## Tax Structure Study - Technical Advisory Group

Model Review: B\&O Tax Credit (Supplement to Personal Income Tax model)

| Date | March 19, 2020 |
| :--- | :--- |
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| Model Purpose | For the personal income tax (PIT) model, estimate the revenue impact of a business and <br> occupation (B\&O) tax credit, by estimating the credit amount for each filer. |
| Data Sources | (1) IRS: Individual income tax data <br> (2) IRS: Business income tax data <br> (3) Department of Revenue: B\&O tax data |
| Requirements Model <br> Used to Fulfill | This is a supplemental analysis, to support development of a model for a personal income <br> tax, as required under ESHB 1109 (2019), Sec. 137(B) (c)(vii). |
| Questions for <br> Technical Advisory <br> Group | We do not have specific questions, but welcome advice and suggestions. |
| Questions from <br> Technical Advisory <br> Group |  |

## Contents

Overview ..... 3
Background ..... 3
Data Sources ..... 5
Preliminary Analyses ..... 5
Prepare Data ..... 8
Calculate credit amount ..... 10
Appendix A: References ..... 12
Appendix B: Data Tables ..... 13
Appendix C: Gross Receipts Brackets ..... 16
Appendix D: Partnerships and S Corporations (2003 bill language) ..... 16
Appendix E: Example Calculation of the Credit ..... 17

## Overview

The personal income tax proposals provide a credit against the business and occupation (B\&O) tax. In this section, we provide an overview of the calculation.

To develop this plan, we interviewed in-house experts at DOR to identify major features of the B\&O tax that should be reflected in the model.

Before calculating the credit amount, we will perform descriptive analyses on key input variables. We will go on to sum up business income for each individual as shown in the IRS returns, breaking on each business, so that the data contains one record for each individual-business combination.

We will adjust DOR data to show the total (national) gross receipts for each firm.

We will match the IRS data to DOR data on federal employer identification number (FEIN).

The credit calculation consists of two separate methods, from which the lower credit amount is selected. ${ }^{1}$

The first method consists of multiplying the individual's share of gross receipts times the B\&O tax due. (Figure 1). Appendix E provides an example of this calculation.

Using the second method, we find the proportion of an individual's AGI that came from a business and multiply it times the personal income tax due.

For years beyond 2017, we will grow the amount of the B\&O credit for each individual by applying growth rates published by the Economic and Revenue Forecast Council.


Figure 1. Steps for calculating the B\&O credit for each individual.

## The Business and Occupation Tax

The state B\&O tax is a gross receipts tax. It is measured on
the value of products, gross proceeds of sale, or gross income of the business. There are no deductions for labor, materials, taxes, or other costs of doing business. Businesses must pay the tax even though they may not have any profits or may be operating at a loss.

A business may have more than one B\&O tax rate, depending on the types of activities conducted. Major tax rates are 0.471 percent for retailing; 0.484 percent for manufacturing, wholesaling, and extracting; and 1.5 percent for services and activities not classified elsewhere.

[^0]Beginning in April 2020, new legislation ${ }^{2}$ makes the following changes:

- Affiliated groups of advanced computing businesses with a worldwide gross income in excess of $\$ 25$ billion are subject to an additional 1.22 percent surcharge. The maximum amount of the surcharge is $\$ 9$ million per year.
- Except for hospitals, businesses earning more than $\$ 1$ million annually pay a service B\&O rate of 1.75 percent, rather than 1.5 percent.

Relevant to the PIT model, the proposals described in the 2002 Gates study feature a credit for any amount of B\&O tax paid. We will estimate the amount of this credit for each individual for tax year 2017 and forecasted years.

## The Business and Occupation Tax Credit

While the 2002 study included a B\&O credit, it provided no description of the credit. Therefore, we rely on 2003 legislation for the details.

In 2003, four bills were introduced on the topic of a personal income tax. All used the following language to provide for a B\&O credit: ${ }^{3}$
"(1) There shall be allowed a credit against the tax imposed by this title in the amount of the state of Washington business and occupation tax paid by the taxpayer in the tax year subject to the limitation of subsection (2) of this section.
(2) The credit shall not exceed the smaller of:
(a) The amount of business and occupation tax paid; or
(b) The amount of tax of the taxpayer imposed by this title before the application of credits allowed by this title, multiplied by a fraction:
(i) The numerator is the amount of the taxpayer's adjusted gross income attributable to activities subject to business and occupation tax; and
(ii) The denominator is the taxpayer's adjusted gross income as modified by this title. The fraction shall never be greater than one."

