Professor Walter Hellerstein
University of Georgia Law School
Herty Drive
Athens, Georgia 30602

Professor Hellerstein:

I appreciate the opportunity to gain your input for the story I’m writing on the enclosed Minnesota ad tax study for Advertising Age (study enclosed).

The seven industry groups here, collectively called the Communications Industry Coalition, have been working on this study for just over a year. Steve Colford said you’d be a good judge of the study worth because one of the scenarios contained in the document is similar to the Florida plan.

Hope you find the study and/or methodology worthy of comment. I’ll call you early Wednesday afternoon for your verdict. If you need to call me before then, I can be reached at 612-925-5115. Again, thanks for your consideration.

Sincerely,

[Signature]

Bob Geiger
THE MINNESOTA MODEL

A Symposium About The Real Cost Of Advertising Taxation

University Research Consortium
For
The Communications Industry Coalition

Robert Thomas Kudrle

June 24, 1991
Minneapolis, Minnesota

$250

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A Rhodes Scholar, Professor Kudrle holds a master of philosophy degree in economics from Oxford University and a Ph.D. in economics from Harvard University. He has served as a consultant and expert witness for the Antitrust Division of the U.S. Department of Justice and as a consultant to the Canadian Department of Consumer and Corporate Affairs, the U.N. Centre on Transnational Corporations, the Overseas Private Investment Corporation, and the Urban Institute.

Professor Kudrle teaches microeconomic policy analysis, which includes taxation and competition issues, as well as econometrics, which deals with measurement issues in economics. Much of his recent research has concerned the role of Minnesota in the global economy. Professor Kudrle's work has appeared in such journals as Public Finance, World Politics, International Organization and Economic Development Quarterly.

Disclaimer Statement:
The views expressed by Dr. Kudrle are his own. Nothing in this work should be interpreted as an official position of the University of Minnesota.
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Executive Summary

Minnesota currently faces a problem shared by a large number of states: a yawning gap between anticipated revenues and expenditures. This report warns against adoption of a damaging policy direction that has been discussed in earlier years: the extension of the sales tax to advertising services. The taxation of business services serves neither equity nor efficiency in a state economy. Such taxation cannot be defended on income distribution grounds, and it erodes the state's competitive position, while it particularly disadvantages small businesses. Moreover, some business services may be more severely damaged by business sales taxation than others. It is argued here that the activities making up the "communications industries" are among the most easily harmed; they are highly competitive, and most are highly mobile.

The Communications Industries

This report focuses on the effects of increases in taxation on one of the state's most successful industry clusters. The communications industries include printing and publishing, advertising, public relations, broadcasting, and paper and forest products. Together they account for more than $7,000,000,000 in Minnesota output. Printing and publishing, which includes newspapers, account for approximately $5,000,000,000 in annual sales from firms in Minnesota. The industry ranks second among all state manufacturing industries in employment, and Minnesota's printing industry is number two in the country in its role as a state manufacturing activity.\(^1\) The closely related paper and forest products industry sells $1,500,000,000 a year. The state's advertising agencies have become internationally famous, and the Twin Cities has become the seventh largest advertising creation center in the country; the industry's estimated annual output now exceeds $330,000,000.\(^2\) Broadcasting boasts similar success with annual receipts now exceeding $425,000,000; the Twin Cities is now recognized as

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\(^1\) This is based on the percentage of a state's total non-farm employment in printing. If Minnesota's percentage were equal to the national average, the state would employ over 10,000 fewer people in printing.

\(^2\) This measures the contribution of advertising and not the volume of activity directed by advertising agencies; the latter much larger figure is called "billings."

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a "major media center." The smaller but highly successful state public relations industry tripled its dollar sales after 1978 to sell over $25,000,000 in 1990. Of many bonds uniting the industries, advertising is the strongest: it develops messages that are printed, broadcast, and promoted by public relations firms. Printing, in turn, generates demand for the output of the state's pulp and papermaking industry. All of these industries, critical today and even more important for Minnesota's future, may be threatened by unwise tax initiatives.

**APPROPRIATE STATE SALES TAXES**

Widespread agreement prevails among economists on the principles of sound taxation. Experts agree on many aspects of how fairness and efficiency issues should be evaluated. They also understand that states have a special problem in taxation: each state must consider its competitive position with respect to other states.

Ideally, sales taxes should fall evenly on final consumer expenditures and should not be levied on intermediate purchases because double taxation will result. This "pyramiding" of taxes creates an incentive for firms to avoid taxation by making in-house what they would otherwise purchase from specialized firms. Large firms are much more able to engage in such adjustments than their smaller competitors. While final sales taxes are forgiven on out-of-state sales, this is not true of "retail" sales taxes paid by Minnesota businesses; thus, these taxes hamper the competitiveness of Minnesota in the U.S. and international economies.

All proposals to extend the sales tax to advertising move the state away from the ideal employment of the sales tax because they increase the level of double taxation on advertised products. More seriously, such taxation undermines the competitiveness of some of Minnesota's most effective performers in national and international markets.

**THE CURRENT SYSTEM**

The current sales tax system discourages Minnesota enterprise and artificially advantages larger firms because of its sales taxation of some business advertising purchases. Under current law, the "tangible personal property" element of advertising is subject to tax. This
discourages "property intensive" advertising, in particular printed matter such as brochures and sales promotion materials. This form of advertising is commonly called collateral. It encourages firms to use more of other forms of advertising, to substitute in-house for outside purchase of such collateral and some "bootlegging" to Minnesota to avoid the tax. In-state users of advertising must charge somewhat higher prices than they would if the tangible property element were not taxed, less collateral is purchased, and smaller users suffer most.

Consider a Minnesota-based hardware chain that competes with both larger interstate operations and purely local firms. The chain will be disadvantaged against the out-of-state firm if the larger operation can produce its collateral in-house while that strategy remains impractical for the Minnesota chain. On the other hand, to the extent that the in-house option may exist for the Minnesota chain for part of its collateral production, that avenue will almost certainly be closed for a single wholly-independent hardware store. Firms that circumvent the tax by "bootlegging" cost Minnesota jobs.

**INCREASED COLLATERAL TAX**

The system could certainly be worse. If the entire value of collateral advertising instead of just the "tangible" part were taxed, there would be a greater incentive to substitute untaxed for taxed advertising, a greater incentive for the in-house production of collateral, and for more "bootlegging." The users of collateral advertising would be affected more than is presently the case. In the hardware example, the same relative disadvantage is simply magnified. The largest interstate operation has the greatest ability to adjust, the smaller Minnesota chain has less, and the local firm very probably has none.

This report develops a model of the communication industries based on a survey of firms in the industries and information from other sources. The model is used to estimate income and job losses resulting from various taxes on the communication industries. Calculated losses of state income and jobs resulting from taxing the service component of collateral advertising are as high as $42,910,000 and 889 jobs.

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TAXATION OF ADVERTISING PRODUCTION

The state might also consider the taxation of advertising production. This would raise the cost of advertising, causing less of it to be purchased in the state. Some firms could be expected to perform advertising services in-house or to obtain them in untaxed form from outside the state. Advertising firms in Minnesota would suffer in interstate competition — even if the tax was not applied to out-of-state sales — because of the reduced in-state sales base. Heavy users of advertising in Minnesota would tend to charge higher prices and realize lower sales; smaller firms would be particularly disadvantaged. Minnesota firms would be disadvantaged in out-of-state competition because of increased taxation costs.

The effects on the hardware chain can again be examined. The larger non-Minnesota based competitor may already get all of its advertising production from its central headquarters, and no tax would be due. The Minnesota chain, facing increased costs, may consider the in-house production of advertising or the co-operative development of advertising with out-of-state affiliates. The local firm quite probably remains out of luck.

