

## **The Washington Business Tax and Premium Database – Description and Methodology**

The Washington State Business Tax and Premium database is a joint effort between Washington State Department of Revenue, Washington State Employment Security Office, Washington State Department of Labor & Industries, and Washington State Office of Financial Management. A team with representatives from each of these departments plus legislative staff meets approximately monthly to discuss methodology, review results, and plan improvements.

Data from Washington State Department of Revenue (DOR), Washington State Employment Security Department (ESD), Washington State Department of Labor & Industries (L&I) is merged on the individual taxpayer level using the Washington State Unified Business Identifier (UBI) numbers. A UBI is an identifier assigned to every business registering with any department in the State of Washington. A business's UBI is the same across agencies.

The business tax and premium database has been constructed each year since 2003. Businesses without employees are included in the database with DOR data. The data in the database (other than imputed data) comes directly from data provided to each department by Washington businesses. Imputations for Sales tax paid by each business and data related to health care costs by business are imputed by the Office of Financial Management (OFM).

### ***Variables in database at a firm level***

<b>DOR</b>	<b>ESD</b>	<b>L&amp;I</b>	<b>OFM</b>
<b>UBI</b>	<b>UBI</b>	<b>UBI</b>	
<b>NAIC</b>	<b>NAIC</b>		
<b>Gross Business Income</b>	<b>Employment</b>	<b>Industrial Insurance Premiums*</b>	<b>Sales tax paid (imputed)</b>
<b>B &amp; O gross, taxable and tax due</b>	<b>Wages</b>	<b>Self insurance costs (imputed)</b>	<b>Health insurance offer (Y/N) (imputed)</b>
<b>Exports</b>	<b>Unemployment Insurance base and premiums paid</b>		<b>Health insurance enrollment rate imputations</b>
<b>Property tax, real and personal</b>			<b>Percent of employees enrolled by type of Health care insurance plans (imputed)</b>
<b>Use tax taxable and tax due</b>			<b>Employer costs of types of Health care insurance plans (imputed)</b>
<b>Public Utility taxable and tax due</b>			
<b>Firm open and close dates</b>			
<b>B&amp;O tax credits</b>			
<b>Sales tax collected</b>			

**\*L&I premium amounts for the tax year are prior to retrospective rating premium adjustments. Retrospective Rating (Retro) is an optional financial incentive program offered by L&I to help qualifying employers reduce their industrial insurance costs. Employers may receive premium refunds or they may be assessed additional premium based on their performance.**

## ***Data Definitions***

### **Washington Business**

This definition includes any business that is located in Washington State, or has nexus in Washington State for any other reason, that reports to either the Washington State Department of Revenue, Employment Security Department or Department of Labor & Industries. Businesses with annual gross incomes over \$28,000 or any business that collects retail sales tax are required to report to the Washington State Department of Revenue. All businesses with employees are required to report to the Employment Security Department and the Department of Labor and Industries.

### **Unified Business Identifier (UBI)**

This is assigned to every business which registers with any department in the state of Washington. The identifier is the same across all Washington state departments such that data from different departments can be merged via this indicator.

### **North American Industrial Code (NAIC)**

Employment Security and Department of Revenue assign a NAIC to each business that registers with them. DOR uses ESD's NAICs for businesses with employees. NAICs are assigned based on the primary activity of the business. NAICs for businesses with employees are updated every 5 years. NAICs for businesses without employees are also updated, but on a less formalized schedule

### **Gross Business Income (GBI)**

The business' total gross income that is generated in Washington State.

Gross business income equals a firm's combined reported gross income for the retail sales, business and occupation (B&O), and public utility taxes.

### **Employment**

Employment is measured by the average number of employees over the year. It is calculated as number of months of employment divided by twelve.

### **Wages**

Total wages paid over the year.

### **Firm open and close dates**

Open date is the date that firms register with the Department of Revenue. Close date is the date that Department of Revenue closes the account. Accounts are generally closed after a number of periods of no reported business activity, therefore the close date is not necessarily the date that the business itself closed.