We will model the tax as described above.
Additionally, 2003 bills provided for the amount of taxable business income for partners and S-corporation shareholders. See Appendix D for details.

## Assumptions

As we do in the main PIT model, we use TY2017 individuals as a proxy for individuals in 2018 and beyond. For more information on how we project the amount of personal income and the number of individuals, see the main Model Review document for the PIT model (section Forecast Income).

[^1]
## Data Sources

## IRS Individual Income Tax Data

We will use both tables from the IRS individual tax data: the returns dataset and the W-2s (etc.) dataset. The first dataset provides information on the AGI for each individual. The second dataset includes K-1 forms, which list partner and shareholder income allocated to individuals. See the Model Review for the Personal Income Tax for more about these datasets.

Individuals report business income in several different fields of the tax return. For instance, capital gains are reported on Schedule D, while ordinary business income is reported on Schedule E.

For S corporations and partnerships, we have detailed information on the type of income reported, because the K-1 forms classify income into different types. However, we lack business-level detail for some income components (e.g. Sec. 1231 income). The IRS Statistics of Income Division has published summary statistics on income components for S corporations and partnerships (Appendix A).

We also lack precise information on income types for sole proprietors not reported in Schedule C or F. For instance, if an individual who reports sole proprietor income also reports rental income or capital gains, the data does not tell us if these latter amounts stemmed from the business or from personal sources. The IRS Statistics of Income Division has published statistics on sole proprietorship income.

## IRS Business Income Tax Data

The IRS business income tax datasets include returns for C corporations, S corporations and partnerships. They list the industrial sector code for each business taxpayer. We will use this dataset for two purposes:

- Match with S corporations and partnerships in the IRS individual returns to assign a NAICS code.
- Match with businesses in the DOR data to classify as C corporation, S corporation, or partnership.


## Department of Revenue Data

We will use three datasets from the Department of Revenue (DOR):

- B\&O gross and tax due (CY2017)
- Credits (CY2017)
- Name-Address - most recent file available

The primary DOR dataset will be the B\&O dataset, which lists Washington gross receipts and tax due for each business taxpayer. We will also use the Credits dataset. This table provides the amount of each credit each business took, which allows us to calculate the final B\&O tax due. Finally, for each business, we will match in the Name-Address table. This dataset has one row for each business. We will match in the columns showing business name, the Federal Employer Identification Number (FEIN) and the industrial sector (NAICS code).

See Appendix B for more on the data.

## Preliminary Analyses

## Describe the B\&O tax

We will meet with in-house experts on the B\&O tax to gather information on major features of the B\&O tax that are relevant for estimating the credit. For instance, firms outside the financial sector are not subject to the B\&O tax for investment income. Therefore, we need to account for this when we estimate the credit.

We will review major categories of individual income (e.g., capital gains) and classify them as subject to the B\&O tax or not.

## Describe K-1 forms

The K-1 forms, like the W-2s that report wages amounts, contain a number of fields showing different types of income. Since we will total up amounts from the K-1 forms, we will want to avoid double counting. We will describe the income types listed by reviewing IRS documentation and interviewing in-house experts on federal tax.

## Form assumptions about income components

To calculate the credit, we need to estimate "amount of the taxpayer's adjusted gross income attributable to activities subject to business and occupation tax." However, two income components listed in the K-1 forms are not found in the IRS data: Other Income and Sec. 1231 gains. To develop an assumption about these income amounts, we will review SOI summary statistics and consult with in-house experts. ${ }^{4}$

K-1 income - Other income: For partnerships in 2017, Other Income was 84 percent as large as the ordinary business income. It includes several components; some are taxable for B\&O purposes while others are not. The IRS Statistics of Income office publishes national summary statistics, and Other Income is also shown on Form 1040.

K-1 income - Sec. 1231 gains: The K-1 forms report on Sec. 1231 gains - a type of capital gain stemming from certain types of business property. Under Sec. 1231, the IRS allows a lower tax rate for gains stemming from the sale of certain real or depreciable property held for at least one year. Examples include buildings, machines, and land. Sec. 1231 income was 60 percent as great as ordinary business income for partnerships in TY2017.

## Sole proprietor income

Two B\&O taxable income types that could come from a sole proprietor are reported in places other than the forms used for business receipts and net income: ${ }^{5}$ (1) royalties and (2) investment income (capital gains, dividends, interest). Since they are not found on these forms, for a given individual it could be difficult to tell whether income came from a business or a personal source. Additionally, some individuals have multiple sole proprietorships, which introduces greater uncertainty about the income source.