Our partial estimates of effects run as high as $66,924,000 in lost income and 1,405 in lost jobs in this scenario.

TAXATION OF LOCAL MEDIA ADVERTISING

If the state attempted to tax only media advertising and not advertising production, a different set of problems would arise, depending on whether or not the state tried to tax only local or also national media advertising. If the former, local advertising would be heavily discouraged with a severe effect on the local media. Advertising agencies would be hard hit because of decreased demand for the advertising, and both advertising and media firms would have a smaller base upon which to build interstate competitiveness.

On the user side, the hypothetical Minnesota-based chain and local hardware stores would face an additional barrier to getting their message across that would not be faced by the interstate chain, which could advertise without the tax (probably so long as specific local outlets

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were not identified). Between the Minnesota producers, the chain would still hold an advantage because of its greater ability to employ in-store advertising effectively.

Our model of only some of the effects of the policy suggests losses of $126,270,000 and 2,631 jobs.

TAXATION OF ALL MEDIA ADVERTISING

If an attempt were made to tax all advertising presented in Minnesota, as was recently attempted in Florida, the state would become embroiled in enormous legal and administrative problems. Massive litigation could be expected, and thousands of publications would need to be monitored. Such a measure would further erode the sales of local media and advertising firms and weaken their position for out-of-state sales.

The three types of hardware vendor would be put on a nominally equal footing, but the larger firms would still be more able to employ in-store advertising more effectively.

The model produces estimates up to $211,659,000 and 4346 jobs lost.

TAXATION OF ALL ADVERTISING ACTIVITY

Minnesota could attempt to tax both the production and the use of most advertising, as was done in Florida. This would increase the negative effect on both the media and advertising firms. It would also be the most unfavorable scenario for Minnesota-based users of advertising and would maximally discourage firms from locating in the state or remaining here. The Minnesota-based hardware chain, which might well be considering in the other scenarios whether it wanted to remain Minnesota-based, could easily make a decision against remaining headquartered in the state in this highly unfavorable environment.

Our model does not allow for the firm relocation out of state which would undoubtedly result, particularly in this scenario, but the model still yields very high estimates of state losses: up to $288,709,000 in income and 5961 jobs.
CONCLUSION

The higher and more inclusive is the level of advertising taxation, the greater will be the losses to the community from inefficient resource allocation. Far more importantly, the advertising taxes examined in this study would disrupt highly successful Minnesota industries and would hobble their efforts to compete in the national and international economy.

The quantitative impacts estimated here range from modest to very large, depending on the assumptions made about the results of alternative policies. But all of them miss the most important but least easily estimated outcome, especially from the policies most unfavorable to the highly competitive communications industries: Firms will not start or stay in a state that hinders their operations. And the negative impact of increased taxation on the fortunes of the communications industry will leave other taxpayers with greater burdens in a generally less prosperous Minnesota economy.

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STATE SALES TAXATION OF THE COMMUNICATIONS INDUSTRIES

BACKGROUND

The eighties provided an unprecedented challenge for American state governments as they found increased responsibilities thrust upon them during a period of rapidly shifting economic conditions. Minnesota took its share of buffeting; its share of employment decline in the 1982 recession was twice the national average, while the later years of the decade brought very high levels of activity. The economic fortunes of the fifty states varied over the decade, but one development touched all of them: The federal government mandated new responsibilities while decreasing the level of real support from Washington by about one-half.

In their concern with increasing revenues, states have explored a broad range of alternatives: new taxes, expanded bases, and more aggressive auditing and enforcement. The current fiscal year finds at least 28 states attempting to erase the looming fiscal deficits that their state constitutions forbid; Minnesota is one of those states.

This report aims to discourage Minnesota from attempting to close the gap between income and expenditure by increasing the level of sales taxation of business services, a policy direction that would decrease the efficiency of the Minnesota economy while it eroded our competitive position among the states. More specifically, the study critically examines the impact of extending Minnesota’s sales and use tax to various elements of the state’s communications industries.

THE COMMUNICATIONS INDUSTRIES AND STATE SALES TAXATION

The term “communications” encompasses a closely-related set of activities including not only advertising but also public relations, printing, paper and forest products and the media: radio, television, newspapers, and magazines. They can be considered together for many purposes because their activities are closely linked.

This study was prepared because of intermittent initiatives from the Department of Revenue and the Legislature to increase the range of activities within the industry that are
subjected to sales taxation. Since the introduction of Minnesota's sales tax in 1967 Minnesota advertising services have been exempt. In 1983, the state legislature discussed the general taxation of advertising, but the idea was abandoned before its details could be worked out. In 1987, as part of the consideration of an extension of the sales tax to a broad range of services, some advertising was again considered for taxation; the proposal died in committee. In July of 1990, after several years of discussion with industry representatives concerning conflicting interpretations of the applicability of the present sales tax law to the communications industry, the Department of Revenue proposed a new rule that would have effectively extended the sales tax to the services involved in the production of "collateral": those physical products that display advertising. The rule was withdrawn in October of the same year following substantial opposition from the communications industries.

Although it is difficult to draw the distinction with precision, the term "media" advertising is used by the Department of Revenue and the industry itself to refer to radio, television, newspaper and billboard advertising, while collateral advertising means advertising in printed materials, mugs, keychains, and other objects. The dispute concerns the distinction between the service of "advertising" which has been declared to be sales tax exempt and its embodiment in "tangible personal property" upon which the sales tax is levied.

THE COMMUNICATIONS INDUSTRIES IN THE MINNESOTA ECONOMY

The communications industries includes some of the most successful elements in the Minnesota economy and together account for well over $7,000,000,000 in annual output. The printing industry estimates that Minnesota production of newspapers and other publications was over 2.5 billion dollars in 1990, and the rest of the printing industry, which includes advertising printing, was nearly as large (Davis, 1990), for a total sales of nearly 5 billion dollars. Minnesota ranks second in the country in printing activity relative to total manufacturing, and employment has grown by 30 percent since 1977 by comparison with just 10 percent for Minnesota manufacturing as a whole. The printing industry relates closely to the paper and forest products industry, a $1.5 billion state activity that provides printing with an important input.
The printing industry is not bound to Minnesota by the close proximity of paper production. Only part of the printing industry's paper comes from mills in the state, and current transportation costs for paper are low enough, relative to the value of the product, that printing can be located anywhere.

The Twin Cities became famous in the 1980s as the home to nationally recognized creators of national and international commercial advertising. The Twin Cities market is the 7th largest creation center in the country as measured by total billings (Geiger Report, 1991:1). Minnesota advertising agencies have more than tripled their dollar volume over the period 1978 through 1988, and all Minnesota advertising firms produced an estimated output of more than $330,000,000 in 1990. Public relations services also increased more than three times since 1978 to a figure of over $25,000,000 in 1990.

Radio and television in the Twin Cities have also attracted national attention. According to a major national study, the Twin Cities market was "a disproportionately large beneficiary of the national explosion in media services over the 1975-1988 period... By the end of 1988 Minneapolis-St.Paul had become both a major media center and a major hub for media advertising" (Penner and Lilley, 1989:81). The industries are linked in many complex ways, but a central feature is the role of advertising. Commercial communication developed by advertising agencies is purveyed through printed advertising as well as the media: newspapers, radio, and television. Printed advertising, in turn, creates demand for the state's pulp and papermaking industry. Public relations firms play an important role in many advertising campaigns.

Taken as a whole, the communications industries provide an important share of the state's earnings from the rest of the nation and the world; their economic health matters greatly to the entire Minnesota economy.

