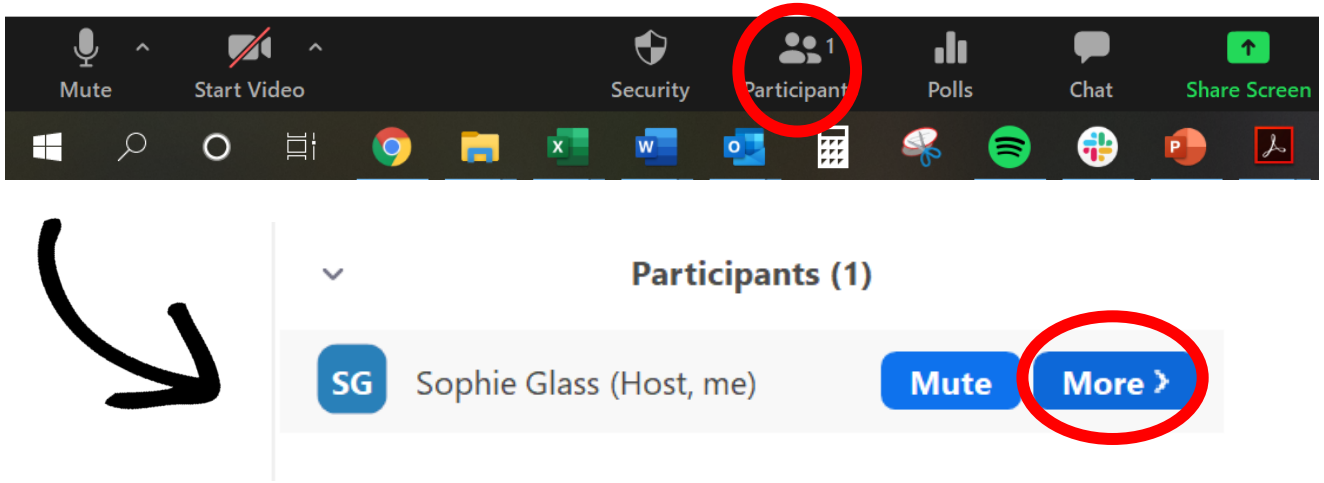
Tax Structure Work Group (TSWG) Meeting

December 4, 2020 from 8:00 AM to 12:00 PM

Meeting Set-Up

- For **participants** - Change your "participant name" to your name and affiliation.



- For **legislators** – Change your "participant name" to "Senator – Name" or "Rep – Name".

Welcome & Introductions

- Welcome from Tax Structure Work Group Co-Chairs
- Welcome to Tax Structure Work Group Members
- Welcome to legislators
- Welcome to participants

Technical Ground Rules

- Remain on mute unless speaking
- Send a chat directly to Kizz Prusia with any technical difficulties.
- Submit questions for presenters via chat*
- Want to provide public comment? Email TaxStructureWorkGroup@triangleassociates.com with your name and organization by 11 a.m.

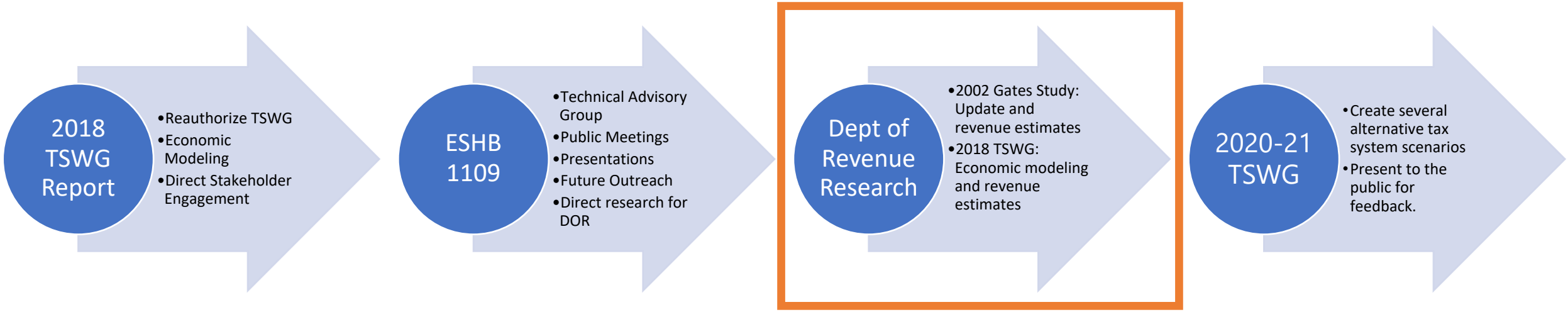
*All information entered into the chat box is part of the public record and will be shared as part of the public meeting summary.

Agenda

- Introductory and meeting overview
- Review of Budget Proviso Key Research Questions & Technical Advisory Group (TAG) Work
- Washington State Economic Competitiveness
- Technical Modeling Pt 1: Value Added, Margins, Corporate Income Net Receipts, and Business Burden
- Technical Modeling Pt 2: Personal Income and Household Burden
- Technical Modeling Pt 3: WA/OR/ID Tax and Alternative Property Tax
- Review of TSWG Report

Tax Structure Work Group: Overview of Economic Analysis

TSWG Economic Modeling Context



- The 2018 TSWG spelled out a series of requests for economic modeling.
- These were codified in ESHB 1109 (also authorizing the continuing work of TSWG in 2020-2021).
- Future work of the TSWG will create alternative tax scenarios.

TSWG Work Programs

- The 2002 Gates Study focused on a personal income tax and refinements to the B&O tax.
- The 2018 TSWG asked that elements of the 2002 Gates Study be updated, estimate alternatives to the B&O, and conduct additional analysis.

2002 Gates

Personal Income Tax
- Flat Rate
- Graduated Rate

Replace B&O with Value-added Tax

2018 TSWG

Replace B&O tax with Corporate Income/NR Tax or Margins Tax

Property Tax Rate Alternative

OR/ID Tax Structure

Household and Business Tax Burdens

Economic Competitiveness

Technical Work and Advisory Group

Department of Revenue

- Emphasized technical modeling
  - Determining the Washington tax base for each new tax
  - Economic analysis of the first incidence of the tax
- Recruited modeling resources
  - Secure resources outside the department to build capacity
  - Convene and consult Technical Advisory Group
- Conducted research on other proviso elements
  - Alternative property tax
  - OR/ID tax structure
- Contracted (e.g., interagency agreement) with Western Washington University for work on economic competitiveness

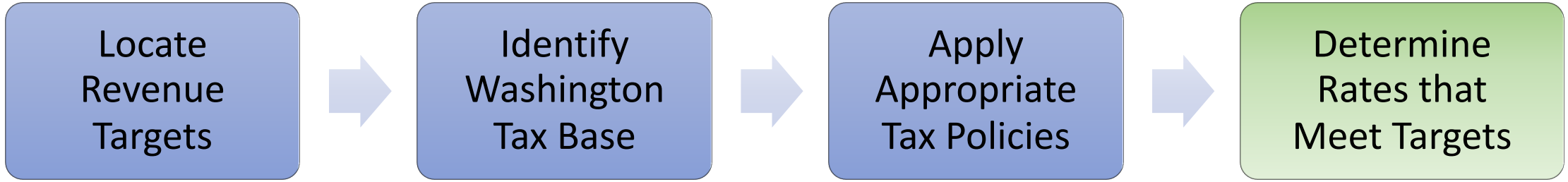
Technical Advisory Group

The Department created a technical advisory group to provide advice and assistance with analyzing and modeling taxes:

- Personal Income Taxes
- Corporate Income/Net Receipt Taxes
- Value-Added Taxes
- Household Burdens

Katie Baird	University of Washington Tacoma
Douglas Conrad, PhD	Professor Emeritus at the University of Washington
Lucy Dadayan, PhD	Urban Institute
Robert Hamilton	Washington State Department of Commerce
Rachelle Harris	House Finance Committee
Hart Hodges, PhD	Center for Economic and Business Research, Western Washington University
D. Patrick Jones, PhD	Eastern Washington University
Sharon Kioko, PhD	Evans School of Public Policy and Governance, University of Washington
Mike Nelson	Washington Society of Certified Public Accountants
Steve Lerch, PhD	Economic and Revenue Forecast Council
Jeff Mitchell	Senate Ways and Means Committee
Andy Nicholas	Washington State Budget & Policy Center
Pete Parcells, PhD	Economics Professor at Whitman College
Rick Peterson	Retired, former House Finance and DOR Research
Kriss Sjoblom, PhD	Washington Research Council
Nick Tucker	House Finance Committee

Modeling Approach



Current Washington Taxes

- Business and Occupation Taxes
- Retail Sales tax
- Property Tax
- Real Estate Excise Tax
- Public Utility Taxes

Potential Options for Change

- Corporate Income / Net Receipts
- Value Added Tax
- Margins Tax
- Personal Income Tax

Comparisons

- Business Tax Burden
- Household Tax Burden

Economic Competitiveness and Taxes

November 27, 2020

Hart Hodges & Brady Anderson

(with special thanks to Doug Conrad)

WESTERN WASHINGTON UNIVERSITY

Primary Task

To analyze our economic competitiveness in the context of a national and global economy, provide comparisons of the effective state and local tax rate of the tax structure during the 2017-2019 fiscal biennium and various alternatives under consideration, as they compare to other states and the federal government, as well as consider implications of recent changes to federal tax law

Competitiveness

The World Economic Forum offers the following definition:

"The set of institutions, policies and factors that determine the level of productivity of a country."

