

# Chapter 6: Value Added Tax – A Major Replacement Alternative

## Introduction

In its authorizing legislation, the Legislature required the Committee to be guided by the principle of neutrality in developing alternatives. A broad-based income tax is a common method of achieving neutrality. One option that achieves neutrality is the so-called value added tax (VAT). Unlike an income tax, a VAT is collected from a limited number of registered taxpayers, usually commercial enterprises, similar to the existing business and occupation (B&O) tax system.

The base of taxation for all tax systems is either property or some measure of economic activity carried out by the taxpayer. Ideally the base is chosen both as a measure of ability to pay the tax and as a measure of the privilege enjoyed by the taxpayer in carrying out the activity within the state. Retail sales and gross receipts are such measures under our existing system. Under a VAT, the increase in the value of goods and services contributed by the taxpayer's activity is chosen as the measure of taxable activity.

The Committee proposes three different possibilities of value added taxation for the state: 1) a subtraction method business VAT, 2) a goods and services tax (GST), and 3) a progressive VAT. Although the proposals differ in several respects, they all address the problem of tax pyramiding and non-neutrality that occurs under the current B&O tax. Pyramiding occurs under the B&O tax because goods and services that are inputs into higher stages of production are taxed multiple times as they move through the production or service chain.

By comparison, a VAT avoids pyramiding by taxing only the value that is added by an enterprise to the goods and services it sells, not their gross value. By avoiding pyramiding, the VAT subjects all final goods and services to the same level of taxation, thereby achieving greater neutrality and greater fairness.

Pyramiding also occurs when the retail sales tax (RST) is levied on business-to-business sales. The GST option described below addresses pyramiding of the retail sales tax, as well as the pyramiding of the B&O tax. In addition to addressing neutrality, the GST option replaces both the RST and the B&O tax embedded in consumer prices with a single tax that is completely transparent to the consumer. A

GST is more amenable to taxing services as well as tangible goods than is the current RST.

Finally, the progressive VAT option described below addresses the problem of regressivity that is inherent in taxes of this type by incorporating a form of low-income taxpayer relief.

### **Major Problem Addressed**

To better understand the difference between B&O and value added taxation, consider the following simplified example. In the production and sale of wood cabinets, there are several stages in the process, each of which is often performed by a different enterprise. One enterprise harvests the timber, another mills the lumber, a third manufactures the cabinets, and a final enterprise sells the cabinets to the ultimate consumer at the retail stage. Other enterprises, such as wholesalers, may also be in the chain.

Under a B&O tax, the total value of a good is taxed when it is sold from one enterprise to another in the production chain. This total value includes the value of intermediate products along the way. The value of the timber is embedded in the value of the lumber, the value of the lumber is embedded in the manufactured cabinets, and so on. The gross value of the product at each stage includes taxes paid on intermediate products, so the tax accumulates (pyramids) as it moves through the production chain. Analysis of Washington's current tax system shows that the B&O tax in total pyramids 2.5 times. The amount of pyramiding varies considerably by industry.

Under a VAT, the taxable base is the value added at each stage of production. In the above example, the lumber mill pays tax on the value it adds by milling raw timber into lumber, and the manufacturer pays tax on the value it adds by turning lumber into cabinets. The value of the timber embedded in the value of lumber is not taxed again as lumber sales, nor is the value of lumber embedded in the cabinet taxed again as cabinet sales, and so on. Value added is taxed once at every stage, but not more than once, so the total effect is equivalent to taxing just once the full value of final goods and services sold to ultimate consumers.

The pyramiding of the B&O tax causes non-neutral tax treatment to the advantage of vertically integrated enterprises and to the disadvantage of non-vertically integrated businesses. Enterprises that are vertically integrated escape multiple levels of taxation because intermediate products produced within the enterprise for itself are not subject to tax until the product is sold to another entity. Non-vertically integrated enterprises buy intermediate products on which B&O tax has already been paid and are taxed again when they sell the enhanced products. The B&O tax encourages enterprises to vertically integrate that would not otherwise do so in order to avoid the higher taxes that arise through pyramiding. (For more detail on the problem of pyramiding and non-neutralities, see Chapter 9.)

