers.[28] Through this mechanism — called "transfer pricing" — the corporation can ensure that most of the profit on the sale of its goods would accrue to the out-of-state parent that would not be taxable in Wisconsin because the parent would be considered a different corporation and technically would have no property or employees in Wisconsin. Only the subsidiary would be taxable on its relatively small earnings.

Nearly two-thirds of the states (those listed in the text box on the previous page) are highly vulnerable to transfer pricing and similar techniques that corporations use to move profit artificially into states where it will be taxed at a lower rate or not at all. These states are vulnerable to such manipulation of their corporate tax base because they do not employ "combined reporting."[29] Combined reporting — described briefly in Appendix C — is an approach to corporate income taxation that essentially treats a parent corporation and any subsidiaries that are engaged in different parts of the same business as if they were one corporation for apportionment purposes.

The states not requiring combined reporting would be especially likely to experience higher-than-expected revenue losses from the change to a single sales factor formula. The predominantly out-of-state corporations that would experience higher taxes from a sales-only formula could nullify this impact in non-combined reporting states by restructuring their operations and engaging in transfer pricing and similar strategies to shift profit out of the single sales factor state.[30]

Of course, corporations always have an incentive to shift profits out of high-tax states and into low-tax states. It therefore might be argued that a non-combined reporting state's adoption of a single sales factor formula would have no marginal impact on the efforts of out-of-state corporations to engage in activities aimed at artificially shifting income out of such a state. This argument ignores the fact that the restructuring needed to exploit the absence of combined reporting entails additional costs and operational complexities for a corporation that may outweigh the potential tax savings in many instances. To the extent that a particular corporation's tax bill increases due to a state's adoption of a single sales factor formula, implementing strategies to shift taxable profit out of that state would become more attractive. These income-shifting

strategies generally would be a less costly means of counteracting increased tax liability from the change to a single sales factor formula than would be the removal of property and personnel from the state making such a change.

Summary

The examples above show that a state's switch from a three factor apportionment formula to a sales-only formula can be expected to stimulate countervailing actions on the part of some multistate corporations experiencing increased tax liability. These actions may involve removing property and non-sales personnel from the single sales factor state entirely to eliminate tax liability in the state. Changes in legal structure that do not require moving property or payroll coupled with the implementation of interstate income-shifting strategies aimed at reducing corporate tax liability are more likely in the large majority of states that do not require combined reporting. *In each case, the outcome is likely to be an under-estimation of the net corporate income tax revenue loss arising from adoption of a single sales factor formula.*[31]

States generally do not have access to sufficient information about the internal operations of their corporate taxpayers to determine which corporations are likely to restructure their operations to avoid tax increases resulting from adoption of the sales-only formula. As a result, even when states can predict that adoption of a single sales factor formula will lead to a net reduction in corporate income tax revenues, substantial uncertainty surrounds the precise magnitude of the revenue loss.

IV. The Single Sales Factor Formula and State Economic Development

It is not surprising that business organizations recently have lobbied more than a dozen state legislatures to enact legislation implementing a single sales factor formula. Changing the formula automatically provides substantial tax savings to corporations that sell most of their in-state production to customers located in other states. Because it does so through a complex mechanism that few legislators, citizens or members of the media are likely to understand, proponents have been able to mask the fact that this change is essentially a costly corporate tax cut for a limited group of multistate corporations.

But some legislators who have voted for a single sales factor formula or are currently giving it serious consideration *do* appreciate that substantial revenue would be foregone and that only certain corporations would benefit. What explains the wave of interest in this tax break?

The Case for a Sales-Only Formula as an Economic Development Incentive

As is often the case when proposals are made to modify state taxation of businesses, the arguments in favor of changing to a sales-only apportionment formula can be encompassed in a single word: jobs. The single sales factor formula is being sold as an economic development incentive that will stimulate the creation of substantial numbers of new, high-paying jobs — particularly manufacturing jobs — in any state that adopts it. Two arguments are often made in support of the assertion that switching to a sales-only formula will enhance a state's economic prospects.

The first argument in support of changing from a property-payroll-sales formula to a sales-only formula is that doing so *removes a disincentive* for expansion and job creation in a state by multistate businesses. Inherent in having property and payroll factors in the apportionment

formula is the fact that the share of a corporation's nationwide profit a state will tax will increase if a corporation hires additional workers and/or increases the amount of property it has in a state.

Proponents of a sales-only formula argue that this "disincentive" or "punishment" for in-state job creation should be reduced by changing the formula so that in-state expansion increases tax liability only to the extent that the output resulting from the expansion is sold within the state.[32] They claim, for example, that if an in-state corporation is contemplating hiring new workers to expand output in response to an increase in demand for its products, it is more likely to do so in a state that has adopted a formula in which that increased hiring will not increase the share of its profit that is taxable. They argue that having a sales-only formula is even more advantageous when corporations are planning both to expand their physical facilities and to hire additional employees. Such an investment would increase the corporation's property *and* payroll factors — thus allegedly rendering an apportionment formula that omits both factors doubly attractive.

The second principal argument offered in favor of a single sales factor formula is the mirror image of the first. Proponents claim that a state's adoption of a sales-only formula creates *positive* economic development incentives, rendering the state a more attractive location for new or expanded facilities that are expected to export most of their output to nationwide or worldwide markets once they go on-line. Examples of such facilities would be the high-profile Mercedes and BMW auto plants that Alabama and South Carolina captured in recent years. Supporters of the sales-only formula argue, for example, that all other things being equal, a corporation looking to site a major new facility that will sell most of its output in other states will choose a sales-only formula state over a state in which the presence of property and payroll factors will lead to a greater share of the corporation's nationwide profit being subjected to tax.

The Case Against a Sales-Only Formula as an Economic Development Incentive

The first argument of single sales factor proponents — that including property and payroll factors in the apportionment formula is an inherent disincentive for investment and job creation that is eliminated when a state adopts a sales-only formula — has little conceptual validity. The argument ignores the fact that if the investment in new property and/or the hiring of additional employees increases the profit of the corporation, that incremental profit is likely to be taxed somewhere regardless of the formula in use by the states. If all states used an equally-weighted property-payroll-sales formula, for example, no state would be at a particular disadvantage relative to the others in attracting a new facility and its employees by virtue of having a property and payroll factor in the formula. In other words, the property and payroll factors are not inherently "anti-development."

The second argument in favor of changing to a single sales factor formula — that a state can make itself more attractive than other states to certain kinds of businesses by adopting a sales-only formula — is conceptually valid. However, the competitive advantage for the single sales

factor state is not attributable to the absence from the formula of property or payroll factors per se.[33] Rather, it arises from the fact that the *non-uniformity* among the states in their apportionment formulas that is created when a state jumps out ahead to adopt a sales-only formula creates large amounts of "nowhere income" for a corporation with substantial sales in states with lesser weighting of the sales factor. (As previously discussed, the amount of that nowhere income is likely to be expanded when the state adopting the sales-only formula has not implemented the throwback rule.) Although they do not put it in these terms, single sales factor proponents are pointing out in essence that a corporation will choose a state whose formula allows it to earn "nowhere income" over a state whose formula is congruent with the formula used by most other states and therefore effectively will assign all of the corporation's profit to at least one state for taxation.

In sum, there are no *logical* flaws in the main argument offered by single sales factor proponents regarding why a state's adoption of the formula could encourage some businesses to invest in that state. Rather, the problem is that important countervailing evidence and arguments are being glossed over that imply a very different outcome from adopting a sales-only formula *in the real world*. A thorough consideration of a large body of research on the impact of state business tax policy on economic development and of all the incentives created by a sales-only formula points to the conclusion that adoption of such a formula is likely to be a relatively ineffectual, potentially counterproductive, and not cost-effective incentive for job creation and investment.

Business Tax Policy Generally Has Only a Weak Economic Development Impact

The claim that adoption of a single sales factor formula is likely to be a powerful economic development incentive is contradicted by a large body of research suggesting that a state's business tax structure — including the design of specific taxes and the aggregate tax burden — has at most a small impact on a state's economic fortunes.

- A recently-published article surveyed 33 separate economic studies of the relationship between state business tax burdens and private sector employment or investment. Nine of the 33 studies concluded that having low business taxes had *no* statistically-significant impact on state economic development.

- Even for the remaining 24 studies, the positive economic effects of a state's having low business taxes were quite modest. For example, 19 studies looked at the role that a low business tax burden could play in stimulating the birth of new manufacturing businesses or attracting branch plants of out-of-state firms. Taken together, these 19 studies estimated that having a business tax burden 10 percent lower than that of the average state was associated with just a 2 percent greater number of manufacturing establishments.[34]

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Many of these studies look at the impact of state and local business taxes on business formation assuming that all other differences among states that potentially effect economic development — such as the quality of public services, the availability of an adequately-trained labor force, and the cost of energy — are being held constant. In reality, differences in these factors among states can be significantly greater than differences in tax burdens and thus have a much greater impact on the relative attractiveness of different states as a location for new business investments.[35] Moreover, interstate differences in these important non-tax factors can be moderated or exacerbated by state fiscal policy choices; as will be discussed in the next section, for example, the decision to cut state taxes on business can impair the ability of states to provide public services that businesses need.

The apportionment formula is only one factor that influences the effective income tax burden of a corporation in a particular state — together with the tax rate, the treatment of previous years' losses, and the availability of tax credits for such activities as R&D, investment, and job creation. Moreover, the corporate income tax itself is only one component of a corporation's total tax liability in a state; most economists estimate that corporations in the aggregate pay far more property taxes than they do state corporate income taxes.[36] Manipulating only one variable affecting only one business tax is unlikely to have a significant impact on a state's relative economic competitiveness.

Finally, adopting a single sales factor formula is unlikely on its own to attract many businesses to a state because corporate managers understand that some of the tax savings associated with the formula could disappear long before the investments pay off. As demonstrated above (see pp. 9-10), the tax savings associated with a state's adoption of a sales-only formula arise primarily from the creation of "nowhere income." However, a significant share of the "nowhere income" and the associated tax savings disappear when other states widely adopt the single sales factor formula.[37] The tax managers of multistate corporations understand this dynamic, and they are also well aware that a state's adoption of a single sales factor formula is likely to encourage other nearby states to adopt the formula.[38] While they are only too happy to accept the windfall if a state provides it, rational businesses are unlikely to base major plant expansion or siting decisions on economic incentives whose longevity is highly uncertain.[39]

Revenue Losses Could Impair the Provision of Public Services Needed by Businesses

Adopting a single sales factor formula could be counterproductive to a state's economic development. The loss of corporate tax revenue that results from the formula shift could impair the ability of an adopting state to provide high-quality public services sought by businesses when they contemplate locating or expanding in a state.

An academic authority on the relationship between state and local taxes, public services, and economic development has concisely summarized the state and local service needs of business:

Businesses need to know that they can rely on high-quality, well-administered public services to facilitate the conduct of their enterprises. Snow removal and flood control must be reliable and timely; roads, bridges, and highways must be maintained in good repair; fire protection and police services must be there when needed; the justice system must be professional, impartial, and quick to resolve contract disputes; and the schools and colleges must help to generate a skilled and well-trained workforce. [40]

An advisor to businesses on site selection has also emphasized the critical role played by public service quality in business location decisions:

[T]he "services" side of taxes is also carefully measured — what the company will receive for its tax dollars in the way of services, such as police protection, education capabilities, and the like. For our clients, education has been found to be the single most important service, greatly exceeding the value of all other services combined. A distant second is highway adequacy, followed by public safety and then infrastructure. The value of education and highways should be self-evident but the ranking of public safety may be surprising. The companies' concern is not only the effect that crime levels have on the safety and security of people and property, but also the effect on insurance rates. Effective crime prevention is important to companies considering locations. [41]

The preceding statements by economic development experts suggest that businesses are vitally interested in the quality of public services in areas in which they are located or are contemplating locating. Moreover, as much as they may want low taxes, businesses also look for state and local fiscal conditions that are likely to be stable over the long time horizon encompassed in a major facility location decision. In other words, businesses also seek assurance that a state in which they make a large investment will not be forced to cut services or raise their taxes unexpectedly.

Taken together,

- the relatively small impact of business tax burdens on economic development,

- the independent influence on economic development of public services financed by those taxes, and

- the ability of states to influence job creation through other policy choices

have led most economists that have studied the issue to conclude that the focus on attracting jobs and investment through manipulation of state tax policy is misguided. As three leading experts have written:

[M]ost researchers find taxes to be a statistically significant factor in business location and expansion decisions, [but] the economic effect of taxes tends both to be small and to

be less important than other factors. Labor force availability and quality, for example, appear to be more important for explaining differences across locations in economic activity. How tax revenues are spent tends to be important, important enough that high relative taxes may not be a deterrent to economic growth if the revenues are used to finance services of value to business, such as education and transportation infrastructure. The studies do make clear that a policy of cutting taxes to induce economic growth is not likely to be efficient or cost-effective in the general case. In specific cases, where a city's taxes have gotten far out of line or a state's industrial base is particularly sensitive to a specific tax, reductions in taxes may be warranted. But the evidence does not support the blanket use of tax incentives in the name of economic development.[42]

Corporate income tax receipts are an important revenue source for states, accounting for six percent of state tax revenues in the median state. As noted in the previous chapter, the potential corporate income tax revenue losses associated with the change to a single sales factor formula are significant, likely understated, and subject to considerable uncertainty. The possibility that changing to a single sales factor formula could interfere with the desire of businesses contemplating expansion in a state to enjoy both a stable fiscal environment and high-quality public services must be carefully weighed against the purported positive investment incentive effects of the formula itself.

A Potentially Counterproductive "Incentive"

As discussed above, there is a large body of research that suggests that interstate differences in business tax burdens do not have a major impact on businesses' decisions about where to locate or expand. But even assuming that the cut in tax liability that some corporations receive when a state switches to a sales-only formula might attract some new investment, the fact that other corporations experience tax increases renders the change to a sales-only formula a double-edged sword that could just as easily result in net job losses as net job gains. Adopting a single sales factor formula could be directly counterproductive to economic development in two ways.

First, as discussed in Chapter III, out-of-state corporations that would pay *higher* corporate taxes if a state switched to a sales-only formula might react by removing facilities and jobs from the state and thereby eliminating their taxability in the state entirely. Such decisions are made easier by federal Public Law 86-272. P.L. 86-272 would allow such companies to keep salespeople in the state to maintain their local markets while still immunizing the corporations from liability for the state's corporate income tax.

Second, a state's adoption of a sales-only formula actually could create an incentive for certain corporations to *forego* new investment and job-creation in the state. Take as an example a Missouri manufacturer of brewery supplies that makes 50 percent of its sales to Wisconsin customers; assume the business of these customers is solicited by a few salespeople who visit from Missouri. Such a manufacturer would not currently pay any Wisconsin corporate income tax

because its activities in Wisconsin are limited to solicitation of sales and it is therefore rendered exempt from Wisconsin taxation by Public Law 86-272.

