

WASHINGTON STATE BUSINESS TAX DATABASE (THREE AGENCY DATABASE)

September 2002

Sponsor: Office of Financial Management

Agencies: Employment Security (ESD)
Labor & Industries (L&I)
Department of Revenue (DOR)

Purpose:

The database allows an estimate of total tax burden for businesses in the State of Washington. The database allows comparison of effective tax rates between industry groups for all business taxes.

Input:

General considerations:

- The initial database is constructed from Calendar Year 2000 data. It is anticipated the database will be updated every 2 years.
- The 3-agency data merge is made possible by means of the unified business identifier (UBI), a nine-digit number that is assigned to a business when applying for a business license. ESD, L&I and DOR are UBI agencies and all carry the same number for a business legal entity.
- Each agency is responsible for summing their records to the entity UBI level because each agency has one-to-many accounts.
- ESD and L&I determine how to consistently treat self-insured businesses.
- Timing differences between agencies on tax processing must be accommodated. For instance, DOR Calendar Year 2000 tax reporting data is available in April 2001. ESD adjusted data is not available until July.

Agency Data Merge Summary

For each UBI entity, each agency provides SIC code and data unique to their agency (see below). DOR merges the three tables from each agency by means of UBI. The merge process involves the following steps:

1. Keep all records with a valid UBI; delete if blank or zero.
2. Assume non-matching records to be valid. That is, if a record does not match with another agency record, that account would only contain data from the agency supplying it.
3. The primary SIC is assigned to each account in the following priority: ESD, DOR, and L&I.
 - That is, if a business is not an ESD account, DOR SIC is assigned. In the absence of ESD and DOR SIC, L&I SIC is assigned.
 - ESD SIC receives priority because ESD routinely surveys companies every 3 years and updates their database. Their SIC coders undergo much more rigorous training.

4. DOR assigns Name, Account Open/Closed Periods, and primary Business & Occupation Tax (B&O) Line Code to each account.

Property Tax Paid by Business

The database includes estimates of Property Taxes paid by business.

County parcel data for real property is routinely collected from nine counties. These nine counties represent 81 % of locally assessed real property values. The parcel data are soft matched to Department of Revenue data by the name of the property owner. Successful matches account for over 54% of the locally assessed real property.

Median real property values per employee are calculated at the 3-digit SIC level. These median values were used for firms that are not successfully matched against the county parcel data. Sole-proprietors with no employees are given a real property value equal to the median value for one employee for its 2-digit SIC.

Personal property data is collected from 5 counties. DOR calculates a median value per employee at the 2-digit SIC level. A personal property value is assigned to other firms on the basis of it's SIC and number of employees.

DOR assigns an average countywide property tax rate to each firm based on its location. Effective Property Tax Rates are calculated from levy statistics reported by each county to the Department.

The Department of Revenue maintains a database of inter-county utility values.

Sales Taxes Paid by Business

The database includes estimates Sales Tax paid by businesses (vs. State and Local Sales Tax collected by businesses and remitted to DOR).

Business sales tax payments are estimated using Implan input/output data after adjusting for exempt purchases, household expenditures, and state/local government. The business sales tax estimate is then distributed to each of Implan's 509 productive sectors based on each industry's share of taxable purchases and then converted to 3-digit SIC estimates. The SIC estimates are then apportioned to each firm within that 3-digit SIC based on the sum of firm wages plus GBI; thus ensuring that some sales tax is attributed to proprietors reporting zero wages.

ESD provides the following data¹:

UBI	Hours
ESD Account ID	Benefits
Wages	SIC
Wages Tax Due	FEIN
Taxes Paid	

¹data provided by agencies and retained in the output

L&I provides the following data¹:

UBI	Wages
FEIN	Hours
SIC	Premiums Paid
NAICS	

DOR provides the following data¹:

UBI	County
Gross Business Income ²	FEIN
Account Name	Property Tax Exemption Indicator
Public Utility Gross, Taxable & Tax Due	B&O Taxable & Tax Due
Retail Sales Gross & Tax Due	Property Tax 2001 Rate
Use Tax Taxable	Real Personal Property Tax
Total Tax Due	Account Open Period
SIC	Account Close Period
NAICS	Property Tax State 2001 Total
Tax Return Credits	Property Tax Local 2001 Total
Primary Line Code	Sales Tax Paid by Business

² Washington Gross Business Income is calculated using gross income reported on the tax return less deductions for interstate and foreign sales.