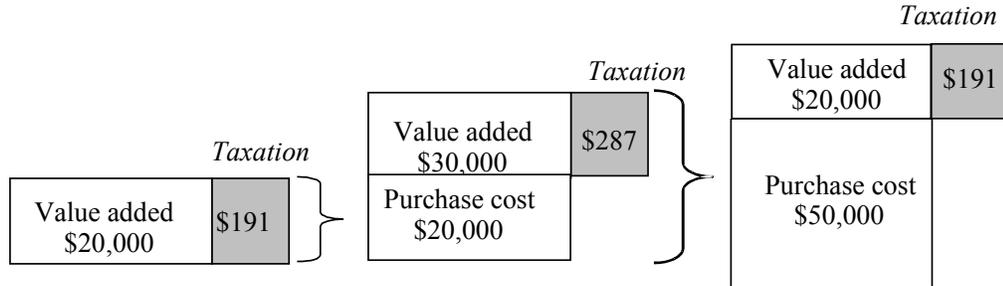
Pyramiding also causes non-neutral taxation because it occurs to different degrees in different industries. Goods and services subject to more stages of production will have taxes that pyramid into higher effective rates. This is equivalent to taxing different goods and services at different rates, causing non-neutralities.

The following diagrams illustrate a value added tax versus a B&O tax.

### Chart 6-A

#### Business Value Added Tax Illustration

Raw Materials Producer		Manufacturer		Retailer	
Gross Sales	\$20,000	Gross Sales	\$50,000	Gross Sales	\$70,000
Minus Purchases	\$0	Minus Purchases	<u>\$20,000</u>	Minus Purchases	<u>\$50,000</u>
Value Added	\$20,000	Value Added	\$30,000	Value Added	\$20,000
<b>VAT at .96%</b>	<b>\$191</b>	<b>VAT at .96%</b>	<b>\$287</b>	<b>VAT at .96%</b>	<b>\$191</b>

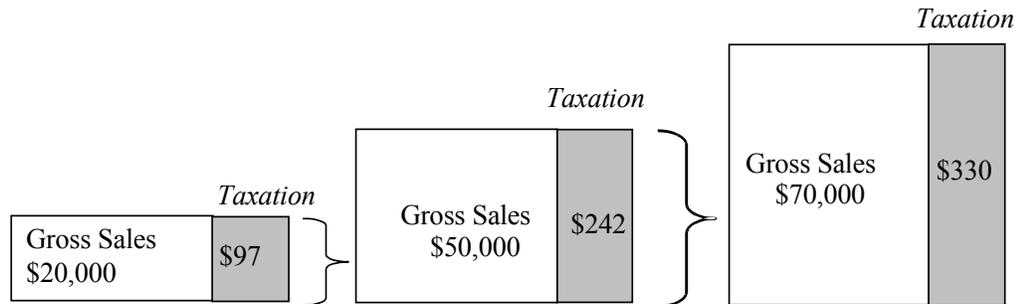


**Total Tax = \$669**

### Chart 6-B

#### Business and Occupation Tax Illustration (Illustration assumes that tax is not passed on.)

Raw Materials Producer		Manufacturer		Retailer	
Gross Sales	\$20,000	Gross Sales	\$50,000	Gross Sales	\$70,000
<b>Tax at .484%</b>	<b>\$97</b>	<b>Tax at .484%</b>	<b>\$242</b>	<b>Tax at .471%</b>	<b>\$330</b>



**Total Tax = \$669**

## Mechanics of the VAT

As with any other tax, policy makers must choose among several ways in which a VAT can be designed and administered. In choosing which VAT options to propose, the Committee exercised its best judgment as to which forms would be most appropriate and workable for a state tax system.