This study explores the probable impact of various sales tax alternatives on the communications industry — on the firms involved, on their employees and on the Minnesota economy. This study approaches the problem of estimating the effect of several tax alternatives in two ways. First, the general effects of the tax based on economic reasoning and an understanding of the industries are explored. Second, some representative quantitative results are presented. These estimates were developed from information gained from a survey sent to all member
firms by the Communications Industry Coalition. The data provided were then combined with other quantitative estimates to develop an input-output model relating the communications industries to the rest of the Minnesota economy (see Appendix).

The conclusion of the study can be stated at once: "The power to tax is the power to destroy" aptly characterizes all of the various possibilities. Although the alternatives differ in their precise detail and in the severity of the effects on the communications industries, they all tend to undermine an important segment of the state’s economy that is very large, has grown rapidly, and can continue to buoy Minnesota’s economy in the future if unwise tax policies do not make that impossible.

**THE CRITERIA FOR GOOD TAXATION**

Most authorities agree on the criteria for sound taxation. Although the standards are variously stated, they include fairness, efficiency, economy of compliance (by the taxpayer) and collection (by the state). Fairness includes the concept that those who benefit from special government programs might sometimes be expected to pay their costs, but also that taxation for general revenue purposes should satisfy the criteria of horizontal and vertical equity. Horizontal equity means that taxpayers in similar economic circumstances should face similar tax burdens, and vertical equity means that those who are better off should pay more than those who are less well off.

The most efficient taxes disturb the pattern of economic activity least. Sales taxes result in prices that give one signal to one side of the market and another to the other side, causing bad decisions and economic waste. Imagine that only candy bars are taxed. Let’s say the resources going into each bar (including a return on capital) are worth 10 cents a bar, but each bar is also subject to a 10 cent tax. Customers will buy candy bars only when each bar is worth twenty cents to them, although the cost of production is only a dime. A typical consumer might buy three candy bars a week at twenty cents but eight at a dime. The tax has caused distortion because resources that could have produced greater value for the consumer by producing candy bars (somewhere between ten and twenty cents) are instead used in other industries where their value is lower. Such inefficiencies are called “excess burdens” — they burden the system beyond
the revenue raised by the tax. Sound tax policy tries to minimize them, holding other considerations constant.

State tax policy must necessarily concern itself with another phenomenon: the competitive impact of a tax. If an inefficiently high tax simply distorts the state economy but no industry leaves the state, the general welfare is lower and the rate of growth may be slower, but the overall impact may be fairly hard to measure. But if the tax drives part or all of an industry out of the state, the consequent cost in jobs, in tax revenues lost, and in public welfare expenditures incurred may be both quite substantial and quite visible. Competitiveness must be an important criterion of state tax policy (Minnesota Tax Study Commission (1986:5).³

STATE SALES TAX CRITERIA AND MINNESOTA PRACTICE

In common with most states, what are generally referred to as “sales taxes” in Minnesota are in fact sales and use taxes. The state is concerned with applying the tax principally where the benefits of the good or service are enjoyed. If goods and services are exported outside of the state, they are typically exempt from tax; if, however, goods and services which would be subject to sales tax if produced in Minnesota are sold to Minnesotans from persons or firms from outside the state, the users of those goods and services are liable for a use tax of comparable amount. Use taxes due, however, can frequently be determined only by audits and then only imperfectly. Inadvertent and conscious “bootlegging” plagues revenue officials in every state.

Equity, efficiency, competitiveness and low administrative and compliance cost in state sales taxation dictate adherence to several specific rules.

1. The sales tax should fall evenly on final consumer expenditures unless compelling reasons dictate otherwise. Economists have long known that the same amount of revenue can be collected with less economic distortion when a lower but uniform rate is applied rather than higher rates applied to a narrower base of expenditures. Minnesota now has one of the narrowest bases in the nation (Minnesota Tax Study Commission, 1986); it exempts whole categories of goods because they are “necessities” and largely ignores the consumer service sector. The

³ Even taxes producing minimum distortion in the sense of the text can damage the state if they favor one group over another and hence promote the in or out migration of particular groups; see Slemrod, 1986.
distinction between goods and services, so bafflingly complex in the law, has no significance whatever in economics. Sales taxes should be applied to final retail sales of goods and services alike. While many states have moved in the direction of taxing the growing service sectors of their economies (Due and Mikesell, 1983), they have frequently ignored the vital distinction between business and consumer services.

A uniform tax on final consumption purchases means that sales taxes should be levied on consumption expenditures, not “retail” sales. Retail sales taxes paid by businesses on some of their expenses do not differ from any other category of cost and will be passed on to the consumer to the same extent as other costs. This results in double (or multiple) sales taxation: If the cost of the furniture used in the office of the firm that produces brushes is subject to tax, the same cost component including the tax will be taxed again when the brush is sold to the final consumer. The same thing occurs if the firm pays any tax on its advertising. Advertising is simply that element of a firm’s activities that puts it in touch with its customers; its cost is necessarily included in the product’s final cost. No important conceptual distinction exists between a clerk’s response after asking “may I help you?” and an unprompted advertising message declaring how the firm can help you.

The multiple taxation just described is known as “pyramiding.” The practice leads to the price-cost distortions discussed earlier by creating differences in the pattern of prices of various final goods solely because their preparation involves different levels of taxed sales to the businesses that produce them. Although Minnesota exempts some categories of materials used in firms’ production processes from the sales tax, no economic justification can be devised for making distinctions among any of the costs experienced by the firm.

In sum, the ideal sales tax rests on a very simple idea: a uniform percentage tax should touch all final consumer purchases once and only once. In their comprehensive study of state taxation, Due and Mikesell caution that “Administration considerations probably preclude

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4 In fact, it represents a prime example of what economists call the “fallacy of misplaced concreteness,” where general rules are ignored or become confused because inappropriate characteristics are employed for classification. Here the “misplaced concreteness” is the physical tangibility of the product itself. How does advice from a professional differ from the same information obtained from a book?

5 The term “retail” in the law means the final sale of a good in that form. The sale of furniture to a law firm is “retail” in this sense even though the cost of the furniture is a business expense that must be covered by the collection of legal fees. The more ordinary use of the term refers to a sale to consumers.

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exclusion of all sales for business use from tax, but . . . many states could much more closely approximate [an ideal sales tax] than they do" (1983:57). In his paper on sales taxation for the Minnesota Tax Study Commission, Mikesell (1986) makes very clear that Minnesota is one of those states.

2. The sales tax should avoid undue burden on the poor. The poor are far more effectively and efficiently protected by giving them a direct rebate than by exempting major categories of goods purchased by rich and poor alike (which, to collect the same revenue, implies a higher rate and more distortion on those categories that are taxed). Further, the broad categories of goods such as food now exempt from the sales tax on equity grounds nonetheless contain a large element of sales tax paid by the businesses that sell the goods. The exempt sectors really are not exempt after all. Moreover, Minnesota effectively double-taxes many products such as the brushes, the purchase of which will be distributed across the community in no particular relation to income. In addition, both across income groups and within any given income group, current practice penalizes those with a marked taste for goods rather than services.

3. States should avoid tax practices that "create competitive disturbances among various types of distribution channel, method of doing business, form of business organization and the like; otherwise, economic efficiency will be lost" (Due and Mikesell, 1983:24). The most obvious result of the taxation of sales to businesses is tax avoidance through in-house production. Some firms can reduce their "retail" purchases by simply producing the goods and services themselves. This is more than simple tax avoidance; it creates inefficiency because specialized production by other firms would be chosen without the distorting tax incentive. Moreover, small firms are much less able to avoid taxes in this way than are larger firms, giving the latter a competitive advantage assignable solely to the tax.