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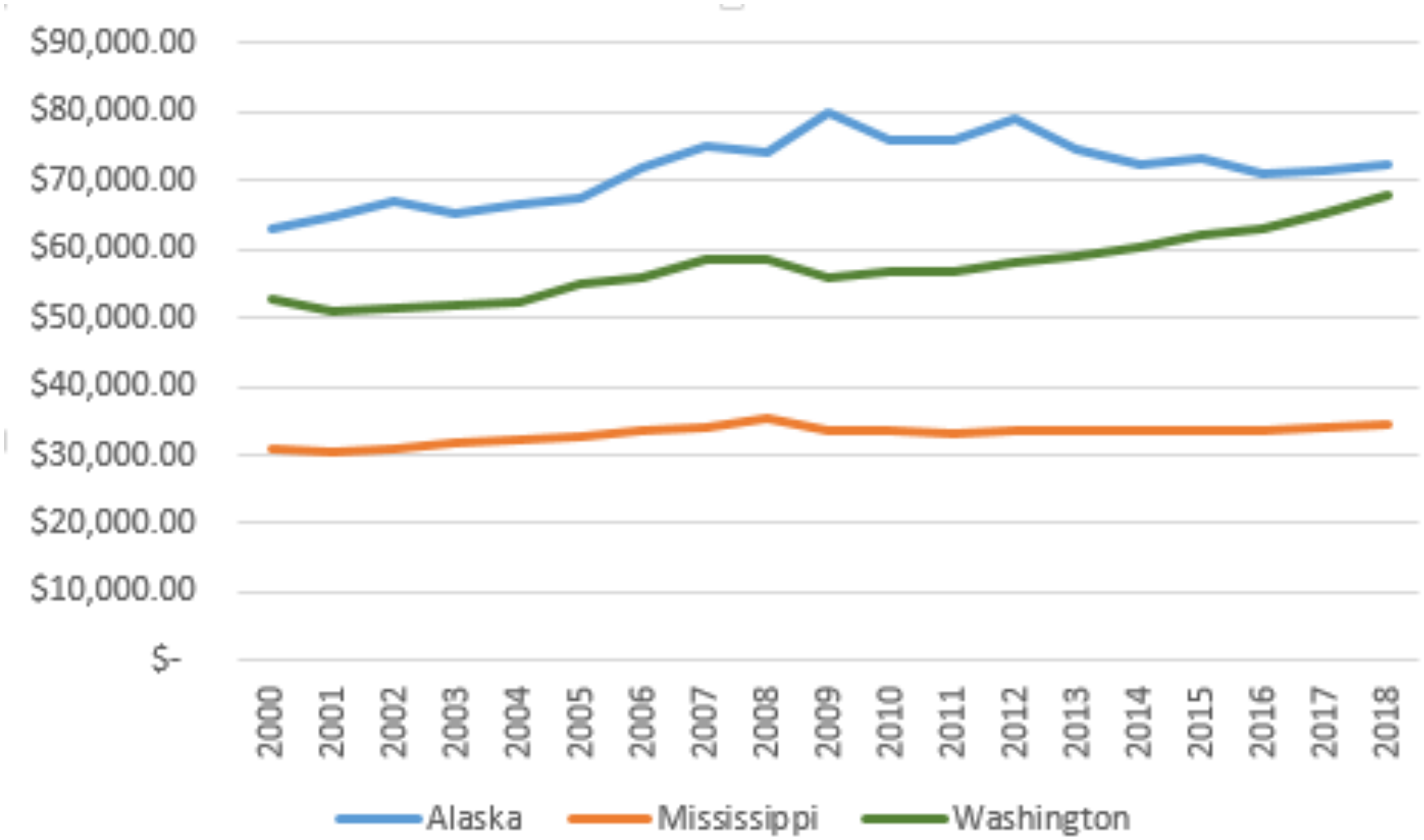
State

Taxes are only one component – not the whole story

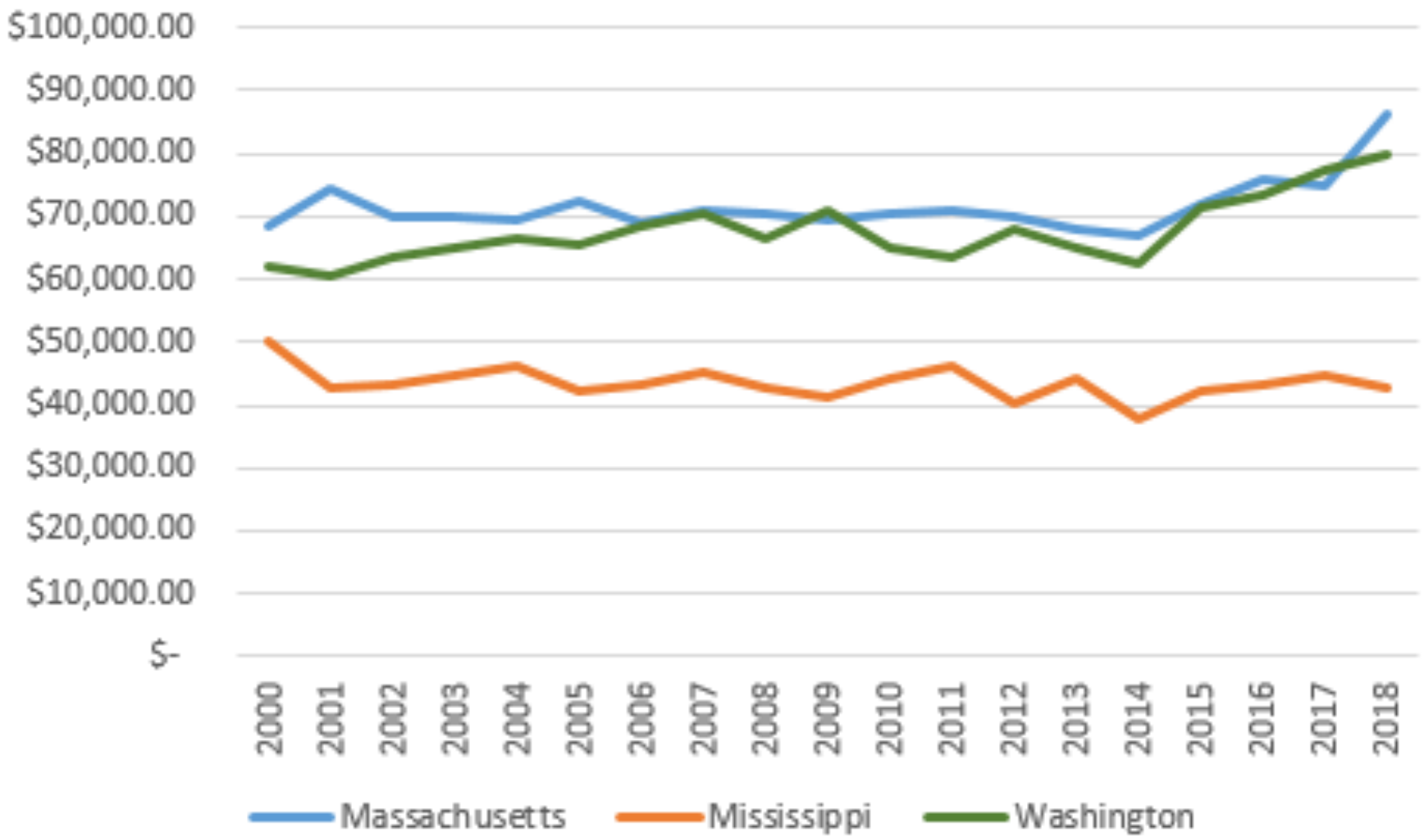
Competitiveness – how to measure it?