### Different Definitions of Value Added

VATs can differ according to how they treat purchases of assets used in a business (producer durables). The so-called *consumption-type VAT* treats purchases of producer durables (capital expenditures) exactly the same as purchases of intermediate products and subtracts them from the tax base. The *gross product VAT* includes the value of producer durables in the tax base. An intermediate form, known as an *income VAT*, would exclude the depreciation part of capital costs from value added.

### Different Ways VATs Treat Imports and Exports

Another difference among value added taxes is how they treat imports and exports of goods and services to and from the state. Some VATs are primarily *origin based*; others are primarily *destination based*. An origin-based tax is levied on production within the state regardless of whether the good or service is consumed in state or out of state. The B&O tax is primarily origin based, although it has mechanisms to exempt some part of the value of exports so that Washington-produced goods and services can compete. The subtraction method business VAT described below is also primarily an origin-based tax.

Destination-based taxes are levied on goods and services consumed in the state regardless of where they are produced. Under this type of tax, goods and services produced in Washington that are destined for export are not taxed, and goods produced out of state but consumed in Washington are taxed. The retail sales tax is a destination-based tax. The GST described below is a destination-based VAT.

### Different Ways to Calculate Tax Liability Under a VAT

Value added taxes can be classified according to how they require taxpayers to calculate their tax liability. Under a *subtraction method VAT*, enterprises pay tax on the value of their gross receipts minus the costs of intermediate goods and services they purchase in the course of doing business. Under an *invoice method VAT* (which includes the GST), enterprises pay tax on the value of their gross receipts minus a credit for taxes paid on their purchases of intermediate goods and services as recorded on their business invoices. Under an *addition method VAT*, enterprises calculate the tax base by starting with the entity's profit and adding costs of production such as labor and costs of capital. However, each of these calculations yields essentially the same value added base.

## Alternative VAT Proposals

### #1. Subtraction Method VAT

**Proposal:** Replace the B&O tax with a 2.2 percent subtraction method business value added tax.

**Description:**

Purpose: To improve neutrality by eliminating the pyramiding in the B&O tax.

Tax Incidence: All businesses with nexus in Washington would pay the tax on activity that takes place in Washington State.

Rate and Yield: 2.2 percent VAT required to replace the B&O tax loss of \$2,278 million in CY 2005.

Tax Base: Gross receipts less cost of intermediate goods. The subtraction method VAT is the simplest way for businesses to measure their value added.

Imports: Imports of intermediate goods would be treated as origin based. In other words, imports would be fully deductible. Unitary accounting would be required for multistate enterprises to avoid tax evasion.

Exports: Enterprises would multiply their gross receipts from all sales by a three-factor apportionment ratio (sales, property, payroll) in order to maintain the competitiveness of the current business tax system.

Exemptions: Limited exemptions could be implemented on an entity/activity basis. No exemptions are assumed in the 2.2 percent rate.

Treatment of Capital Expenditures: The proposal does not exclude capital expenditures or depreciation from the tax base. However, excluding capital expenditures or depreciation could be allowed as a mechanism to make Washington businesses more competitive.

**Problems Addressed:** The subtraction method business tax would eliminate pyramiding that is caused by the B&O tax. The tax is more neutral and fair because value added is a better measure of the actual economic activity conducted by an enterprise than is gross receipts, and all forms of activity are taxed at the same rate regardless of industry or firm production structure. Like the B&O tax, the VAT is burdensome to businesses in their unprofitable years, but to a lesser degree because the cost of intermediate goods is not subject to tax.

The relative household/business incidence would not change since one business tax replaces another business tax.

**Problems Created:** The subtraction method VAT is more complicated to administer than the B&O, both for business and the Department of Revenue, because purchases of intermediate goods and services must be measured and monitored. There are additional opportunities for tax evasion and avoidance by taxpayers.

**Similar Taxes Imposed Elsewhere:** New Hampshire and Michigan both have addition method VATs. The addition method value added taxable base calculation starts with profit and adds compensation, interest paid, rent paid, and depreciation. New Hampshire currently has an addition method business VAT of 0.75 percent assessed on the sum of all compensation paid or accrued, interest paid or accrued, and dividends paid by the business enterprise, after special adjustments and apportionment. Enterprises with more than \$150,000 in gross receipts are subject to the tax. Michigan has a modified addition method VAT called a single business tax (SBT) at a rate of 2 percent as of December 2001. The SBT provides several exemptions, deductions and credits from value added and is apportioned by means of sales, property and payroll.