Output:

One record per UBI account is created for a total of 319,144 records. The database is created in SAS. DOR maintains almost twice as many accounts as ESD and L&I, because the B&O Tax is imposed on all business entities, whether or not they are employers.

Study Results:

The WA DOR uses the Washington State Business Tax Database to calculate effective Property Tax, Sales Tax and Payroll Tax rates as a measure of tax equity across industrial sectors. Utilities and services pay the highest B&O effective rates, while manufacturing, wholesaling and retailing pay at the lowest B&O effective rates. Construction pays the highest effective payroll tax rates and manufacturers of durables pay the highest Property Tax. (See tables on Business Tax Summary Data.)

WA DOR calculates the effective tax rate by tax type and by small, medium and large firms and new and established firms across industries. (See tables on Effective Tax Rates by Size and Effective Tax Rates by New and Established Firms. These rates are unweighted averages adjusted for extreme outliers. There is no distinguishable difference between industries on these bases with the exception of Property Tax on new firms. This is because new firms pay property tax once they acquire real and personal property regardless of whether they are making sales. Noticeable is the lack of consistent difference in effective tax between firm characteristics. After ruling out age and size as reasons for firms to be disadvantaged by Washington's excise taxes, we subsequently determined that unprofitable firms bear a disproportionate burden under a tax system based on gross receipts (sales and B&O constitute 2/3rd of our general fund revenues.)

WASHINGTON STATE TOTAL BUSINESS TAX DATA SUMMARY

	Gross	Taxable	B&O Tax Due	Effective B&O Tax Rate
AG FOR MINING 1-14	\$5,007,263,141	\$4,869,937,730	\$29,436,831	0.6045%
CONSTRUCTION 15-17	25,093,648,014	24,852,771,367	121,377,013	0.4884%
MAN DURABLE 24,25 32-39	60,104,333,642	58,772,811,630	294,629,919	0.5013%
MAN NON-DURABLE 20-23 26-31	30,058,174,734	28,064,436,539	124,334,874	0.4430%
TRANS COM UTIL 40-49 =>90	24,745,378,465	20,775,538,609	348,606,171	1.6780%
WHOLESALE 50-51	69,944,585,811	63,930,913,828	321,710,337	0.5032%
RETAIL 52-59	71,553,920,207	68,952,533,004	337,923,876	0.4901%
FIRE 60-67	21,029,443,301	14,706,605,818	185,675,302	1.2625%
SERVICES 70 -79	27,708,798,676	24,953,062,780	218,542,015	0.8758%
PROFESSIONAL SERVICES 80-89	27,539,682,072	23,988,698,647	325,622,106	1.3574%
Total	362,785,228,063	333,867,309,952	2,307,858,444	0.6913%

	Business Sales Taxes Paid	Average Employment 2000	Covered Wages 2000	Employment Security Taxes Paid	Effective UI Tax Rate
AG FOR MINING 1-14	\$27,300,962	96,797	\$1,493,868,162	\$48,742,792	3.26%
CONSTRUCTION 15-17	280,025,246	149,946	3,645,669,782	131,052,477	3.59%
MAN DURABLE 24,25 32-39	431,439,312	238,738	5,816,717,538	126,617,390	2.18%
MAN NON-DURABLE 20-23 26-31	298,489,979	113,270	2,471,519,151	60,405,098	2.44%
TRANS COM UTIL 40-49 =>90	389,131,695	336,327	3,585,054,876	78,585,859	2.19%
WHOLESALE 50-51	121,146,113	146,614	3,391,164,784	69,764,080	2.06%
RETAIL 52-59	103,400,957	495,492	7,430,264,704	118,338,136	1.59%
FIRE 60-67	50,171,686	138,491	3,001,795,995	47,547,955	1.58%
SERVICES 70 -79	206,424,012	336,301	6,383,360,196	119,523,705	1.87%
PROFESSIONAL SERVICES 80-89	417,955,871	623,138	5,545,180,015	111,335,825	2.01%
Total	2,325,485,834	2,675,115	42,764,595,204	911,913,317	2.13%