- Real GDP (state level) and GDP per capita
- Median household income
- Labor productivity
- Net business openings
- Beacon Hill Competitiveness Index

GDP per capita



Median Household Income

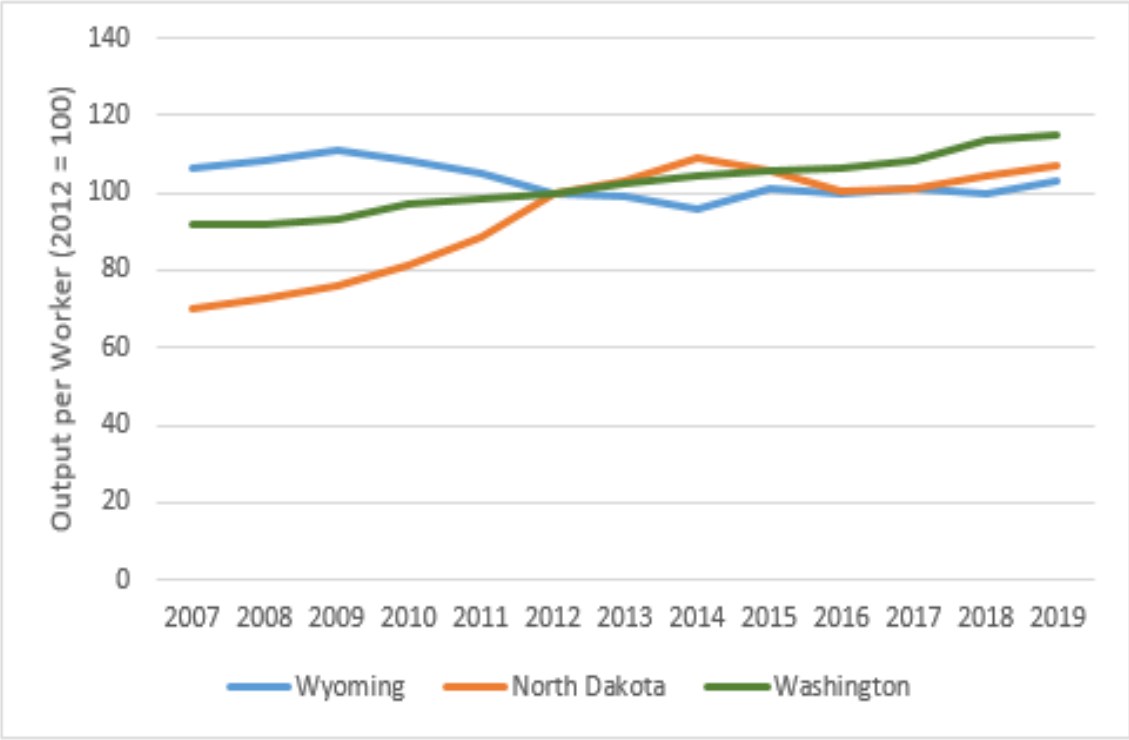


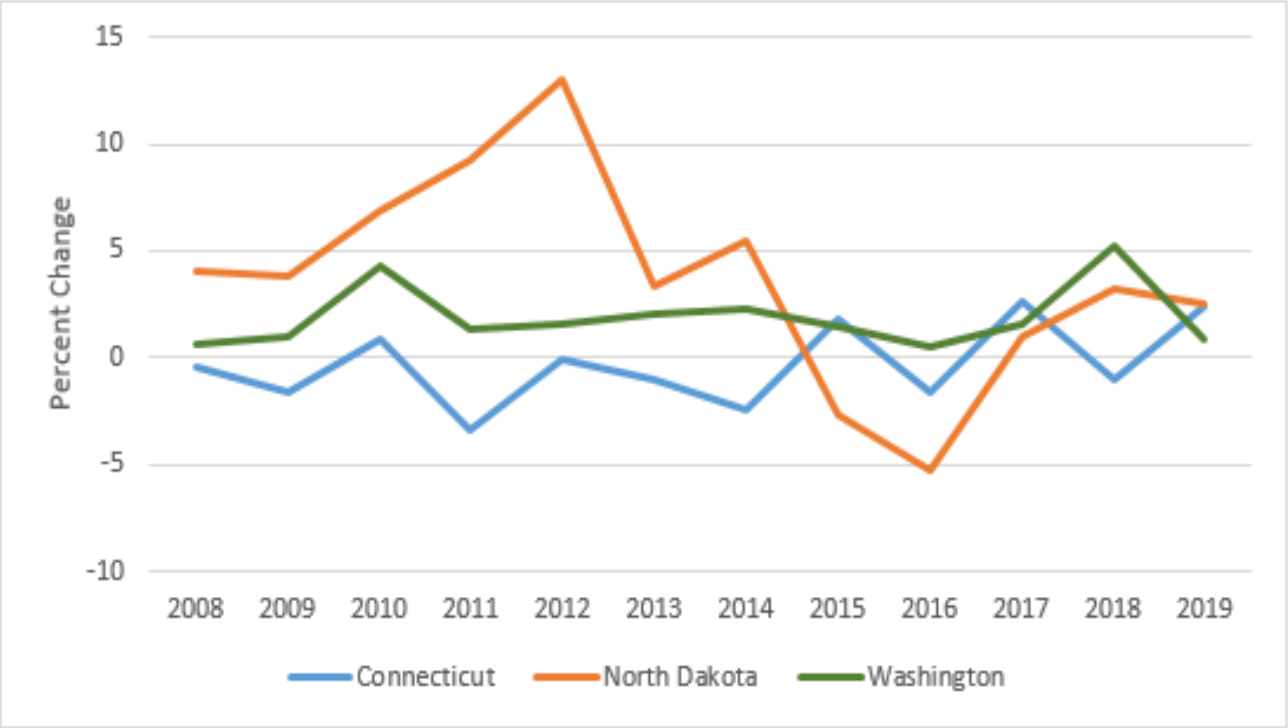
Median Household Income

State	Median Household Income (2018 $)				
	2014	2015	2016	2017	2018
Washington	62,714	71,271	73,573	77,256	79,726
California	64,221	67,448	69,729	71,459	70,489
Idaho	56,737	54,716	59,189	61,676	58,728
Massachusetts	67,049	71,926	75,620	75,012	86,345
Nevada	52,954	55,123	58,003	57,929	61,864
New York	57,662	61,480	64,288	63,969	67,274
Oregon	62,509	64,478	61,879	66,185	69,165
South Carolina	47,702	49,137	56,858	56,311	57,444
Texas	57,201	59,856	60,844	60,740	59,785