Now imagine that the Missouri manufacturer currently is contemplating opening a sales office in Wisconsin that would employ Wisconsin residents and is evaluating whether doing so is worth the cost. (On the one hand, the company is having difficulty recruiting salespeople who are willing to travel frequently; on the other hand, the cost of the office space to house them in Milwaukee would exceed the cost in St. Louis, and Wisconsin's corporate income tax rate is higher than Missouri's.) Assume that the Wisconsin sales office would account for 10 percent of the manufacturer's total property and 10 percent of its total payroll. Consider the incentives created for this corporation by Wisconsin's adoption of a sales-only apportionment formula:

- If the manufacturer opened the Wisconsin office under the current double-weighted sales apportionment formula, 30 percent of its profit would become subject to Wisconsin's corporate tax (10% WI property + 10% WI payroll + 50% WI sales + 50% WI sales ÷ 4 = 30% of total profit taxable by Wisconsin).

- If Wisconsin switched to a sales-only apportionment formula, however, 50 percent of this corporation's profit would be taxable in Wisconsin, because 50 percent of its sales are in Wisconsin.

- If the benefit of opening the Wisconsin sales office only slightly outweighed the cost under the current double-weighted sales formula, the increase in Wisconsin corporate tax liability resulting from the change in formulas could be enough to tip the decision against the new investment.[43]

- In short, Wisconsin's adoption of a single sales factor formula would be a *disincentive* for this company's job-creating investment in Wisconsin rather than an incentive.

There is no logical reason to assume that the number of new jobs that might be created in a state in response to investment incentives established by adoption of a single sales factor formula would be larger than the number of existing jobs withdrawn by out-of-state companies experiencing tax increases or new job creation foregone by companies like the hypothetical Missouri company in the previous example. If anything, a good case can be made that net job *losses* would be more likely — at least in the short run:

- Even if the switch to a single sales factor formula creates an incentive for in-state expansion when the resulting output will be sold outside the state, very little of the job gain from in-state expansion could be counted on to occur immediately. Rather, corporations are likely to invest in additional production capacity and hire additional employees over time, as they project increased demand for their goods and services.

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- In contrast, companies that are immediately hit with tax increases when a state converts to a single sales factor formula have an immediate incentive to look for ways to counteract those tax increases. Such companies may consider near-term actions to remove facilities and employees from the state.

A large body of research suggests that a state's decision to cut corporate income taxes is unlikely to have a significant impact on its economic and employment growth rates. Switching from a property-payroll-sales apportionment formula to a sales-only formula is even less likely than other forms of business tax breaks to have a positive economic impact, because the incentive effects do not uniformly point in the direction of encouraging job creation and investment. Adoption of a single sales factor can be counterproductive in certain instances — both to the maintenance of existing employment in a state by certain corporations and to new, job-creating investments by out-of-state corporations. These inherent potential disincentive effects of a single sales factor formula are not typically acknowledged in the literature published by its proponents.[44]

The Low Cost-Effectiveness of a Sales-Only Formula as a Development Incentive

For all the reasons just discussed, adoption of a single sales factor formula seems likely to stimulate far less in-state investment and job creation than its proponents typically assert. But if its effectiveness as an economic development incentive can reasonably be expected to be weak, its *cost*-effectiveness seems likely to be even more dubious.

One of the fundamental policy questions surrounding any tax incentive aimed at stimulating economic development is the extent to which it rewards businesses for making investments or creating jobs within the state that they would have made even if the incentive were not available. For example, what share of new investments in plant and equipment in a particular state would have occurred even in the absence of an investment tax credit? How many disadvantaged individuals would have been hired even in the absence of a tax rebate equal to a portion of the payroll paid to such workers? The cost-effectiveness of an economic development tax incentive depends critically on the extent to which it can be designed to minimize the provision of tax benefits to companies that would have engaged in desired activity without the incentive.

A single sales factor formula is likely to score even more poorly on a cost-effectiveness test than the average state or local tax incentive because the tax reductions received by many corporations are not tied in any way to their investment or job-creation behavior. As demonstrated above, changing from a property-payroll-sales formula to a sales-only formula *automatically* reduces the corporate tax liability of any corporation that sells a disproportionate share of its goods and services outside the state(s) where the production occurs. Such a business does not have to create a single new job or make even one dollar's-worth of new investment to reap the benefits of the tax cut.[45] Indeed, corporations can be disinvesting in a state and laying off workers and yet still receive tax benefits from a single sales factor formula so long as they are

selling most of their goods and services outside of the state that adopted it. Massachusetts has discovered this to its chagrin following its granting of single sales factor treatment to defense contractors like the Raytheon Company in 1995. Since 1995, Raytheon has reduced its Massachusetts workforce by more than 3,000 people. (See the text box on p. xi.) Illinois has had a similar experience with Motorola. (See the text box on the next page.) In short, a considerable portion of the revenue foregone by states adopting a sales-only formula is likely to be nothing but a windfall to corporations that are not contemplating expansion in a state because the demand for their products simply does not warrant it.

A second factor that inherently and substantially reduces the cost-effectiveness of a sales-only formula as an economic development incentive is the impact of "federal deductibility." Like virtually all state and local taxes, state corporate income taxes are deductible as a business expense on federal corporate income tax returns. If a corporation's *state* tax liability is *reduced*, its *federal* tax liability automatically *rises* because it has less state tax to deduct. Major corporations generally face a marginal federal tax rate of 35 percent — meaning that 35 percent of any state tax reduction received by a corporation simply flows to the federal treasury.[46] Even assuming that some corporations might be motivated to expand or invest in a state adopting a sales-only formula, the cost-effectiveness of the incentive is substantially reduced if approximately one-third of the state tax savings are transformed into higher federal tax payments.

Because the tax benefits of a sales-only formula are not inherently restricted to corporations locating *new* jobs and facilities in the adopting state, and because about one-third of the tax benefits are reaped by the federal government rather than the corporation due to the deductibility of state taxes, the cost-effectiveness of this economic development strategy is likely to be very low. Adoption of a single sales factor formula seems unlikely to be as cost-effective as other forms of direct state assistance to businesses — such as specially-tailored training programs or infrastructure development — which can be more easily tied to specific, desired investment behavior on the part of the company. If states feel compelled to build up their arsenals for waging economic warfare with other states, there ought to be any number of expenditures with a "bigger bang for the buck" than the "tax expenditure" associated with a single sales factor formula

The Single Sales Factor Formula and State Economic Development: What Real-World Data Show

The actual experience of states that have adopted a single sales factor formula in creating manufacturing jobs and attracting major manufacturing plants does not give much support to the assertion of single sales factor proponents that the formula is inherently a potent economic development incentive.

Illinois, Motorola, and the Single Sales Factor Formula: "Buying a Pig in a Poke"?

In 1998, the Illinois Manufacturers' Association and other organizations of Illinois-based businesses convinced the legislature to enact and Governor Jim Edgar to sign a three-year phase-in of a single sales factor formula. (Edgar had vetoed a similar bill the previous year.) The *Chicago Tribune* identified Motorola, Inc., headquartered in Schaumburg, Illinois, as one of the major beneficiaries of and lobbyists for the sales-only formula. The *Tribune* reported that $60 million per year in tax savings would be reaped by just five major Illinois corporations, noting that Motorola was one of the 10 largest in the state.

Earlier, in 1996, Motorola had opened a major new cell-phone manufacturing plant in Harvard, Illinois, that it predicted would ultimately employ 2,000-3,000 workers. Illinois' success in convincing Motorola to build the facility in the state followed Motorola's 1992 opening of a new headquarters for its Cellular Subscriber Group in Libertyville, Illinois. Motorola decided to locate both facilities in the state long before there was any public discussion of the state's adoption of a single sales factor formula. Nonetheless, it seems likely that the enhanced possibility of attracting these kinds of major facilities and of encouraging major in-state employers like Motorola to continue expanding in the state was what legislators had in mind when they enacted the sales-only formula.

On January 15, 2001, Motorola announced it would close the Harvard manufacturing plant — its last cell-phone production facility in the U.S. — and eliminate 2,500 jobs. This comes in the wake of Illinois' loss of 30,400 manufacturing jobs between 1998 and 2000. The questionable cost-benefit record of the sales-only formula in Illinois had been evident to *Crain's Chicago Business* even earlier; the paper concluded in December 1999 that the state had bought "a pig in a poke" and editorialized in favor of repeal.

Of course, anecdotes about plant closings in single sales factor states do not prove that the formula is an ineffective economic development incentive. (They should be kept in mind, however, when proponents of the formula tout a particular plant location in a single sales factor state as evidence that the formula works.) What the Harvard plant closing does illustrate is that even the most generous tax incentive — and there is little doubt that the switch to a sales-only formula sharply reduced taxes on the plant's profit — is unlikely to outweigh the fundamental economic forces acting on a business. It is quite difficult to influence corporate investment and disinvestment decisions significantly with tax policy. In their more candid moments, corporate executives acknowledge this. Indeed, just two days after Motorola's announcement of the Harvard plant closing, former Alcoa CEO and now U.S. Treasury Secretary Paul O'Neill said at his confirmation hearing:

> *I never made an investment decision based on the tax code. . . .[I]f you are giving money away I will take it. If you want to give me inducements for something I am going to do anyway, I will take it. But good business people do not do things because of inducements, they do it because they can see that they are going to be able to earn the cost of capital out of their own intelligence and organization of resources.*

Motorola opened the Harvard plant without the "inducement" of a single sales factor formula and closed it despite the state's subsequent adoption of the formula. No doubt the company's executives were happy to receive the tax break Illinois sent their way. Whether policymakers in the state are still happy with their decision to provide it remains to be seen.

The Recent Experience of Single Sales Factor States With Manufacturing Job Creation

It generally is argued that a sales-only formula will provide its most significant investment incentives to manufacturers. Manufacturers most closely fit the profile of a business that reaps a tax cut from the switch from a three-factor to a sales-only formula, that is, a corporation selling into a nationwide or worldwide market from a relative handful of production locations. By 1995, five states had enacted a single sales factor formula for manufacturers — Iowa, Massachusetts, Missouri, Nebraska, and Texas. (Massachusetts implemented a sales-only formula immediately for defense contractors and phased it in between 1996 and 2000 for other manufacturers.) The subsequent experience of these states — see Table 2 — certainly does not indicate that the sales-only formula is a powerful stimulant to investment and job creation by such corporations.

- Massachusetts lost 2.3 percent of its manufacturing jobs (10,400 positions) between 1995 and 2000, and Missouri lost 4.1 percent of its manufacturing jobs (17,400 positions) over the same period. The rate of decline in manufacturing employment in the two states was more than seven times greater than the rate of decline in total U.S. manufacturing employment, which fell 0.3 percent between 1995 and 2000.

- Nebraska, Texas, and Iowa did experience net growth in manufacturing employment between 1995 and 2000 of 6.9 percent, 5.2 percent, and 4.3 percent, respectively. However, only Nebraska was among the top ten corporate income tax states with the fastest rate of growth in manufacturing employment between 1995 and 2000, ranking seventh.

Table 2

Manufacturing Employment Growth, States with Corporate Income Taxes 1995-2000	
North Dakota	*17.4%*
Arizona	10.8
Kansas	*9.8*
Vermont	*8.4*
California	8.4
Idaho	8.2
NEBRASKA	**6.9**
Oklahoma	*6.7*
Colorado	6.7
Montana	*6.0*
Oregon	6.0
Utah	*5.6*
TEXAS	**5.2**
IOWA	**4.3**
Minnesota	3.3
New Hampshire	3.0
Kentucky	2.5
Wisconsin	2.5
Maryland	2.1
Hawaii	*1.2*
Indiana	0.6
Georgia	0.1
Florida	0.0
UNITED STATES TOTAL	-0.3
Ohio	-1.5
Pennsylvania	-1.6
Illinois	-1.8
West Virginia	-2.1
MASSACHUSETTS	**-2.3**
Louisiana	-2.4
Arkansas	-3.1
Virginia	-3.5
MISSOURI	**-4.1**
Delaware	*-4.7*
New Mexico	-5.1
Tennessee	-5.7
Connecticut	-6.0
Maine	-6.5
New York	-7.2
New Jersey	-7.4
Alabama	*-7.9*
South Carolina	-8.0
Mississippi	-9.3
North Carolina	-9.5
Rhode Island	*-14.1*
Alaska	*-18.3*
STATES WITH SINGLE SALES FACTOR FORMULA IN BOLD	
States with equally-weighted property-payroll-sales formula in italic.	

- Five of the 10 states with the fastest manufacturing job growth between 1995 and 2000 still use the traditional property-payroll-sales formula that gives only a one-third weight to sales. This is hardly compelling support for the argument that the greater the weight a state's formula gives to the sales factor, the greater is its advantage in attracting "export-oriented" corporations.

Finally, it may also be instructive to take a longer-term view of the experience of Iowa and Missouri, both of which have had a sales-only formula in place for decades. A reasonable starting point for such an examination might be 1979, when manufacturing employment in the U.S. as a whole reached its post-War peak. Manufacturing employment in Iowa *has* risen since 1979, but only by a modest amount. Iowa has generated on net only 1,300 manufacturing jobs since then — an increase of 0.5 percent. This was the lowest growth rate among the 18 corporate income tax states that experienced net growth in manufacturing employment between 1979 and 2000. Missouri, on the other hand, is one of the 27 states that have *lost* manufacturing jobs since 1979. It lost 61,000 manufacturing positions, a decline of 13.1 percent. Missouri's long-term loss of manufacturing jobs is particularly noteworthy because it allows corporations an *election* between the traditional, equally-weighted property-payroll-sales formula and the sales-only formula. This means that no out-of-state corporation has faced any of the kinds of disincentives for Missouri investment that a *mandatory* sales-only formula can create. The fact that neither of the states with long-term experience with a sales-only formula has a particularly impressive long-term record for attracting or creating manufacturing jobs is a further indication that the formula is unlikely to live up to its billing as a potent economic development incentive.

The Recent Record of Single Sales Factor States in Luring Major Plants

Recent data on major plant location and expansion decisions also do not lend much support to the assertion that adoption of a single sales factor formula is likely to have a major positive impact on a state's economic competitiveness. In contemplating adoption of a single sales factor formula, legislators may be hoping to lure to their states one of a relative handful of major new plants that large corporations site in a typical year. Some of these facilities may employ thousands of workers, and capturing one is likely to land the governor on the front page of newspapers throughout the state — along with the lucky legislator in whose district the plant will be located. Little evidence exists to suggest that single sales factor states have a particular advantage in luring major manufacturing and other "export-oriented" facilities.