Such sales taxes on business also clearly harm the state's competitive position in the U.S. and international economy. Final sales taxes are forgiven when the goods produced are sold outside the state; partial or no credit has typically been given for other business sales taxes paid. While such business taxation can result in some out-of-state buyers effectively paying taxes to

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6 This is practically the best solution although better ones exist in theory.
Minnesota, the present system does so capriciously and without apparent strategy. This taxation makes Minnesota’s products less competitive in national and international markets, surely not what most citizens and state officials would claim they want. Better state strategy would give Minnesotans the best possible chance to sell out of state in the first instance and then increase the state’s cut with increased taxation of the proceeds if that is deemed appropriate. This conclusion appears consonant with John Mikesell’s wry observation after discussing the level of business sales taxation in Minnesota: “There is no general reason to discourage economic development” (1986:184).

4. The tax structure should “facilitate administration and vendor compliance” (Due and Mikesell, 1983:24). This criterion includes two distinct components. First, the law should be clear about precisely what is expected. Second, the compliance cost of the affected firms as well as the collection and enforcement costs to the state should be as low as possible. The application of sales taxes to business purchases frequently creates great record-keeping and enforcement problems. Sales taxes connected with advertising in Minnesota have never been clearly understood by those expected to pay them. Moreover, it will be argued that both compliance and administrative costs would be vastly higher under some alternative schemes for the taxation of advertising than is presently the case.

To summarize the argument so far: the state of Minnesota in common with all but a few other states imposes a sales tax, but its base is narrow. Business sales taxes are discouraged by tax experts by comparison with a sales tax on final purchase of goods and services. Mikesell (1986:184) has estimated that a typical state raises 25 to 50 percent of its sales tax revenue from business taxes; the precise Minnesota figure is not available but is apparently in that range.

An outside analyst has difficulty avoiding the conclusion that the high level of business sales taxation in Minnesota has been retained because of its relative invisibility and perhaps a belief that, because it is levied on business at other than the final sales level, it might somehow come entirely out of profits rather than being passed forward as higher product prices. These elements of confusion or even intentional obfuscation in the explanation for the heavy use of business sales taxes fit poorly with the Minnesota tradition of clear-thinking and directness in
public affairs. More specifically, all proposals to extend the sales tax to advertising move the state away from the "ideal" employment of the sales tax at the state level because they increase the effective level of double taxation on the products affected by the tax. But the problems are far more serious than that; they promise to undermine one the state's most successful industry clusters. This claim can be substantiated most effectively by a careful look at specific proposals.

THE PRESENT SITUATION

The communications industries can perhaps best be thought of in two major categories: those that prepare communications and those that present them; clearly some firms and industry segments do both. Let us consider an example that will be sustained through several scenarios. A Minnesota hardware chain is considering its communication with potential customers. For the chain, its advertising campaign has two cost components: the "flag" and the "flagpole." An advertising agency will be hired to produce a compelling flag which will then be presented to the public. The various "flagpoles" will include direct mail, door to door delivery, radio and television time, and newspaper space. It must be noticed immediately that the extent to which the firm can plausibly perform any of this activity itself varies enormously: it may have some in-house competence for the production of advertising ideas and perhaps some desk-top publishing capacity; printed advertising materials might be delivered by its own employees. It is unlikely to go into the broadcasting or newspaper business.

Under current law, the "tangible personal property" component of advertising is meant to be taxed while the service component is not. Moreover, even though the sales tax assignable to the final product is forgiven when any advertising product is sold out-of-state, all sales taxes paid by the producing firm on the "retail" purchases connected with the general operation of its business are not. They must still be reflected in the selling price of the product, and Minnesota firms are disadvantaged against competing firms in any state where those taxes are lower.

Notice also that under the present system the producer of advertising can limit tax

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7 One distinct political advantage is that the price increase resulting from a business sales tax lies buried instead of being visible to the ultimate payer when bills are added up.

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liability through “vertical integration,” i.e. instead of paying sales tax on work done by photographic firms (which must charge a tax on the total value of what they sell), the firm can hire its own photographers and pay sales tax only on supplies.⁸

Assume that our hardware chain wants to distribute printed advertising materials. It contracts with an advertising agency to have them made. The advertising agency will typically deal with a set of outside suppliers such as photographers and keyliners,⁹ and the state intends that the physical component of the final product be taxed once (but only once). The paper and the printing on it would be taxable. Because advertising services are not taxed, the value added by the advertising agency itself is not taxed if certain Department of Revenue directives are followed. But notice that if the photography is done by agency employees it escapes the tax (although the photographic supplies are still taxed) while if it is done by an independent firm, tax is due. Similarly, the advertisers can escape the tax on printing by performing the activity in-house. The situation would be similar for advertising prepared for radio and television broadcast.

If the hardware chain had operations in one or more other states and was producing the collateral advertising for use throughout its operations it would pay the final tax due only on that part of the collateral that stayed in (or was returned to) Minnesota. The intermediate “retail” taxes paid by the agency and the printing firm in the preparation of the collateral cannot be escaped at all.

The present tax regime also affects the competitive position of various firms. A hardware chain large enough to produce part of the tangible property used in its own collateral escapes the tax to the extent that it can do so. Typically, the larger the firm the higher will be this capacity. A large firm headquartered out of state may already produce some or all of its own collateral. This could give it a significant advantage over the Minnesota-based chain. Small, completely independent hardware stores are clearly the most disadvantaged. More generally, entire industries that typically employ collateral advertising are disadvantaged

⁸ “Up” in vertical integration means either towards the customer or towards sources of supply. If a car firm replaces its dealerships with company stores or if it moves to manufacture its own glass or tires, it is engaging vertical integration.

⁹ Keyliners are those persons who assemble graphic material prior to printing.

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relative to others, and smaller firms within those industries are particularly hurt. Such industries are less likely to begin or expand in Minnesota than in states with a more favorable tax climate.

The preceding argument illustrates that, although most of this report deals with increases in the extent of communications industry taxation, even present practice creates obvious distortions. Notice that the advertising agency can escape the tax on the “tangible personal property” of “photographs” no matter where the advertising is sold by simply hiring its own photographers, an outcome that obviously also occurs if the hardware chain produces its own printed advertising materials. But under the present system the hardware chain itself has no artificial incentive to produce advertising services unconnected with collateral in house, a result that will come from scenarios to be examined.10

The principal efficiency effect of the current law stems from considerations discussed earlier in the report. When business goods or services are subject to sales taxes, their contribution to output is taxed again when the product is finally sold (if it is taxable; if the final product was intended to be exempt, it is not entirely exempt after all). But nothing in the law bans firms from integrating vertically, that is, producing goods or services in-house that would be purchased in the absence of the tax. Our example illustrates how this may occur at both the hardware store and the advertising agency level.

Several effects follow: 1) There will be a general tendency to use less of the taxed goods and services in the production process and more of ones that are untaxed; in the case just given, the taxation of the non-service part of collateral advertising raises its price and hence lowers its purchase by comparison with other forms of advertising. 2) Firms will substitute in-house production where feasible. 3) After such adjustments are made, prices of goods and services will be raised over what they would be otherwise, and a distorted pattern of prices is presented to the final purchaser. This distortion will be greater to the extent that products differ in their intensity of taxed business goods and services and the ease with which the firm can produce

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10 One production anomaly does arise under current practice. Although printing companies that help clients design collateral advertising are technically providing untaxable advertising services as part of their final product, they typically do not break out the cost of this service; hence sales tax is typically calculated on the entire bill when the client is charged.

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these in-house or otherwise avoid the tax.

To put the matter simply, firms will attempt to use less of all goods and services subject to the tax. In the scenarios developed here product promotion will be most heavily affected, but promotion is part of the product. The frequency and importance of special promotions drive the entire character of modern merchandising, including the amount of service and the configuration of displays. An increase in the price of promotion can have effects well beyond the immediate size of promotional activity purchased.