We will form an assumption about the amount of investment income and royalties coming from each sole proprietorship based on a review of sole proprietor statistics from the IRS Statistics of Income (see Descriptive Analyses).

## Identify amount of national gross receipts for DOR firms

In order to compute the credit based on "amount of business and occupation tax paid," we need the amount of national gross receipts. However, tax data normally used in the DOR Research and Fiscal Analysis (RFA) Division is adjusted to show only the Washington gross receipts.

Some firms, particularly larger ones, report national gross receipts to DOR. However, other firms report only Washington-apportioned receipts. Records for such firms often show the amount of Gross and Taxable as equal. Firms with no tax liability after credits have an effective tax rate of zero, and therefore we have no need to find their national receipts. The analysis outlined here excludes such firms.

[^2]To obtain national gross receipts, we will take the following steps.
First, we will refresh RFA data to show national receipts amounts, where this information is available. However, this step will provide only partial information, since some firms do not report their national gross to DOR.

Second, we will select unadjusted records and match them on FEIN with IRS business income tax returns data. However, we expect some records will not find a match in the IRS records.

Third, we will report on the amount of records remaining unmatched, in comparison to those matched. Matching success will be evaluated based on sector, firm size (gross receipts), and location (WA or not). Within unmatched records, we will report on the number for which the gross and taxable amounts are equal.

Based on this information, we will form an assumption to support an estimate of national receipts for records that remained unmatched.

## Estimate the amount of B\&O gross receipts for each individual

To calculate the credit amount, calculation (Figure 1 (a)) requires an estimate of the amount of B\&O tax paid. ${ }^{6}$ Since partners and shareholders share ownership of firms, for each firm, we need to allocate the amount of $B \& O$ paid across all partners / shareholders. To do this, we need the amount of gross receipts corresponding to an individual's business income.

For partners and shareholders, the IRS data lacks the amount of gross receipts, but reports on ordinary business income and other income components. To translate these income components to an estimated amount of gross receipts, we will apply information from the following IRS Statistics of Income tables, which reports business receipts and ordinary business income across all partnerships or S corporations, breaking out by industrial group. We will stratify the procedure on industrial group.

- IRS Statistics of Income (2020). SOI Tax Stats - S Corporation Statistics: Table 6.2: Returns with Net Income from a Trade or Business, Form 1120S: Balance Sheet and Income Statement Items, by Major Industry, Tax Year 2014. (https://www.irs.gov/statistics/soi-tax-stats-s-corporation-statistics\#basictables)
- IRS Statistics of Income (2020). SOI Tax Stats - Partnership Statistics by Sector or Industry: Table 2: Partnerships with net income: Total assets, trade or business income and deductions, portfolio income, rental income, and total net income (loss), by industrial group, tax year 2017. (https://www.irs.gov/statistics/soi-tax-stats-partnership-statistics-by-sector-or-industry)


## Descriptive Analyses

Summary using SOI Statistics
For partnerships described in SOI Table 5, produce barcharts showing the income items composing Total income (loss). Produce one chart summarizing "all industries." Produce additional charts for the industries with the greatest amounts of income, so that at least 80 percent of the income is described.

For S-Corporations, make barcharts analogous to the partnership charts. Describe income components making up Total Receipts in SOI Table 6.1 and Portfolio Income in SOI Table 7.

For sole proprietors, we will produce barcharts showing total business receipts by industry, as shown in SOI Table 2.

[^3]
## Summary using IRS Returns Data

We will produce Table 1.

Table 1. Business income subject to the B\&O and number of businesses, by AGI bracket.

|  | Counts |  |  |  | Business Income (positive amounts only) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | All filers | Filers with taxable business income ${ }^{7}$ | Mean number businesses | Total AGI | Total | Subject to B\&O |
| All filers |  |  |  |  |  |  |
| AGI <br> Bracket 1 |  |  |  |  |  |  |
| AGI <br> Bracket 2 |  |  |  |  |  |  |
| Etc. |  |  |  |  |  |  |

## Summary using Revenue Data

Using Department of Revenue excise tax data, we will produce the following table.
Table 2. B\&O tax due after credits, by amount of business receipts, FY2019.

|  | Count | Washington Gross | Tax Due After Credits |
| :--- | :--- | :--- | :--- |
| All firms |  |  |  |
| Receipts Bracket 1 |  |  |  |
| Receipts Bracket 2 |  |  |  |
| Etc. |  |  |  |

## Prepare Data

## Prepare DOR data

Before beginning the matching procedures, we will create a table listing B\&O national gross receipts and final tax due (after credits) for 2017 income. To include NAICS, FEIN, and address, we will match in these items from the most recent Name-Address file available.