Although the methodologies for determining the taxable base differ, the subtraction method VAT and the addition method VAT have essentially the same tax base. The Committee proposes the subtraction method rather than the addition method because it is simpler for businesses to calculate and more similar to the existing B&O tax.

In the 1980s, Representative Dan Grimm proposed legislation in Washington for a subtraction method VAT with apportionment of exports. The legislation did not pass.

**A majority of the Committee recommends that the Legislature replace the B&O tax with a subtraction method business value added tax.**

## #2. Goods and Services Tax

**Proposal:** A 9 percent GST to replace both the B&O tax and the state retail sales tax.

### **Description:**

Purpose: Eliminates pyramiding and resulting non-neutralities. Broadens the tax base. Creates a more transparent tax system.

Tax Incidence: The legal incidence of the tax is on the purchaser whether the taxpayer is a business or an individual.

Rate and Yield: 9 percent GST rate to replace the state retail sales tax and the B&O tax loss of \$8,945 million in CY 2005.

Tax Base: The tax base is equal to sales at every stage of production, including wholesale and retail transactions, with a credit for taxes paid on intermediate goods and services purchased by registered taxpayers.

This is essentially a destination-based tax on the value of goods and services consumed in the state.

The tax would be paid on all products and services, including those currently exempt under the retail sales tax, such as personal and professional services. Agricultural production and rental of real estate would also be included.

Exemptions: Food, prescription drugs and medical services would be exempt.

Imports: Tax would be paid on imported goods and services. Goods purchased by the final consumer out of state would be subject to use tax.

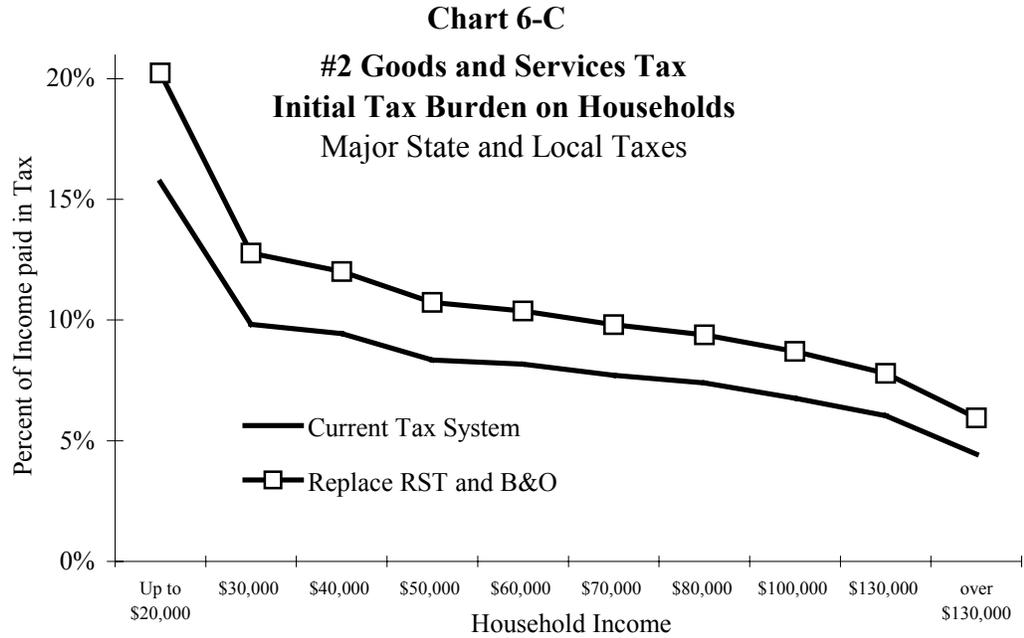
Exports: Exported goods can be "X-rated." Out-of-state sales are not taxed while taxpayers receive a credit for X percent of the tax paid on their intermediate goods. If X equals 100 percent, the exports are said to be zero-rated (conventional in national VATs), meaning that no state tax is collected on the value of goods and services exported from the state. If X equals zero, state tax is embedded in exported goods. X is chosen to achieve competitiveness objectives.