Source: US Census

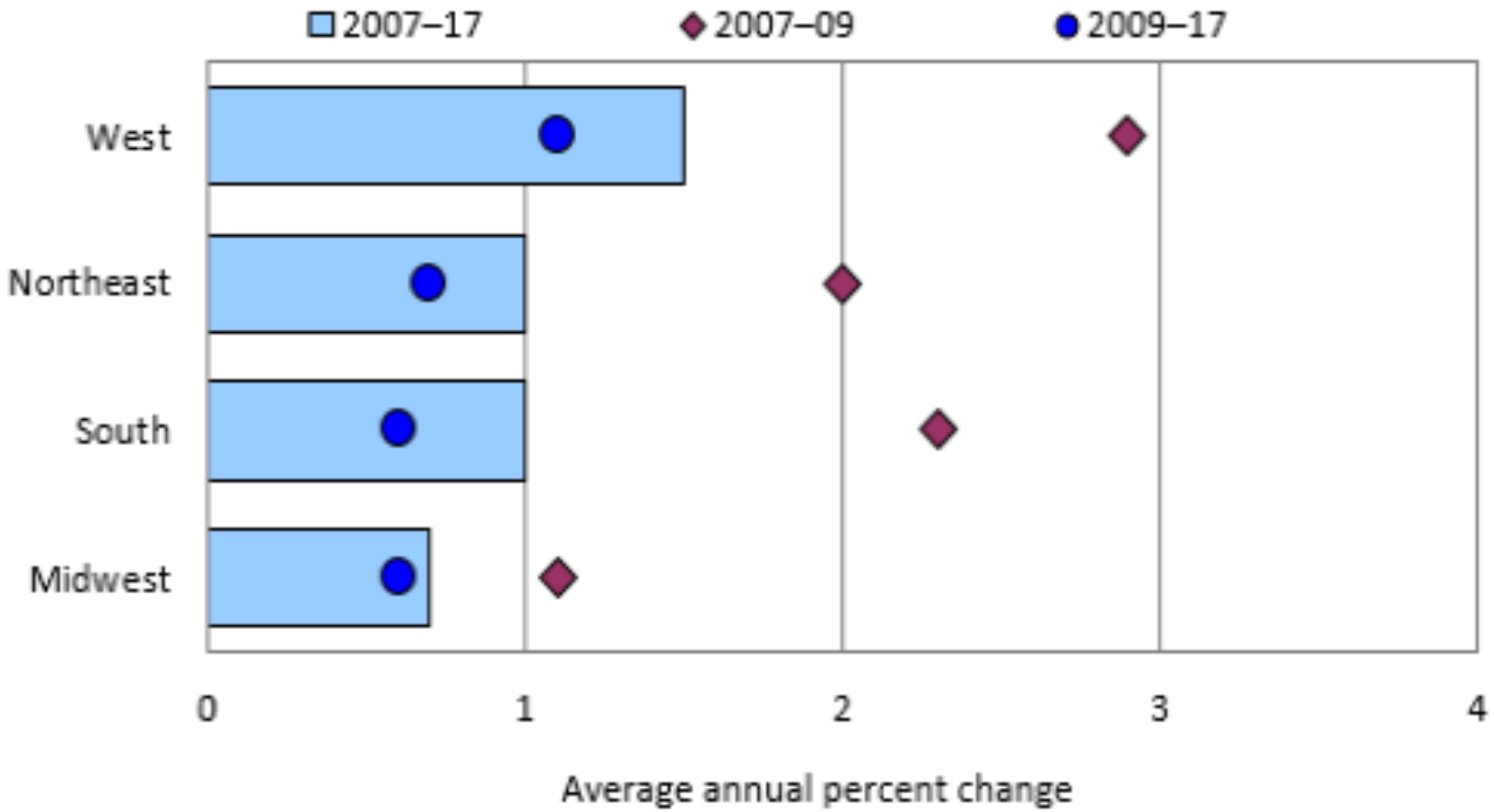
Labor Productivity





Labor Productivity

… a reminder from Census



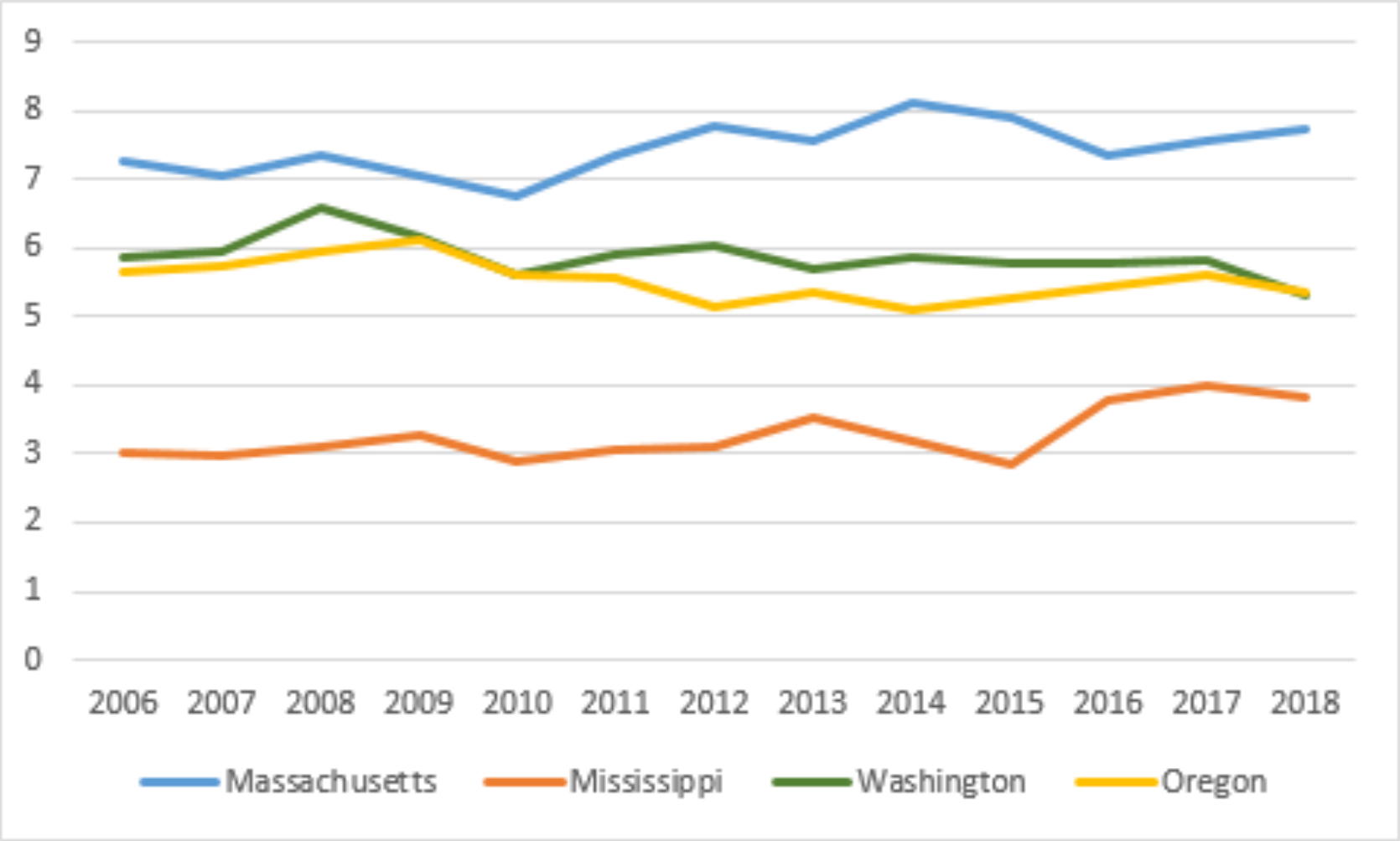
Labor Productivity, cont.

Table 3. Labor Productivity for Select States and Years

State	Output per Worker (2012 = 100)				
	2015	2016	2017	2018	2019
Washington	106.0	106.5	108.2	113.9	114.9
California	105.0	105.1	108.1	111.1	113.9
Idaho	101.0	102.1	103.6	105.5	105.0
Massachusetts	103.8	103.8	104.7	107.2	108.8
Nevada	95.6	95.7	95.3	96.8	96.4
New York	97.8	98.0	98.8	98.1	99.3
Oregon	103.6	104.7	107.4	109.1	110.9
South Carolina	100.2	100.9	103.0	103.4	104.9
Texas	105.0	103.9	105.0	106.8	110.0

Source: US BLS

Beacon Hill Index



Tax Burden

- Different measures of tax burden on households and/or individuals
  - Focused on tax burden on households – by income level
    - Data for residents of largest city in each state
      - Annual study conducted by District of Columbia

- Share of tax revenue from tax type (Data from U.S. Census)
  - Sales
  - Income
  - Other

Tax Burden – by Wallet Hub (2020)

Rank (1 = highest)	Sate	Total Tax Burden	Property Tax Burden	Income Tax Burden	Sales & Excise Tax Burden
1	New York	12.28%	4.44% (6)	4.40% (1)	3.44% (26)
2	Hawaii	11.48%	2.34% (38)	2.78% (10)	6.36% (1)
3	Vermont	10.73%	5.12% (2)	2.28% (25)	3.33% (28)
28	Oregon	8.34%	3.09% (20)	4.20% (2)	1.05% (50)
29	**Washington**	**8.32%**	**2.59% (34)**	**0.00% (44)**	**5.73% (3)**
30	Michigan	8.27%	3.06% (21)	2.18% (30)	3.03% (34)
49	Delaware	5.52%	1.85% (47)	2.47% (18)	1.20% (48)
50	Alaska	5.16%	3.71% (12)	0.00% (44)	1.45% (46)

Tax Burden – Corporate Tax Rates

Table 9. Corporate Tax Rates for Select States (2020)

	Tax Rate (%)	Note
Washington	0	Washington charges a gross receipts ("B&O") tax
California	8.84	
Idaho	6.9	
Massachusetts	8.0	
Nevada	0	Nevada charges a gross receipts tax for business with receipts above $4 million
New York	6.5	
Oregon	6.6 – 7.6	Oregon has multiple brackets
South Carolina	5.0	
Texas	0	Texas imposes a franchise tax or margin tax

Source: Tax Policy Center

Data for other states and years are available at https://www.taxpolicycenter.org/statistics/state-corporate-income-tax-rates

Tax Burden – Source of Revenues

Table 10. Source of State Tax Revenues (2019)

	Percent of Total			
	Property Tax	**General Sales Tax**	**Total Income Tax**	**Corporate Tax**
Washington	0.12	0.59	0	0
California	0.02	0.22	0.60	0.07
Idaho	0	0.39	0.40	0.06
Massachusetts	0	0.21	0.63	0.09
Nevada	0.03	0.56	0	0
New York	0	0.17	0.64	0.05
Oregon	0	0	0.77	0.07
South Carolina	0	0.31	0.46	0.04
Texas	0	0.60	0	0