## Match IRS Individual Returns with DOR data

Data match procedures are intended to answer the following for each firm in the IRS data:

1. What is the industrial sector for this firm?

[^4]2. Did this firm pay B\&O tax?

We will take the following steps:

1. Match firms in the IRS data with firms in the B\&O table; this obtains the NAICS code and B\&O tax information.
2. Match non-matches from step 1 to firms in the IRS business returns; this obtains the NAICS code and allows a classification as C corporation, S corporation or partnership. Making this distinction allows us to report effectively on matching success.

We will report on amounts matched in two ways:

- Figure 3 shows the intersection between datasets.
- Table 3 will report on the success of matching NAICS.


Figure 2. We will report on the success of matching procedures by reporting on percentages of records and gross receipts or income that matched or didn't match, among businesses reporting positive investment income.

Table 3. This table will report on the success of matching procedures to find NAICS codes.

| Found NAICS | Count (n, \%) | Income (amount, \%) |
| :---: | :---: | :---: |
| Yes |  |  |
| No |  |  |

## Produce matched table

We will produce a table with the form shown in Table 4.

Table 4. Table for 2017 listing Washington business with B\&O tax due. Only firms with matches to business income reported by Washington individuals are included.

| FEIN ${ }^{8}$ | NAICS | B\&O National Gross <br> Receipts | Final Tax Due |
| :--- | :---: | :---: | :---: |
| FEIN 1 |  |  |  |
| FEIN 2 |  |  |  |
| FEIN 3 |  |  |  |
| Etc. |  |  |  |

[^5]
## Adjust for false misses

DOR data is missing FEINs for some businesses. Therefore, the failure to match on FEIN between IRS data and DOR data is not conclusive evidence that a firm is not a Washington business. We will call such records false misses. We will perform a two-step procedure to compensate for false misses.

## Step 1: Review the largest businesses.

From both the IRS firms and the DOR firms, select the top ten or twenty firms that were unmatched. Use manual procedures to attempt a match between datasets. Such procedures could include looking for similar names in the data and/or looking up a corporation's FEIN on the Securities and Exchange Commission's website.

## Step 2: Assume certain firms were false misses.

We will perform the following analysis, stratifying procedures on firm's total income, industrial sector, and location (Washington or other).

We assume that DOR records with missing FEINs would have the same match rate with IRS records as records with FEINs. In aggregate, the ratio of unmatched tax due to matched tax due among corporations and LLCs is 16 percent divided by 84 percent, yielding a ratio of 0.19 . The following steps use these amounts to illustrate the procedure.

1. Sum up the amount of taxable B\&O income in the IRS data that matched to DOR data.
2. Multiply this by the ratio obtained above, 0.19.
3. Randomly select firms from the IRS data. Compute a cumulative sum of $B \& O$ taxable income until the amount from \#2 is reached. Assume these firms were false misses.

## Calculate credit amount

## Prepare for calculation

For each individual, identify whether they reported business income.
Classify business income as exempt or taxable, for the purpose of the B\&O tax:

- Investment income is only subject to the tax for firms in the financial sector.
- Rental income is exempt.
- All other gross receipts are subject to the tax.

Create a table to report on income amounts for each combination of individual and business (Table 5).
Table 5. We will produce a new table to list each combination of individual and business, as shown here.

| Individual |  |  |  |  |  | Business |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SSN | B\&O <br> Taxable Income | B\&O <br> Estimated <br> Gross | PIT due | AGI from business income | AGI | FEIN | NAICS | National Gross | $\begin{aligned} & \text { B\&O } \\ & \text { Tax } \\ & \text { Due } \end{aligned}$ |
| 999 |  |  |  |  |  | 888 |  |  |  |
| 999 |  |  |  |  |  | 777 |  |  |  |
| 998 |  |  |  |  |  | 888 |  |  |  |
| 998 |  |  |  |  |  | 777 |  |  |  |

## Calculate credit

For each firm treated as a false miss, we will impute the amount of national receipts, whether it is in the financial sector. We will take the following steps to estimate the credit amount for each individual.