Local Sales Tax: Local sales tax would continue to be collected by retailers.

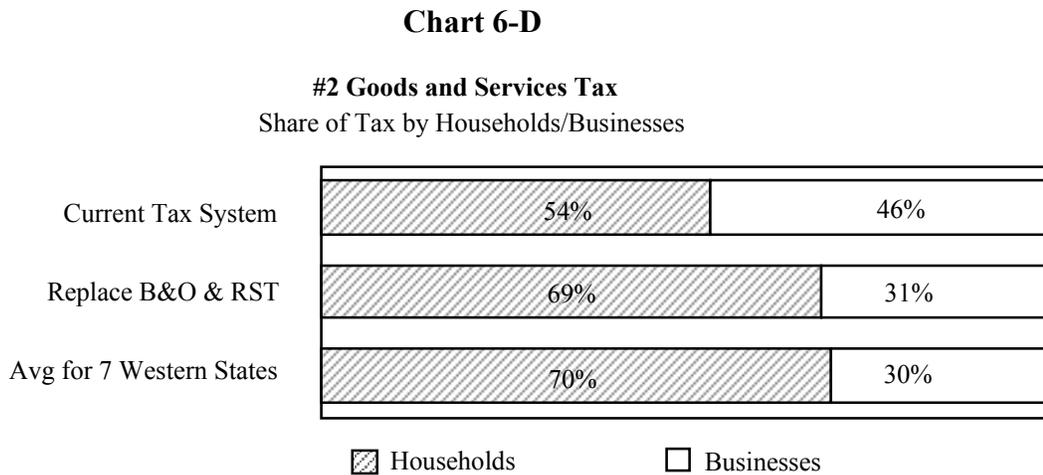
**Problems Addressed:** Like the subtraction method VAT, the GST would improve economic neutrality and equity by eliminating pyramiding.

The GST also broadens the tax base to include personal and professional services, agricultural production and rental of real estate. Some of these activities are difficult to tax under a retail sales tax because they would pyramid. Businesses purchase

professional services, a portion of which becomes an implicit part of their output, and a portion of which becomes an implicit part of overhead. The portion that is implicit in output could then become taxed again. Since the GST eliminates pyramiding, pyramiding would not be an obstacle in base broadening.



Source: Washington Excise and Property Tax Microsimulation Model



Source: Utah State Tax Commission, Western States' Tax Burdens FY 1999-2000

The destination-based GST replaces the origin-based B&O, therefore increasing competitiveness. The choice of X allows policy makers to choose the most appropriate value for competitiveness.

A GST is more transparent than the B&O tax. B&O taxes that are passed down to consumers are hidden. The share of tax paid by households increases from 54 percent under the current system to 70 percent under the GST proposal. The share of tax paid by business decreases from 46 percent under the current system to 30 percent under the GST proposal.

The relative reliance on different taxes does not change under this proposal.

**Problems Created:** The GST is a novel tax for a single state. Although multistage sales taxes like the GST are used in many countries around the world, including Europe and Canada, there are few operating examples of GST-type VATs implemented by sub-national governments in any country.

The GST would involve more administrative and compliance costs than the B&O and retail sales taxes.

The GST is subject to the same harmonization problems as the current RST, including remote and cross-border shopping.

**Similar Taxes Imposed Elsewhere:** Quebec has a destination-based invoice method provincial VAT, and three Maritime Canadian provinces have provincial VATs harmonized with the federal VAT.