### **Business & Occupation (B&O) Gross**

B&O gross is total income from all taxable activities in Washington State (GBI less exempt activities) .

### **B&O Taxable**

B&O taxable is B&O gross minus deductions.

### **B&O Tax due**

B&O tax due is equal to the total tax each business pays throughout the year. B&O tax is an activity-based tax with different tax rates for different activities. Businesses report the different taxable activities on different lines and multiply by the appropriate tax rates. The tax due is the sum of taxes paid for each activity. *Note that B&O tax due is not adjusted for B&O credits.*

### **B&O Tax credits**

Credits differ from deductions in that they are generally not directly related to B&O taxable. Credits are subtracted from B&O tax paid, whereas deductions are subtracted from B&O taxable.

### **Property tax, real and personal**

Total real and personal property tax paid for all businesses property in Washington State. Property tax paid is state property tax only and is based on assessed values reported by counties throughout the state.

### **Use tax, taxable and tax due**

Businesses pay use tax on sales-taxable tangible personal property on which sales tax was not paid (for example, tangible personal property purchased out of state, but used in Washington state). Taxable refers to the total value of the use tax base. Tax due is equal to the state and *local* taxes paid.

### **Public Utility taxable and tax due**

Public Utility tax is tax for public service businesses, in-lieu of B&O. Activities on which Public Utility tax is paid in lieu of B&O include communications, transportation, and the supply of energy, natural gas and water. Taxable is equal to gross activity less deductions. Tax due is the total Public Utility tax paid.

### **Sales tax Collected**

Sales tax collected by businesses and from their customers on sales-taxable goods and services the business provides.

### **Sales tax paid**

Sales tax paid by businesses on sales-taxable purchases made from businesses with nexus in Washington State. Note that this variable is imputed. (See detail on the imputation methodology below.)

### **Unemployment Insurance base and premiums paid.**

The base is the wages on which Unemployment Insurance premiums are paid. Premiums are the total amount paid by each business.

### **Industrial Insurance Premiums plus Self-Insurance costs**

This is either the amount of industrial insurance premium paid to the State of Washington, or, if the business is self-insured, self insurance costs. Self-insurance costs are imputed. (Detail on the imputation methodology is below.) Note that both industrial insurance premiums and self insurance costs are under one variable.

### **Health Insurance Offer**

Whether or not a business offers health insurance to: a) full time employees, b) part time employees. This variable is imputed. Methodology is outlined below.

### **Health Insurance enrollment rate**

For businesses that offer health care insurance, this is the percentage of employees that are enrolled in an insurance plan offered by that business. This variable is imputed. Methodology is outlined below.

### **Percent of employees enrolled by type of health care insurance plan**

For businesses that offer health care insurance, the percentage of enrollees in a Single Insurance, Family Insurance and Single plus One Insurance plan. This variable is imputed. Methodology is outlined below.

### **Employer costs of health care insurance plans**

The total costs to the business of the business-paid portion of health care premiums for all enrolled employees. The cost to the employee is not included. This variable is imputed. Methodology is outlined below.

## ***Imputation Methodology***

### **Sales tax Imputation Methodology:**

Sales tax is a major tax paid by businesses on materials, supplies, vehicles, construction projects etc. Because sales tax is reported to DOR by the taxpayers who collect it and not be the taxpayers who pay it, this tax variable needs to be imputed for each business.

The overall methodology is to estimate sales-taxable expenditures by type of expenditure both on a per employee basis and as a percentage of Gross Business Income for types of businesses characterized by industry, and size. The appropriate per employee and percentage of GBI data is then used in combination with each individual business' employment and/or Gross Business Income to impute sales taxes paid.

BEA 2002 census and 2002 Business Expense Survey data was used for most businesses to estimate their expenditures per employee for industry and size groups. Industries are defined by three digit NAICs groups and by nine size groupings (less than 5 employees, 5-9 employees, 10 – 19 employees, 20-49 employees, 50-99 employees , 100-249 employees , 250-499 employees, 500-999 employees, 1,000 and over employees. The data contained detail on the dollar amount of each type of expenditure for each NAIC/size grouping. Detail on gross business income (GBI) and employees was also available for the same NAIC/Size groupings, so that each expenditure could be calculated both as a percentage of GBI, and on a per employee basis.

