



BRIEFLY

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Be Wary of Call for Exemption Review

Introduction

As the Legislature struggles to close the budget gap, some legislators believe that eliminating various business tax exemptions would provide a painless way to raise additional revenue. They should proceed with caution. Business already bears 46 percent of Washington's state and local tax burden. In other competing states the load on business is considerably lower.

The best way to grow state revenues is to grow the state economy. Increasing the tax load on business risks retarding the long-run growth rate. Many of the tax provisions that are decried as "giveaways to business" simply make our system conform more closely to widely accepted principles of good tax policy.

Reviewing Tax Exemptions

The recent report of the Washington State Tax Structure Study Committee (Study Committee) recommended that "the Legislature should consider establishing a schedule for a periodic review of all tax exemptions, grouped by purpose or function, to ensure that these exemptions continue to serve the public purposes for which they were enacted." This seemingly innocuous recommendation has the potential to create a great deal of mischief. A review of tax exemptions is likely to degenerate into a hunt for more tax revenues. The end result will be a higher tax burden on businesses and a weaker state business climate.

The Department of Revenue's quadrennial publication *Tax Exemptions* is the blueprint that would guide the review of the state's tax exemptions and preferences. Unfortunately the DOR study has a serious defect as a framework for such a review.

Tax Exemptions is an example of what fiscal policy experts call a "tax expenditure budget." A proper tax expenditure budget begins with a benchmark tax structure, derived from principles of good tax policy. The budget quantifies the revenues foregone because the actual tax structure deviates from the benchmark. If the benchmark is improperly specified, the expenditure budget is simply a catalog of ways for the state to raise more money. As John Mikesell concludes:

At their best, tax expenditure budgets can highlight defects in the tax system. At their worst, tax expenditure budgets can become a laundry list for raising additional revenue without at-



tention to whether the preference is good policy. Definition of a benchmark (or normal) tax . . . should allow the true cost of government to be better measured and evaluated for greater fiscal transparency and accountability. But if the benchmark is inadequately defined, the process is worthless at best and probably even damaging to the development of sound public policy. Because many states have not reached agreement about what their sales taxes intend to tax, they cannot prepare a tax expenditure budget that can segregate tax and budget elements of the tax structure. In those states, the definition of a normal structure cannot protect against arbitrary taxation, and the tax expenditure budget, indeed, can become an instrument of arbitrary taxation¹.

One of the Study Committee report's shortcomings is that the recommendation to review all tax exemptions and incentives periodically does not provide explicit guidance on the baseline tax system to be used in the review.

The benchmark tax structure employed by DOR in *Tax Exemptions* is not consistently based on principles of good tax policy. For example, most tax policy experts agree that the ideal sales tax would apply to final sales to consumers only. Purchases by businesses should not be taxed. The late John Due, who was the nation's foremost expert on sales taxation, explained:

Inclusion of purchases for production purposes is contrary to the philosophy of the [sales] tax, results in haphazard and uncertain distribution of the tax burden, affects choice of production process, and, from a state's standpoint, may adversely affect economic development.²

Consistent with this view, the Study Committee recommended extending the sales tax to consumer services but not to services purchased by businesses.

In *Tax Exemptions*, the benchmark sales and use taxes applies to a large number of business purchases. Only goods businesses purchase for resale and for inclusion as components in manufactured products escape taxation.

Similarly, the ideal B&O tax would not apply to business-to-business transactions. The Study Committee, in fact, recommends replacing the B&O with a value added tax, which would eliminate the taxation of businesses' sales to other businesses. The benchmark B&O employed in *Tax Exemptions* applies to all business sales.

The existing statutory exemptions of specific business-to-business transactions from the B&O or sales and use taxes actually make our tax system conform more closely to the ideal. Those who wish to eliminate those exemptions should bear the burden of proving that their elimination would not harm the general public welfare.

It matters which side bears the burden of proof. It is often impossible to measure with precision the consequences of changes in the tax system. The debate on extending indefinitely the high technology research and development B&O credit and sales tax exemption illustrate this.

High Technology R&D Incentives

In 1994 the legislature established two tax incentives for R&D. Both target research and development in five fields: advanced computing, advanced materials, biotechnology, electronic device technology, and environmental technology.

The B&O credit allows for-profit firms to take a credit against B&O taxes in the amount equal to 1.5 percent of qualifying R&D expenditures. The credit for nonprofit firms is 0.484 percent of qualifying R&D expenditures. For any one business the credit is capped at \$2 million. To qualify for the credit, a firm's B&O expenditures must exceed 0.92 percent of its taxable revenue. This program expires on June 30, 2004.

