Personal Income Tax Model

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Sara del Moral, Tax Policy Specialist
Research & Fiscal Analysis

Overview

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The assignment

A 2019 budget proviso requires us to update the 2002 Tax Structure Study.[1]

Update the data and research that informed recommendations and other analyses.

Estimate how much revenue the revenue replacement alternatives in the report would have generated for the 2017-19 biennium if implemented on January 1, 2003.

Estimate the tax rates necessary to implement all of the recommended revenue replacement alternatives in order to achieve the actual revenues generated during the 2017-19 biennium.

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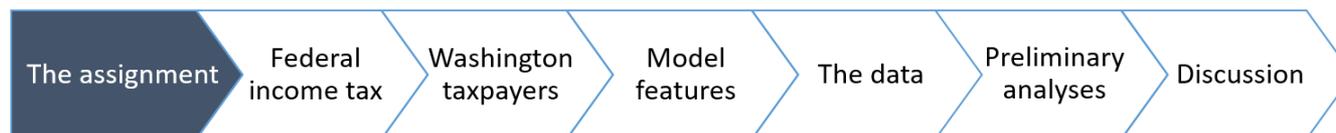
Personal income tax (PIT) proposals

Model both a flat rate tax and a graduated rate tax.

Models will feature various combinations of the following:

State sales tax

- Reduce or eliminate.

State property tax

- Maintain or eliminate.

State business and occupation tax

- Maintain or replace with a corporate income tax.

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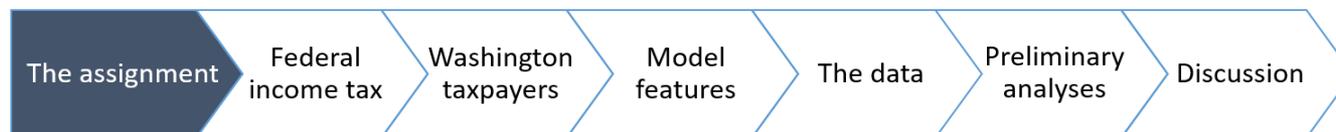
Federal income tax

Adjusted Gross Income (AGI) ≈ Total Income[2]

Total Income

Adjusted gross income (99%)