The European VATs use the invoice method to determine tax liability similar to the GST. The tax base for European VATs is consumption. For the invoice method this means that the enterprise would receive a credit for the tax shown on invoices for capital good purchases as well as for intermediate goods. The VATs are “destination based” taxes in which taxes are imposed by the jurisdiction in which the buyer is located. Exports are not taxed by the jurisdiction in which the goods are produced (zero-rated); imported goods are taxed by the jurisdiction in which they are sold. If an enterprise imports intermediate goods from another country and uses them in its production process, there is no tax on the invoice for these intermediate goods to take as a credit against the tax on the value of the goods the enterprise produces.

No state in the United States has a GST type of VAT.

**While not favored by the majority of the Committee, it was agreed that the GST is appropriate for consideration.**

### **#3. Progressive VAT**

**Proposal:** Progressive VAT at 3.9 percent reduces state RST to 3.5 percent and replaces B&O.

**Description:**

Purpose: Eliminates pyramiding and broadens the tax base, thereby increasing neutrality. It also reduces the regressivity of the tax system.

Tax Incidence: This is a tax on both businesses and wage earners.

Rate and Yield: 3.9 percent progressive VAT to reduce the RST to 3.5 percent and replace the B&O tax. This VAT rate maintains revenue neutrality to cover a \$5,242 million tax loss in existing taxes in CY 2005.

Registered taxpayers include all enterprises with nexus in the state and all persons employed in the state. Enterprises, employees of taxable enterprises, and employees of nontaxable organizations including government agencies all pay the same tax rate on value added above a \$30,000 exemption.

Tax Base: The business tax base is equal to gross receipts by all enterprises less costs of intermediate goods and services and the cost of wage compensation paid to employees in the state.

Employees are required to register as taxpayers and must pay tax on wages received from employers in the state. Wages are a measure of the employee's value added in the state.

The tax is essentially an origin-based value added tax split between the businesses and employees who are considered value-adding entities in their own right.

Exemptions: \$30,000 exemption per registered taxpayer.

The tax exemption applies to all registered taxpayers. Employees of nontaxable organizations such as government employees have the same exemption.

The extension of an exemption to the employee component of value added relieves tax burdens on low-income earners and makes the tax progressive. There is no need to exempt taxes on necessities for this purpose.

Imports: Purchases of imported intermediate goods and services by enterprises are fully subtracted.

Exports: For exporting enterprises, some form of apportionment of the business part of the tax may be applied in order to mimic the destination (competitive) component

of the current business tax system. This is already described in the subtraction business VAT (Option #1).

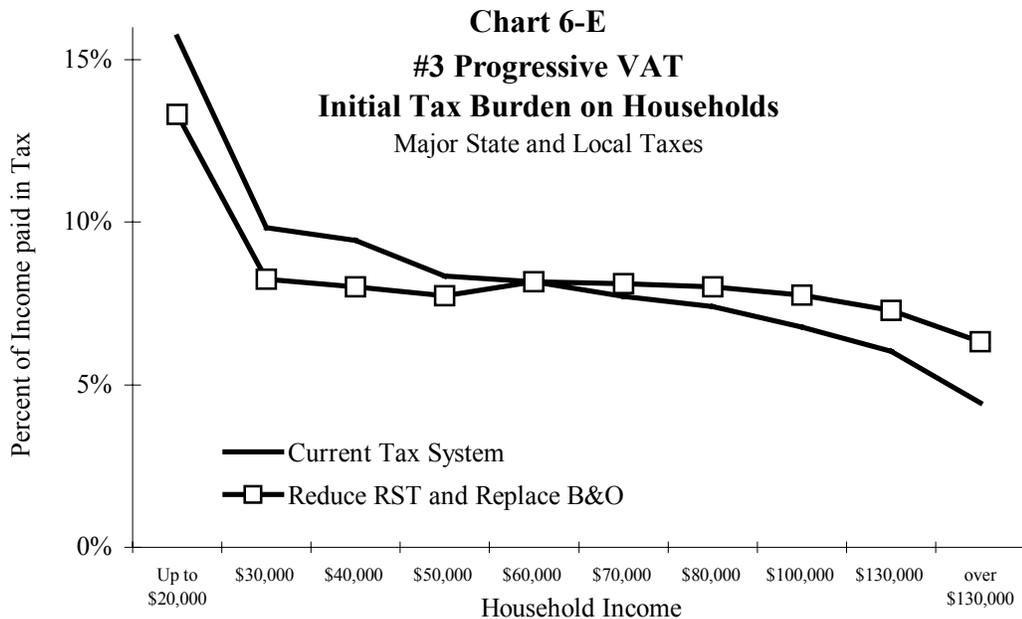
Local Sales Tax: Local sales tax would continue to be collected by retailers.