The sales and use tax deferral/exemption allows firms that create or expand research and development facilities to defer associated sales and use taxes. If the facility is used for eight years, repayment of the deferred taxes is waived. The facility must be used in one of the five targeted fields. This program expires on December 31, 2004.

William Beyers and David Lindahl calculate that in 1997 Washington State had the highest concentration of technology intensive employment among all of the 50 states. This high ranking, however, is due largely to jobs in the aerospace sector. The state is actually below the national average in the concentration of non-aerospace technology intensive employment.³

Clusters

The two R&D incentives are a cornerstone of a long-term economic development strategy that seeks to nurture clusters of knowledge-intensive industries in an effort to diversify the state's economic base.

Industrial clustering is the product of what economists call external economies of scale. Firms in certain industries find that their costs are lower if they locate near other firms in their industry. These cost savings may arise through three channels: sharing common input suppliers, sharing a common labor pool and sharing information.

The National Governor's Association stresses the importance to "New Economy" companies of clustering to share knowledge:

Among all of the advantages of clustering, none is as important as access to innovation, knowledge, and know-how. . . . Industry-specific knowledge and know-how accumulate and disperse through entrepreneurial areas and innovative companies. Clustering gives firms quicker information about advances in technologies and changes in customer or consumer preferences.⁴

R&D activities particularly benefit from knowledge spillovers. The more R&D that is conducted in a location, the more fertile is that location as a place to conduct R&D. Confirming the local spillovers of R&D, studies show that patent applications disproportionately cite as antecedents other patents issued in the same metropolitan area.⁵

Tax incentives targeted specifically at R&D are therefore logical tools for states that want to encourage the development of technology-intensive industries. In 2001, 38 states in addition to Washington gave some form

of tax exemption to encourage R&D spending.⁶

The Fiscal Impact of the B&O Program

Under the provisions of the laws establishing the R&D tax incentives, DOR is to report periodically to the legislature assessing the effects of these programs on economic activity within the state. The most recent of these reports was issued in December 2000.⁷

The key information presented in that report is derived from a survey that the department conducted in Summer 2000 of firms that had participated in the B&O credit program. The department extrapolated survey responses to characterize the full set of firms that had participated in the program in its first four years. Because of the low response rate from aerospace firms, however, that industry is excluded from the department's analysis.

DOR estimates that the (non-aerospace) firms that participated in the R&D B&O credit program employed 96,396 workers at the time of the survey. This represented just over 4 percent of the state's total employment. Of these jobs, 46,645 were in R&D and 19,459 had been created within the preceding year. (The survey did not ask about jobs that had been eliminated, so the net change in the number of jobs at these firms is not known.)

Beyers and Lindahl have used an input/output model to quantify the impact of Washington State's R&D intensive industries.⁸ They find that the average technology job has a multiplier of 3.55. That is, the average job in the technology sector creates another 2.55 jobs in the state economy. Furthermore, when all the multiplier effects are counted, in 2000 the average technology job generated \$10,870 in state and local taxes.⁹

Based on the Beyers and Lindahl analysis, the Research Council estimates that the employment multiplier for firms benefiting from the B&O credit is 3.79.¹⁰ Therefore the firms that had received B&O credits were directly and indirectly responsible for 365,300 jobs in 2000. Similarly, the average job in the firms benefiting from the B&O credit directly and indirectly generated \$11,604 in state and local tax revenue in the year 2000.

Using this figure, the firms that benefited from the B&O tax credit were ultimately responsible for more than \$1.1 billion in tax revenue in 2000.

Evaluation of the full effect of the B&O program involves balancing the B&O tax credits taken under the program against the taxes generated as the result of the activity in the state of the targeted industries induced by the credit. It is straightforward to measure the value of the credits: tax forms filed with DOR show that firms took \$25.6 million in R&D credits against the B&O in 2000.

It is more difficult to measure the degree to which employment in the targeted industries in the state is the result of the credit. The DOR survey does not provide an answer to the counterfactual question: How many jobs would the targeted industries have provided in the state in 2000 had the legislature not created the B&O credit program in 1994?

This is the key question.

The DOR analysis assumes that the B&O credit accounted for 1,199 R&D jobs, 1.24 percent of the firms' R&D employment.

The analysis assumes that the R&D credit increases [R&D]

spending by the amount of the credit. . . . This analysis does not include any stimulative effects of the tax credit on the high tech industry in Washington because of lower taxes. For example, the analysis does not include the impact of firms choosing to locate in Washington because of the R&D credit.

But the program was created precisely because legislators believed there would be stimulative effects.

The expansion in R&D funded by the tax credit should itself make the area a more attractive place for firms to conduct R&D. This, through a virtuous cycle, will spark a further increase in R&D employment. Moreover, research and development are not ends in themselves. Rather they are the means to create new products, services and processes.