Adjustments (1%)
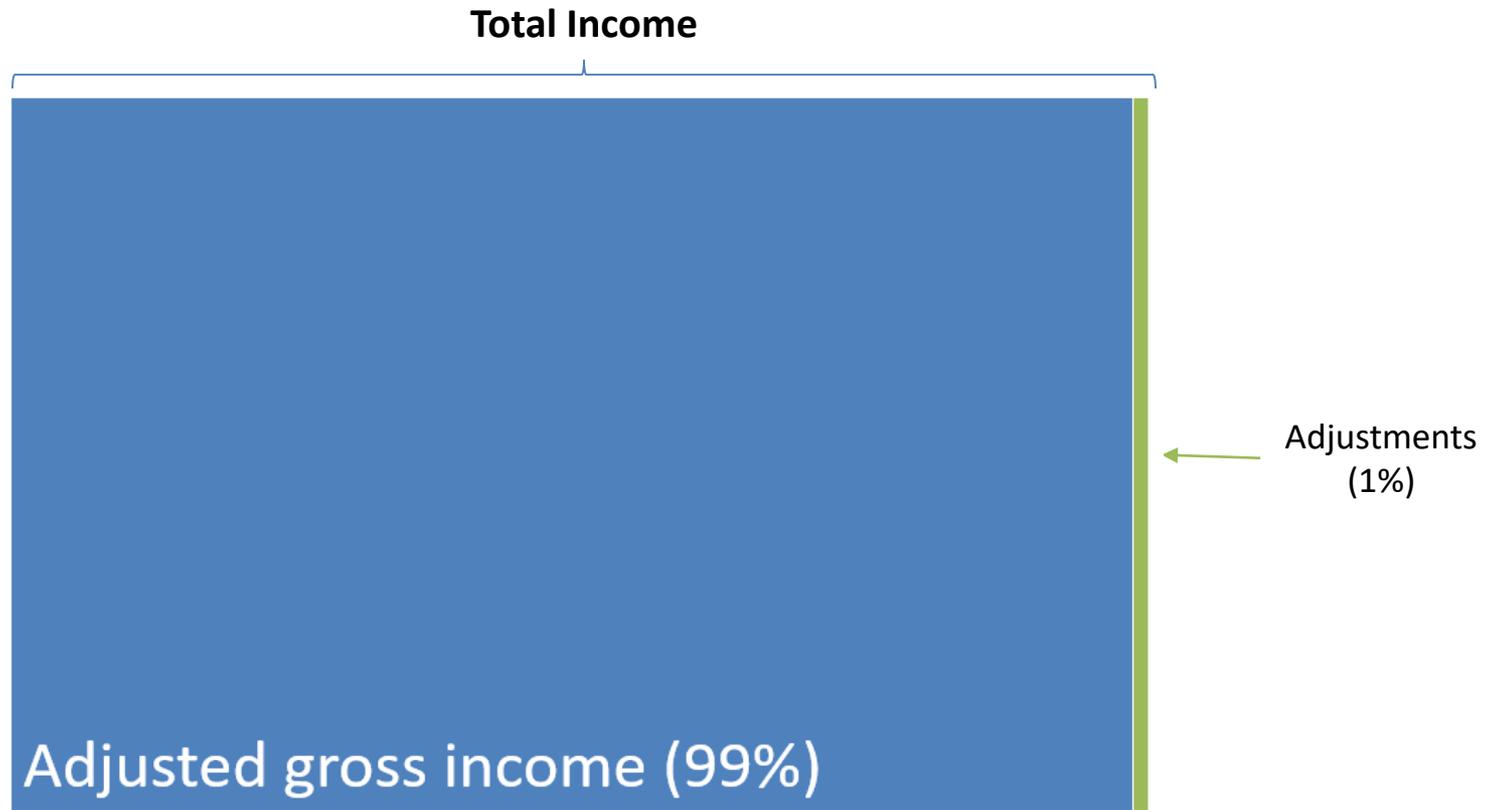
Income for Washington taxpayers, 2017

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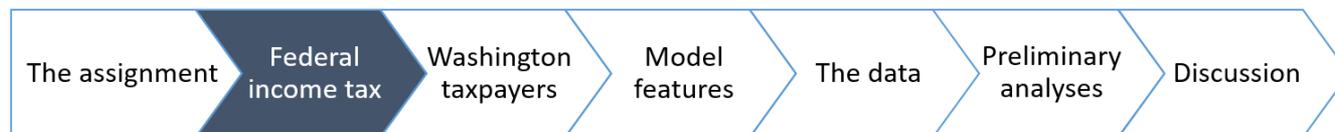
The federal individual income tax

**Adjusted gross income** (AGI) → starting point for Washington PIT.

For federal tax purposes, roughly **half of U.S. business activity** is reported as individual income:

- Some LLCs
- Some corporations
- Partnerships
- Sole proprietorships

Collectively known as ***pass-through*** entities

Several **significant changes to the individual income tax**, starting with 2018 tax year.

- Changes to *deductions* impact taxable income.
- Changes to *tax rates* impact tax due.

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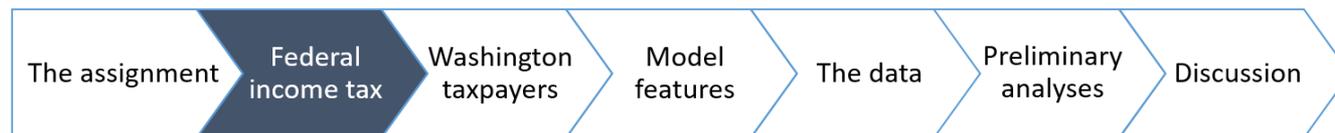
Federal reforms could impact WA tax base

Ongoing impact	**Qualified business income deduction.** • Firms not able to take this deduction may convert to C-corporations.
One-time impact	**State and Local Tax (SALT) deduction limits.** • New $10,000 limit on deductible amount of state/local tax payments. • High-income taxpayers may have accelerated significant amounts of income or payments to 2017. **Acceleration of bonus payments (wages) to 2017.** • Higher corporate tax rate in 2017 incentivized firms to make early bonus payments.