Estimate (a) of credit (amount of B\&O tax paid): For eligible individual-business pairs, for taxable business income ${ }^{9}$, we will take the following steps:

1) Divide the individual's estimated amount of gross receipts ${ }^{10}$ by the firm's amount of national gross receipts to obtain the share of national receipts allocated to the individual.
2) Apply this share to the B\&O tax due to arrive at the individual's "amount of B\&O tax paid."11

## Estimate (b) of credit, based on AGI:

1) For each individual, we will compute the Washington personal income tax due, before credits. ${ }^{12}$
2) For eligible individual-business pairs, for taxable business income, compute the amount of the individual's AGI attributable to the business income ${ }^{13}$, as follows:
a) Partnerships and S-Corps: Total up K-1 income items that are subject to the B\&O tax and subtract deductions shown on K-1 forms.
b) Sole proprietors: Sum up:
i) Gross receipts or sales (Sch. C) or gross income (Sch. F) and any amounts shown in other schedules (i.e., investment income, royalties) that are subject to the B\&O tax.
3) Estimate the credit as the amount from Item 2 divided by the total AGI, multiplied times the personal income tax due before credits.

Compare credit amounts from steps (a) and (b). The final credit amount is the smaller of the two.

## Forecast credit

For each individual with a B\&O credit, we need to forecast the amount of the credit to future years. We will match the 2017 credit amount for each individual into the Aged Returns dataset. ${ }^{14}$ For each individual and forecasted year, we begin with the credit amount for TY2017, and apply growth rates from the Washington Economic and Revenue Forecast Council forecast for total B\&O collections deposited to the General Fund-State. ${ }^{15}$

Starting with FY2021, the estimate will also reflect recently enacted B\&O tax reform and workforce education investment funding under ESSB 6492 (2020). Funds collected under this act will be deposited into the new Workforce Education Investment Account, and either the Economic and Revenue Forecast Council or the Department of Revenue will begin publishing forecasts for this account in June 2020. We will apply information from this forecast to estimate the amount of the B\&O credit.

[^6]
## Appendix A: References

## Washington legislation

During the 2003 legislative session, four bills were introduced on the topic of a personal income tax:

- Washington State Legislature (2003). SB 5056: Implementing tax reform. (https://app.leg.wa.gov/billsummary?BillNumber=5056\&Year=2003\&Initiative=false)
- Washington State Legislature (2003). SB 5057: Implementing tax reform. (https://app.leg.wa.gov/billsummary?BillNumber=5057\&Initiative=false\&Year=2003)
- Washington State Legislature (2003). SB 5449: Implementing tax reform. (https://app.leg.wa.gov/billsummary?BillNumber=5449\&Initiative=false\&Year=2003)
- Washington State Legislature (2003). SB 5902: Providing additional funding for the support of the common schools and state institutions of higher education.
(https://app.leg.wa.gov/billsummary?BillNumber=5902\&Initiative=false\&Year=2003)

During the 2020 legislative session, legislation was enacted on the topic of $B \& O$ tax reform:

- Washington State Legislature (2020). SB 6492: Addressing workforce education investment funding through business and occupation tax reform.
(https://app.leg.wa.gov/billsummary?BillNumber=6492\&Year=2019\&Initiative=false)


## IRS Statistics of Income Reports

IRS Statistics of Income (2020). SOI Tax Stats - Nonfarm Sole Proprietorship Statistics: Table 2 Income Statements - 2017. (https://www.irs.gov/statistics/soi-tax-stats-nonfarm-sole-proprietorship-statistics)

IRS Statistics of Income (2020). SOI Tax Stats - Partnership Statistics by Sector or Industry: Table 5: Partnerships with Income (Loss) Allocated to Partners, by Industrial Group - 2017. (https://www.irs.gov/statistics/soi-tax-stats-partnership-statistics-by-sector-or-industry)

IRS Statistics of Income (2020). SOI Tax Stats - Partnership Statistics by Sector or Industry: Table 2: Partnerships with net income: Total assets, trade or business income and deductions, portfolio income, rental income, and total net income (loss), by industrial group, tax year 2017. (https://www.irs.gov/statistics/soi-tax-stats-partnership-statistics-by-sector-orindustry)

IRS Statistics of Income (2020). SOI Tax Stats - S Corporation Statistics: Table 6.2: Returns with Net Income from a Trade or Business, Form 1120S: Balance Sheet and Income Statement Items, by Major Industry, Tax Year 2014. (https://www.irs.gov/statistics/soi-tax-stats-s-corporation-statistics\#basictables)