Taxability by expenditure category was determined at a series of meetings with Washington State economists and auditors. In the meetings, each type of expenditure was considered in terms of whether it was tax exempt, or if there were exemptions or deductions that applied to a portion of that expenditure. If only a portion of the expenditure is taxable, the taxable percentage was determined by working with an experienced auditor that specialized in either that particular industry and/or expenditure type. Because of exposure to detailed taxpayer information over many years, the auditors were able to make informed estimates on taxable percentages.

Expenditures per employee and as a percentage of GBI were adjusted by the taxable percentage. Each firm was matched with a set of appropriate cell percentages based on NAIC and size. The appropriate ratio was multiplied by the firm's number of employees and GBI. For firms with both employees and GBI, an average of the resulting sales tax imputations was used. Some firms have no employees. For these firms, the GBI percentage was used. Some firms have employees but no income. For these firms, the ratio of taxable purchases per employee was used.

The base year for this process used 2006 DOR data. The dollar amounts of taxable purchases were adjusted for inflation from 2002 to 2006. The above process will be repeated when 2007 Census data is available.

Since the Census data only comes out every 5 years, the interim year sales tax imputations are grown from the base year imputations. First, a target level of total statewide sales tax paid by businesses is estimated. The estimate is done using overall growth in taxable retail sales adjusted by growth in the consumer portion of taxable retail sales. Growth in consumer sales is estimated using US Census Consumer Expenditure Survey data for growth in total consumption (less large non taxable categories such as food and mortgage/rent ). Each firm's sales tax- plus- use- tax is assumed to grow along with the growth of their Gross Business Income and Employment (an average of both growth rates). Use tax is then subtracted, leaving the total estimated sales tax. All firm level estimates are scaled proportionately in order that total sales tax paid sums to the statewide target level.

### **Self Insured Imputations:**

The self-insured cost estimates are derived from data reported on quarterly reports submitted by self-insured employers. Included are claim costs and assessments due plus an additional 11% as an estimate of administrative overhead costs. Since self-insured employers can charge back up to half of supplemental pension fund and asbestosis fund dollars to workers, those were subtracted from the self-insured total. The Department of Labor and Industries oversees the self-insured program but self-insured employers manage their own claims and costs.

### **Health Insurance costs Imputation Methodology:**

For each firm with employees, the employer sponsor status, enrollment, employer health insurance expenditures and employer contributions are imputed using data from two surveys—the *Washington Employee Benefits Survey (EBS)* and the U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality (AHRQ), *Medical Expenditure Panel Survey—Insurance Component (MEPS-IC)*.

*EBS* data is used to impute offer status of firms in the Washington Business Tax and Premium database. First, for firms that responded to the survey, *EBS* data is merged into the Washington business data base on a firm level basis. The methodology for other firms follows. The firms that responded to the *EBS* are stratified into groups based on firm size, industry and average wage levels. The percentages of firms offering insurance (employer sponsor rates) within each of these strata is calculated. The firms in the Washington business tax data base are also stratified into the same firm size-industry-wage groupings. Offer status for the firms within a given stratum are randomly assigned so as to achieve the *EBS* employer sponsor rate observed for that stratum.

Data on enrollment rates, percentage of enrolled employees in different types of health insurance plans, and per employee costs for each type of health care plan come from MEPS-IC reports. Cell averages for these variables by industry and size classifications are merged into the Washington business data base in the same way as the *EBS* cell averages are merged in. Each firm's cost is determined by the following formula:

*Total health care expenditures = Offer (zero or one) \* (percent of employees enrolled in single insurance \* number of employees \* cost of single insurance) + (percent of employees enrolled in single plus one insurance \* number of employees \* cost of single plus one insurance) + (percent of employees enrolled in family insurance \* number of employees \* cost of family insurance)*