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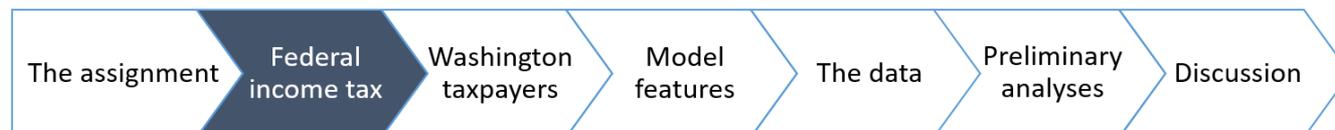
Washington taxpayers

Income components
Washington taxpayers, 2017[2]

Salaries & wages

Investment income:
- Business or personal sources.
- Capital gains
- Dividends
- Interest

Retirement Income

**Business income:**
- S-corporations
- Partnerships
- Sole proprietors

Investment Income (15%)

Wages & Salaries (66%)

Retirement Income (11%)

Business Income

8%

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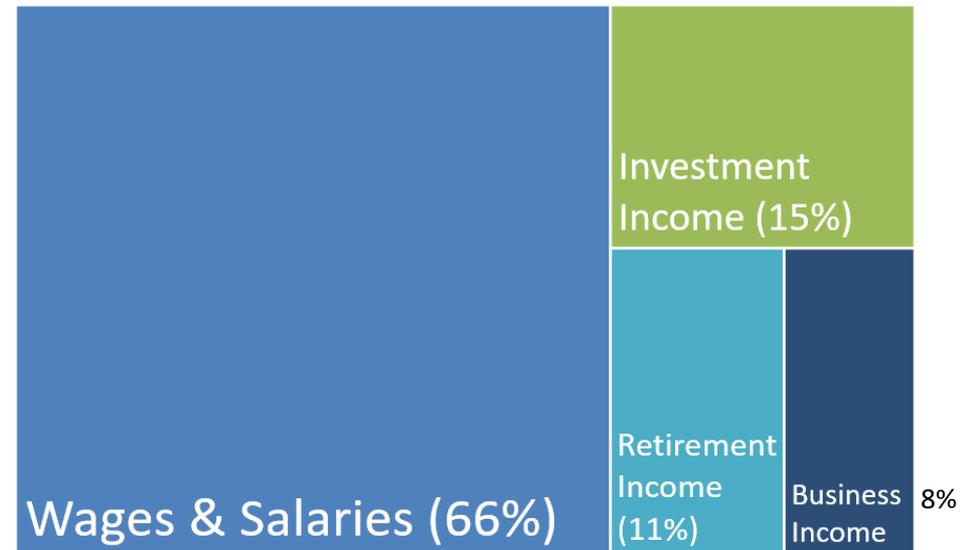
Income components by income level
Washington taxpayers, 2017[2]

Businesses

Retirement

Investments

Wages & Salaries

	All returns	$1 To 25K	$25K to $50K	$50K to $100K	$100K or more
Businesses	8%	6%	4%	4%	11%
Retirement	11%	13%	12%	17%	8%
Investments	15%				21%
Wages & Salaries	66%	77%	81%	75%	60%