IRS Statistics of Income (2020). SOI Tax Stats - S Corporation Statistics: Table 7: Portfolio Income, Rental Income, and Total Net Income, by Major Industry, Tax Year 2014. (https://www.irs.gov/statistics/soi-tax-stats-s-corporationstatistics\#basictables)

## IRS forms

IRS (2017). Schedule C (Form 1040): Profit or Loss From Business (Sole Proprietorship) (https://www.irs.gov/pub/irs-prior/f1040sc--2017.pdf)

IRS (2017). Schedule E (Form 1040): Supplemental Income and Loss (From rental real estate, royalties, partnerships, S corporations, estates, trusts, REMICs, etc.) (https://www.irs.gov/pub/irs-prior/f1040se--2017.pdf)

IRS (2017). Schedule F (Form 1040): Profit or Loss From Farming. (https://www.irs.gov/pub/irs-prior/f1040sf--2017.pdf)
IRS (2017). Schedule K-1 (Form 1065): Partner's Share of Income, Deductions, Credits, etc. (https://www.irs.gov/pub/irs-prior/f1065sk1--2017.pdf)

IRS (2017). Schedule K-1 (Form 1120S): Shareholder's Share of Income, Deductions, Credits, etc. (https://www.irs.gov/pub/irs-prior/f1120ssk--2017.pdf)

## Appendix B: Data Tables

Below, we list the tables and variables we will use.

## IRS - Individual Income Tax Returns

Dataset Name: Individual Master File (IMF) and Individual Return Transaction File (IRTF)
Filer Information

| Description | Comment |
| :--- | :---: |
| Filer's Taxpayer Identification Number |  |

Income Information (Summary-level)

| Description |  |
| :--- | :--- |
| Interest (taxable) | Line 8a |
| Dividends | Line 9a |
| Sole Proprietors (Sch. C) | Line 12 |
| Capital gains (net, Sch. D) | Schedule D, sum of Lines 16 \& 21. |
| Capital gains in AGI | Line 13 |
| Other Gains | Line 14 |
| Sch. E (S-Corps, Partnerships, Rent, Royalties) | Line 17 |
| Sole Proprietors (Sch. F) | Line 18 |
| Other Income | Line 21 |
| Adjusted Gross Income (AGI) | Line 37 |

## Schedule E (Supplemental Income and Loss)

Our data lists the following variables - both are from Line 32

| Description |  | Form 1040 Line |
| :--- | :--- | :--- |
| Partnership and S corporation income | Line 30 |  |
| Partnership and S corporation loss | Line 31 |  |

K-1 Forms (Income from partnerships and S-corporations)

For both types of K-1 forms, we will use the following variables from the IRMF dataset:

| Description | Comment |
| :--- | :--- |
| Filer's SSN | Indicates if this is a 1065, W-2, etc. |
| Document Code | Taxpayer Identification Number |
| Payer's TIN | Code indicates what sort of income is shown (e.g. <br> interest, dividends, royalties, etc.) |
| Amount Indicators 1 to 13 |  |
| Amounts 1 to 13 |  |

## Form 1120 S K-1 (S-Corporations) and Form 1065 K-1 (Partnerships)

Forms 1065 K-1 and 1120 S K-1 list income components subject to the B\&O. Our data includes some components but omits others:

| In our Data | 1 |
| :--- | :--- |
| Ordinary Business Income (Loss) | 1 |
| Guaranteed Payments to Partners ${ }^{16}$ | 4 |
| Interest Income (may K-1 Box negative) | 5 |
| Ordinary Dividends (may be negative) | 6 |
| Royalties (may be negative) | 7 |
| Net Short-Term Capital Gain (Loss) | 8 |
| Net Long-Term Capital Gain (Loss) | 9 a |
| Section 179 Deduction | 12 |

The following variables not found in the K-1 data are found in the individual returns data. However, the individual returns data sums up the amounts for some of these. We lack the following information for individual entity-filer combinations:

| Not found in K-1 data | Form 1065 K-1 Box |
| :--- | :--- |
| Qualified Dividends | 7 |
| Collectibles (28\%) gain (loss) | 9 b |
| Unrecaptured section 1250 gain | 9 c |
| Net section 1231 gain (loss) | 10 |
| Other income (loss) | 11 |
| Other deductions | 13 |

## Sole Proprietor Income

## Schedule C - Non-farm Sole Proprietors

Our dataset lists up to three Schedule Cs for each individual.

| FEIN (Business ID number) | Box D |
| :--- | :--- |
| NAICS code | Box B |
| Gross receipts or sales | Line 1 |
| Net profit/loss | Line 31 |