Few deny that business sales taxes are largely passed on to the purchasers of the products those firms sell. Hence, the present tax on the property used in advertising is borne willy-nilly by Minnesota consumers in proportion to their purchase of goods and services intensive in the property component of advertising (a violation of horizontal equity), and there is certainly no reason to assume that the well off pay proportionally more.

The purpose of the arguments just presented is scarcely to make the case that a six percent tax on the tangible personal property used in advertising has already had a dramatic effect on the state’s economy. The point is merely that it has some largely unrecognized effect, that the effect is not a good one, and that sound policy dictates a reduction and not an increase in that effect.

The effects of the present system can be summarized. As in the various scenarios that follow, it is useful to distinguish between the market for advertising and the market for the uses of advertising. A distinction in both markets between in-state and out-of-state transactions is also essential.

Effects on the Purchase and Sale of Advertising

a) In state

- “property intensive” advertising, “collateral” such as printed advertising materials, is discouraged by comparison with more lightly taxed media advertising and somewhat less advertising overall may result — collateral is mainly the product of the printing industry and draws much of its raw material from the forest products industry

- firms substitute in-house production of collateral for taxed purchases where feasible

- some collateral is “bootlegged” to Minnesota to avoid the tax, despite the legal obligation to pay user tax
b) Out of state

- despite tax remissions, Minnesota producers of advertising are disadvantaged when their general business expenses carry more sales tax than competitors in other states

Effects on Purchase and Sale of Ad User's goods

a) In state

- slightly higher prices and lower sales result for firms that use (even after the price rise) collateral advertising heavily by comparison with otherwise similar firms

- special disadvantages arise for smaller firms that cannot as easily produce their own collateral or employ other forms of untaxed advertising such as in-store promotion

b) Out of state

- Minnesota firms are affected only generally by the relative level of "retail" sales taxation charged to Minnesota businesses

INCREASED TAXATION OF COLLATERAL

In 1990, after more than four years of discussion with the communications industry about the appropriate application of the current law (Buresh, 1990), the Department of Revenue proposed a modification of current practice that would, in effect, extend the sales taxation of collateral advertising to cover its entire sales price and not merely its previously taxable tangible personal property content. Complex rules were developed about the tax treatment of agency products which were used for both media and collateral purposes (Minnesota Department of Revenue, 1990). In the case of the hardware chain that we have been discussing, the new rule would raise the price of all of its collateral advertising: printed brochures, direct mail advertising, coupons, tear-off pads, in-store promotional display kits, point-of-sale materials, calendars, pencils, pens, ashtrays and other similar products (not clothing because it is exempt from the sales tax 11).

The service component of collateral advertising in Minnesota is at least 17.65 percent 12.

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11 But only the final product. Remember that the firms producing the clothing probably paid a considerable amount of sales tax connected with their operation; they certainly did if they were Minnesota firms. These taxes affect the final product price.

12 Those advertising firms that employ a percentage will typically employ 17.65 percent. The agency fee in dollars that is sometimes charged as an alternative frequently yields a much higher implicit percentage (Buresh and Stahl, 1991).
Thus the immediate effect of the tax increase would be to raise the price of collateral by approximately one percent. For some firms with temporarily fixed budgets, the amount of collateral advertising might be cut by the full amount. Once adjustments have been made, however, research elsewhere suggests that the volume of collateral purchased might drop by at least one percent for every one percent increase in its price.  

The input-output model noted earlier was used to develop estimates of the impact of a reduction in collateral demand. The basic approach can be simply explained, and the twelve scenarios developed in this study are all based on the same model. In each scenario, a change in the level of demand in one or more of the communications industries is traced back through the interrelations among the industries and the rest of the Minnesota economy. The assumed pattern of purchases and sales of the communications industries to each other and to other parts of the Minnesota economy is based on data from Communications Industry Coalition survey and other sources (see Appendix).  

When the price of collateral increases, for example, users buy less of it. This lowered demand works its way through the entire Minnesota economy to produce lower output and employment.

Scenario 1 assumes the sales taxation of the service component of collateral and employs the assumption of a demand elasticity of one: each one percent increase in the price of collateral results in a one percent decline in its demand with subsequent effects on the outputs of the printing and advertising industries. The sales tax rate in this and all of the other scenarios is assumed to be six percent on production in areas other than Minneapolis and six and one-half percent in Minneapolis. This results in an estimated output loss of $4,954,000 and a loss of 102

13 No known studies have been done for collateral advertising alone. A one percent decrease with respect to a one percent increase in price seems to be a very conservative estimate of own price elasticity for advertising in general. See Ehrlich and Fisher, 1982.

14 The approach used here resembles many other models of state income determination. Nonetheless, some clarification should be offered. First, although the model was carefully developed, one cannot easily combine fixed coefficients in production with changing relative prices. Second, many alternative assumptions can be made in any form of "multiplier" analysis of the kind upon which our model is built [for discussions, see U.S. Department of Commerce (1981, 1986) and Coughlin and Mandelbaum (1991)]. Special difficulties attach to cases in which expenditures from within a geographical area are reduced; are they respent within the area or redirected out of state? When they are redirected within the state, they will tend to compensate for what would otherwise be an income loss. A simple diversion of expenditure to out-of-state sources of supply or a reduction of out-of-state demand for the state's products have a much more dependable income reduction impact. At all events, the impact on the immediately affected industries is the same because the feedback effect on the communications industries from general income change is assumed to be negligible. For the convenience of the reader, Table 1 gives both the estimated impact on the communications industries and the overall state economic impact.

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jobs (for a complete set of results of the model on various assumptions, see Table 1).

The realism of Scenario 1’s assumptions can be probed. Using the overall elasticity of
demand for advertising to estimate the reduction in collateral due to a price increase ignores the
extent to which other forms of advertising would be substituted for collateral; such a substitu-
tion might cause a greater drop in collateral use and an increase in other forms of promotional
expenditure. Further, to the extent that firms can substitute in-house production of collateral for
that now produced by agencies and printing firms, the actual volume reduction could be lower.
On the other hand, the disruption to those firms currently producing collateral could be consider-
ably greater than the simple elasticity estimate would suggest.

Another problem obviously arises as collateral is taxed. Although a use tax is meant to
level the playing field between in-state and out-of-state producers of goods and services, it
cannot be entirely effective. Minnesota certainly has one of the highest quality and most effec-
tive revenue departments in the country, yet it would be impossible totally to prevent the
importation and tax-free use of collateral advertising material. There are additional complica-
tions. Imagine the competition between our Minnesota-based hardware chain and a multistate
chain that had been purchasing its collateral in Minnesota. What if, following the tax change,
the multistate chain brought in collateral originated not from an out-of-state vendor but from
the central headquarters (or other out-of-state branch) of the firm itself? The tax on collateral
could have pushed central in-house collateral production across the threshold of profitability,
but the out-of-state production could also be largely or entirely produced for rather than by the
out-of-state affiliate. Only extremely careful and detailed auditing procedures could prevent the
circumvention of the law by a determined firm. All evasion would take place in large part at the
expense of Minnesota producers. Whether the changed practice involved evasion or not, how-
ever, it would allow the multistate chain to gain an advantage over both the hardware chain we
have been considering and wholly independent Minnesota retail hardware stores. Thus, it
would put Minnesota producers of both collateral and hardware services at a competitive
disadvantage. The former can be at least approximately modelled; unfortunately, the latter does
not admit to any meaningful quantification.
<table>
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<tr>
<th>Scenario</th>
<th>Production (in $1,000s)</th>
<th>Jobs</th>
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<td>Elsewhere In Minnesota</td>
</tr>
<tr>
<td></td>
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<td>Total</td>
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</table>

**DESCRIPTION OF SCENARIOS**

1. Service component of collateral is taxed; demand elasticity assumed to be one
2. Minnesota output of collateral declines by five percent
3. Sales tax applied to advertising creation
4. Minnesota advertising creation drops by five percent
5. Both advertising and collateral production drop by five percent
6. Sales tax applied to in-state media advertising; demand elasticity assumed to be one
7. Sales tax applied to all media advertising; demand elasticity assumed to be one
8. Sales tax applied to all media advertising; demand elasticity response of local advertising assumed to be one; total national advertising response assumed to be fifteen percent
9. Sales tax applied to all advertising and advertising creation; demand elasticity assumed to be one
10. Sales tax applied to all advertising and advertising creation; demand elasticity assumed to be one except for national media advertising where the total response is assumed to be fifteen percent
11. Same assumption as Scenario 9 except that state advertising creation and collateral production both drop by a further five percent
12. Same assumption as Scenario 11 except that the national advertising drop is assumed to be fifteen percent
Scenario 2 assumes that the purchaser options considered result in a diversion of only five percent of present collateral production to out-of-state sources; this results in concomitant declines in the output of the state's printing and advertising businesses. Using this assumption the model finds an income loss of $42,910,000 and an overall job loss of 889 persons.