Table 3 lists all of the 51 facility investments valued at $700 million or greater that were placed in states with corporate income taxes from 1995 through 2000, according to *Site Selection Magazine*.[47] Three of the five states that had a single sales factor formula in effect or phasing in during this period — Iowa, Missouri, and Nebraska — did not capture a single one of these major plant locations/expansions. Only six of the 51 facilities were sited in single sales factor

Table 3
Major Plant Locations/Expansions in Corporate Income Tax States 1995-2000

State (single sales factor states in bold)	Company	Investment ($millions)
Virginia	Motorola	$3,000
New York	IBM	$2,500
Oregon	Intel	$2,200
Arizona	Intel	$2,000
California	Walt Disney	$2,000
New Mexico	Intel	$2,000
Texas	**Texas Instruments**	**$2,000**
Massachusetts	**Nortel Networks**	**$1,900**
Colorado	Intel	$1,500
Tennessee	Saturn Corporation	$1,500
Virginia	White Oak Semiconductor	$1,500
California	NEC Electronics	$1,400
Oregon	Hyundai Electronics	$1,300
Oregon	Hyundai Electronics	$1,300
Texas	**Samsung Electronics**	**$1,300**
Texas	**Intel**	**$1,300**
Utah	Micron Technology	$1,300
California	IDEC Pharmaceuticals	$1,250
Colorado	Rockwell International	$1,200
Georgia	Hankook Synthetics	$1,200
Ohio	Chrysler	$1,200
Virginia	IBM/Toshiba	$1,200
Indiana	AK Steel	$1,100
Arizona	Microchip Technology	$1,000
Arizona	Microchip Technology	$1,000
Indiana	Eli Lily	$1,000
Indiana	Chrysler	$1,000
Mississippi	Nissan Motor	$1,000
Mississippi	Safe Mississippi Pole LLC	$1,000
New Jersey	Merck	$1,000
Oregon	LSI Logic	$1,000
California	Lockheed Martin	$ 950
Delaware	General Motors	$ 900
Kentucky	United Parcel Service	$ 860
California	Chiron	$ 800
California	U.S. Data Port	$ 800
Indiana	Toyota Motor	$ 800
Massachusetts	**Intel**	**$ 800**
Oregon	Integrated Device Technology	$ 800
California	North Hollywood Studio Project	$ 750
Colorado	Atmel	$ 750
Mississippi	Pearl River Resort	$ 750
Oklahoma	Oklahoma Beef Processors	$ 750
Texas	**Southland Newsprint LP**	**$ 750**
Indiana	Toyota Motor	$ 700
Louisiana	General Motors	$ 700
New Jersey	Goldman Sachs Group	$ 700
New York	IBM-Silicon Wafers	$ 700
Oklahoma	General Motors	$ 700
Virginia	Dominion Semiconductor	$ 700
Virginia	FlashVision LLC	$ 700

Shown are all investments of $700 million or larger in states with corporate income taxes that were included in annual *Site Selection Magazine* tallies of the largest U.S. investments in new plants or plant expansions. Identical listings represent separately-announced investments.

states. Texas lured four facilities, a rate of investment roughly in line with its share of overall U.S. economic output.[48] Massachusetts had an above-average success rate in attracting major plants; its economic output constitutes 2.7 percent of the U.S. total, and in 2000 it landed two plants that comprise 4.5 percent of the total investments listed in Table 3.[49] However, Massachusetts' disproportionate share was chiefly attributable to a decision by computer-chip manufacturer Intel Corporation to build a major plant in the state. Between 1995 and 2000, Intel placed three and one half times as much investment in non-single sales factor states as it did in single sales factor states — suggesting that Massachusetts's success in luring the company in 2000 should not be attributed to the state's adoption of a sales-only formula.[50]

It is worth noting as well that all but one of these major Texas and Massachusetts investments were in the high-technology sector, in which both states were strong long before they enacted a single sales factor formula. These investments arguably have more to do with companies seeking what economists call "agglomeration economies" — the intangible benefits that flow from locating near similar businesses and thereby being able to access a network of suppliers and a concentration of skilled labor — than tax savings from a single sales factor formula. In sum, there is very little evidence in Table 3 that a single sales factor formula represents a powerful lure to corporations siting major "export-oriented" facilities.

Summary

Single sales factor proponents argue that a corporation selling a disproportionate share of its wares outside of the state(s) in which it produces them would — all other things being equal — locate or expand in a single sales factor state rather than in one that puts less weight on the sales factor in its apportionment formula. There is nothing flawed in this logic. Nonetheless, as this chapter has shown, all other things are rarely equal. There is good reason to doubt that this tax break is likely to have a major positive impact on state job growth in the real world. Perhaps the most important counter to the contention that adoption of a single sales factor formula will result in significant new economic growth is that the same logic that would encourage some corporations to place property and jobs in a state with such a formula inherently discourages other corporations from doing so.

Nor do real-world data lend strong support to the claims of proponents of a sales-only formula that it is a powerful incentive for the placement of jobs and facilities in an adopting state. There certainly is no indication thus far that the handful of states that have implemented a sales-only formula have become a magnet for manufacturers — the type of corporation most likely to be lured by this tax break.

In sum, claims that adoption of a single sales factor formula significantly increases the attractiveness of a state as a site for new investment appear to be overblown. Given that a substantial portion of the revenue foregone by states adopting a sales-only formula is likely to flow to the federal treasury or to corporations not contemplating expansion, the high priority

Job Creation and the "Dynamic" Revenue Impact of a Single Sales Factor Formula

Proponents of single sales factor apportionment do not question analyses that conclude that a particular state's adoption of a sales-only formula will reduce its corporate income tax revenues. They frequently assert, however, that the loss of corporate tax revenue will be offset substantially or totally by increases in other revenues arising from the alleged beneficial economic development impacts of the formula's adoption. Goolsbee and Maydew, for example (see Appendix D), have estimated that jobs created in Illinois, Minnesota, New York, and Wisconsin as a result of their adoption of a single sales factor formula would generate annual increases in state personal income tax revenues of $200 million, $43 million, $184 million, and $51 million, respectively. For Illinois and New York, those figures far exceed the estimated corporate income tax revenue loss from adoption of the formula — meaning that Goolsbee/Maydew effectively predict that adoption of a sales-only formula would result in a large, net revenue gain for those two states. In the case of Minnesota and Wisconsin, the personal income tax revenue gains estimated by Goolsbee/Maydew would offset a substantial portion — though not all — of the estimated corporate income tax revenue losses. Goolsbee and Maydew also argue that growth in property and sales tax revenues can also be expected as a secondary effect of the growth in investments and jobs stimulated by adoption of a sales-only formula.

If adoption of a sales-only formula does in fact stimulate the creation of jobs in a state that would not otherwise have been located within its borders, then it is legitimate in principle to try to measure the feedback effect on other revenue sources of those jobs. As discussed in this chapter and Appendix D, however, there are numerous reasons to doubt that such job growth will be as great as predicted by single sales factor proponents — if indeed any *net* job growth can be expected. Moreover, as discussed in Chapter 3, there are good reasons to expect the corporate income tax revenue losses associated with the switch to a sales-only formula to be larger than estimated once incentives for stepped-up tax-avoidance behavior on the part of some corporations are taken into account. Finally, a state's adoption of a sales-only formula is likely to stimulate neighboring states to adopt the formula as well — erasing much of the tax savings and job-creation incentives the formula provides to in-state, "export-oriented" corporations. In light of these considerations, any assertion that adoption of a single sales factor formula will "pay for itself" should be viewed with a great deal of skepticism. "Dynamic" analysis of the overall revenue impact of a single sales factor formula must take into account *all* of the incentives facing corporate taxpayers in states switching to the formula — both those that encourage job and revenue losses and those that encourage job and revenue gains.

assigned to this policy change by many state economic development officials at this time seems misguided.

V.   The Single Sales Factor Formula and Tax Equity

The previous chapter argued that adoption of a single sales factor formula is a dubious state economic development strategy. This chapter explains why adoption of a sales-only formula represents inequitable tax policy as well. The single sales factor formula imposes excessive tax burdens on many out-of-state corporations. The formula also provides relatively meager tax savings to many small, in-state corporations even as many large, multistate corporations enjoy substantial tax cuts.

A Sales-Only Formula Imposes Excessive Tax Burdens on Many Out-of-State Corporations

A single sales factor apportionment formula undercuts one of the fundamental rationales for a corporate income tax, which is that a corporation should pay taxes to a state as compensation for the benefits it receives from state services. Corporations benefit from a wide range of governmental services that specifically relate to the extent of property and payroll in a state. States often underwrite local government police and fire protection for the corporation's property and employees and provide roads and other transportation services to allow access to factories by suppliers and employees and the shipment of goods to markets. States also fund K-12 and higher education services that enable many businesses to find workers with adequate skills. Thus, the change from a property-payroll-sales formula to a sales-only formula often reduces the corporate tax burden of businesses that arguably are benefitting the most from public services in a state — corporations with substantial property and employment in the state — and unfairly shifts the tax burden to businesses with little in-state presence that benefit from state services to a lesser extent.

It certainly is legitimate for a state in which a business' customers are located to tax a share of its profit even if the business does not engage in production in that state. After all, these

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"market states" also provide services that benefit out-of-state companies — such as the roads they use to transport their goods to their customers and a judicial system that ensures that customers pay their debts.[51] A case can even be made that the double-weighted sales factor variant of the property-payroll-sales formula is optimal on fairness grounds.[52] But a single sales factor formula goes too far in imposing corporate income tax liability solely on the basis of customer location rather than in proportion to both customer and production location.

At other times and on other issues, the corporate community has complained that states in which multistate corporations lack a substantial physical presence seek to impose disproportionate and unfair tax burdens upon them. (See Appendix A.) That arguably is what a single sales factor formula does to an out-of-state corporation with a relatively large share of its sales in a state and a relatively small share of its property and payroll within the state's borders.

A Single Sales Factor Formula Is Unfair to Many Small Businesses

Changing from a three factor apportionment formula to a sales-only formula heightens tax inequities among other groups of corporations as well. For example, large corporations are much more likely to reap tax savings from a sales-only formula than are smaller corporations.

Small corporations are less likely than large corporations to be subject to corporate income tax in multiple states.[53] Small corporations that are taxable in only one state fall into two groups:

- Many small corporations are taxable only in one state because they have a single production establishment and all of their customers are in their home states as well. A good example of this type of corporation is the small company that commonly springs-up around a major local manufacturing industry like autos in Michigan or computers in Texas to supply parts or assemble sub-components.

- The second group of small corporations that are taxable in only one state is comprised of corporations that have *customers* in multiple states but facilities in only one. Even if a small corporation has customers in other states, orders are likely to be solicited from those customers without setting up the out-of-state physical facilities that would obligate the corporation to pay corporate tax to the state(s) in which the customers are located. Recall that federal Public Law 86-272 exempts manufacturers and other sellers of tangible goods from corporate income tax liability in states in which their presence is limited to personnel soliciting orders. If corporations with sales in other states are not taxable in any such states because of Public Law 86-272, they usually are prohibited by state law from apportioning any of their profit to other states for tax purposes.

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Both groups of small corporations will have 100 percent of their profits taxed by their home states and will be unaffected by any changes in the weighting of the various apportionment factors. Since small corporations are more likely than large ones to fall into both of these categories of non-apportioning corporations, large corporations are likely to obtain a disproportionate share of the tax savings that flow from the switch to a single sales factor formula. Numerous small corporations — many of which are likely to be family-owned — will obtain no tax savings at all from the switch to a single sales factor formula. Wisconsin reported, for example, that 79 percent of its profitable corporations were only taxable in Wisconsin in 1997 and would not have benefitted if the state had had a single sales factor formula in effect in that year.[54]

An increasing number of states are focusing their economic development efforts on stimulating the creation and enhancing the financial stability of small, entrepreneurial businesses. Thus, the failure of a single sales factor formula to provide tax savings to many small corporations not only shifts the overall distribution of the corporate income tax burden in an inequitable direction, but it runs contrary to the economic development strategies of these states by distributing limited state financial resources principally to large corporations.

VI. Conclusion

Aggressive corporate salesmanship has largely succeeded in depicting the single sales factor apportionment formula as a potent incentive for state economic development. Several states have already switched from the standard property-payroll-sales formula to a sales-only formula for this reason. These actions threaten to set off a stampede among the remaining states in the next few years. As in previous rounds of the "economic war among the states," many public officials may feel they cannot afford to forego adding any potentially useful weapon to their arsenals.

Some people inclined to be skeptical of the economic development benefits promised by single sales factor proponents nonetheless assert that the time has come to make a virtue out of necessity. The argument proceeds roughly as follows: "It doesn't matter very much what corporate income tax apportionment formula states use. As long as all states use the same formula, all corporate profits will be distributed among the states for taxation and no corporation will be subject to unfair double-taxation of its profit. Since the single sales factor genie is out of the bottle, efforts to resist adoption of the sales-only formula in additional states are futile. The better course of action would be to encourage all states to abandon the property-payroll-sales formula and implement the single sales factor approach. If they wish, states can adjust their corporate income tax rates to offset the relatively marginal decreases and increases in tax revenue that would arise from the change in the apportionment formula."

The time may indeed come when the best course of action may be to accept this argument and pursue universal state adoption of a sales-only formula. Before reaching this conclusion, however, public officials should appreciate that even universal adoption of a single sales factor formula likely would have significant adverse consequences for state revenues. A uniformly-adopted single sales factor formula would achieve a complete distribution of corporate profits among the states only if one of two things were true: either all states adopted the sales throwback rule or all corporations were automatically subject to corporate income tax in all states in which

they had sales. Satisfying either of these conditions in the foreseeable future does not appear to be politically realistic. Businesses vehemently oppose the throwback rule on principle and would lobby fiercely against its restoration in the 20 states that do not currently have it in place.[55] Satisfying the second condition is even less likely, evidenced by the fact that states have not made even a token effort to seek congressional repeal of P.L. 86-272. (Indeed, states may have their hands full blocking renewed efforts by elements of the business community to impose even tighter federal restrictions on the ability of states to impose corporate income taxes on multistate corporations.)[56] Even in the unlikely event that P.L. 86-272 were to be repealed, most multistate corporations would take the position that U.S. Supreme Court decisions protect them from having to pay corporate income taxes to states in which they have customers but are not physically present.[57]

Thus, even if all states switched to a sales-only formula simultaneously, the result would *not* be a more-or-less revenue-neutral reshuffling of corporate income tax liabilities among the states. Instead, an almost immediate ratcheting-down of aggregate state corporate income tax payments would occur as a sales-only formula interacted with the absence of throwback rules in nearly half of the states to expand significantly the amount of "nowhere income" received by multistate corporations. The longer-run revenue loss would be even more substantial, as some corporations exploited the kinds of restructuring opportunities aimed at tax minimization that were discussed in Chapter III.

Neither would it be realistic to expect enactment in many states of corporate tax rate increases to recover the revenues lost from the change to a sales-only formula. A large number of corporations already would have experienced increased tax liability from the change in formulas; they would almost certainly oppose tax rate increases that would raise their tax payments even further. The requirements in many states that tax rate increases be approved by legislative super-majorities or a popular vote would be an additional impediment to enacting them. In sum, it seems highly unlikely that universal state adoption of a single sales factor formula could be kept even close to revenue-neutral either in individual states or in the aggregate.

In any case, there is no need to accept further erosion of the state corporate income tax base — let alone to encourage it by prodding all states to adopt the sales-only formula. Only a small minority of states have adopted a single sales factor formula; none of them can assemble much evidence that doing so has significantly enhanced their economic competitiveness. On the contrary, the preponderance of evidence set forth in this report supports the conclusion that a state's adoption of a single sales factor formula should not and does not stimulate economic development and job creation to any significant extent. States that have refrained from switching to the single sales factor formula up to now can continue to do so secure in the knowledge that they are not harming their "business climate" or missing out on economic development opportunities.

The widespread discussion of the single sales factor issue that is taking place at the present time actually affords the states an opportunity to revisit fundamental principles regarding

income taxation of multistate corporations. One of the basic principles underlying imposition of a state corporate income tax is that corporations should make some payment to states to underwrite the services the businesses receive from state government. Two of the principles underlying the design of the apportionment formula are, first, that corporate profits should be assigned to states for income tax purposes in reasonable relation to where the profits are earned and, second, that this assignment should be done in a manner that avoids — or at least minimizes — double taxation.