WASHINGTON STATE TOTAL BUSINESS TAX DATA SUMMARY

	Real Property	Personal Property (Local & State Assessed)	Total Assessed Values	Property Taxes Paid	Effective Property Tax Rate
AG FOR MINING 1-14	\$4,610,023,230	401,219,761	5,011,242,990	67,354,832	1.34%
CONSTRUCTION 15-17	8,956,360,705	1,076,959,742	10,033,320,447	130,533,065	1.30%
MAN DURABLE 24,25 32-39	8,591,744,904	4,414,037,432	13,005,782,335	175,700,080	1.35%
MAN NON-DURABLE 20-23 26-31	4,680,443,414	1,059,706,543	5,740,149,956	75,788,946	1.32%
TRANS COMM UTILITIES 40-49 =>90	13,692,530,407	13,329,120,817	27,021,651,224	240,673,198	0.89%
WHOLESALE 50-51	3,805,791,219	1,477,847,177	5,283,638,396	67,362,445	1.27%
RETAIL 52-59	13,886,908,505	1,291,898,426	15,178,806,931	196,621,059	1.30%
FIRE 60-67	15,295,499,137	1,109,897,062	16,405,396,200	207,242,024	1.26%
SERVICES 70 -79	16,190,155,723	4,353,847,429	20,544,003,152	261,846,120	1.27%
PROFESSIONAL SERVICES 80-89	23,672,184,239	3,902,443,753	27,574,627,992	263,194,129	0.95%
Total	113,381,641,483	32,416,978,141	145,798,619,625	1,686,315,897	1.16%

WASHINGTON STATE EFFECTIVE TAX RATES BY SIZE OF FIRM FOR CALENDAR 2000

AVERAGE SALES TAX RATES

SIC	LESS THAN \$5,000,000	\$5,000,000 TO \$25,000,000	GREATER THAN \$25,000,000
AG/ FORESTRY/ MINING - SICS 1-14	0.17%	0.57%	1.74%
CONSTRUCTION - SICS 15-17	0.45%	1.07%	1.27%
MANUF NONDURABLE - SICS 20-23, 26-31	0.41%	1.60%	1.10%
MANUF DURABLE - SICS 24,25, 32-39	0.36%	1.10%	1.21%
TRANS/ COMM/ UTILITIES - SICS 40-49, 90's	0.17%	1.83%	1.05%
WHOLESALE - SICS 50-51	0.22%	0.18%	0.15%
RETAIL - SICS 52 - 59	0.35%	0.16%	0.11%
FINANCE/ INSURANCE/ REAL ESTATE - SICS 60-67	0.23%	0.30%	0.21%
SERVICES - SICS 70-79	0.41%	0.85%	0.81%
PROFESSIONAL SERVICES - SICS 80-89	0.30%	0.53%	0.60%

AVERAGE B&O/PUB UTILITY TAX RATES

SIC	LESS THAN \$5,000,000	\$5,000,000 TO \$25,000,000	GREATER THAN \$25,000,000
AG/ FORESTRY/ MINING - SICS 1-14	0.32%	0.55%	0.55%
CONSTRUCTION - SICS 15-17	0.42%	0.48%	0.48%
MANUF NONDURABLE - SICS 20-23, 26-31	0.41%	0.44%	0.42%
MANUF DURABLE - SICS 24,25, 32-39	0.42%	0.48%	0.48%
TRANS/ COMM/ UTILITIES - SICS 40-49, 90's	0.93%	1.21%	1.28%
WHOLESALE - SICS 50-51	0.44%	0.46%	0.44%
RETAIL - SICS 52 - 59	0.41%	0.46%	0.48%
FINANCE/ INSURANCE/ REAL ESTATE - SICS 60-67	0.63%	1.11%	0.93%
SERVICES - SICS 70-79	0.72%	0.81%	0.74%
PROFESSIONAL SERVICES - SICS 80-89	0.92%	1.21%	1.12%