The adoption of the Department of Revenue's rule would increase the level of business taxation in the state, moving Minnesota farther away from the use of an "ideal" state sales tax. Consumers would pay the tax in proportion to their use of the product being advertised and without any other underlying pattern. The new regime would differentially advantage large firms who could actually or even apparently produce collateral in-house as well as those firms of all sizes that would try to "bootleg" collateral from outside the state. It would make the starting of new businesses somewhat more expensive and would discourage a Minnesota location for firms whose successful operation depends particularly heavily on collateral advertising.

A clear understanding of the forces operating on both the producers and users of commercial communication is far more important than any specific estimate. The pressures just discussed can be summarized as follows:

Effects on the Purchase and Sale of Advertising

a) In state
   • there is somewhat greater incentive for advertisers to substitute other forms of advertising for collateral
   • there is greater incentive for firms to substitute in-house produced collateral
   • there is greater incentive for collateral to be "bootlegged" to Minnesota to avoid the tax; any given level of compliance can be held only by greater state monitoring

b) Out of state
   • situation is substantially unchanged

Effects on Purchase and Sale of Ad User's goods

a) In state
   • further disadvantage is experienced by collateral-intensive firms
addition disadvantage is faced by smaller firms that cannot as easily adjust to less collateral

b) Out of state

- situation is substantially unchanged

THE TAXATION OF ADVERTISING CREATION

The proposed 1987 extension of the sales and use tax to consumer service purchases (S.F. 1278) would have moved the state closer to the kind of sales tax regime favored by experts; the extension of the tax to a still greater share of business service purchases would have had the opposite effect. The impact of those proposed changes on the communications industries demands a careful look because the legislation was seriously considered, despite its ultimate defeat in the Senate Committee on Taxation.

The legislation’s impact on the communications industries derived from its overall thrust of extending the sales tax to services, although it did not apply to all advertising services done on a firm’s behalf. Media advertising is best considered using our earlier metaphors: the flag and the flagpole. Indeed, it is a “flagpole” of one kind or another that most clearly distinguishes media advertising in the first place; a flagpole is a medium. The media, whether radio, television, newspapers, or billboards, expose messages that may be developed elsewhere. The 1987 legislation aimed at the flag while apparently leaving the flagpole, “media placements,” except for billboards, untouched. The preparation of advertising was taxed; its media presentation was not.15

What impact would the proposed legislation have on our hypothetical hardware chain? Many of the effects would be similar in kind but more extreme in effect than the proposed extension of the sales tax to the service component of collateral advertising. Much advertising preparation is sold at either 15 percent (media) or 17.65 percent (collateral) of the total campaign expenditure by the advertiser. The lion’s share of that expenditure is typically broadcast and newspaper placement. If the chain was a typical business the additional six percent would be a substantial sum. The firm would now face the issue of whether or not its own overall advertis-

15 The flag and flagpole distinction can also be applied to printed advertising. The flag is the message; the flagpole, in this case the physical object on which the message appears, is the medium.

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ing preparation should be performed in-house. Once again, this question would be far more likely to be answered in the affirmative by our hypothetical chain if it were of considerable size, and small independent businesses might have little effective choice at all.

It cannot be confidently predicted whether integration is more likely here than in the case of collateral. While new technologies such as desk-top publishing have reduced the technical barriers to the preparation of collateral, the creative side of communications, obviously essential to media advertising, remains a quite specialized set of skills. Nonetheless, most firms can certainly consider the production of their own advertising more easily than they can consider the production of their own furniture. Most large firms have some in-house capacity to produce both collateral (beyond simple office duplication) and advertising content. With added incentive their activity in these areas could be expected to increase.

Another option open to the hardware chain would be the cooperative development of media advertising with out-of-state affiliates. The additional tax might encourage a large advertising user to perform functions that were previously purchased entirely or in part by smaller units of the firm from independent advertising agencies. In addition, many freelance firms now exist in advertising, and contractual arrangements might be developed with them that would qualify their activity as the output of employees. This advertising activity would, of course, be untaxed. There would also appear to be a far greater scope for the evasion of the tax through merely nominal importation from affiliates. Would every external source employed by the firm’s out-of-state affiliate that contributed to the production of the advertising have to be documented? Particularly if the firm imported advertising from affiliates in states where advertising services were untaxed (and this would be all but two states at the present time), no easily available records might exist to track the origin of the out-of-state material. Service activities are notoriously difficult to trace. As in the previous case, really determined attempts to evade the law would almost surely partially succeed. Once again, the Department of Revenue faces a trade-off between loss of revenue from uncollected use taxes and administrative simplicity. Worse, much of the potential loss to the state would be inevitable and perfectly legal.
perform advertising services in conjunction with their sales activity, thus providing the service untaxed to their clients. Even if the law tried to prevent this, the media might be able to attract additional business by giving particularly good prices on advertising services while charging higher advertising rates in compensation. Such practices would be impossible entirely to prevent, and official attempts to do so could be both frustrating and expensive.

This extension of the tax does not put media advertising on an equal footing with collateral advertising; the latter remains at a competitive disadvantage with the media both by comparison with the present situation and especially by comparison with the revised rule proposed by the Department of Revenue. This results from the fact that only the preparation of the content and not the actual presentation of the media message is being taxed.

Advertising preparation and related transactions are a large expenditure for Minnesota businesses. In 1990, it is estimated that nearly a quarter of a billion dollars was spent by in-state firms on in-state services of the kind contemplated to be taxed under the legal changes considered here. We model two alternative economic impacts.

First, we assume that the increased cost of advertising preparation is passed on as an increase in the effective price of advertising and that firms that employ advertising respond by buying less of it. We apply the earlier demand response of a one percent drop in expenditure for every one percent increase in price.\footnote{All of the following scenarios except 6, 7 and 8 also assume a sales tax extension to the services of public relations firms.}

\textbf{Scenario 3} yields a drop in state income of $25,550,000 and a loss of 545 jobs.

Second, we take into account the strong incentive firms have to avoid the tax by shifting their advertising preparation to out-of-state sources. When the substantial share of all state advertising that is done by large firms is considered, a scenario that assumes only a five percent drop in in-state activity scarcely seems extreme.

\textbf{Scenario 4} — which very conservatively assumes no drop in overall media advertising — finds a fall in state income of $40,799,000 and a loss of 869 jobs as a result of a five percent reduction in Minnesota advertising agency activity.
Scenario 5 combines the assumption of a five percent drop in in-state advertising production with the previously examined case in which collateral production in the state also drops by five percent. The resultant loss in state income is estimated to be $66,924,000 and the loss in employment 1405.