Adoption of the single sales factor formula violates all of these principles. Unilateral adoption of a sales-only formula is likely to result in double taxation of the profits of some corporations, since any non-uniformity among the states in their apportionment formulas creates that potential.[58] Even *universal* adoption of a single sales factor formula would violate the other two principles. No one can reasonably argue that a manufacturer that does all of its production in a state but sells all of its output elsewhere is not benefitting to some degree from state services where its facilities and employees are located. Nor can it reasonably be denied that this corporation's production activities make a significant contribution to its profits. Yet the single sales factor formula effectively rejects both of these propositions, imposing no home-state tax at all on this corporation — even as an out-of-state corporation would be subjected to tax on all of its profits by virtue of having all of its sales in the same state.

Not motivated in any way by a desire to confer economic advantages on particular states, the drafters of the Uniform Division of Income for Tax Purposes Act arrived at a carefully-considered approach to corporate tax apportionment that sought to implement the "benefits-received" principle that underlies the corporate tax. The vast majority of states still use the property-payroll-sales formula sanctioned by state and business representatives in 1957. In the ensuing years, the double-weighted sales variant of the UDITPA formula has been adopted by a large plurality of states and has become the new de facto standard. Rather than pursuing what is likely to be — at best — a meager, temporary, and zero-sum economic advantage through the unilateral adoption of a single sales factor formula, states could recommit themselves to a uniform apportionment policy based on this new standard. States that have adopted greater than 50 percent weighting of their sales factors could phase back down to that level; the few states that retain the equally-weighted three factor formula could begin a transition to the double-weighted sales variant.[59] It is not too late to put the single sales factor genie back in its bottle.

Even at the height of the Cold War, the United States and the U.S.S.R. found it in their mutual interest to place limits on their military competition. For example, they came to recognize that some nuclear weapons that were quite costly to build were relatively ineffectual from a strategic standpoint and highly destabilizing in a crisis — a terrible combination of attributes. The manipulation of corporate income tax apportionment formulas and associated rules has similar failings as a weapon of interstate economic competition. This report has shown that a state's unilateral adoption of a single sales factor formula is unlikely to have a significant positive impact on the state's economic prospects, even as it threatens to set off a vicious cycle of

competition the end result of which is likely to be substantial net erosion of the aggregate state corporate income tax base.

Beyond its specific shortcomings, the single sales factor formula is an example of the scattershot approach to economic development most states abandoned long ago. Most states have learned that their best economic development strategy is to focus on providing the high-quality public services that underpin business growth in as cost-effective a manner as possible. At times, specific state interventions in the marketplace may be warranted to eliminate gaps in the supply of capital, labor, or other key business inputs or to reduce their costs. It may also be appropriate for states to steer investments in ways that benefit particularly disadvantaged population groups or geographic areas left out of the economic mainstream. In both cases, states have at their disposal a wide array of carefully-targeted tools that have been honed by economic development professionals through decades of trial and error.[60] Even if state officials are convinced — despite substantial evidence to the contrary — that tinkering with their tax systems can enhance their economic competitiveness, they can do so through adjustments that are transparent, conditioned on the actual creation of good jobs, and unlikely to touch off a "race to the bottom."

The single sales factor apportionment formula fails on all of these counts. State officials should not find it difficult to identify and implement much more cost-effective economic development strategies.

APPENDIX A

Business' Campaign for the Single Sales Factor Formula — Ironies Aplenty

To those familiar with the tax policy views of the multistate corporate community, business' recent lobbying campaign for a single sales factor formula in a significant number of states initially may be puzzling.

Representatives of multistate business frequently argue that such businesses do not derive significant benefits from public services in states in which they merely make sales but do not engage in production. For example, Arthur Rosen, a nationally-prominent state tax attorney, recently has written: "As is obvious to the most casual of observers, governments provide their protections and services for the benefit of those individuals and businesses physically present in the jurisdiction. Whether it is fire and police protection, education services, social services, or transportation facilities, those who are there get the benefits. . . .[L]ocal businesses are obtaining government protections and benefits that remote businesses do not. . . "[61] In light of this stance, it seems curious that major multistate businesses are urging many states to adopt a sales-only formula that has precisely the opposite impact: imposing high corporate taxes on companies that have most of their sales in a state but little of their production there. (Again, recall that a corporation with 100 percent of its sales in a state but none of its production within that state's borders could have close to 100 percent of its profit apportioned to that state for tax purposes under a sales-only formula.)

Pushing for a single sales factor formula also seems inconsistent with oft-heard corporate complaints about the alleged tendency of states to impose unfair tax burdens on out-of-state corporations because they are easy targets that do not have much political influence when they do not have substantial numbers of employees in a state. Such opposition to "taxation without representation" is being voiced especially widely now while states are pressing their case that they be empowered to require Internet merchants, mail-order catalogs, and other "remote sellers" to collect and remit sales taxes even if the seller is not physically present in its customers' states.[62] Urging a policy change that might conceivably tax 100 percent of the profit of a corporation in a state where it has almost no ongoing presence seems at odds with concerns about unfair tax treatment of businesses lacking political clout.[63]

The apparent inconsistency between the multistate business community's pursuit of single sales factor apportionment in a growing number of states and its long-standing opposition to being subjected to tax in states where it lacks a physical presence is easily explained, however. The pursuit of a sales-only formula by some businesses represents an attempt to further their short-term financial self-interest, notwithstanding tax policy positions they pursue in other contexts. As discussed on pp. 9-13, a state's unilateral adoption of a single sales factor formula can render a substantial portion of a multistate corporation's profit "nowhere income" that is not taxed by any state. In advocating a single sales factor formula, multistate corporations are

seeking to grab a valuable tax windfall that will benefit many corporations until such time as a large number of states adopt the same formula.

By allowing the public lobbying for a single sales factor formula to be done by state chambers of commerce and similar organizations, the case for the formula can be argued on apparently altruistic, economic development grounds. Individual multistate corporations can avoid the risk that they will be asked in public whether, on principle, a single sales factor formula represents the most fair apportionment method and one that all states therefore should adopt.

In sum, representatives of multistate corporations have been able to side-step criticism that their pursuit of a single sales factor formula is inconsistent with their long-stated opposition to state tax policies that impose disproportionate tax burdens on out-of-state corporations by avoiding a discussion of the principles of apportionment policy. State officials should not allow them to have it both ways.

APPENDIX B

How Shifting Its Warehouse from S. Carolina to Georgia Enables BBI to Mitigate A Tax Increase When S. Carolina Adopts a Single Sales Factor Formula

Better Boxes, Inc. (BBI) manufactures corrugated cardboard boxes in Georgia and sells them directly to customers in Georgia, Florida, and South Carolina. Its total profit in 1998 was $2,000,000. The other financial statistics relevant to BBI's apportionment calculation for 1998 were as follows:

	Property	Payroll	Sales
Georgia	$25,000,000 (HQ and manufacturing plant)	$4,000,000 (HQ, sales force and manufacturing plant)	$6,000,000
South Carolina	$5,000,000 (warehouse)	$1,500,000 (warehouse)	$13,000,000
Florida	$500,000 (sales office)	$500,000 (sales force)	$1,000,000
TOTALS	$30,500,000	$6,000,000	$20,000,000

BBI's profit taxable by Georgia:

$$= \text{Total profit of BBI} * \left[\frac{\left(\dfrac{\text{Property of BBI in Georgia}}{\text{Property of BBI everywhere}} \right) + \left(\dfrac{\text{Payroll of BBI in Georgia}}{\text{Payroll of BBI everywhere}} \right) + 2 * \left(\dfrac{\text{Sales of BBI in Georgia}}{\text{Sales of BBI everywhere}} \right)}{4} \right]$$

$$= 2,000,000 * \left[\frac{\left(\dfrac{25,000,000}{30,500,000} \right) + \left(\dfrac{4,000,000}{6,000,000} \right) + 2 * \left(\dfrac{6,000,000}{20,000,000} \right)}{4} \right]$$

$$= 2,000,000 * \left[\frac{.82 \; + \; .67 \; + \; 2*.3}{4} \right]$$

$$= 2,000,000 * .52$$

$$= 1,040,000$$

Fifty-two percent of BBI's nationwide profit of $2 million — or $1.04 million — is taxable by Georgia.

BBI's profit taxable by South Carolina:

$$= \text{Total profit of BBI} * \left[\frac{\left(\dfrac{\text{Property of BBI in S Carolina}}{\text{Property of BBI everywhere}} \right) + \left(\dfrac{\text{Payroll of BBI in S Carolina}}{\text{Payroll of BBI everywhere}} \right) + 2 * \left(\dfrac{\text{Sales of BBI in S Carolina}}{\text{Sales of BBI everywhere}} \right)}{4} \right]$$

$$= 2,000,000 * \left[\frac{\left(\dfrac{5,000,000}{30,500,000} \right) + \left(\dfrac{1,500,000}{6,000,000} \right) + 2 * \left(\dfrac{13,000,000}{20,000,000} \right)}{4} \right]$$

$$= 2,000,000 * \left[\frac{.16 + .25 + 2 * .65}{4} \right]$$

$$= 2,000,000 * .43$$

$$= 860,000$$

Forty-three percent of BBI's nationwide profit of $2 million — or $860,000 — is taxable by South Carolina.

Assume now that South Carolina adopts a single sales factor formula. BBI has 65 percent of its sales in South Carolina; if South Carolina shifts to a sales-only formula, the share of BBI's nationwide profit taxable in South Carolina therefore will increase from 43 percent to 65 percent. BBI considers responding to South Carolina's action by selling its South Carolina warehouse and buying a new one in Georgia. The financial statistics relevant to BBI's Georgia and South Carolina apportionment calculation for 1998 are now as follows:

	Property	Payroll	Sales
Georgia	$25,000,000 (HQ and manufacturing plant) plus $5,000,000 (new warehouse)	$4,000,000 (HQ, sales force and manufacturing plant) plus $1,500,000 (new warehouse)	$6,000,000
South Carolina	$0 (warehouse closed)	$0 (warehouse closed)	$13,000,000
Florida	$500,000 (sales office)	$500,000 (sales force)	$1,000,000
TOTALS	$30,500,000	$6,000,000	$20,000,000

BBI's Profit Taxable by Georgia:

$$= \text{Total profit of BBI} * \left[\frac{\left(\dfrac{\text{Property of BBI in Georgia}}{\text{Property of BBI everywhere}} \right) + \left(\dfrac{\text{Payroll of BBI in Georgia}}{\text{Payroll of BBI everywhere}} \right) + 2 * \left(\dfrac{\text{Sales of BBI in Georgia}}{\text{Sales of BBI everywhere}} \right)}{4} \right]$$

$$= 2,000,000 * \left[\frac{\left(\dfrac{30,000,000}{30,500,000} \right) + \left(\dfrac{5,500,000}{6,000,000} \right) + 2 * \left(\dfrac{6,000,000}{20,000,000} \right)}{4} \right]$$

$$= 2,000,000 * \left[\frac{.98 \ + \ .92 \ + \ 2*.3}{4} \right]$$

$$= 2,000,000 * .63$$

$$= 1,260,000$$

If BBI sells its South Carolina warehouse and buys a new one in Georgia, 63 percent of BBI's nationwide profit of $2 million — or $1.26 million — will be taxable by Georgia and none will be taxable by South Carolina. If BBI does not shift its warehouse operation from South Carolina to Georgia, thereby eliminating its tax liability in South Carolina, BBI will have 65 percent of its profit taxable in South Carolina under a single sales factor formula and 52 percent of its profit taxable in Georgia. (See the first calculation for Georgia above.) A total of 117 percent of its profit — or $2,340,000 — will be taxable if BBI does not react to South Carolina's adoption of a single sales factor formula by closing its warehouse in South Carolina. Obviously, South Carolina's unilateral adoption of a single sales factor formula has created an incentive for BBI to remove its jobs and property from that state.

When both Georgia and South Carolina used the three-factor formula (with double-weighted sales), 95 percent of BBI's profit was apportioned to Georgia and South Carolina combined; as just demonstrated, shifting the warehousing operation from South Carolina to Georgia reduces this to 63 percent assuming Georgia continues to use the three factor formula.[64] It might therefore be argued that this is a biased example, because even under a three-factor formula, BBI could have reduced its combined tax liability to Georgia and South Carolina by closing its South Carolina warehouse. While factually accurate, this argument misses the point.

A company like BBI could have good business reasons for maintaining its warehouse in South Carolina notwithstanding the fact that this decision does not result in the lowest possible state corporate income tax liability. For example, BBI may want to minimize the transport time needed to serve its customers in all three states. One must therefore assume that there would be

significant costs to the company in shifting the warehouse operation to Georgia. The company might need a larger fleet of trucks. There might also be transition costs to train new Georgia warehouse employees, higher warehouse acquisition costs in Georgia, and so forth.

BBI's managers might ultimately conclude that the higher tax liability that results from South Carolina's adoption of a sales-only formula is not enough to tip the balance in favor of eliminating its taxability in the state. But for some out-of-state companies that would face higher taxes if a state switches to a sales-only formula, it is reasonable to expect that the balance *would* be tipped and that they would decide to eliminate their taxability in the state. If that is the case, then the loss of corporate income tax revenues resulting from adoption of a single sales factor formula is likely to be greater than estimated.

APPENDIX C

How "Combined Reporting" Prevents
Artificial Interstate Shifting of Corporate Profits

The legal structure of the typical large multistate corporation presents a major challenge to the development of state corporate income tax apportionment rules. What we view as *one* multistate corporation is actually likely to comprise a parent corporation and numerous subsidiary corporations. For example, a multistate petroleum business may consist of a parent company that manages the operations of different subsidiaries that own oil fields, pipelines, refineries, and gas stations.

In developing apportionment rules, states face two basic alternatives in dealing with the fact that most major multistate corporations are in fact multi-corporate groups. About two thirds of the states with corporate income taxes recognize for tax purposes the separate legal existence of every corporation in a corporate group. (See the box on page 22 for a list of these states.) Such recognition is referred to as "separate-entity" accounting. Under separate-entity accounting, if a parent corporation and several of its subsidiaries are subject to corporate income tax in a state, each of them files its own tax return, and the profit each corporation reports on that return is determined by the companies' own internal accounting.

An important implication of this tax accounting freedom is that if one member of a corporate group sells a good or service to another member, the profits that both of them realize — and report for tax purposes — will be affected by the "transfer price" at which the sale occurs. Profit is the difference between revenues and expenses. The transfer price charged on a sale from one member of a corporate group to another affects the profits of the seller because it affects the seller's revenues and the profit of the purchaser because it affects the purchaser's expenses. Thus, if the seller is taxable in one state and the purchaser is taxable in another, a corporation's freedom to set transfer prices that will be recognized for tax purposes is tantamount to having freedom to determine in which state its profit will be taxed.

In recent years, corporations have become increasingly sophisticated in manipulating their legal structures — the way they divide into separate corporations and transact business between parents and subsidiaries — to shift their profits out of separate-entity states like Connecticut and Wisconsin and into tax-haven states like Nevada and Delaware. Moreover, as discussed on pp. 22-23, a separate entity state's adoption of a single sales factor formula can substantially magnify the incentive for multistate corporations to implement strategies that shift otherwise taxable profits out of such states.