With new products, services and processes come jobs and taxes.

Of the 19,459 new positions that the beneficiaries of the R&D credit created in the year prior to the survey, only 5,614, 29 percent, were in R&D. Many of the remaining jobs undoubtedly were payoffs to the firms' R&D successes.

The firms surveyed by DOR reported that 74 percent of their sales came from products developed while participating in the R&D credit program.

If as DOR assumes, 1,199 jobs are due to the credit, the total tax revenue generated by these jobs before subtracting the cost of the credits was \$13.9 million, and the net drain of the program on government revenues was \$11.7 million.

Under the DOR assumption, then, the true fiscal impact of the program is not the \$25.6 million value of the credits received by the firms, but rather only \$11.7 million.

The DOR assumption that only 1.24 percent of the industry's jobs are the result of the B&O credit does not account for the effect that the program has had on attracting R&D activities to locate in this state rather than elsewhere. Nor does it account for the employment generated here by the new goods, services and processes that the induced R&D has created. Assume that the magnitude of the indirect effect of the credit on the level of R&D employment is equal to magnitude of the direct effect. Further assume that because of the new goods, services, and products that result, the proportional increase in total employment equals the proportional increase in R&D employment. Under this scenario, 5 percent of employment is due to the credit, the tax revenue generated is \$55.9 million and, net of the credit, revenue is increased by \$30.3 million.

Considering all of the effects of the program, the 5 percent scenario seems reasonable. And the programs generate positive net income to the state.

The Sales Tax Deferral/Exemption

DOR staff indicates that a great majority of the firms that participate in the B&O credit program do not participate in the sales tax deferral/exemption program. Likewise, relatively few of the firms in the sales tax deferral/exemptions receive B&O credits. The December 2000 DOR report assessing the R&D incentive programs does not provide information on the firms that have made use of the sales tax deferral/exemption. Therefore, we have no basis for projecting the additional economic activ-

ity that might have been generated as a result of this program.

A proper analysis will identify the fraction of the new R&D facilities that benefited from the deferral/exemption that would not have been constructed here without the tax break. Benefits of the program would include tax revenues generated through various multiplier effects as a result of the construction, and ongoing tax revenues associated with research and development activities in these facilities.

Discussion

The issues involved in evaluating the economic effects of many exemptions are complex, requiring specialized expertise. And even among experts, the assumptions and techniques required to reach conclusions will be controversial. Lawmakers should not assume that such expertise would be resident within the Department of Revenue. In addition some have expressed concern that DOR staff might at time be subject to pressure to find more revenue. If there is to be a system of regular reviews, it would best be organized through an independent agency.

More to the point, the broad mandate for regular reviews of tax exemptions simply makes no sense. On occasion, reviews of tax policy will occur, and our tax structure should be benchmarked against those of competitive states, as well as against our particular notion of what constitutes an ideal system. Absent a clear statement of principles and objectives, the review contemplated looks more like the “laundry list for raising revenues” that Mikesell warns against.

The two R&D incentives illustrate the difficulty that arises when one tries to evaluate the effectiveness of a tax incentive. The revenue forgone as a result of the tax provision is often easy to measure. The benefits that the provision returns, on the other hand, are hard to measure. Requiring that those who want to continue a tax provision prove that its benefits exceed its costs biases the process.

Aerospace has traditionally been the heart of Washington’s high technology sector. We cannot count that this will continue to be the case in the future.

The R&D incentives are part of a strategy to diversify the state’s technology base. A reasonable estimate for just one of these programs shows positive net income to the budget of \$30.3 million. Even if we could not prove that they are effective, it would be wrong to let them expire. And it would be wrong to mandate a costly, controversial, politicized, and inconclusive investigation of all tax exemptions.



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- 4 National Governors Association, *A Governor's Guide to Cluster-Based Economic Development*, 2002.
- 5 A. B. Jaffe, M. Trajtenberg, and R. Henderson, "Geographic Localization of Knowledge Spillovers as Evidenced by Patent Citations," *Quarterly Journal of Economics*, 1993.
- 6 *Site Selection*, November 2001, p. 750.
- 7 Washington State Department of Revenue, *High Technology R&D Tax Incentives Study*, December 2000
- 8 Beyers and Lindahl, pp.
- 9 Beyers and Lindahl, p. 20. The Beyers and Lindahl impact model only captures state B&O and sales and use taxes and local sales and use taxes. Thus the number cited understates the full tax impact of a technology job.
- 10 Our calculation is based on Beyers and Lindahl's results for 5 industries that account for most of the use of the B&O credit: computers & electronics manufacturing, specialized instruments & devices, biotech/biomedical, engineering, commercial research & consulting, and software & computer services industries.