Source: US Census

Tax Burden – for households

Table 1a: 2018 Estimated Burdens of Major Taxes for a Hypothetical Family Earning $25,000/Year

RANK	CITY	ST	TAXES				BURDEN	
			INCOME 2/	PROPERTY 3/	SALES 4/	AUTO	AMOUNT	PERCENT
1	Philadelphia	PA	1,738	1,589	865	340	4,533	18.1%
2	Seattle	WA	-	2,621	1,271	438	4,330	17.3%
3	Birmingham	AL	958	1,348	1,485	231	4,022	16.1%
4	Honolulu	HI	0	2,608	797	374	3,779	15.1%
5	Los Angeles	CA	0	2,077	1,122	492	3,691	14.8%

Factors considered along with tax burden

- Place or “fixed effects” as a proxy for key variables
  - Environmental attractiveness
  - Infrastructure (from broad band to highways and airports)
- Also considered population density in some model runs

- Education

- Cost of living

- Poverty

Place Matters

The Red And Orange Sections Have Equal Populations

The average annual salary in 'Publishing Industries, Except Internet' was $258,000 in 2019 in Seattle; compared to $133,500 nationally

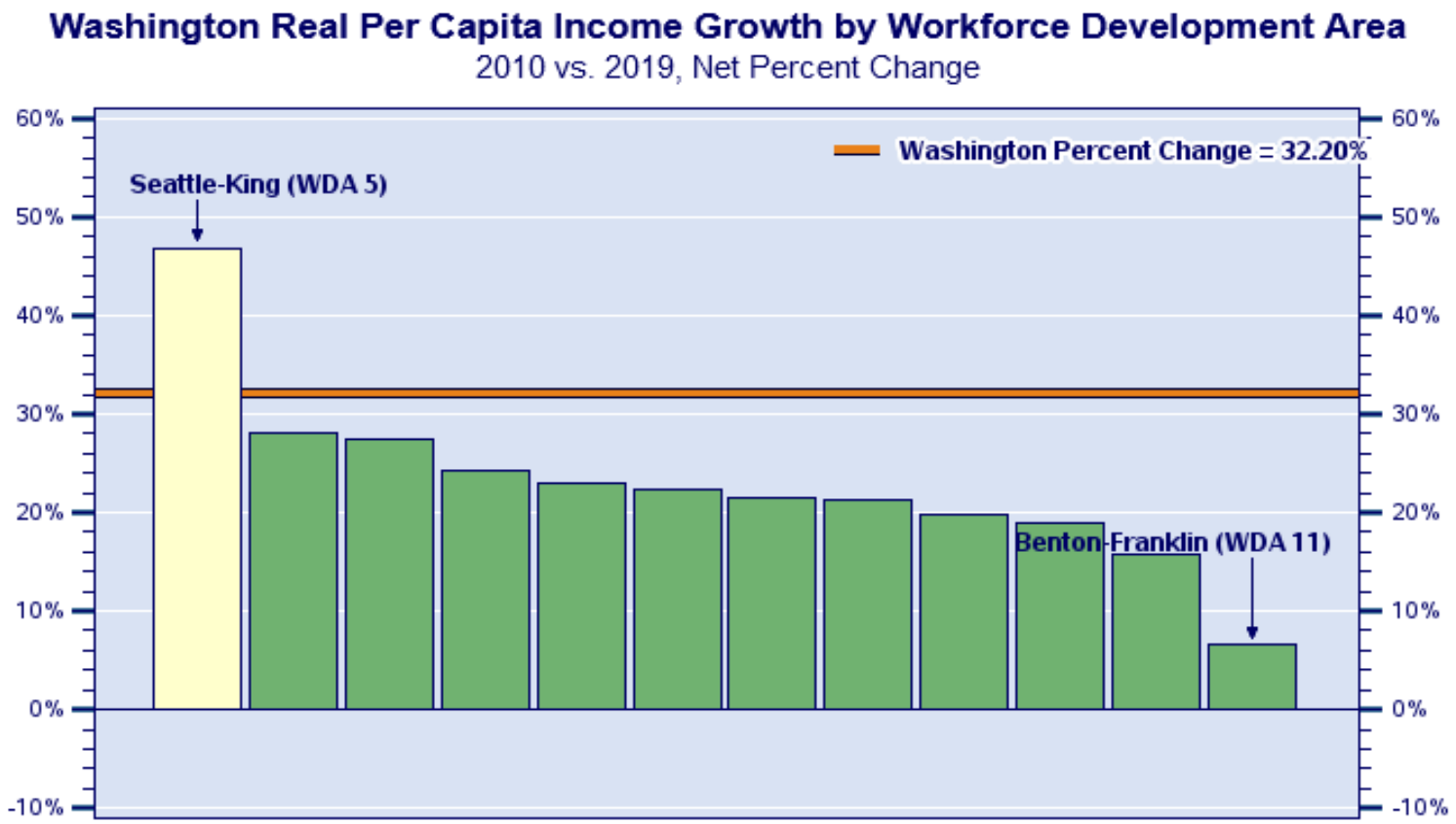
BUSINESS

Why America's Richest Cities Keep Getting Richer

They are not just the places where the most ambitious and talented people want to be—they are where such people feel they need to be.

RICHARD FLORIDA APRIL 12, 2017

Differences Within the State



Source: Washington.REAProject.org
Data: Regional Income Division, BEA (11-17-2020)