## Schedule F - Farms - Sole Proprietors

Our dataset lists up to two Schedule Fs for each individual.

| Description | Sch. F Line or Box |
| :--- | :--- |
| FEIN (Business ID number) | Box D |
| NAICS code | Box B |
| Gross income - Cash method | Line 9 |
| Gross income - Accrual method | Line $50^{17}$ |
| Net farm profit or loss | Line 34 |

## IRS - Business Income Tax Returns

Dataset Name: Business Master File (BMF). We will use:

- Federal Employer Identification Number (FEIN) and
- NAICS


## Department of Revenue

We will use three tables from DOR excise tax data.
Name-Address file - We will use the following variables:

- Account ID
- CustomerID
- FEIN
- NAICS
- Customer Name
- Account Name
- Address fields

B\&O Accounts (BNO_AcctAccm_cal2017).

- Account ID
- Gross
- Taxdue

[^7]Credits (AcctCredit_Cal2017)

- Account ID
- Credit code
- Credit Amount


## Appendix C: Gross Receipts Brackets

When we report descriptive statistics for business taxpayers, we will include tables stratified on amount of gross receipts. We will use the following cut points:

- Under \$25,000
- \$25,000 to under $\$ 100,000$
- $\$ 100,000$ to under $\$ 250,000$
- $\$ 500,000$ to under $\$ 1,000,000$
- $\$ 1,000,000$ to under $\$ 2,500,000$
- $\$ 2,500,000$ to under $\$ 5,000,000$
- $\$ 5,000,000$ to under $\$ 10,000,000$
- $\$ 10,000,000$ to under $\$ 50,000,000$
- $\$ 50,000,000$ to under $\$ 100,000,000$
- $\$ 100,000,000$ to under $\$ 250,000,000$
- $\$ 250,000,000$ or more


## Appendix D: Partnerships and S Corporations (2003 bill language)

The following text from SB 5056 (2003) provides for the taxable income of partners and S-corporation shareholders.
"NEW SECTION. Sec. 502 PARTNERSHIPS AND S CORPORATIONS.
(1) Partnerships are not subject to tax under this title. Partners are subject to tax in their separate or individual capacities.
(2) $S$ corporations are not subject to tax under this title. Shareholders of $S$ corporations are subject to tax in their separate or individual capacities.
(3) The taxable incomes of partners shall be computed by including a pro rata share of the modifications under sections 401 through 503 of this act and the credits allowed under sections 302,304 , and 305 of this act, if the modification or credit relates to the income of the partnership. Each partner's pro rata share of a modification or credit is the amount of modification or credit multiplied by a fraction. The numerator of the fraction is the partner's distributive share of partnership income. The denominator of the fraction is the total partnership income. The fraction shall never be greater than one.
(4) The taxable incomes of shareholders of $S$ corporations shall be computed by including a share of the modifications under sections 401 through 503 of this act and the credits allowed under sections 302,304, and 305 of this act, if the modification or credit relates to the income of the $S$ corporation. Each shareholder's share of a modification or credit is the amount of modification or credit multiplied by a fraction. The numerator of the fraction is the shareholder's pro rata share of $S$ corporation income. The denominator of the fraction is the total $S$ corporation income. The fraction shall never be greater than one.
(5) As used in this section:
(a) "S corporation income" includes both distributed and undistributed federal taxable income of the S corporation.
(b) "Pro rata share" means pro rata share as determined under section 1366(a) of the internal revenue code."

## Appendix E: Example Calculation of the Credit

As shown in Figure 1, two calculations are required to calculate the amount of the credit. One of these requires a calculation of the "amount of B\&O tax paid." In this section, we provide an example calculation, based on the amount of national gross receipts for a company.

Premium Services, an S corporation, has two shareholders, each holding a 50 percent interest in the company. Sharon lives in Washington and Matthew lives in Oregon. Thirty percent of the company's activity is apportioned to Washington, and 70 percent is in Oregon.

The company had $\$ 1$ million in gross receipts across both states. For the Washington B\&O tax, Premium Services reported $\$ 300,000$ in gross receipts. Tax due after deductions and credits was $\$ 3,000$. Its ordinary business income (OBI) was $\$ 190,000$.

Since each holds a 50 percent interest, Sharon and Matthew each reported half the OBI, $\$ 95,000$, on their federal individual income tax returns.

The Research and Fiscal Analysis (RFA) Division maintains data for each company and B\&O tax paid. Our record for Premium Services only shows Washington gross receipts, along with tax due (Table 5).