The incidence of the taxes collected would once again be distributed randomly around the state's population while negatively affecting overall competition among advertising users to an unknown extent. The tax would be particularly detrimental to smaller firms and would especially discourage those firms — both established and contemplating new activity in Minnesota — for which promotion is essential. It should be remembered that even when the tax can be escaped by in-house production, the quality of the product is unlikely to match that of the product purchased in the absence of the tax; this is one of the economic distortions generated by the tax.

Despite the uncertainties that naturally attend exercises of the kind developed here, one conclusion can be drawn with the greatest certainty. The impact on the advertising industry of the state of such a tax would not be at all well gauged even if we knew what the remaining volume of state advertising production would be. A naive approach to the problem, for example, would argue that the overall impact on advertising might likely be minor because increased in-house advertising would ultimately "mop up" a large number of those who would otherwise be unemployed. The Minnesota industry would simply be reallocated instead of shrinking. When Minnesota advertising activity is viewed as an interstate and international competitor, however, little comfort can be taken from this view. Most successful agencies now depend heavily on their local clients to provide a critical part of their competitive base. There are no known studies of economies of scale or scope in advertising production, but advertising is among the nation's most competitive industries (McAuliffe, 1987), and the loss of substantial volume as well as a critical part of the client base could lead to firm collapses and not just shrinkage. These collapses have not been modelled, but advertising is certainly among the most innately mobile of all modern activities. Advertising depends heavily on transport and communication, but it can be located virtually anywhere and can change the base of operation very quickly.
The overall effects of these scenarios can also be summarized:

Effects on the Purchase and Sale of Advertising

a) In state

- total cost of advertising increases and all advertisers tend to buy less of it — collateral advertising is still competitively disadvantaged but less so

- firms may attempt to perform in-house those advertising services previously purchased from agencies

- firms have very strong incentive to obtain advertising services from other parts of the same firm out-of-state even if those services were actually produced by out-of-state advertising agencies; detecting such subterfuge would be very difficult and expensive for the state

b) Out of state

- in addition to any differentially heavy general business sales taxation, Minnesota advertising firms will be less competitive in out-of-state selling because their in-state sales base will be smaller

Effects on Purchase and Sale of Ad User’s goods

a) In state

- higher prices and lower sales result for advertising intensive businesses

- smaller firms are once again especially disadvantaged because they will typically lack the ability to bring external advertising purchases in-house

b) Out of state

- Minnesota businesses are competitively disadvantaged in interstate and international commerce because of the tax on their advertising preparation (no other state currently has a substantial tax of this kind, despite minor gross receipts taxes in a couple of states)

THE TAXATION OF MEDIA ADVERTISING

Another approach to the taxation of advertising has also been attempted; this avenue ignores the preparation of advertising and concentrates entirely on media placement. Mass media advertising through newspapers and broadcasting is taxed, while the preparation of the messages goes untaxed. One central choice faces decision-makers considering the taxation of advertising placements: should national or only local advertising be taxed?
The Taxation of Local Media Advertising

In the early 1980s, Arizona law allowed the taxation only of local advertising (Charney, 1986), apparently because of the legal and administrative problems involved in trying to tax national advertisers. Such an approach might be tried elsewhere.

Once again we can consider the impact on our hypothetical hardware chain. It now faces no fiscal deterrent to the use of advertising agency services but a considerable extra charge for getting the final message across. Presumably both broadcast and newspaper advertising would be taxed. If one assumes that collateral advertising, mainly printed advertising materials, is also fully taxed, the tax in a sense puts all advertising modes on an equal footing (and, if the service component of collateral is not taxed, then that mode gains an advantage).

As in our previous scenarios, there are many additional implications. The firm has a considerable incentive to employ other forms of promotion: in-store advertising or direct marketing of various kinds (unless the latter is also taxed). Smaller hardware stores may suffer an even greater disadvantage because they may find it more difficult successfully to employ such alternative strategies. More seriously, if we assume that the chain mainly operates in Minnesota, it suffers a tremendous competitive disadvantage: other hardware marketers with national affiliations can receive the benefit of untaxed promotion directed at the Minnesota market while our chain must pay the tax. At the very least, national sellers would be able to advertise the brand name freely and pay no tax so long as the local affiliates were not identified.

The introduction of the tax would announce the special inhospitality to new firms depending relatively heavily on advertising to build clientele, but it would also add to most firms’ cost of business and generally degrade Minnesota’s business climate.

The commercial impact of the tax would, of course, be most serious for the media upon which it is levied. National data suggest that over 90 percent of all radio advertising is local, while the figure for television is about 60 percent (Godshaw and Martin 1987:11).

Broadcast industry sources have suggested that as many as 35 percent of all Minnesota radio and television stations are operating at a loss. Newspaper industry sources suggest that at least a quarter of all Minnesota newspapers are highly vulnerable to any substantial change in their revenue situation.
For Minnesota newspapers about 80 percent of all advertising is local, and probably less than twenty percent of newspaper revenue comes from subscriptions. Some might attempt to compensate for a decline in advertising revenue with an increase in the paper's price, but the feasibility of this response is obviously limited.17

Because about 58 percent of the work of Minnesota advertising agencies is done for in-state advertisers, there would be a considerable effect on them, even though they would not be taxed directly.

Scenario 6 models the impact of an extension of the sales tax to in-state media advertising on the assumption of a one percent drop in expenditure for each one percent increase in price resulting from the tax. It finds an income loss of $126,271,000 and 2631 lost jobs.

Again, the principal effects of the tax can be summarized.

Effects on the Advertising Industry of the Taxation of Local Advertising

a) In state

- local advertising is very heavily discouraged; collateral advertising may actually be slightly encouraged (depending on how it is taxed and how heavily the media advertising is taxed)

- local media are dramatically affected; 90 percent of all radio revenue is local, while the figure for T.V. is about 60 percent and for newspapers 80 percent

- advertisers will have strong incentive to employ any untaxed (or more lightly taxed) promotion which will certainly include in-store promotion and direct mail (if the latter is not also taxed)

- because about 58 percent of the work of the state's advertising agencies is for local clients, they would be considerably affected, even though they are not taxed directly. And the smaller firms tend to depend most on local advertising

b) Out of state

- diminution of the local sales base will weaken local ad firms and media companies in their competition for national and international markets

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17 All taxes on advertising produce indefensible equity outcomes because they are borne in relation to no known distributional criteria, but the impact on newspapers must be regarded as particularly unfortunate. The demise of newspapers has highly undesirable social effects, and price increases are an unusually perverse form of taxation. Most households buy one and only one paper; thus, a sales tax passed through newspaper prices comes close to being a "head tax" — just about the most regressive tax available. The best known recent example is the British Thatcher government's "poll tax." The difference, of course, would be that the present case involves quite small amounts of "revenue," and the very real possibility that the newspaper rather than the government would be blamed.

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Effects on Purchase and Sale of Ad User's Goods

a) In state

- all locally based firms would suffer a great competitive disadvantage relative to directly competing national firms. For example, an unfranchised sewer service would suffer against Roto-rooter

- small firms suffer the most competitively because they have lower access to viable alternatives to the media

b) Out of state

- out-of-state activity is not directly affected but, by providing an advertising advantage to national over local firms, the state discourages the growth of Minnesota firms to a scale where they can effectively compete in other states (and countries)

The Taxation of All Media Advertising

The alternative scenario of taxing all advertising seems to avoid the blatant discrimination against Minnesota firms found in the previous case, but such an approach would take the state into unexplored legal and administrative territory that contributed to a six-month life for Florida’s comprehensive advertising tax in 1987 (Hellerstein, 1988).