Adjusted Gross Income

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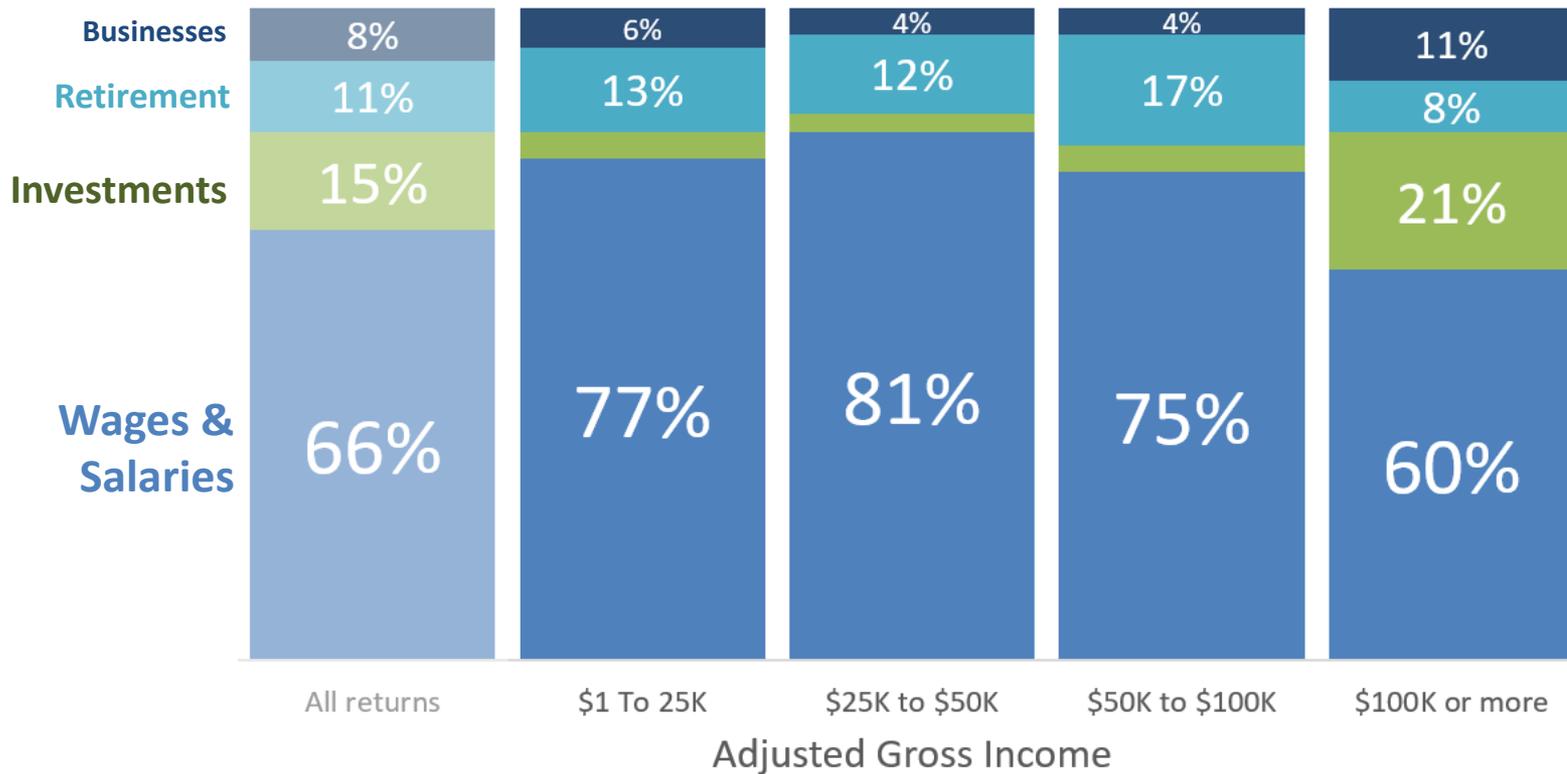
Filing status and older filers
Washington taxpayers, 2017[2]

Most filers are single or heads–of–household.

Single (49%)

Joint (40%)

Head of Household (11%)
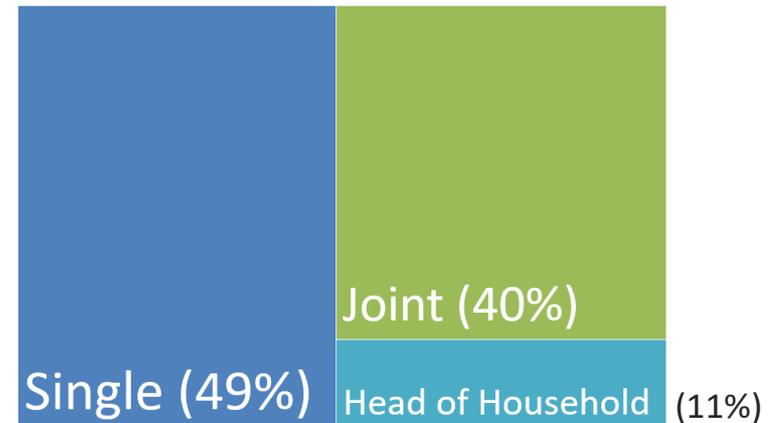
Higher-income filers are more likely age 65 or older.