The principal alternative to separate-entity tax treatment of multi-corporate groups is mandatory "combined reporting." If a state requires combined reporting, all related corporations that are operated as a single business enterprise, any part of which is being conducted in the state,

are essentially treated as one taxpayer for apportionment purposes. For example, if a parent corporation owns dairy farms and a cheese processing plant in Wisconsin, a mail-order subsidiary in South Dakota that sells the cheese, and a subsidiary that operates retail stores throughout the United States that also sell the cheese, the profits of all three related corporations would be added together and apportioned to Wisconsin using its normal apportionment formula if Wisconsin required combined reporting.

The fact that corporations must add together the profit of related businesses before the combined profit is subjected to formula apportionment by a combined reporting state means that the corporation gains little or no advantage by shifting the profit between the various corporations in the corporate group. Combined reporting differs from separate-entity accounting, first, in that the *calculation* of tax liability is based on the combined (and apportioned) profit of the corporate group engaged in a common "unitary business" and, second, that the combined profit ignores (subtracts out) profits earned as a result of transactions between members of the group.[65]

By eliminating the ability of corporations to shift profits that are actually earned in a state to related corporations in other states through artificial means, combined reporting helps insure that corporations pay their fair share of the cost of services that facilitate their operations — like the schools and universities that train their workers and the police that protect their property. For example, the Wisconsin Department of Revenue has estimated that if that state were to adopt combined reporting with no other change in current law, multistate corporations would pay $70 million more corporate taxes to the state annually.[66] The U.S. Supreme Court has twice upheld the fundamental fairness and constitutionality of combined reporting as a means of negating accounting manipulation by corporations and ensuring they pay their fair share of the costs of state government.

APPENDIX D

Assessing the Research of Goolsbee and Maydew on the
State Employment Effects of the Single Sales Factor Formula

Too few states have had a single sales factor formula in place for too few years to permit studies to be conducted of its economic development impact that would satisfy standards for statistical validity. However, a number of economic studies have been conducted recently that evaluate whether "over-weighting" the sales factor generally (that is, assigning the sales factor more than the one-third weight it receives in the traditional UDITPA formula) has a positive impact on state job creation.

Professors Austan Goolsbee of the University of Chicago School of Business and Edward L. Maydew of the University of North Carolina have conducted the statistical research on the economic effects of sales factor weighting that is most widely cited by single sales factor proponents.[67] Goolsbee/Maydew themselves concede that adopting an apportionment formula with an over-weighted sales factor is a form of "beggar-thy-neighbor" economic competition that simply moves jobs between states and creates no net jobs for the U.S. economy as a whole. They have suggested that a nationally-uniform apportionment formula perhaps should be mandated by the federal government for that reason.[68] Nonetheless, the two economists have conducted studies for state business organizations in Illinois, Minnesota, New York, and Wisconsin that tout the potential impact of a sales-only formula on job creation in those states.[69]

Goolsbee/Maydew have projected the employment impact of switching to a sales-only formula in these four states by

- measuring the historical relationship between job creation in all states with corporate income taxes and the weight such states have given to the sales factor in the formula over time, and

- extrapolating this statistical relationship to a change from these four states' current apportionment formulas to a sales-only formula.

The statistical power of Goolsbee/Maydew's "econometric" methodology arises from the fact that a significant number of states have changed the weight given to the sales factor in the apportionment formula during the time periods over which they have conducted their studies. This makes it possible to evaluate whether the change in the formula was associated with any observed changes in the underlying trend of employment growth or decline in the state.

Over Time, Goolsbee/Maydew's Own Research Has Found Dwindling Effects of Giving Greater Weight to the Sales Factor in the Corporate Income Tax Apportionment Formula

As previously noted, much of Goolsbee/Maydew's single sales factor research has been commissioned by business proponents of this policy. There is some irony in this. As the two economists have refined their methodology and extended the time frame over which their research has been conducted, their studies have projected a sharply reduced effect on job creation of switching to a single sales factor formula.

- In a December 1996 report for the Illinois Manufacturers' Association, Goolsbee/Maydew predicted that Illinois' switch from a property-payroll-(double-weighted) sales formula to a sales-only formula would lead to a long-run increase in manufacturing employment in that state of approximately 16 percent.[70] The 16 percent manufacturing employment growth in Illinois predicted by Goolsbee/Maydew represented 155,000 jobs. This was nearly 50 percent more manufacturing jobs than any state had managed to generate over the course of the previous ten years and more than three and one-half times the number of manufacturing jobs that been created in Illinois over that period. The prediction was greeted with skepticism, even among some single sales factor proponents.[71]

- In a paper published in the January 2000 *Journal of Public Economics* (*JPubE*), Goolsbee/Maydew presented a substantially revised methodology for predicting the employment impact of increasing the weight of the sales factor in a state's apportionment formula. The paper presented detailed results that can be used to estimate both the short-run and the long-run impact on job creation of *any* change in the weight given to the sales factor in any state's formula.[72] Had Goolsbee/Maydew's *JPubE* findings concerning the statistical relationship between an over-weighted sales factor and manufacturing employment growth been applied to Illinois, they would have predicted that Illinois' implementation of a single sales factor formula would lead to approximately 8.5 percent long-run growth in manufacturing employment.[73] In other words, the first major revision in Goolsbee/Maydew's methodology reduced by almost half the predicted impact on Illinois manufacturing employment of adopting a sales-only formula in Illinois.

- Goolsbee/Maydew's most recent research downgrades even further the projected impact on manufacturing employment of adopting a single sales factor formula. In November 2000, Goolsbee/Maydew prepared a study for the Business Council of New York State projecting the impact on job creation in that state of switching from the current property-payroll-(double-weighted) sales formula to a sales-only formula. The two economists used a third iteration of their forecasting model for this estimate.[74] More importantly, they extended by five additional years — from 1994 to 1999 — the historical period over which they measured the underlying

statistical relationship between the weight given to the sales factor in the apportionment formula and the growth in manufacturing jobs. These changes taken together significantly reduced the projected impact on manufacturing employment of switching to a single sales factor formula. Had the latest study been used to project the long-term effect of adopting a sales-only formula on manufacturing employment in Illinois, the forecast would have been approximately 3.5 percent growth — more than 75 percent lower than the original 1996 forecast for Illinois and more than 50 percent lower than the forecast implied by the *JPubE* study.

- As noted above, Goolsbee/Maydew measured the statistical relationship between sales factor weighting and state employment growth over a 1978-94 interval in the *JPubE* study and over a 1978-99 interval in the New York study. Although their methodology also changed slightly between the two studies, it is possible to isolate the effect of the interval change using other data they published but did not actually use to project the impact on job creation of adopting a sales-only formula. The addition of five more recent years to the estimation interval reduced the projected job-creation impact of switching from a double-weighted sales factor formula to a single sales factor formula in the average state by approximately 40 percent.[75]

Why Might Goolsbee/Maydew's Results Have Changed?

There are two primary potential explanations for the fact that measuring the impact of sales factor weighting on state job creation over five more recent years in the New York study than in the *JPubE* study resulted in a significant downward shift in the Goolsbee/Maydew's job forecasts. Whichever explanation is correct, it should give pause to policymakers contemplating enactment of the formula.

It is axiomatic that as more and more states come to provide an identical economic development tax incentive, the competitive advantage they gain over other states by doing so erodes. Such a declining competitive advantage is even more likely to arise from the spread of a sales-only formula, because the tax savings provided by the formula in a manufacturer's production states is likely to be substantially offset by higher tax liability in its market states as more and more such states adopt the formula. The fact that the addition of the five most recent years to Goolsbee/Maydew's study resulted in a lower job creation forecast is consistent with these phenomena. The downward trend in the forecasts suggests that whatever the efficacy of over-weighting the sales factor in attracting jobs might have been at one time, it has declined significantly in recent years.

A study authored by University of Georgia professor Teresa Lightner supports the hypothesis that the change in Goolsbee/Maydew's results between the *JPubE* and New York

studies reflects a predictable, declining state competitive advantage from adopting a sales-only formula.[76] Lightner looked at the correlation between state employment growth from 1994 to 1995 and the structure of state corporate income taxes. Lightner found that the relative weights assigned to property, payroll, and sales in the apportionment formulas did *not* have a statistically-significant correlation with the rate of growth in state employment. Noting the inconsistency of her results with those of Goolsbee/Maydew, Lightner hypothesized that whatever advantages in attracting jobs some states might have gained by double-weighting the sales factor in the late 1970s and early 1980s (a period encompassed in Goolsbee/Maydew's study but not hers), they had disappeared by the early 1990s when the majority of states had already given the sales factor at least a 50 percent weight in the overall formula.

A second possible explanation for the change between Goolsbee/Maydew's *JPubE* and New York studies in the measured correlation between sales factor weighting and state job creation is that it is a statistical artifact. Even though Goolsbee/Maydew's results are consistent with the hypothesis that a higher weight on the sales factor "causes" a state to capture jobs that it otherwise would not, the exact magnitude of this effect cannot be measured precisely. All that statistics can do is assign a probability that the number of jobs created "as a result" of a certain increase in the weight of the sales factor will fall in a certain range. Such ranges calculated from the *JPubE* and New York studies substantially overlap. Accordingly, it is possible that no actual change occurred in the underlying economic relationship between sales factor weighting and state manufacturing employment in the 1978-94 period versus the 1995-99 period, and that the change in Goolsbee/Maydew's results between the two studies is simply due to chance.

The New York study fails to note the impact on the results of adding five additional years to the measurement interval and does not perform standard statistical tests that are available to assess whether the change from the earlier study in the measured correlation between sales factor weighting and state employment was statistically significant. Until Goolsbee/Maydew conduct such an analysis, it will not be easy to confirm or rule out the hypothesis that the potency of an over-weighted sales factor as an economic development incentive truly has declined in recent years.   Nonetheless, the question of statistical significance highlights the fact that all forecasts that are based on the type of analysis Goolsbee/Maydew have conducted inherently are subject to statistical error. The statistically "best" prediction of the manufacturing jobs Illinois can expect to realize as a result of adopting a single sales factor formula may be the 3.5 percent growth forecast that flows from Goolsbee/Maydew's most recent model. It is vitally important that policymakers understand, however, that there inherently is a significant probability that the actual economic relationship between sales factor weighting and job creation would lead to much lower growth.

Whatever the explanation, it remains true that as Goolsbee/Maydew have refined their analytical approach over the last four years, the effect has been a steady decline in the purported positive effects on state economic development of adopting a single sales factor formula. In light of this trend alone, policymakers might be wise to approach with considerable skepticism specific forecasts of the new jobs that would be created if their states adopted such a formula. As

is discussed in the following section, however, even the most conservative employment forecasting model developed by Goolsbee/Maydew appears to generate results that do not seem plausible in light of the meager tax savings actually realized by a typical corporation if it alters its employment decisions to capitalize on a sales-only formula.

Are Goolsbee/Maydew's Job Creation Predictions Plausible?

Some changes in tax policy can be expected to have a relatively rapid effect on economic phenomena in the real world — for example, the impact a change in the federal capital gains tax rate has on stock prices. The change to a single sales factor formula cannot reasonably be included in this category, however. Goolsbee/Maydew effectively are examining the decisions of thousands of corporations about where to produce their goods and services in response to changes in an expense item — state corporate income tax — that constitutes less than one quarter of one percent of the average corporation's outlays and only 11 percent of its tax payments.[77] Goolsbee/Maydew's research purports to find a relatively rapid impact on the employment decisions of corporations of a change in the weight of the sales factor in a single state's apportionment formula. The two economists find a measurable effect in the year in which the change in the apportionment formula is implemented, and the entire effect they seek to measure occurs in the subsequent two years. Overall, Goolsbee/Maydew predict that changing from a double-weighted sales formula to a sales-only formula will increase manufacturing employment by 3.6 percent within three years in the average state.

Detailed data available from Wisconsin on the impact of a single sales factor formula on multistate corporations taxable in that state can be used to perform a reality check on Goolsbee/Maydew's job creation predictions. Wisconsin's Department of Revenue conducted a careful simulation of the effect of switching to a single sales factor formula by looking at the actual returns of corporate taxpayers in the state and recalculating their tax liability under a sales-only formula. The Department determined that 537 existing Wisconsin manufacturers would have received a tax cut. The tax cut would have averaged $168,071.[78] On average, these corporations had 6.36 percent of their sales, 20.01 percent of their property, and 20.94 percent of their payroll in Wisconsin — for an overall apportionment factor of 13.42 percent under Wisconsin's current double-weighted sales formula.[79] The Wisconsin tax liability of these corporations under current law averaged $293,194.

These data can be used to develop a reasonable estimate of the average nationwide profit of these 537 manufacturing corporations. The nationwide profit of a corporation times the overall state apportionment factor times the state corporate tax rate equals state corporate tax liability in the particular state.[80] Accordingly, working backwards by dividing tax liability first by the tax rate and then dividing that result by the apportionment factor, the nationwide profit of the typical Wisconsin manufacturer that would receive a tax cut from the adoption of a single sales factor formula can be calculated as $27,665,115.[81] For purposes of this example, this figure will be rounded to $30 million as the assumed average nationwide taxable income of the 537 Wisconsin manufacturing corporations.[82] The apportionment factors calculated by the Wisconsin

Table D-1: Profile of Average Wisconsin Manufacturer Receiving a Tax Cut from Wisconsin's Shift to a Single Sales Factor Formula *Prior* to Formula Change						
	Nationwide		Wisconsin		Non-Wisconsin	
	$	%	$	%	$	%
Sales	395,666,497	100	25,167,171	6.36	370,499,326	93.64
Property	224,238,939	100	44,859,755	20.01	179,379,184	79.99
Payroll	62,781,054	100	13,149,436	20.94	49,631,618	79.06
Overall appt. factor (Assuming all states in which corp. is taxable double-weight sales)		100		13.42		86.58
Estimated taxable profit*	30,000,000		4,026,000		25,974,000	
Estimated tax liability (assuming all states in which corp. is taxable apply WI's 7.9 % tax rate)	2,370,000		318,054		2,051,946	
* See text for explanation of why $30 million nationwide taxable profit was assumed. Wisconsin and non-Wisconsin estimated taxable profits calculated by multiplying $30 million by the apportionment percentages developed by the Wisconsin Department of Revenue.						

Department of Revenue and this $30 million nationwide profit estimate allow the construction of the profile shown in Table D-1 of the average multistate manufacturing corporation that receives tax cut from Wisconsin's switch to a sales-only formula. This profile lays the groundwork for an evaluation of the plausibility of Goolsbee/Maydew's job creation forecast for Wisconsin.