Economic Impacts: When the progressive VAT reduces RST and replaces B&O, the household tax burden increases from 54 percent under the current system to 59 percent. The business burden decreases from 46 percent to 41 percent.

The relative reliance on general sales tax decreases from 49 percent to 43 percent.

**Problems Addressed**: The progressive VAT, like the other two VATs proposed, is more neutral because it eliminates the pyramiding of the B&O tax and is levied on a broad base.

The wage and salary portion of the tax is less regressive than the retail sales tax because the \$30,000 exemption targets tax relief to low-income households.



Source: Washington Excise and Property Tax Microsimulation

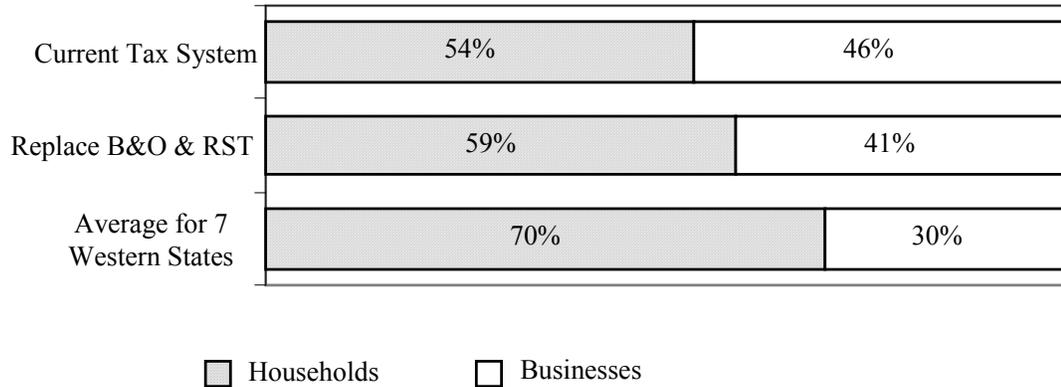
Individual taxpayers may be able to export a portion of the wage and salary tax to the federal government by deducting the tax from their federal income tax.

Replacing the B&O and the sales tax shifts some of the tax burden onto households and off businesses. The share of tax paid by households increases from 54 percent under the current system to 59 percent under the progressive VAT proposal. The share of tax paid by business decreases from 46 percent under the current system to 41 percent under the proposal.

### Chart 6-F

#### #3 Progressive VAT

#### Share of Tax by Households/Businesses



Source: Utah State Tax Commission, Western States' Tax Burdens FY 1999-2000

**Problems Created:** Like the subtraction method VAT and the GST, the progressive VAT is more complex than the current system, although no more complex than an income tax.

The progressive VAT significantly increases the number of registered taxpayers by including employees in the tax net.

The tax may be considered an income tax by the courts and voters. Apportionment is needed to ensure that the business component of the tax does not reduce competitiveness.

**Similar Taxes Imposed Elsewhere:** Although a tax of this type has been advocated as a replacement for the federal income tax since President Reagan, it has not been implemented anywhere in the world at this time. As an untried tax, there are probably additional, unknown challenges to implementation and administration.

Replacing the B&O and a portion of the state sales tax shifts Washington's high reliance on gross receipts taxes to a tax at least partially based on employee wages and salaries. Washington's mix of taxes would become more similar to the U.S. average.

**Chart 6-G**  
**#3 Progressive VAT**  
**Percent Reliance on Major State and Local Taxes**



**While not favored by the majority of the Committee, it was agreed that the progressive VAT is appropriate for consideration.**