Assume that Minnesota took a position similar to that of Florida authorities and attempted to tax all advertising messages reaching a Minnesota audience. This would involve even more onerous taxes on the state’s radio, television, and magazines, and newspapers. It would dramatically reduce the attractiveness of the Twin Cities as a test market for major product innovations, although the amount of revenue coming from that source cannot be estimated with any confidence (Charney, 1986). Tax administration would involve the development of acceptable estimates of the extent to which the audience of regional media is in Minnesota rather than in surrounding states. But it would go much farther than that. National magazines would have to be monitored to discover which ads were there and what the pro-rata share of estimated audience in the state should be. Even if a rough rule of thumb of two plus percent of the total national market were used, the administrative burden could be quite extraordinary. It was estimated that there were over 1500 major consumer magazines sold in the United States in the 1980s and hundreds of major specialized trade magazines (Shelley, 1987, pp. 8,9); each would have to be monitored regularly for a proper administration of the tax. If such systematic checking did not take place, local firms could raise the same charge of discrimination that they
could claim for the taxation of local advertising alone.

The impact of the tax on national advertising, assuming that the legal and administrative obstacles could be overcome — an assumption that cannot be made with any confidence 18 — would produce a very damaging effect on the state’s media. National advertisers, ever concerned about the “cost per thousand” could be expected to withdraw national advertising from the Minnesota submarket to a far greater extent than the overall elasticity of demand for advertising would suggest. Although it was scarcely a controlled experiment, during the first quarter of Florida’s tax on national advertising (keeping in mind that its entire life was only twice that time), spot purchasing in Florida was down by 12 percent while they went up by 3 percent in the nation as a whole. (Television Bureau of Advertising, cited by the Arizona Association of Broadcasters, 1990, p. 5).

Scenario 7 models the increase in sales tax impact as it moves from taxation of only local advertisers to all advertising, using the same elasticity of one response as in Scenario 6. It finds an income reduction of $169,015,000 and a job loss of 3500.

Scenario 8 applies the Florida level of national advertising reduction (fifteen percent), and the loss is considerably greater: $211,659,000 and 4346.

The central tendencies of this policy direction can be summarized as follows:

Effects on the Advertising Industry of An Attempt to Tax all Advertising

a) In state

- there is substantially increased effect on the state’s radio, television and newspapers and magazines over the immediately previous scenario

- the attractiveness of the Twin Cities as a national test market would be greatly reduced

- even if legal obstacles could be overcome (about which judgments range from highly doubtful to cautiously positive), the administrative costs of regularly monitoring over 2000 major publications would be formidable

- total output of advertising firms in the state would be subject to some further erosion

18 Opinions differ sharply about the way in which “situs” for tax purposes needs to be established in a state. Compare the “optimistic” view (from the standpoint of the tax authority) of Hellerstein (1988) with the very much more skeptical view of Shelley (1987). Administrative problems could be compromised; legal obstacles could prove insurmountable.

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Effects on Ad Users of Attempts to Tax All Advertising

a) In state

- local sellers are put on an equal footing with national sellers only if legal challenges are won and monitoring is done effectively
- smaller and more advertising-intensive firms will suffer competitive disadvantages

b) Out of state

- firms dependent on advertising are less likely to grow to become effective interstate and international competitors, although this effect is less pronounced than in the previous scenario

THE TAXATION OF ALL ADVERTISING ACTIVITY

Although many other alternative scenarios could be devised, the final one considered here resembles the actual legal situation in Florida for the last six months of 1987. It combines the taxation of advertising preparation with taxation of all advertising. Not only would this combination result in effective “triple taxation” for a large part of the state expenditures, it would wreak havoc with both the state’s highly successful advertising business and with its media. Consumers would pay more for less in the media, prices of newspapers would be higher, and information less available. Goods prices would be maximally distorted away from their basic resource costs. Established firms would be disadvantaged more severely as they employed advertising more heavily in their businesses, and smaller firms with less flexibility to adapt by employing untaxed counter-strategies would suffer disproportionately.

Large nationally-oriented Minnesota firms would be greatly affected because both their advertising budgets and their Minnesota advertising would be subject to tax. While advertising messages might be prorated by state, no one has attempted to do that with the use to which advertising agency services are put, that is, no one has seriously suggested that only x percent of the product of an advertising agency sold to a specific client be taxed because only x percent of the firm’s sales is in Minnesota. The tax is levied on the entire sale.
Even the immediate consequences of such a policy development are difficult to predict. We present four scenarios.

**Scenario 9** assumes that all forms of advertising respond to a one percent increase in price by reducing the volume of expenditure by one percent. State income is then estimated to be reduced by $183,681,000 with an attendant loss of 3816 jobs.

**Scenario 10** assumes the fifteen percent Florida national advertising reduction, and the loss figures rise to $226,325,000 and 4661.

**Scenario 11** employs our earlier assumption that both in-state collateral production and advertising agency activity drop by an additional five percent each along with the assumption that final advertising demand in the state drops by one percent for each one percent increase in price. The loss estimates jump to $246,065,000 and 5115.

**Scenario 12** incorporates both the collateral and local agency production assumption of Scenario 11 and the Florida experience with a drop in national advertising; this yields $288,709,000 and 5961.

Overall, this combination of tax policy changes spells competitive disaster for Minnesota. The figures estimated are very large by any standard, but they are only the beginning. What communications industry firms would want to stay in such an economic environment when other environments are clearly far more supportive? What other businesses would choose a state so determined to impede business communication?

The main results can again be summarized.

**Effects on the Advertising Industry**

a) In state

- assuming that the full tax is levied on both advertising preparation and presentation, the effects reinforce each other to produce a greater shrinkage in both agencies and the media than in any of the scenarios yet examined

b) Out of state

- both industry segments would be further weakened in their national and international competitive potential because of their reduced in-state base
Effects on Purchase and Sale of Ad User's goods

a) In state

- the policy would have approximately the same effect as Scenarios 3-5 above for some major national firms for which increased local advertising presentation costs might be small. Minnesota would be a poor place to be headquartered because the tax on advertising preparation could not be avoided

- for other firms, the effect would combine the negative impacts discussed in the previous two sections of the study, resulting in a greater disadvantage for smaller and more advertising-intensive firms

b) Out of state

- small and medium advertising-intensive firms have increased difficulty growing to competitive size

- large Minnesota firms face the strongest incentive to become out-of-state firms

ADDITIONAL EFFECTS AND CONCLUSIONS

All of the quantitative scenarios just developed concentrate on industry-level effects. We can conclude by stressing the relations between these industry effects and the welfare of the average Minnesotan as purchaser, taxpayer, and producer.

1. The higher and more inclusive a tax on advertising, the generally greater will be community losses from distorted final prices of the kind discussed at the beginning of this paper.

2. The advertising taxes examined here disrupt highly successful industries and seriously threaten their ability to succeed in interstate and international competition.

3. The quantitative impacts estimated here range from relatively modest to very large, depending on the policy and the assumptions made about reactions to it. But the results cannot encompass the most likely and important outcome in many instances: the movement of entire firms out of the state or the failure of new ones to locate here. Advertising and printing in particular are among the most competitive industries in the United States, and they cannot base their operations in an inhospitable environment.

4. The greater the negative impact of increased taxes on activity in the communications industries, the greater will be the loss of wealth to Minnesota, the higher the unemployment and the greater the tax burden on those who remain employed.
5. Those who remain only indirectly affected by increased taxes on the communications industries will nonetheless sell into weaker markets within the state and will tend to find lower rewards in a generally less prosperous Minnesota economy.
where \( X \) is the vector of gross outputs of the 8 sectors modelled:

1) printing and publishing
2) newspapers and periodicals
3) radio and television broadcasting
4) advertising services
5) pulp and paper-making
6) public relations
7) other Minnesota industry
8) Minnesota households

\( Y \) is the vector of final demands for the corresponding sectors

\( A \) is the 8x8 matrix of I-O coefficients

\( I \) is the Identity Matrix

\((I-A)^{-1}\) is the Leontief Inverse Matrix