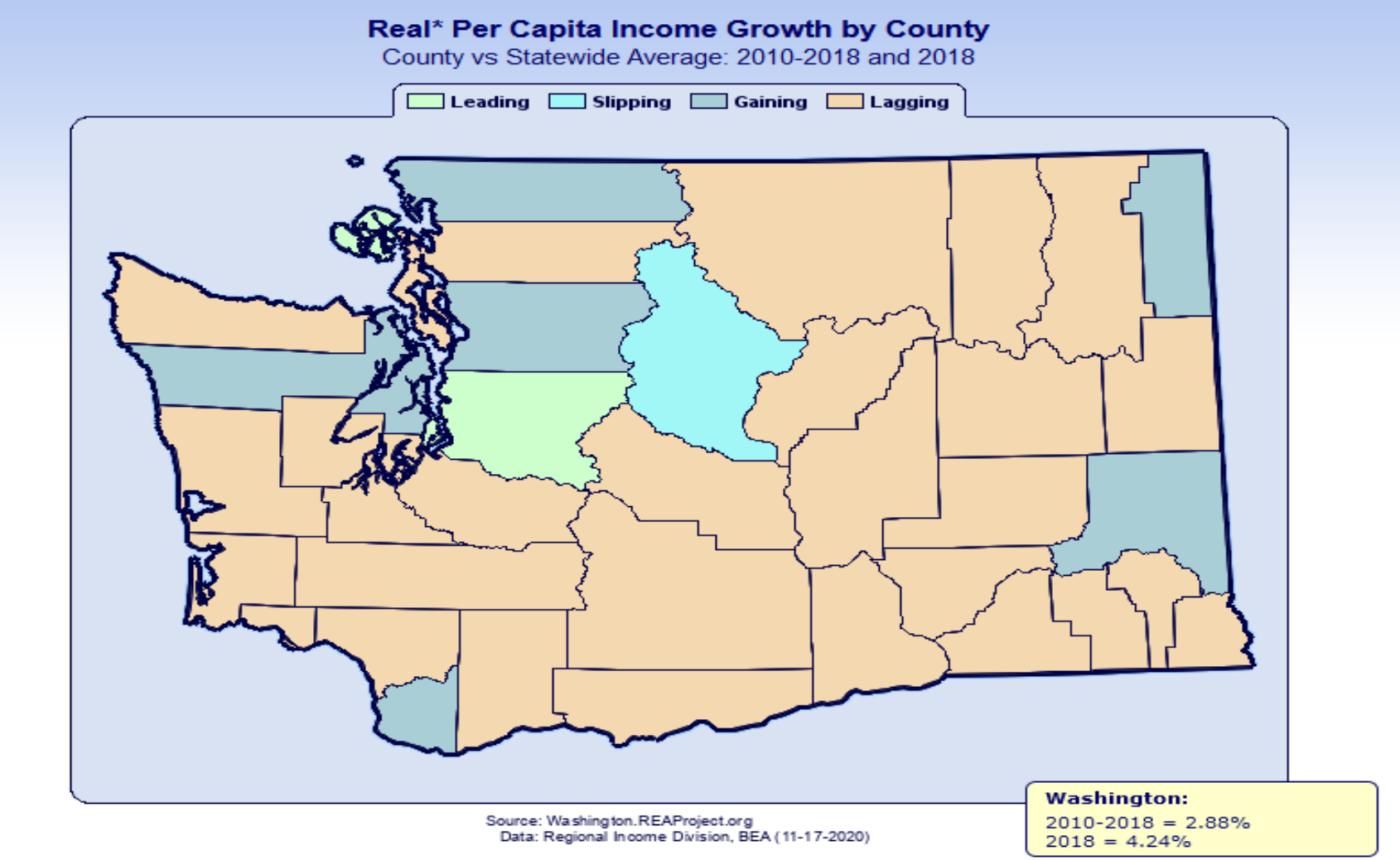
Seattle-King (WDA 5) 2010 vs. 2019

Net Percent Change = 46.88%
Rank = #1

Benton-Franklin (WDA 11) 2010 vs. 2019

Net Percent Change = 6.53%
Rank = #12

Differences Within the State



Cost of Living

State	Regional Price Parity by State				
	2014	2015	2016	2017	2018
Washington	104.9	105.2	106.1	106.8	107.8
California	113.7	113.8	114.7	115	115.4
Idaho	93.6	93.3	92.2	92.2	92.5
Massachusetts	107.3	107.6	109.2	109	109.7
Nevada	97.5	97.3	96	96.5	97.5
New York	115.7	115.8	116.4	116	116.4
Oregon	98.8	98.5	100.5	100.5	101.1
South Carolina	90	90.3	90.7	90.7	91.1
Texas	96.5	96.7	96.6	96.8	96.8

Source: US BEA

Different image with C2ER data

Cost of Living – Take 2

Area	Index Value
Bellingham	121
Tri-Cities	103
Moses Lake	95
Skagit County	119
Olympia – Tumwater	109
Seattle – Bellevue – Everett	158
Spokane	108
Wenatchee	106
US Overall	100

Poverty Rate

State	Poverty Rate by State				
	2014	2015	2016	2017	2018
Washington	12	11.4	11	9.9	8.6
California	15.8	13.9	13.9	12.4	11.9
Idaho	12.4	12.3	11.1	11.7	11.5
Massachusetts	13.6	11.5	9.6	10.6	8.7
Nevada	17	13	10.1	13.7	13
New York	14	14.2	11.9	13.4	11.1
Oregon	14.4	11.9	11.8	10.2	9.7
South Carolina	16.5	14.3	14.1	15.6	12.8
Texas	16.4	14.7	13.8	13.4	13.7

Source: US Census

Findings:

- The relationship between competitiveness and the tax burden on households depends on the measure of competitiveness and differs across income levels
  - Some models suggest you could improve competitiveness by reducing the tax burden on certain households and raising it on others
- The share of revenue from sales and income tax is seldom significant in the models (and only appears to matter when competitiveness is measured with employment)
- College enrollment per capita and other non-tax factors appear to have a stronger relationship with competitiveness than tax burden
- Time and place matter!

Variations:

We found little change when we

- Ran the model with and without household tax burden, by income level (focusing only on share of tax revenue by source)

- Considered change in income and employment rather than having those variables in ‘levels’

- Included a measure of environmental attractiveness

The relationship between tax burden and competitiveness changes depending on how you measure competitiveness, but not with the changes listed above.

Thoughts:

- The relationship between tax burden and competitiveness appears to depend on income level – with different relationships for households in different income brackets
  - Most studies use one variable for tax burden, which misses that point
- Results are very sensitive to model specification
  - Can generate most of the findings in the literature
- Results invite questions about strategy and equity
- How to include a measure of tax adequacy (is it possible) or how tax revenues are used (which appears to matter)?

Value Added Tax and Margins Tax

Revenue Target Proposals

- Gates 2002: Subtraction Method Value Added Tax (VAT)
  - Replace B&O tax
  - Find the tax rate to replace $8.59 billion (2017-19 biennium).
  - Find the tax revenue raised with 2.2% tax rate.
- TSWG 2018: Margins Tax – modeled after Texas Franchise Tax
  - Replace B&O tax
  - Find the tax rate to replace $8.59 billion (2017-19 biennium).

Key Data Sources

- IRS microdata for federal business tax returns of companies identified as having Washington nexus
  - Specifically, data from Form 1120 (C-Corps), Form 1120S (S-Corps), and Form 1065 (Partnerships)
- Washington Department of Revenue (DOR) excise tax data

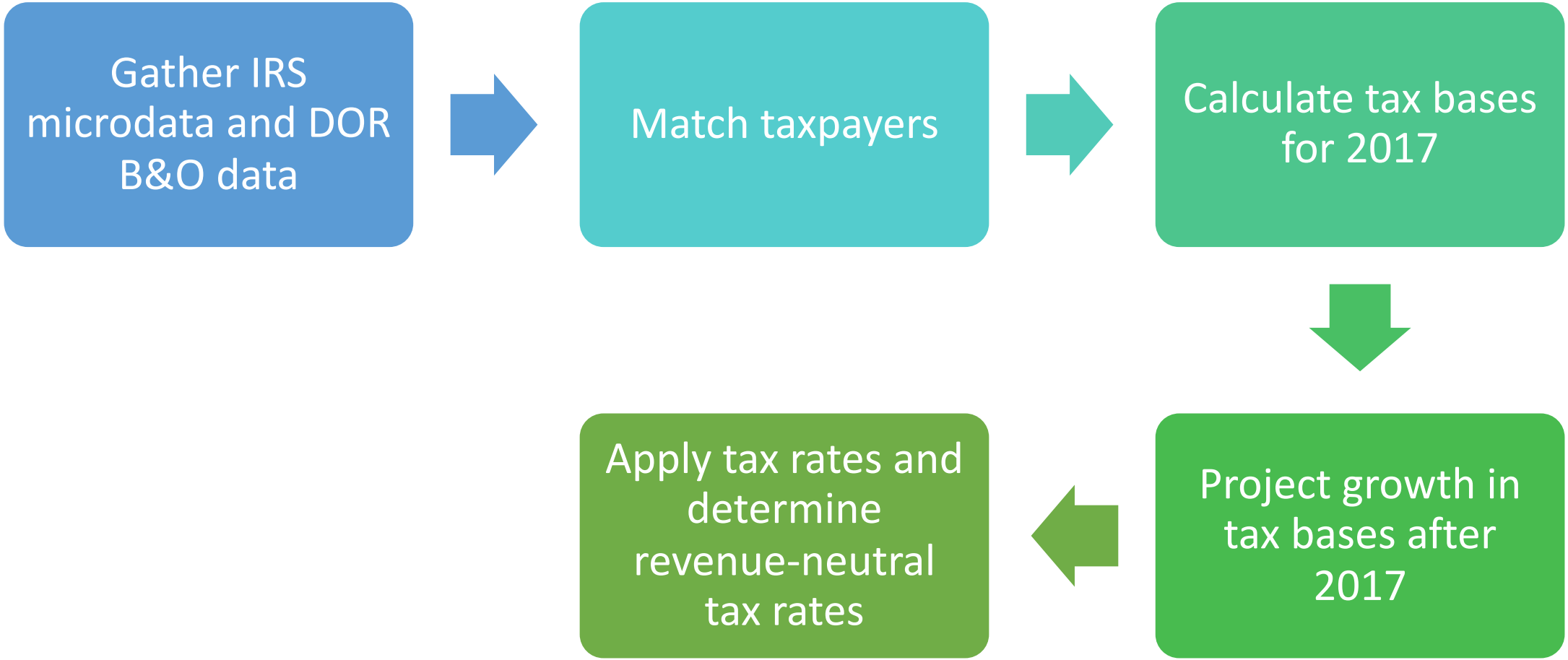
Main Assumptions

- All categories of income and business activities that are taxable under Washington's current B&O tax will be taxable under the subtraction method VAT and the margins tax, subject to allowable deductions under each tax system.
- **Single-factor apportionment** (based on annual sales) is used to determine the Washington share of federal taxable income.
  - Three-factor apportionment uses a business' share of property, payroll, and sales in the state.
- A **compliance** factor of 95% is applied to each year of the tax.