Percentage Age 65+

AGI

$1 to $25K	21%
$25K to $50K	20%
$50K to $100K	28%
$100K or more	29%

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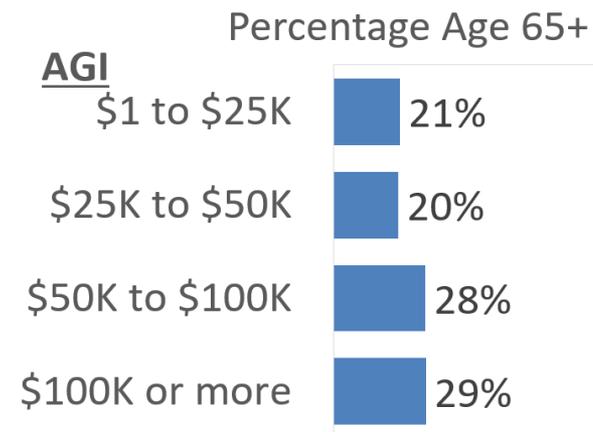
Number with dependents

Washington taxpayers, 2017[3]

Higher-income filers are also more likely to have dependents.[3]

Percentage with Dependents

AGI	Percentage
$1 to $25K	19%
$25K to $50K	31%
$50K to $100K	34%
$100K or more	44%

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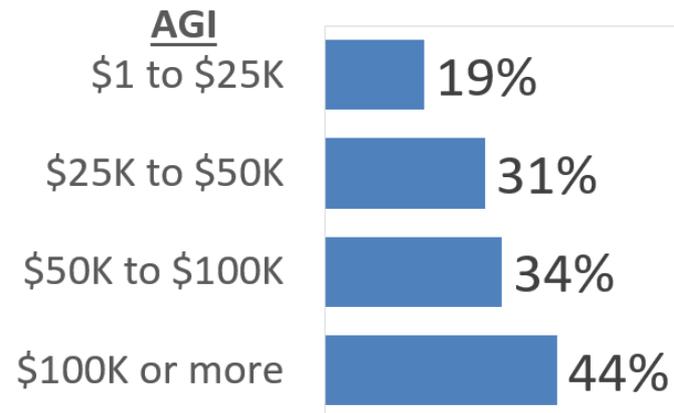
Model features

Calculation of WA personal income tax

[Taxable Income] = AGI – **Deductions – Exemptions**

- **Deductions** = [Standard Deduction] + [Elderly Deduction] + [Disabled Deduction]

- **Exemptions** = 2,900 x [Count of filer, spouse, dependents]

Tax = [Tax Rate] x [Taxable Income]

**Credits** = [B&O Credit][4] + [Out-of-State Credit]

Tax Due = Tax – Credits

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Calculation of WA personal income tax

Calculate a flat rate (3.4%) tax for an average taxpayer:
- Single filer, AGI = $50K, no kids
- Age < 65, not disabled
- No business income, no out-of-state tax.

Standard deduction
$5,000

Personal exemption
$2,900

Tax due
$1,600

Taxable = $42,100

AGI = $50,000

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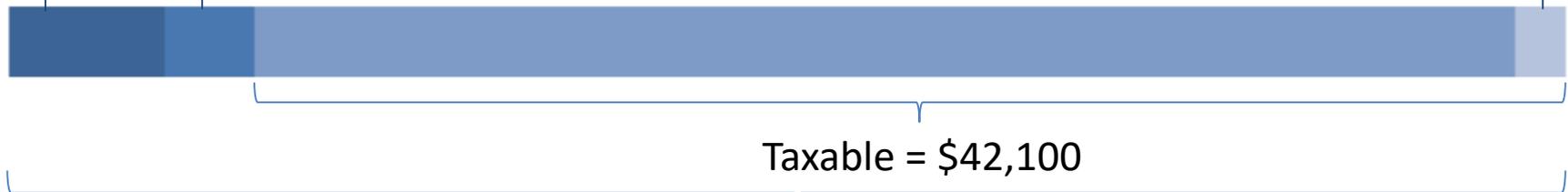
We "grow" income components from 2017.