The results from the most recent Goolsbee/Maydew study (for New York) suggest that Wisconsin's switch from its current double-weighted sales formula to a single sales factor formula would lead to a four percent upward "bump" in manufacturing jobs in the state by the end of three years. This represents 24,813 new jobs.[83] Long lead times are involved in making a decision about where to site a major new manufacturing plant, constructing it, and initiating production. Accordingly, it seems reasonable to assume that the vast majority of any new manufacturing jobs created in Wisconsin in response to adoption of a single sales factor formula within the first three years would result from the decision by manufacturers already present in Wisconsin to step-up production at their existing Wisconsin facilities and correspondingly reduce output at plants located in other states.[84]

The 24,813-person statewide increase in manufacturing employment implied by Goolsbee/Maydew's model requires that each of the 537 manufacturers benefitting from the single sales factor formula increase its Wisconsin employment by 46.2 positions.[85] At an average U.S. manufacturing wage of $41,918, the shift of 46.2 jobs into Wisconsin would reduce the non-Wisconsin payroll factor of each such manufacturer by $1.9 million. Such a shift does not increase the *Wisconsin* tax liability of the manufacturer, which under the sales-only formula depends only on the share of the corporation's nationwide sales occurring in Wisconsin. However, as shown in Table D-2, the effect of shifting $1.9 million of payroll from other states in which the corporation is taxable to Wisconsin is to reduce the corporation's aggregate corporate income tax liability to states other than Wisconsin — by $18,249 annually.[86]

So the question becomes: how likely is it that the management of the average large manufacturing corporation taxable in Wisconsin — a business with almost $400 million in annual sales — will act upon a theoretical opportunity to reduce annual expenses by approximately $18,000 by laying-off 46 workers in one or more non-Wisconsin locations and recruiting new workers in Wisconsin after the latter has adopted a sales-only formula. There are a number of concrete reasons to doubt that many corporations would choose to avail themselves of such an opportunity:

- The $18,249 in state corporate income tax savings is not the corporation's *net* tax savings. Because saving state corporate income taxes reduces the corporation's state tax deduction on the federal return, its federal tax liability increases by 35 cents for every dollar of state tax reduction. Thus, the net tax savings for the average manufacturer shifting jobs to Wisconsin would be about $12,000, not $18,000.

- The example assumes that the manufacturer has excess capacity in Wisconsin to produce all the products it is making in the other states where it is located. This seems unlikely to be true, because specific technologies and equipment are often needed to produce specific goods. Even if there were no technological barriers to expanding production in Wisconsin, it seems reasonable to assume that doing so sometimes would necessitate using more expensive production processes (e.g., less efficient machinery, night shifts requiring higher wage payments) that could rapidly nullify any tax savings from shifting the location of production. If expanding output in Wisconsin required investment in plant and equipment as well as the hiring of additional workers, then the small annual corporate tax savings associated with expanding in Wisconsin would be even less likely to pay off.

- The cost of transporting production inputs to a manufacturing plant and finished products to customers is often a key determinant of the location of manufacturing

Table D-2: Impact on Non-Wisconsin Corporate Tax Liability of Shifting 46.2 Jobs Paying National Average Manufacturing Wage ($41,918) from Double-Weighted Sales Formula States into Wisconsin

	Before Job Shift		After Job Shift	
	$	% of nationwide (apportionment factor)	$	% of nationwide (apportionment factor)
Non-Wisconsin sales	370,499,326	93.64	370,499,326	93.64
Nationwide sales	395,666,497		395,666,497	
Non-Wisconsin property	179,379,184	79.99	179,379,184	79.99
Nationwide property	224,238,939		224,238,939	
Non-Wisconsin payroll	49,631,618	79.06	47,695,006 (49,631,618 minus 1,936,612)	75.97
Nationwide payroll	62,781,054		62,781,054	
Overall non-Wisconsin apportionment factor		86.58		85.81
Estimated taxable profit in states other than WI ($30 million nationwide profit times non-WI apportionment factor)	25,974,000		25,743,000	
Estimated tax liability (assuming all states in which corp. taxable apply WI's 7.9 % corp. tax rate)	2,051,946		2,033,697	
Savings in non-WI corp. income taxes from shift of jobs to WI			18,249	

facilities. If one assumes that the corporation's existing decision to produce a certain share of its goods outside Wisconsin is optimal from a transportation cost standpoint, than any change in that decision in response to Wisconsin's adoption of a sales-only formula would likely entail increases in transportation costs that must offset the tax savings to at least some extent.

- Finally, it is necessary to take into account the possibility that shifts in the location of production could entail significant one-time transition costs. Laid-off workers may be eligible for severance pay, the layoffs may trigger higher unemployment tax payments, and newly-hired workers may be less productive for a certain period of time than experienced workers. Although transition costs might eventually be recoverable, the fact that such costs exist seems likely to dissuade at least some corporations from shifting production into a single sales factor state to realize such small annual tax savings.

Of course, there is always the possibility that some of the Wisconsin manufacturers benefitting from the state's change to a sales-only formula would be in a situation in which they were facing growing demand for their products and were planning to expand output anyway. For such corporations, choosing to locate their allotted 46 jobs in Wisconsin would allow them to avoid a tax increase they would otherwise experience if they placed the jobs in a state with a property-payroll-sales formula.[87] A manufacturer in this position would not be risking the potential for disruption of production that a corporation laying-off employees outside Wisconsin and hiring them in Wisconsin would be risking, nor would it be incurring additional costs associated with the layoffs.

Nonetheless, the net additional tax liability this corporation would be avoiding by choosing to hire 46 additional workers inside Wisconsin rather than outside Wisconsin would be of the same order of magnitude as the tax savings realized by the corporation in the example. Further, many of the factors that would affect a decision on the part of the corporation in the example to reduce jobs outside Wisconsin and expand them in Wisconsin in response to the latter's switch to a sales-only formula would come into play for the corporation choosing where to implement a net expansion of its output. Would the Wisconsin location necessarily be optimal from a transportation cost standpoint? If excess production capacity existed in both the manufacturer's non-Wisconsin and Wisconsin plants but the machinery were more productive in the former locations, would the already small annual tax savings associated with the Wisconsin location be sufficient to outweigh the efficiency loss? In short, even if some of the 537 Wisconsin manufacturers that need to hire an average of 46 workers to fulfill Goolsbee/Maydew's employment projections for the state were considering in which state to implement a *net expansion* of their output, it seems unlikely that a few thousand dollars in potential tax savings associated with choosing Wisconsin would weigh very heavily — if at all — in the decision.

Conclusion

If a corporation were seeking a site for a major new plant that would sell most of its output to customers in states other than the one in which the plant were located, it is plausible that the presence or absence of a sales-only formula might be one factor weighed in choosing a state in which to place the plant. But making and implementing siting decisions take time, often several years. Goolsbee/Maydew assert that switching to a single sales factor formula has a measurable, statistically-significant impact on the adopting state's manufacturing employment in the *very first year* it is in effect and an even more significant impact in the subsequent two years. This seems too short a time frame for the measured increase in manufacturing employment to reflect decisions to place new plants in single sales factor states. Any growth in manufacturing employment seen in a single sales factor state within the first few years of the formula's adoption is likely to reflect decisions by manufacturers already present in the state to expand output at their existing facilities primarily by hiring additional workers to absorb unused plant capacity or — less likely — by expanding production capacity marginally.

As the analysis of the Wisconsin data suggests, however, the corporate income tax savings associated with choosing to expand output in a single sales factor state rather than a double-weighted sales formula state is likely to be so trivial for the average manufacturer that it seems quite unlikely to influence the decision. Accordingly, even the most conservative economic model developed by Goolsbee/Maydew for predicting the impact on job creation of adopting a single sales factor formula generates a forecast that seems highly unlikely to be fulfilled in the real world.

End Notes

1. The need for income division rules for multistate corporations presupposes that more than one state has authority to subject such a corporation to an income tax. A state's taxing jurisdiction over a multistate corporation that does no production within the state's borders is constrained by federal constitutional law (as articulated in U.S. Supreme Court decisions) and federal statutory law (Public Law 86-262, 15 USC 381, discussed below on page 11). State income tax jurisdiction over many multistate corporations remains a matter of considerable uncertainty and controversy nearly 90 years after the first state enacted a corporate income tax. For example, it is still unclear whether a state could legally subject an out-of-state bank to a corporate income tax notwithstanding that the bank had issued millions of credit cards to the state's citizens and earned millions of dollars in profit annually by providing credit to them in this manner. Despite the lack of clarity in certain areas, there are many instances in which a state's authority to impose a corporate income tax on a particular corporation is not in dispute. For example, there is little doubt that a state may impose an income tax on a corporation that owns or rents a facility in the state or regularly sends non-sales employees into the state. The income-division issues discussed in this paper should be understood as arising once the threshold question of a state's authority to impose a corporate income tax on a particular multistate corporation has been answered in the affirmative.

The five states that do not impose a corporate income tax are Michigan, Nevada, South Dakota, Washington, and Wyoming. Michigan and Washington have other broad-based business taxes that substitute for the corporate income tax.

2. In the case of a corporation with foreign sales, property, and/or employees, the apportionment formula may attribute a portion of the corporation's profit to one or more foreign countries.

3. The text of UDITPA is available at www.law.upenn.edu/bll/ulc/fnact99/1920_69/udiftp57.htm.

4. Most states have perceived a need for more detailed rules than UDITPA provides for establishing values for sales, payroll, and property in the three apportionment factors and determining when they are "in" a particular state. For example, rules must clarify whether employee benefits are to be included in the payroll factor, where a sale is deemed to occur when an order is placed in one state but picked up in another, and a host of similar questions that arise in the normal, everyday course of complex business operations. Many of these more detailed rules for implementing UDITPA have been developed by the Multistate Tax Commission, the operational arm of an interstate compact whose purpose is to promote interstate uniformity in the taxation of interstate commerce. The MTC's UDITPA regulations are available at www.mtc.gov/uniform/ADOPTED.htm.

Under UDITPA, not all of a corporation's profits are necessarily apportioned by formula. There are certain limited categories of income that are considered to be "non-business income" and that are directly assigned to particular states for taxation — most often to the headquarters state of the corporation. Examples of non-business income are interest and dividends from passive investments in unrelated corporations. The scope of UDITPA's non-business income classification is currently the subject of widespread litigation between corporations and state tax authorities. U.S. Supreme Court decisions have also made clear that some income from passive investments may not be apportioned by formula. These issues do not bear directly on this report, since the vast majority of corporate profits arise from normal business operations and their classification as apportionable business income is not in dispute.

5. U.S. Supreme Court decision in *Moorman Manufacturing Co.* v. *Iowa* (1978).

6. Services provided to corporations by states in which their production occurs include police and fire protection provided to their facilities and their employees while at work, water and sewage services, transportation infrastructure, and K-12 and higher-education services that enable corporations to find adequately-prepared workers. Public services provided by states in which corporations' customers are located are also crucial to their

ability to earn a profit; these services include roads on which their goods are transported to their customers and a judicial system that ensures that their customers pay their debts.

7. This statement is not intended to deny the fact that the shift from UDITPA's original, equally-weighted three factor formula to one with double-weighted sales has been justified in the same way that the sales-only formula is being justified — as an economic development incentive. The difference, however, is that the double-weighted sales factor variant of the UDITPA formula has a reasonable theoretical underpinning. See: James Francis and Brian H. McGavin, "Market Versus Production States: An Economic Analysis of Apportionment Principles," in Thomas F. Pogue, ed., *State Taxation of Business: Issues and Policy Options* (Praeger: Westport, Connecticut) 1992, pp. 61-8.

8. If a U.S. corporation has foreign sales, property, and/or payroll, they will be included in the denominator of the respective factors of the apportionment formula and the overall apportionment percentage for specific states will be applied to the worldwide profit of the corporation. For the sake of simplicity this report will refer to the apportionment of the "nationwide" profit of a multistate corporation although, strictly speaking, "worldwide" should be used.

9. In Massachusetts, use of the single sales factor formula is limited to manufacturers, defense contractors, and mutual funds. Maryland's single sales factor formula (enacted in 2001 retroactive to the beginning of that year) is limited to manufacturers. Texas' adoption of a single sales factor formula occurred in 1991 when it enacted for the first time what is effectively a corporate income tax. (In other words, unlike the other states, Texas did not switch from a three factor formula to a sales-only formula.) Several other states offer a sales-only apportionment formula to narrow categories of businesses, e.g, mutual funds in Kentucky, Maine, New Hampshire, and Rhode Island. Iowa and Missouri have had a single sales factor formula in place for decades. In Missouri, corporations may choose between the three factor formula and a sales-only formula.

10. Effective May 1, 2003, Oregon will require the use of a formula that will weight the sales factor so heavily (80 percent) that the presence of property and payroll within Oregon will have a relatively insignificant impact on the apportionment calculation. The observations in this report concerning the operation and implications of a single sales factor formula generally apply to a three factor formula once sales receive more than 70-80 percent of the overall weight — even if property and payroll factors are retained.

11. Even with the three apportionment percentages totaling to 100 percent, BBI might enjoy some tax savings if all three states changed to a single sales factor formula. Since Georgia's corporate tax *rate* is one percentage point higher than that of South Carolina, BBI is likely to pay lower total tax to the two states if less of its profit were apportioned to Georgia and more to South Carolina. However, given the relatively narrow spread of state corporate tax rates, the savings from this effect tends to be small. In BBI's case, the savings from having 22 percent of the corporation's profit taxable at South Carolina's tax rate rather than Georgia's would be just $4,400. This is less than one-fifth of the $26,400 BBI would have saved if Georgia alone had adopted a sales-only formula.

12. The tax savings associated with this "nowhere income" would be $26,400 = $2 million BBI total profit times 22 percent of total profit rendered nowhere income times 6 percent Georgia tax rate.

13. UDITPA was approved in 1957; Public Law 86-272 was enacted in 1959. The inclusion of the throwback rule in UDITPA thus was motivated not by P.L. 86-272, but rather by the belief of UDITPA's drafters that the Commerce Clause of the U.S. Constitution prohibited a state from imposing a corporate income tax on an out-of-state corporation that merely solicited sales within the state's borders. Two 1959 U.S. Supreme Court decisions indicated that the Commerce Clause no longer barred the states from asserting corporate income tax jurisdiction over such a corporation. Those decisions prompted the Congress to enact P.L. 86-272 as a temporary measure to preserve the status quo until Congress could determine what limitations, if any, it wished to impose on the ability of states to impose corporate income taxes on out-of-state corporations. In short, UDITPA's drafters understood that the inclusion of a sales factor in the apportionment formula would lead to "nowhere income" if *any* law barred a state from taxing a corporation making sales within its borders. The throwback rule was intended to ensure that

"nowhere income" did not arise from this mismatch between the apportionment formula and the law governing corporate income tax jurisdiction.

14. The BBI case study illustrates that it is possible to state precisely which corporations will receive tax cuts if a state switches from a three factor formula to a sales-only formula and which corporations will experience tax increases. Note that BBI apportioned five percent of its profit to Florida under both the three factor formula (with double-weighted sales) and the sales-only formula. This outcome results from the fact that BBI's five percent Florida sales factor is the average of its Florida property factor (two percent) and its Florida payroll factor (eight percent). *Any* corporation whose sales factor in a state exceeds the average of its property factor and payroll factor in that state will pay higher corporate taxes if that state switches from a three factor formula to a sales-only formula. (Such a corporation is referred to in this report as a "predominantly out-of-state corporation.") The converse is also true, that is, any corporation whose sales factor in a state is less than the average of its property factor and payroll factor in that state will pay lower corporate taxes if that state switches from a three factor formula to a sales-only formula.

15. Final report, State Controller's *Tax Simplification Task Force 2000*, p. 26.

16. Wisconsin Legislative Fiscal Bureau Paper #111, *Corporate Income and Franchise Tax — Single-Sales Factor Apportionment Formula*, June 7, 1999, p. 7.

17. *Final Report of the Commission to Study Single-Sales Factor Apportionment*, January 2000, Appendix D-1.

18. Christi Parsons and Ray Long, "Corporations in Line for Big State Tax Break," *Chicago Tribune*, May 25, 1998.

19. Georgeanna Meyer and Ann Oshiro, "What Would Happen If Arizona Adopted a Single Sales Factor?" *State Tax Notes*, December 9, 1996, p. 1696.