Deductions

VAT deductions for the Cost of Intermediate Goods and Services include:	• Cost of Goods Sold (COGS) • Repair and maintenance • Interest expenses of companies whose interest income is taxable • Advertising • 90% of Other Deductions
Margins Tax deduction is the maximum of:	• COGS • Total compensation • $1 million • 30% of total revenue

Main Steps


Gather IRS microdata and DOR B&O data
Match taxpayers
Calculate tax bases for 2017
Project growth in tax bases after 2017
Apply tax rates and determine revenue-neutral tax rates

Results

Tax	Goal	Tax Taxable Income (a)	Flat Tax Rate (b)	Compliance Factor (c)	Tax Receipts (d) = (a) x (b) x (c)
VAT	Revenue neutral tax rate	$383.0	**2.36%**	95%	$8.59
Margins Tax	Revenue neutral tax rate	$335.2	**2.70%**	95%	$8.59
VAT	Revenue raised with tax rate suggested by 2002 Gates Study	$383.0	2.20%	95%	**$8.01**

Below target

Corporate Income/Net Receipts Tax

Revenue Target Estimates

- **Gates 2002: Corporate income/net receipts tax (w/PIT)**
  - Eliminate B&O tax + reduce the retail sales tax (to 3.5%)
  - Find the tax rate to replace $18.79 billion (2017-19 biennium).
  - Find the tax raised with 3.8% tax rate (2017-19 biennium).
- **Gates 2002: Corporate income/net receipts tax (w/PIT)**
  - Eliminate B&O tax and property tax + reduce the retail sales
  - Find the tax rate to replace $24.82 billion (2017-19 biennium).
  - Find the tax raised with 5.0% tax rate (2017-19 biennium).
- **2018 TSWG: Corporate income/net receipts tax**
  - Eliminate B&O tax (no other changes)
  - Find the tax rate to replace $8.59 billion (2017-19 biennium).

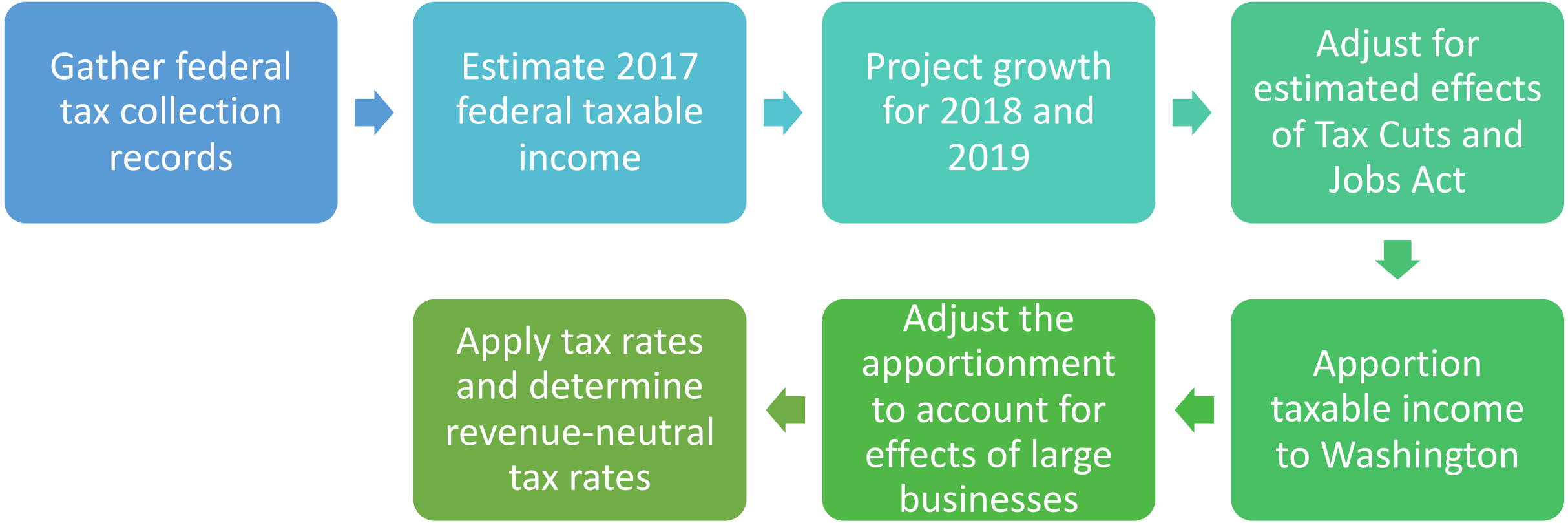
Key Data Sources

Data Sources	Purpose
Internal Revenue Service (IRS) aggregate data	Federal tax collections
IRS Statistics of Income (SOI) data	Federal tax credits, deductions, and other line items
IRS Microdata for Washington federal corporate income tax (FTI)	
Joint Committee on Taxation (JCT)	Impact of federal tax reform on tax credits and deductions
Congressional Budget Office (CBO)	
Bureau of Economic Analysis (BEA), Personal Consumption Expenditures	Apportionment
Bureau of Labor Statistics (BLS) and Economic Revenue and Forecast Council (ERFC), Employment by Sector	
IRS SOI	
U.S. Census of Governments	
U.S. Department of Treasury	
Securities and Exchange Commission Form 10-K	Apportionment adjustments
Washington State Department of Revenue (DOR) Excise Tax Data	
BEA, Before tax Corporate Profits (U.S.)	Forecasts and quarterly allocations

Main Assumptions

- Only C-corporations are assumed to be subject to corporate income/net-receipts tax.
  - No S-corporations, partnerships, sole proprietors, or non-profits
- No state credits or deductions are modeled. This is in line with the 2002 Gates Study, which stated that the only deductions were those implicit in the federal tax code.
- The **timing** of tax collections are adjusted to align data based on federal fiscal years to Washington's fiscal years.
- A **compliance** factor of 95% is applied to each year of the tax.

Main Steps


Gather federal tax collection records
Estimate 2017 federal taxable income
Project growth for 2018 and 2019
Adjust for estimated effects of Tax Cuts and Jobs Act
Apportion taxable income to Washington
Adjust the apportionment to account for effects of large businesses
Apply tax rates and determine revenue-neutral tax rates

Results

Revenue Neutral Rates (2017-19 Biennium)								
Revenue Target	**New Taxes**	**State Sales/ Use Tax**	**State Property Tax**	**B&O Tax**	**Corporate Income/ Net Receipts Tax (and PIT) Rate**	**CINRT Revenue**	**PIT Revenue**	**Total Replaced Revenue**
Gates 2002 (A)	**CINRT and PIT**	**Reduce rate to 3.5%**	Maintain current law	**Eliminate**	3.59%	$1.95 B	$16.84 B	$18.79 B
Gates 2002 (B)	**CINRT and PIT**	**Reduce rate to 3.5%**	**Eliminate**	**Eliminate**	4.75%	$2.58 B	$22.24 B	$24.82 B
TSWG 2018	**CINRT**	Maintain current rate (6.5%)	Maintain current law	**Eliminate**	15.80% (CINRT only)	$8.59B	$0	$8.59 B

Results

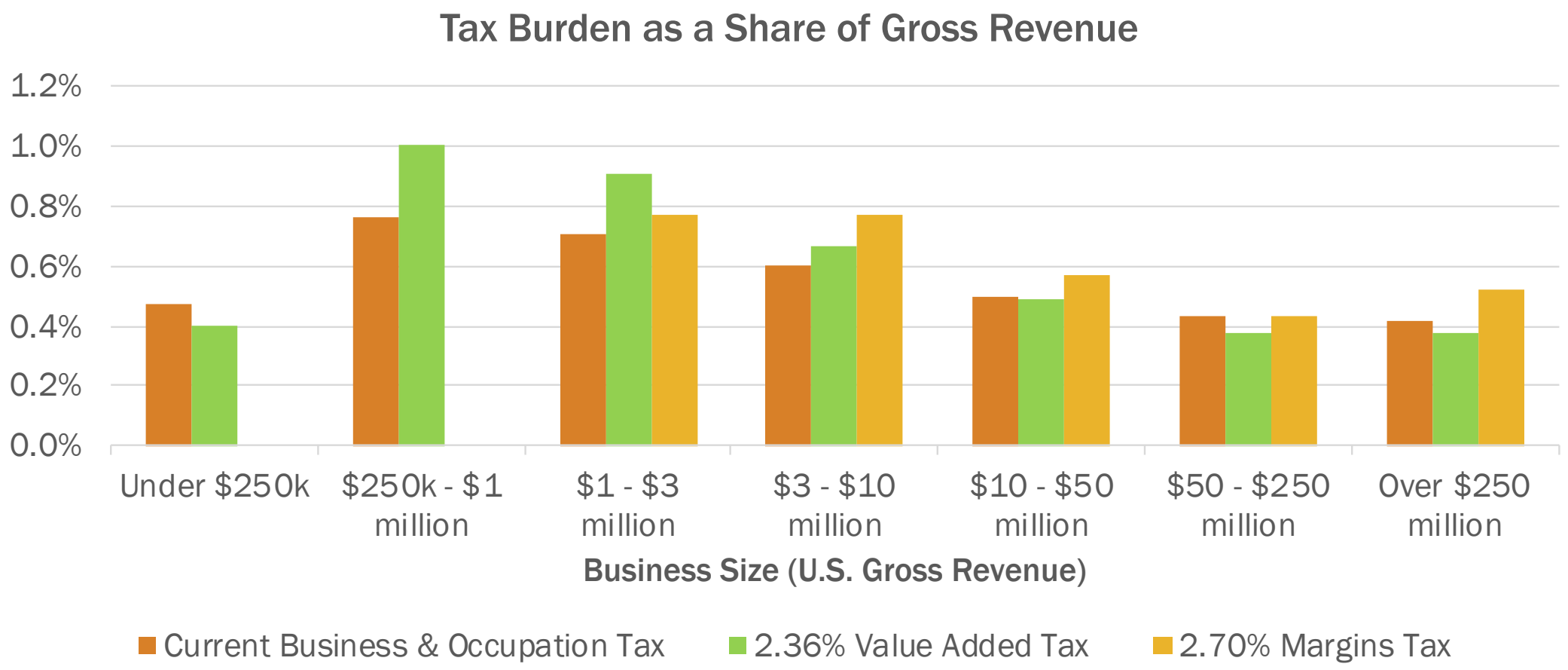
Revenue Raised from CINR Tax and PIT Proposed in 2002 Gates Study (2017-19 Biennium)								
Revenue Target	**New Taxes**	**State Sales/ Use Tax**	**State Property Tax**	**B&O Tax**	**Proposed CINR Tax/PIT Rate**	**Revenue Replacement Target**	**Total Revenue**	**Revenue Beyond Target**
Gates 2002 (A)	**CINRT and PIT**	**Reduce rate to 3.5%**	Maintain current law	**Eliminate**	3.8%	$18.79 B	$19.87 B	$1.08 B
Gates 2002 (B)	**CINRT and PIT**	**Reduce rate to 3.5%**	**Eliminate**	**Eliminate**	5.0%	$24.82 B	$26.14 B	$1.32 B