Forecast source

WA ERFC[1]	I.H.S. Markit	Congressional Budget Office	IRS

Income components

WA ERFC[1]	I.H.S. Markit	Congressional Budget Office	IRS
Wages & Salaries	Dividends	Capital Gains	Number of Returns
Partnerships & S-corps	Interest		
Rent & Royalties	Retirement Income		
Sole Proprietors	Sole Proprietors of Farms		

For tax years 2018 and beyond, we assume **income components grow at rates determined by published forecasts.**

1. Washington Economic & Revenue Forecast Council

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Other assumptions

Implementation time: 18 months

We will use **2003 personal income tax bills** for guidance regarding certain tax features, including:
- Standard exemption
- B&O credit.

IRS provides some definitions, including:
- "Disabled"
- "Elderly"
- "Earned income"

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The data

IRS data: Individuals' returns

Dataset for **all Washington addresses** includes:
- Form 1040 – Most fields
- Underlying schedules – Key fields only (e.g., totals)

2017 tax year data:
- Returns filed or amended by August 2019.
- Two separate data pulls (Aug. 2018 and Aug. 2019)

Summaries based on our data can differ from other summaries
- Other sources may have used different data pulls.

Strict disclosure requirements apply
- Only aggregate summaries may be released.

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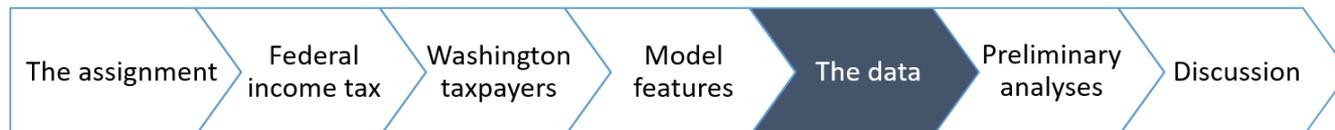
IRS data: W-2s and other forms

Forms relevant to the PIT model include:
- W-2: Wages
- 1065 K-1: Partner's Share of Income
- 1120S K-1: Shareholder's Share of Income
- 1099 forms

Records for all taxpayers in the returns dataset.

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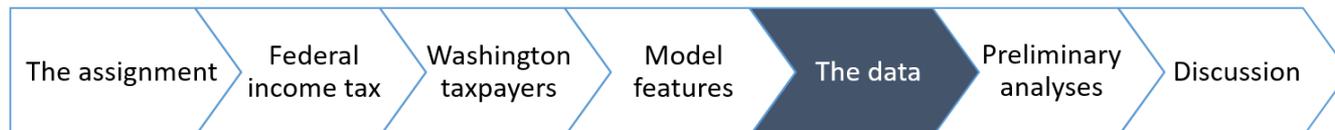
Preliminary analyses

Non-residents and the out-of-state credit

Tax Base = Income derived from Washington sources	Out-of-State Credit
Nonresidents are subject to the tax.	Credit allowed for amount of income tax paid to another jurisdiction.

Major income types to consider:
- Wages/salaries
- Capital gains and other investments
- Income from WA companies (partnerships, S-corporations)
- Rental income

We welcome suggestions on how to model this!

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Cost-of-living adjustments

Annual adjustments for deduction, exemptions, and thresholds, using the IRS inflation index.

→ Chained Consumer Price Index for Urban consumers (C-CPI-U)

Need a forecast for this index, but haven't located one.

Under consideration:

- Compare historic series for alternative indices with the historic C-CPI-U
- Determine whether a forecast for a different index could serve as a proxy for a chained CPI-U forecast.

We welcome suggestions on how to model this!