20. Note 14 demonstrated that a corporation with a sales factor in a particular state that exactly equaled the average of its property and payroll factors in that state would experience neither a tax increase nor a tax cut. While that outcome is extremely improbable, there are likely to be a significant number of corporations for which it is so closely approximated that the tax increase or tax cut experienced when the switch to a sales-only formula is made is extremely small. As will be discussed below (see page 42), there are two much more common phenomena that result in a large number of corporations experiencing no change in corporate tax liability when a state adopts a sales-only formula: 1) the corporation has all of its property, payroll, and sales within a single state; or 2) the corporation has sales in multiple states but is only subject to tax in one and therefore is prohibited from apportioning its income.

21. The results are not strictly comparable because, as the table indicates, in three of the eight states (Connecticut, Massachusetts, and New York) not all corporations were assumed to be eligible to apportion on a sales-only basis. Moreover, the fiscal years to which the estimates apply also are not the same. Finally, in some instances the revenue losses and the total corporate tax revenues were estimated at different times and by different entities. Accordingly, the figures in the table should be viewed as indications of the order of magnitude of the revenue losses that can be expected from moving to a single sales factor formula.

One factor that appears to be a significant influence on the relative magnitude of the revenue losses projected for the various states is the availability or lack of availability of a state investment tax credit. Investment tax credits can reduce the tax liability of manufacturers substantially. If in-state manufacturers are already paying relatively little corporate income tax because they are claiming investment tax credits, the adoption of a single sales factor formula is likely to provide little additional tax savings. The two states with the largest relative revenue losses in Table 1, Oregon and Wisconsin, do not have general investment tax credits. The two states in Table 1 with the smallest relative revenue losses, California and New York, provide generous investment tax credits.

22. Conversation with Dennis Collier, Director of State Tax Policy, Wisconsin Department of Revenue, June 23, 1999. Conversation with Howard Merkowitz, Director of Tax Policy, Massachusetts Department of Revenue, August 10, 1999. Conversation with Ed Waters, Oregon Legislative Revenue Office, August 16, 2000. Conversation with Robert Wysock, Connecticut Office of Fiscal Analysis, August 16, 2000. E-mail communication with Phil Spilberg, Director, Economic and Statistical Research Bureau, California Franchise Tax Board, October 24, 2000. State of Maine, *Final Report of the Commission to Study Single-Sales Factor Apportionment*, January 2000, p. 12. Illinois has never published the fiscal impact analysis of the legislation implementing a single sales factor formula that was cited in the *Chicago Tribune* story cited in note 18. Nothing in the story suggests, however, that the estimated revenue impact was based on a "dynamic" analysis that incorporated the effects of possible job gains and job losses.

         The fact that these states did not undertake an analysis of the revenue impact of adopting a sales-only formula that took into account potential corporate restructuring is not intended in any way as a criticism. States have virtually no information that would permit them to make a defensible estimate of the impact on corporate tax revenue of such activity.

23. Recall from note 14 that the effective definition of a "predominantly out-of-state corporation" is a corporation with an in-state sales factor that is larger than the average of its in-state property and payroll factors.

24. The Wisconsin Department of Revenue estimates that had a single sales factor formula been in effect in 1996, it would have resulted in an aggregate corporate tax cut of $113.5 million offset by $42.6 million in tax increases for other corporations. (See the source cited in note 16.)

In Illinois, tax cuts of $217 million are partially offset by tax increases of $122 million. (See the source cited in note 18.) The $95 million revenue loss implied by tax increases of $217 million and tax cuts of $122 million represents both state and local corporate income tax revenue losses. The $63 million revenue loss presented in Table 1 is for the state of Illinois only; this figure was included in the table for comparability with the other states shown.

Maine estimates that if a single sales factor formula had been in effect in FY2000, 1,371 corporations would have experienced $14.8 million of tax increases and 700 corporations would have experienced $20.4 million in tax cuts. (See the source cited in note 17.)

25. The U.S. Supreme Court has never ruled on whether the Commerce Clause of the U.S. Constitution bars a state from imposing its corporate income tax on a corporation lacking a physical presence within the state's borders. There is substantial disagreement between state tax officials and corporate representatives regarding the applicability to state corporate income taxes of Supreme Court decisions establishing a "physical presence requirement" for the imposition of state sales and use taxes on out-of-state corporations. In the absence of a Supreme Court ruling holding that states may impose their income taxes on non-physically-present corporations, few such corporations are likely to comply with state laws that purport to impose such an obligation. In the case of corporations selling goods, however, the important limitation on state income taxing authority is Public Law 86-272, not the Commerce Clause.

26. The Arizona Department of Revenue studied the impact on 202 major multistate corporations with Arizona corporate tax liability of switching from a double-weighted sales formula to a sales-only formula. The study found that the Arizona sales factors of 25 corporations were so large relative to their Arizona property and payroll factors that the corporations would experience at least a 75 percent increase in their Arizona corporate tax liability if the state adopted a sales-only formula. The liability increase would have averaged $416,000 annually. Corporations facing tax increases of this magnitude in either absolute or percentage terms might explore the possibility of eliminating their taxability in Arizona. Were they to do so, the impact on the net revenue loss from the formula change would be significant; these 25 corporations accounted for more than 50 percent of the total corporate tax liability increase among corporations experiencing increased tax liability as a result of the formula change. See: Georganna Meyer and Ann Oshiro, "What Would Happen If Arizona Adopted a Single Sales Factor?" *State Tax*

Notes, December 6, 1996, p. 1696.

27. Theoretically, prices on goods sold from the parent manufacturing corporation to the retailing subsidiary could be set to reduce the profit of the subsidiary to zero. However, this would be likely to attract an auditor's attention. Such attention could lead to a legal challenge by the state of the corporation's "transfer prices" or an effort to treat the in-state corporation as a sham established only for tax avoidance purposes. Many states' tax laws provide discretionary authority to tax officials to reallocate profit to in-state corporations in particularly abusive situations. Most corporations would seek to avoid the exercise of such authority by allowing the in-state retailing subsidiary to report a nominal taxable profit.

28. There is no need under this arrangement for the newly-created retailing subsidiary to incur additional costs associated with receiving and storing goods sold to it by its parent. When the subsidiary makes a sale to one of its customers, it can simply fill the order by directing the out-of-state parent to ship the product directly to the customer. In other words, although on paper the parent is selling the product to the subsidiary, which is in turn reselling it to the final customer, this does not preclude the parent from delivering the product directly to the customer from an out-of-state location as it has always done.

29. In some of the states listed in the text box, the tax administrator may impose combined reporting retroactively if particularly abusive income-shifting is uncovered during an income tax audit of a corporation. Such actions are often challenged by the corporation and have proven difficult for tax authorities to sustain in court. Accordingly, discretionary, ad hoc imposition of combined reporting is far inferior to mandatory combined reporting in preventing income-shifting strategies on the part of multistate corporations.

Tennessee, shown in the text box, requires banks to apportion their incomes on a combined reporting basis.

30. A leading expert on state corporate income taxation has written: "A state that does not require related corporations conducting a unitary business to file a combined report is at the mercy of its corporate taxpayers. Transfer pricing, holding companies, and more subtle and less notorious strategies exist for exploiting separate-entity states. Once the province of only the most sophisticated practitioners, these tax minimization approaches are now so widespread as to constitute orthodox planning tools." Richard D. Pomp, "The Future of the State Corporate Income Tax: Reflections (and Confessions) of a Tax Lawyer," *State Tax Notes*, March 22, 1999, p. 945.

31. Should a state that switches to a single sales factor formula be one in which the net effect on revenues would be positive, the impact of the corporate tax restructuring strategies discussed in the previous sections of course would be to reduce the magnitude of the revenue gain — potentially even tipping it to a net revenue loss.

32. The following argument is typical of this line of reasoning: "[U]nder current tax policy, a company with multi-state operations faces a higher tax bill in New York if it locates jobs and investment here. For tax purposes, New York now allocates a company's income to this state based on three factors: in-state sales (which is counted twice), in-state payroll, and in-state property. By basing corporate taxation solely on in-state sales, New York can reward, rather than punish, employers that create jobs here. . ." *The Wire*, newsletter of the Business Council of New York State., Inc., November 24, 2000.

33. Again, if all states eliminated their property and payroll factors and apportioned corporate profits solely on the basis of sales, no state would have an advantage in attracting particular corporate investments.

34. Michael Wasylenko, "Taxation and Economic Development: The State of the Economic Literature," *New England Economic Review*, March/April 1997, p. 44.

35. See: Richard D. Pomp, "The Role of State Tax Incentives in Attracting and Retaining Business: A View from New York," *Tax Notes*, November 4, 1985, pp. 521-530.

36. For example, Boston Federal Reserve Bank economist Robert Tannenwald has estimated that, nationally, property taxes paid by businesses are nearly three times larger than aggregate state and local corporate income tax payments. Tannenwald also estimates that state and local corporate income tax payments represent just 15 percent of total state and local taxes paid by businesses. See: Robert Tannenwald, *Massachusetts' Tax Competitiveness*, working paper prepared for the Massachusetts Special Commission on Business Tax Policy, April 15, 1993, Appendix D, Table 2.

37. See p.10. As discussed on pp. 11-13, some of the "nowhere income" that is created when a state adopts a single sales factor formula is attributable to the absence of a throwback rule in that state. That "nowhere income" would remain even if every state adopted a single sales factor formula.

38. Two clusters of states in the upper Midwest and the Northeast have enacted or seriously considered adopting a single sales factor formula. Nebraska, Missouri, and Iowa have already adopted a single sales factor formula. Michigan has adopted a formula for its "Single Business Tax" with a 90 percent weighting for sales. Wisconsin and Minnesota have both come close to adopting a single sales factor formula in the last two years. In the Northeast, Massachusetts' adoption of a single sales factor formula in 1995 played a major role in provoking Connecticut's 2000 adoption of the formula and serious consideration in Maine, New Hampshire, New York, and Rhode Island.

39. To argue that adoption of a single sales factor formula can provide an incentive for certain businesses to invest in a state adopting the formula (rather than just reward companies for investments they planned to make anyway) is to acknowledge that the investment would not have been economically rational for the firm in the absence of the incentive. Of course, tax benefits are sometimes sufficient to overcome cost or other disadvantages of a particular location. However, the possibility that tax savings associated with a single sales factor formula might not last for the 20-30 year time horizon that would affect a major plant siting decision — because of nullifying action by other states — would suggest that adoption of the formula is not likely to materially affect such a decision.

40. Robert G. Lynch, *Do State and Local Tax Incentives Work*?, Economic Policy Institute, Washington, DC, 1996, p. 6.

41. Discussion of symposium papers by Robert M. Ady, Executive Consultant, Deloitte & Touche/Fantus Consulting, in "The Effects of State and Local Public Policies on Economic Development, *New England Economic Review*, March/April 1997, p. 79.

42. Stephen T. Mark, Therese J. McGuire, and Leslie E. Papke, "What Do We Know About the Effect of Taxes on Economic Development? Lessons from the Literature for the District of Columbia," *State Tax Notes*, August 25, 1997, pp. 508-509.

43. In addition to the operational benefits to the company of opening the Wisconsin sales office, the company would obtain a savings in its Missouri corporate income tax liability because its Wisconsin sales would no longer be "thrown back" into its Missouri sales factor. (See the discussion of the throwback rule on pp. 11-13 above.) The fact that the potential savings in Missouri corporate income tax liability would be an additional factor affecting whether the benefits of opening the Wisconsin office would exceed the costs in no way contradicts the basic point: that Wisconsin's switch from a property-payroll-sales formula to a sales-only formula would be a disincentive for this company to become taxable in Wisconsin by placing property and employees there.

44. See, for example: Wisconsin Manufacturers and Commerce, "Single Sales Factor Apportionment," (www.wmc.org/gr/taxes/singlesalesfactor.htm); Pennsylvania Economy League, Inc., "A Single Sales Factor Apportionment Formula: Economic Development Implications for Pennsylvania" (www.pelcapital.org/Reports/CapPers-SingleSales.pdf).

45. The open-ended, "no strings attached" character of the tax benefits provided by a single sales factor apportionment formula runs counter to a powerful trend in state economic development policy. A growing number of state and local governments are enacting "job quality" standards applicable to financial assistance to private

companies to ensure that the jobs pay decent wages and provide health and other benefits. Further, states are enacting "clawback" provisions that require tax and other benefits to be repaid if companies fail to fulfill job creation and/or job quality promises. See: Greg LeRoy, Fiona Hsu, and Sara Hinkley, *The Policy Shift to Good Jobs, Cities, States and Counties Attaching Job Quality Standards to Development Subsidies*, Good Jobs First, May 2000. States could easily limit the right to use a single sales factor formula to corporations paying certain wages or increasing their total employment by a certain percentage over a base year; Massachusetts initially imposed such a requirement, although it contained a loophole (see the text box on p. xi).

46. Consider a corporation with $100,000,000 of gross income, $1,000,000 of state corporate income tax liability, and $80,000,000 in other deductible expenses. Its taxable income for federal purposes is $19,000,000 ($100,000,000-$80,000,000-$1,000,000), and its federal corporate tax liability at a 35 percent tax rate is $19,000,000*.35 or $6,650,000. Now assume that its state corporate income tax liability is cut in half — by $500,000 — because its home state adopts a single sales factor formula. Its federal taxable income will rise to $19,500,000 ($100,000,000-$80,000,000-$500,000), and its federal tax liability will increase by $175,000 to $6,825,000 ($19,500,000*.35). In other words, 35 percent of its $500,000 in state tax savings — $175,000 — flowed to the federal government in the form of higher federal corporate tax liability.

47. *Site Selection* each year lists the 20 largest plant investments/expansions. The $700 million threshold was used in Table 3 because it was the smallest amount that was common to all of the lists published by *Site Selection* from 1995 through 2000.

48. Construction of one of the four Texas investments listed — Intel's computer chip plant near Fort Worth announced in 1996 — has been suspended. See: Max B. Baker, "Tax Breaks: Bill Designs Plan to Attract High-Tech Industry to Texas," Forth Worth *Star-Telegram*, December 4, 2000.

49. The calculation of the share of total U.S. economic output represented by Texas and Massachusetts uses 1998 Gross State Product as reported by the U.S. Department of Commerce.

50. Intel investments in non-single sales factor states listed in Table 3 include $2.2 billion in Oregon, $2 billion in Arizona, $2 billion in New Mexico, and $1.5 billion in Colorado.

51. In addition to services and infrastructure provided by "market states" that benefit out-of-state corporations directly, high-quality state services like K-12 and higher education also are an important underpinning of a healthy state economy, which stimulates demand for the products and services of out-of-state sellers.

52. See the source cited in note 7.

53. In Wisconsin, for example, 81 percent of taxable corporations with 1997 profits between $10,000 and $25,000 were subject to corporate tax only in Wisconsin, while only 11 percent of taxable corporations with profits above $10,000,000 were subject to tax only in Wisconsin. Of course, some of the corporations in the former group may actually have been small subsidiaries of large corporations. Moreover, corporations reporting small profits in a particular year may actually be large corporations having a bad year financially. Nonetheless, the Wisconsin data reveal a steadily increasing share of non-apportioning corporations as one moves down the scale from high-profit classes to low-profit classes, suggesting that the generalization that small corporations are more likely than large corporations to be subject to corporate tax in a single state is a valid one. See: Wisconsin Legislative Fiscal Bureau Paper #111, *Corporate Income and Franchise Tax — Single-Sales Factor Apportionment Formula*, June 7, 1999, p. 7, Table 2.