Table 3. Example of fields shown in Research and Fiscal Analysis data for an example business.

| WA Gross | Tax Due |
| :---: | :---: |
| 300,000 | 3,000 |

As a Washington resident, Sharon may take a credit against the personal income tax for the "amount of B\&O tax paid." How much credit can she take?

If we had full information about out-of-state shareholders like Matthew, the calculation would be simple. The total "amount of B\&O tax paid" was $\$ 3,000$. Since Sharon holds a 50 percent interest in the company, her "amount of B\&O tax paid" was half of that, or $\$ 1,500$.

However, our data lacks information on shareholders and partners residing outside of Washington, so we don't know that Sharon holds a 50 percent interest. Therefore, using only the IRS data and the RFA data, we can't calculate the "amount of B\&O tax paid" for Sharon's Premium Services income.

Obtaining the total (or national) gross receipts for Premium Services allows us to calculate Sharon's "amount of B\&O tax paid" without knowing that Sharon holds a 50 percent interest. We take the following steps:

1. Start with Sharon's OBI from Premium Services, $\$ 95,000$.
2. Convert this to the corresponding amount of gross receipts. On average, OBI is 19 percent of gross receipts. Dividing $\$ 95,000$ by 19 percent yields $\$ 500,000$ in gross receipts allocated to Sharon.
3. Obtain the amount of national gross receipts, $\$ 1,000,000$, from a separate dataset.
4. Compute Sharon's share of the national gross as $\$ 500,000$ divided by $\$ 1,000,000$, or 50 percent.
5. Apply Sharon's share, 50 percent, to the $B \& O$ tax due $, \$ 3,000$, to arrive at the "amount of $B \& O$ tax paid" allocated to Sharon, yielding \$1,500 (Table 6).

Table 4. Example showing calculation of "amount of B\&O tax paid."

| Ordinary <br> Business Income | Gross Receipts | National Gross | Sharon's Share of <br> National Gross | B\&O Tax Due | Sharon's <br> Amount of <br> B\&O Tax Paid |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | OBI is $19 \%$ of <br> Business receipts, <br> so divide by 0.19 <br> to get Gross <br> Receipts for <br> Sharon's share. | Obtain this from <br> other source: |  |  | Apply Sharon's <br> share of <br> national gross <br> to National <br> Tax Due |
| We have this: | 500,000 | $1,000,000$ | $50 \%$ | 3,000 | 1,500 |
| 95,000 |  |  |  |  |  |


[^0]:    ${ }^{1}$ Two calculations are needed to conform with the provisions of 2003 legislation. See Identify features of the B\&O credit below.

[^1]:    ${ }^{2}$ ESSB 6492 (2020)
    ${ }^{3}$ SB 5056 (2003), Sec. 304

[^2]:    ${ }^{4}$ See IRS Statistics of Income (2019). SOI Tax Stats - Partnership Statistics by Sector or Industry: Table 5: Partnerships with Income (Loss) Allocated to Partners, by Industrial Group - 2017. (https://www.irs.gov/statistics/soi-tax-stats-partnership-statistics-by-sector-or-industry)
    ${ }^{5}$ These are Schedules C and F.

[^3]:    ${ }^{6}$ Appendix E provides an example of the calculation.

[^4]:    ${ }^{7}$ Table will show only amounts subject to the B\&O tax: ordinary business income and royalties. Investment income is excluded since firms in most sectors are exempted.

[^5]:    ${ }^{8}$ We will match in the FEIN, NAICS, and address from the most recent dataset on file (NameAddress)

[^6]:    ${ }^{9}$ We call this income "taxable" for B\&O purposes, but it corresponds to the "Gross" B\&O amount in Department of Revenue data.
    ${ }^{10}$ See Estimate the amount of B\&O gross receipts for IRS individuals, above, for estimation method)
    ${ }^{11}$ Appendix E provides an example of this calculation.
    ${ }^{12}$ See Appendix C, part (2)(b)
    ${ }^{13}$ See Appendix C, part (2)(b)(i)
    ${ }^{14}$ For the IRS individual returns, we maintain a dataset with forecasted amounts for each income component. We call this the "aged returns."
    ${ }^{15}$ An example forecast is found at Washington Economic and Revenue Forecast Council (November 2019). Washington State Economic and Revenue Forecast (p. 61). (https://erfc.wa.gov/sites/default/files/public/documents/publications/nov19pub.pdf)

[^7]:    ${ }^{17}$ Line 9 should also show this amount, but we will look at the Line 50 variable also for the sake of comparison.