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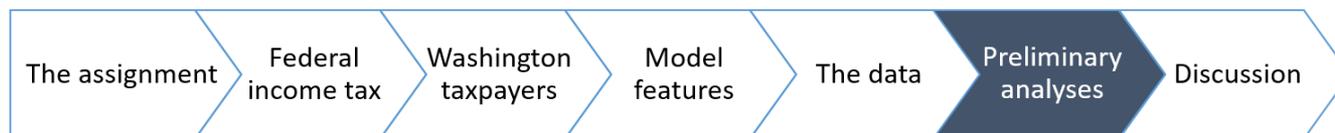
Timing of payments

Component	Description	Possible assumptions	Possible Data Sources
Withholdings	Employers must withhold wages monthly.	Ratio of withholdings to wages is constant year-to-year	• W-2 data • Urban Institute - Withholdings
Estimated Payments	High-income filers must make quarterly payments.	Ratio of estimated payments to total payments mirrors that in Urban Institute series	• IRS data – amount of income types not subject to withholding. • Urban Institute – Estimated payments & total data

We welcome suggestions on how to model this!

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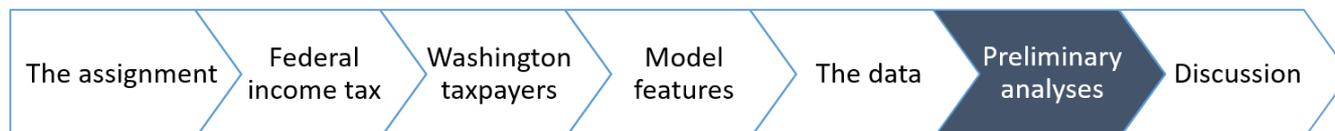
Corporate conversions

In response to federal tax reform:

- Significant amount of **pass-through business activity may be converting** to C-corporations.

- If this is occurring:
  - **Personal income** tax base is getting **smaller.**
  - **Corporate income** tax base is getting **bigger.**

- We **plan to obtain evidence** for whether this is happening for Washington tax bases.

More discussion at the March meeting…

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Endnotes

1. Gates, W.H. (2002). *Tax alternatives for Washington State.* Washington State Tax Structure Study Committee. (https://dor.wa.gov/about/statistics-reports/tax-structure-final-report)

2. Author's analysis, based on Internal Revenue Service (2019). *Tax Year 2017: Historic Table 2 (SOI Bulletin) for Washington.* (https://www.irs.gov/statistics/soi-tax-stats-historic-table-2)

3. Author's analysis, based on IRS individual returns data, Washington state, TY2017.

4. A B&O credit is a feature for all proposals we will model, except those in which a corporate income tax replaces the B&O tax.

Discussion

Questions for Advisory Group

1. Should we account for the **income of nonresidents**?

2. Should we model an **out-of-state credit**?

3. We need to find a reference **forecast for the Chained Consumer Price Index** (C-CPI-U). What sources should we consider?

4. For the graduated rate model, we need to decide on a **relationship between tax rates** across income brackets. What would you suggest?

5. How would you suggest **modeling the timing of payments**? (withholdings, estimated payments)

6. We may conduct analyses to support adjustments to the model, especially for **federal tax reform**. Which adjustments would you recommend considering?

   (e.g., corporate conversions, SALT deduction, bonus payments acceleration)

7. We **welcome suggestions** relating to data sources, background reading, and methods.

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Questions for us?

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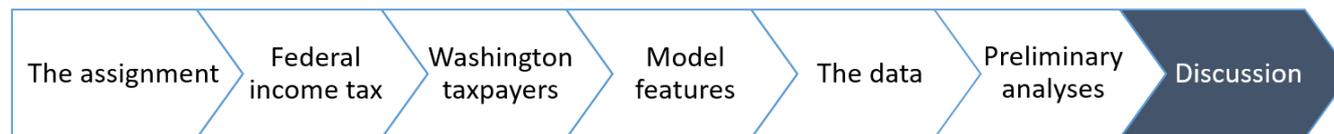
For more information…

Model Review document

Contact us:

Department of Revenue
Research and Fiscal Analysis Division

Analyst: Sara del Moral; sarad@dor.wa.gov; (360) 534-1525

Manager: Valerie Torres; valeriet@dor.wa.gov; (360) 534-1521