54. Wisconsin Legislative Fiscal Bureau Paper #111, *Corporate Income and Franchise Tax — Single-Sales Factor Apportionment Formula*, June 7, 1999, p. 7, Table 2.

55. The multistate corporate community alleges that since Congress (through the enactment of P.L. 86-272) and the U.S. Supreme Court have decreed that corporations should not be subject to taxation in states in which they have no or limited physical presence, it is unfair of states to seek to counteract this result by arbitrarily deeming the profits earned in those states to be earned in the states to which the sales are "thrown back." The state counter-argument is that corporations are not entitled to "nowhere income" and that the throwback rule is a reasonable, second-best, collective solution to unfair restrictions on their ability to impose income taxes on corporations that are in fact earning profits from selling to their residents.

56. See: S. 664, 107th Congress, "The New Economy Tax Fairness Act," and H.R. 2526, 107th Congress, "The Internet Tax Fairness Act of 2001." A "Coalition for Rational and Fair Taxation" whose membership includes Microsoft Corporation, American Express, Viacom/CBS, Walt Disney/ABC and 12 other major multistate corporations has been organized to lobby for new federal restrictions on the ability of states to impose corporate income taxes. See letter dated November 28, 2000 from attorney Arthur Rosen to members of the Senate Commerce Committee on behalf of the Coalition, *State Tax Notes Today* on-line database.

57. In instances in which P.L. 86-272 does not apply, corporations largely defy state assertions that the lack of physical presence does not immunize the corporation from corporate income tax liability. For example, the credit-card subsidiary of the J.C. Penney Company recently successfully defended itself from Tennessee's assertion that its issuance of credit cards to Tennessee residents obligated the company to pay corporate income tax to the state. Until such time as the U.S. Supreme Court issues a broad, unequivocal ruling to the contrary, most corporations not physically present in a state will not acknowledge an obligation to pay income taxes on profits earned by selling goods or services to residents of such a state — regardless of how large those profits may be.

58. See the Better Boxes, Inc. example on p. 13.

59. Although the elimination of the single sales factor formula would mitigate the need for the throwback rule, it would not eliminate it entirely. Nowhere income will exist so long as there is a sales factor in the apportionment formula and corporations are not automatically taxable in states in which they make sales. States without the throwback rule in place should consider adopting it to give effect to the obvious fact that all corporate profit is earned somewhere. If states feel compelled to give a corporate tax break to the kinds of "export-oriented" corporations the repeal of the throwback rule is intended to benefit, they should do it through a tax credit mechanism, the costs, benefits, and beneficiaries of which can be identified and monitored.

60. For example, see the economic development training manuals published by the Council on Urban Economic Development (www.cued.org) and William Schweke, Brian Dabson, and Carl Rist, *Improving Your Business Climate: A Guide to Smarter Public Investments in Economic Development*, Corporation for Enterprise Development 1996 (www.cfed.org).

61. Arthur R. Rosen, "Should States Tax E-Commerce? Comparing Burdens and Benefits," *State Tax Notes*, August 21, 2000, p. 521.

62. George Isaacson, attorney for L.L. Bean and the Direct Marketing Association, has written: "Any group that is not heard in the political process can expect to be abused by the process. . . If out-of-state companies are forced to collect state use taxes, they will still have no voice in the political process which imposes that burden on them. Such nonresident companies could fully expect that their concerns regarding the state tax system would go unaddressed." "Debate: Simplification or Equity First? Target's Hale, DMA's Isaacson Square Off on Internet Taxation," *State Tax Notes*, June 5, 2000, p. 1951.

63. A lobbyist for the Maryland Manufacturers' Council, which advocated adoption of a sales-only formula in that state, candidly assessed the politics of the legislation. Asked about potential opposition by out-of-state corporations that would be hit with higher taxes, he asked, "What leverage do they have?" See: Michael Dresser, "Taylor Backing Tax Change," *Baltimore Sun*, January 6, 2001.

64. The magnitude of the tax savings that results from BBI's shifting its warehouse operations from South Carolina to Georgia depends on the fact that Georgia's corporate income tax apportionment law does not include the throwback rule. Recall that the throwback rule treats a sale that is made to a customer in a state in which a corporation is not taxable as if it had been made in the state from which the product was shipped. Had Georgia implemented the throwback rule, all $13 million of BBI's South Carolina sales that originated in its Georgia warehouse would have been treated as if they were made to Georgia residents — increasing BBI's Georgia apportionment percentage to 95 percent. While BBI's tax savings from moving its warehouse from South Carolina to Georgia would not have been as large if Georgia had enacted a throwback rule, they would not have been trivial, either. Recall that if South Carolina adopted a sales-only formula and BBI had remained taxable in that state, it would have been subject to tax on 117 percent of its profit in Georgia and South Carolina combined. This is still significantly greater than the 95 percent of BBI's profit that would have been taxable in the two states if Georgia had a throwback rule in effect. As indicated on p. 13, almost half the states with corporate income taxes do not have the throwback rule in effect. Thus, the scenario described here is not an unlikely one.

65. Even under combined reporting, the separate corporations in the corporate group are generally required to file their own tax returns.

66. Wisconsin Legislative Fiscal Bureau Paper #112, *Corporate Income and Franchise Tax — Combined Reporting*, June 7, 1999, p. 14.

67. Goolsbee and Maydew's research actually explores the relationship between the weight assigned to the payroll factor and state job creation. However, since so far all states have given the property factor the same weight as the payroll factor, reducing the weight of the payroll factor by a certain percentage automatically increase the sales factor twice as much. For example, reducing the payroll factor and property factor each by 8 1/3 percentage points (from 33 1/3 percent to 25 percent), automatically increases the sales factor by 16 2/3 percentage points (from 33 1/3 percent to 50 percent).

68. "[T]he country might be better off if the apportionment formulae were set at the federal level as in a standard race-to-the-bottom type argument. . . . [P]romoting uniformity might improve national welfare by preventing the beggar-thy-neighbor changes at the state level." Austan Goolsbee and Edward L. Maydew, "Coveting Thy Neighbor's Manufacturing: the Dilemma of State Income Apportionment," *Journal of Public Economics*, January 2000, p. 140.

69. *The Economic Impact of Single Factor Sales Apportionment for the State of Illinois: Job Creation and Tax Revenue*, December 1996 (funded by the Illinois Manufacturers Association). *The Economic Impact of Single Factor Sales Apportionment for the State of Minnesota: Job Creation and Tax Revenue*, February 1999 (prepared for the Minnesota Taxpayers Association). *Economic Impact of Single Factor Sales Apportionment: Job Creation and Tax Revenues*, February 1999, published in modified form as "What Would Happen If Wisconsin Adopted a Single-Factor Sales Apportionment Formula?" *State Tax Notes*, March 8, 2000 (funded by Wisconsin Manufacturers and Commerce, co-authored with University of Wisconsin professors John Healy and Michael S. Schadewald). *The Economic Impact of Single Factor Sales Apportionment for the State of New York*, November 2000 (commissioned by the Business Council of New York State, Inc.).

70. The four Goolsbee/Maydew studies also project increases in *non*-manufacturing employment in states adopting a sales-only formula. They have not attempted to break down this non-manufacturing employment growth into direct and "multiplier" effects. "Direct effect" refers to any change in non-manufacturing employment attributable to tax savings provided to non-manufacturers eligible to calculate their corporate income taxes using a single sales factor formula. "Multiplier" employment effects arise when growth in manufacturing employment stimulates growth in non-manufacturing businesses selling goods and services to manufacturers.

71. See: Garland Allen, Kathryn Pischak, and Ossie Ravid, "Single-Sales-Factor Legislation Sent to Governor," *State Tax Notes*, May 19, 1997, p. 1507. In 1998 the Illinois legislature enacted, and Governor Jim Edgar signed, a single sales factor formula, to be phased in by 2000. Edgar had vetoed single sales factor legislation in 1997.

72. Goolsbee/Maydew find that, on average, the long-term impact on manufacturing jobs of increasing the weight of the sales factor is more than two and one-half times the short-term impact. For example, switching from an equally-weighted three factor apportionment formula to a formula with double-weighted sales would result in a 1.1 percent short-term jump in manufacturing jobs in a state with the average corporate tax rate and a 2.8 percent long-term increase in such jobs. See: *Journal of Public Economics*, pp. 133 and 139.

73. See: Goolsbee/Maydew, *Journal of Public Economics*, Table 5, page 138, results for regression (5). These results imply that the predicted long-run change in manufacturing employment resulting from the decreased weighting of the payroll factor relative to the sales factor is approximately equal to the state corporate tax rate, times the percentage point drop in the payroll weight, times negative 4.666. The long-term growth in manufacturing jobs that would result from adoption of a sales-only formula in a state with Illinois' 7.3 percent corporate tax rate thus would be 8.5 percent [=(.073)*(-.25)*(-4.666)]. This calculation is approximate because a small adjustment should also be made for the impact on the average state payroll factor weight of a single state altering its payroll factor weight. Goolsbee/Maydew do not themselves make this adjustment in their calculations, because its impact would be so small.

74. For the New York study, Goolsbee/Maydew incorporated the impact of the deductibility on federal corporate income tax returns of state corporate income tax liability. (As discussed on page 33, deductibility effectively reduces the benefits to a corporation of tax breaks provided by a state or local government.) Regressions accounting for federal deductibility had appeared in several earlier versions of what became the *JPubE* paper. Their omission from the final version is curious, since from a conceptual standpoint federal deductibility should be taken into account even if — as Goolsbee/Maydew assert — doing so would not have affected the results significantly.

75. Compare the coefficient of -2.729 on the "state payroll burden" in column 2, Table 2 in the New York study with the comparable coefficient of -4.666 in column 5, Table 5 of the *JPubE* paper. These are essentially the same regressions run over the two different intervals. There may be slight differences in the control variables. The change between -4.666 and -2.729 in the coefficient on the state payroll burden variable represents a decline of 41.5 percent in the number of manufacturing jobs that the two equations predict would be created as a result of a state's switch from a double-weighted three factor formula to a sales-only formula. Goolsbee/Maydew used the results of a different regression (column 1, Table 2) in the New York study to project the employment impact of adopting a sales-only formula in New York; as pointed out above (see note 74), that regression factors in the effect of federal deductibility. Goolsbee/Maydew have not published the results of a comparable regression run over the 1978-94 time frame.

76. Teresa Lightner, "The Effect of the Formulary Apportionment System on State-Level Economic Development and Multijurisdictional Tax Planning," *Journal of the American Taxation Association*, 1999 Supplement. Lightner's paper was published while she was a Ph.D. candidate at the University of Oklahoma.

77. Nationwide, total state corporate income tax payments in FY96-97 totaled $30.6 billion, according to the U.S. Census Bureau. The IRS reports that for federal tax year 1997, profitable U.S. corporations had total deductions on their federal income tax returns of $12.7 trillion and total deductions for taxes other than federal corporate income taxes of $288.6 billion.

78. Wisconsin Department of Revenue data underlying Legislative Fiscal Bureau Paper #111, *Corporate Income and Franchise Tax — Single Sales Factor Apportionment Formula*, June 7, 1999. The switch to a single sales factor formula would have provided an aggregate tax cut of $90,253,963 to 537 multistate manufacturing corporations, an average of $168,071 per corporation. Given Wisconsin's 7.9 percent corporate tax rate, a tax reduction of this magnitude suggests that each manufacturer, on average, would have had $2,127,481 less profit apportioned to Wisconsin under the sales-only formula. Approximately $22 million in additional Wisconsin corporate income tax liability would have been incurred by 718 multistate manufacturing corporations whose Wisconsin sales factors exceeded the average of their Wisconsin property and payroll factors.

79. 6.36 percent Wisconsin sales + 6.36 percent Wisconsin sales + 20.01 percent Wisconsin property + 20.94 percent Wisconsin payroll ÷ 4 = 13.42 percent overall Wisconsin apportionment factor.

80. This assumes that the state does not provide any corporate income tax credits that reduce tax liability after the tax rate has been multiplied by net income apportioned to the state. Wisconsin provides minimal credits against corporate income taxes; for example, it provides no state-specific investment tax credit and only a small R & D credit. Accordingly, dividing tax liability by the apportionment factor and the tax rate should yield a quite reasonable approximation of the nationwide apportionable income of the manufacturers taxable in Wisconsin.

81. To check: $27,665,115 times the 13.42 percent Wisconsin apportionment factor times the 7.9 percent Wisconsin corporate tax rate equals $293,194.

82. Internal Revenue Service "Statistics of Income" data for corporations support the reasonableness of this $30 million nationwide profit estimate. According to the IRS, the average 1998 U.S. taxable income of the 6389 largest manufacturing corporations — those with gross business income in excess of $50 million — was $70.7 million. Most of these 6389 corporations actually would be multi-corporate groups filing federal consolidated returns combining the taxable income of the parent and most subsidiary corporations. Wisconsin does not allow consolidated returns; many of the 537 corporations thus are likely to be individual subsidiaries that happen to have nexus in Wisconsin. Accordingly, it is reasonable to expect that the nationwide profit of the 537 manufacturers in the example would be smaller than the nationwide profit of the manufacturers filing consolidated returns in the IRS large manufacturer class.

83. Column 1, Table 2, New York study: -3.148 times 7.9 percent Wisconsin corporate tax rate times 25 percentage point drop in payroll factor weight times 1 minus 35 percent federal corporate tax rate. Wisconsin manufacturing employment in 2000 was 614,000 workers, according to the Bureau of Labor Statistics.

84. This example just as easily can be thought of as an estimate of the tax savings the average Wisconsin manufacturer would realize by choosing to expand in Wisconsin after it adopts a sales-only formula rather than in a double-weighted sales state when growing demand stimulates the company to implement a net expansion in its output. See the discussion on p. 65 below.

85. Even corporations that experience tax increases as a result of Wisconsin's unilateral switch to a sales-only formula have an incentive at the margin to shift jobs into Wisconsin to alleviate the double-taxation they are subjected to. However, as discussed above, they also have an incentive to remove jobs from the state to eliminate their taxability ("nexus") entirely. Thus, this example assumes that the only corporations that actually shift jobs into Wisconsin in response to the switch to a sales-only formula are those corporations that experience tax reductions. This assumption avoids the need to do a separate calculation for the average corporation in each group, but would not significantly change the result when measured as potential state corporate tax savings per job shifted into the single sales factor state.

86. This assumes that all of the other states in which the corporation is taxable had the same corporate income tax rate as Wisconsin and used a double-weighted sales formula. In actuality, the weighted average state corporate income tax rate is probably somewhat lower than Wisconsin's 7.9 percent rate, and several surrounding states in which a Wisconsin manufacturer may be taxable have given the sales factor more than a 50 percent weight. If taken into account, both of these factors would lead to even less tax savings for the corporation from shifting jobs into Wisconsin than the example already indicates.

87. This statement assumes that none of the increased demand was attributable to Wisconsin-based customers. If Wisconsin adopted a single sales factor formula, the company chose to expand in Wisconsin, and some of the additional output was sold to Wisconsin-based customers, then of course the company would incur some additional Wisconsin corporate tax liability.