AVERAGE PROPERTY TAX RATES

SIC	LESS THAN \$5,000,000	\$5,000,000 TO \$25,000,000	GREATER THAN \$25,000,000
AG/ FORESTRY/ MINING - SICS 1-14	0.58%	0.18%	0.06%
CONSTRUCTION - SICS 15-17	0.69%	0.08%	0.06%
MANUF NONDURABLE - SICS 20-23, 26-31	0.66%	0.07%	0.06%
MANUF DURABLE - SICS 24,25, 32-39	0.67%	0.08%	0.06%
TRANS/ COMM/ UTILITIES - SICS 40-49, 90's	0.50%	0.30%	0.19%
WHOLESALE - SICS 50-51	0.35%	0.02%	0.01%
RETAIL - SICS 52 - 59	1.15%	0.06%	0.04%
FINANCE/ INSURANCE/ REAL ESTATE - SICS 60-67	0.41%	0.14%	0.08%
SERVICES - SICS 70-79	0.98%	0.17%	0.09%
PROFESSIONAL SERVICES - SICS 80-89	0.53%	0.14%	0.10%

WASHINGTON STATE EFFECTIVE TAX RATES BY NEW AND ESTABLISHED FIRMS FOR CAL 2000

AVERAGE SALES TAX RATES

SIC	NEW FIRM	ESTABLISHED FIRM
AG/ FORESTRY/ MINING - SICS 1-14	0.32%	0.15%
CONSTRUCTION - SICS 15-17	0.43%	0.46%
MANUF NONDURABLE - SICS 20-23, 26-31	0.40%	0.45%
MANUF DURABLE - SICS 24,25, 32-39	0.37%	0.38%
TRANS/ COMM/ UTILITIES - SICS 40-49, 90's	0.17%	0.18%
WHOLESALE - SICS 50-51	0.18%	0.22%
RETAIL - SICS 52 - 59	0.43%	0.31%
FINANCE/ INSURANCE/ REAL ESTATE - SICS 60-67	0.24%	0.23%
SERVICES - SICS 70-79	0.40%	0.41%
PROFESSIONAL SERVICES - SICS 80-89	0.35%	0.29%

AVERAGE B&O/PUBLIC UTILITY TAX RATES

SIC	NEW FIRM	ESTABLISHED FIRM
AG/ FORESTRY/ MINING - SICS 1-14	0.52%	0.28%
CONSTRUCTION - SICS 15-17	0.44%	0.41%
MANUF NONDURABLE - SICS 20-23, 26-31	0.42%	0.41%
MANUF DURABLE - SICS 24,25, 32-39	0.46%	0.42%
TRANS/ COMM/ UTILITIES - SICS 40-49, 90's	0.86%	0.96%
WHOLESALE - SICS 50-51	0.37%	0.45%
RETAIL - SICS 52 - 59	0.47%	0.39%
FINANCE/ INSURANCE/ REAL ESTATE - SICS 60-67	0.67%	0.63%
SERVICES - SICS 70-79	0.79%	0.69%
PROFESSIONAL SERVICES - SICS 80-89	1.01%	0.90%

AVERAGE PROPERTY TAX RATES

SIC	NEW FIRM	ESTABLISHED FIRM
AG/ FORESTRY/ MINING - SICS 1-14	1.36%	0.43%
CONSTRUCTION - SICS 15-17	1.04%	0.55%
MANUF NONDURABLE - SICS 20-23, 26-31	1.17%	0.45%
MANUF DURABLE - SICS 24,25, 32-39	1.24%	0.48%
TRANS/ COMM/ UTILITIES - SICS 40-49, 90's	0.75%	0.41%
WHOLESALE - SICS 50-51	0.53%	0.26%
RETAIL - SICS 52 - 59	1.98%	0.86%
FINANCE/ INSURANCE/ REAL ESTATE - SICS 60-67	0.67%	0.34%
SERVICES - SICS 70-79	1.48%	0.79%
PROFESSIONAL SERVICES - SICS 80-89	1.08%	0.40%