Business Tax Burden

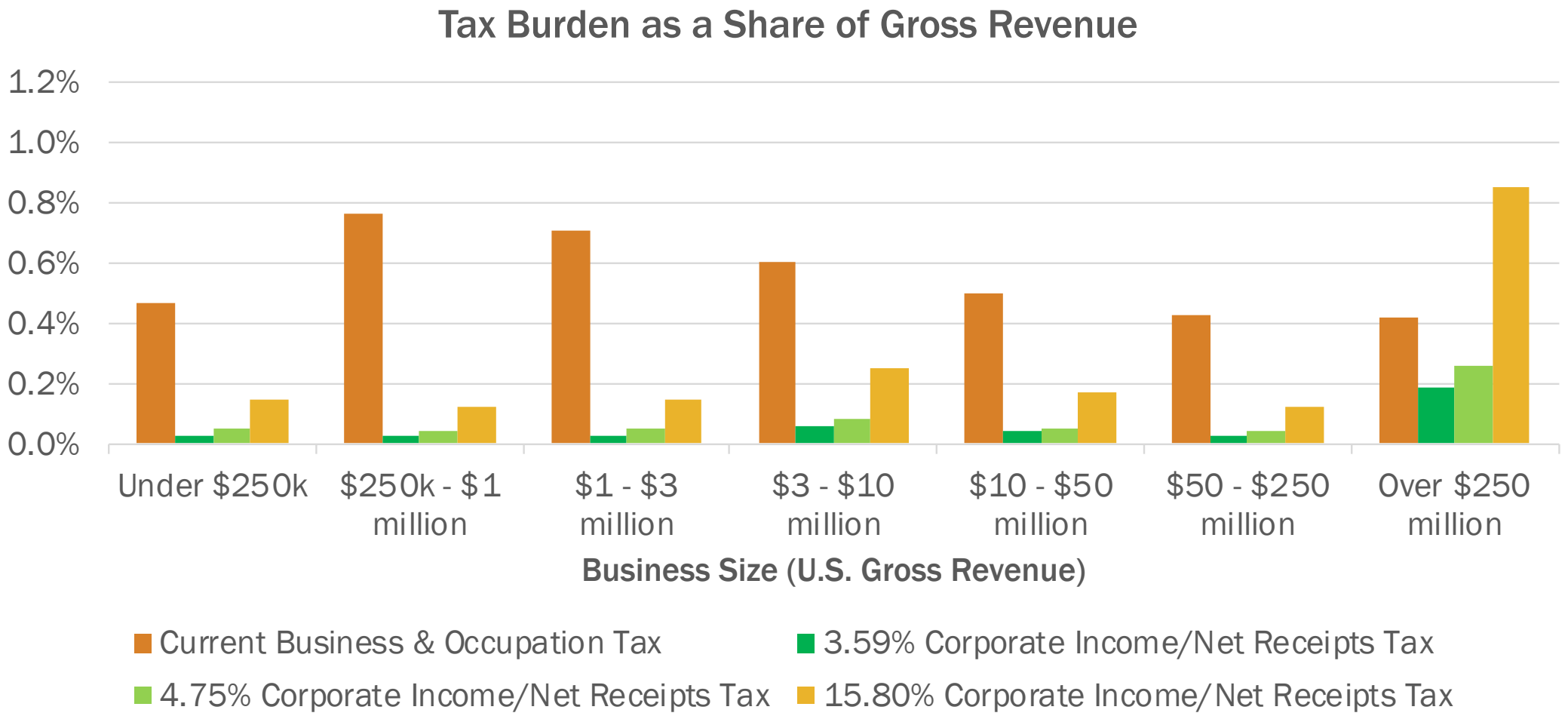
Overview

- For each business tax (corporate income/net receipts tax, VAT, and margins tax, and current B&O tax) a **microsimulation model** is used to assess the impact on tax burden of various business sizes (by annual revenue) and across NAICS sectors.
- IRS microdata and DOR B&O data are used.
- Because 2018 and 2019 IRS microdata are not available, the business tax burden analysis is performed on 2017 data.

VAT and Margins Tax
Tax Burden by Size



Corporate Income/Net Receipts Tax
Tax Burden by Size



VAT and Margins Tax
Tax Burden by NAICS Sector

Sector Description	Current Business & Occupation Tax	2.36% Value Added Tax	2.70% Margins Tax	B&O Rank	VAT Rank	Margins Tax Rank
Health Care & Social Services	1.27%	1.36%	0.77%	1	1	2
Real Estate and Rental & Leasing	1.08%	0.73%	0.64%	2	9	7
Utilities	1.00%	0.87%	0.70%	3	6	5
Educational Services	0.97%	0.96%	0.62%	4	4	8
Administrative Support & Waste Management	0.96%	0.71%	0.52%	5	10	12
Finance & Insurance	0.90%	1.05%	0.67%	6	2	6
Arts, Entertainment & Recreation	0.84%	0.87%	0.73%	7	7	4
Professional, Scientific & Technical Services	0.79%	0.77%	0.58%	8	8	9
Information	0.71%	0.58%	0.74%	9	11	3
All Industries	**0.49%**	**0.49%**	**0.49%**			

VAT and Margins Tax
Tax Burden by NAICS Sector

Sector Description	Current Business & Occupation Tax	2.36% Value Added Tax	2.70% Margins Tax	B&O Rank	VAT Rank	Margins Tax Rank
Other Services	0.69%	0.96%	0.57%	10	5	10
Transportation & Warehousing	0.55%	0.52%	0.45%	11	13	15
Management of Companies	0.54%	0.18%	0.23%	12	19	19
Retail Trade	0.51%	0.46%	0.52%	13	15	13
Accommodation & Food Services	0.50%	1.00%	0.92%	14	3	1
Mining, Oil	0.47%	0.52%	0.54%	15	12	11
Construction	0.45%	0.48%	0.40%	16	14	16
Agriculture, Forestry, Hunting & Fishing	0.37%	0.37%	0.35%	17	16	17
Manufacturing	0.28%	0.33%	0.46%	18	17	14
Wholesale Trade	0.28%	0.25%	0.27%	19	18	18
All Industries	**0.49%**	**0.49%**	**0.49%**			

Corporate Income/Net Receipts Tax Tax Burden by NAICS Sector

Sector Description	Current Business & Occupation Tax	3.59% Corporate Income/Net Receipts Tax	4.75% Corporate Income/Net Receipts Tax	15.80% Corporate Income/Net Receipts Tax	B&O Rank	CINRT Rank
Health Care & Social Services	1.27%	0.03%	0.05%	0.15%	1	13
Real Estate and Rental & Leasing	1.08%	0.04%	0.06%	0.19%	2	8
Utilities	1.00%	0.05%	0.06%	0.21%	3	6
Educational Services	0.97%	0.03%	0.04%	0.13%	4	15
Administrative Support & Waste Management	0.96%	0.05%	0.06%	0.21%	5	7
Finance & Insurance	0.90%	0.17%	0.23%	0.77%	6	4
Arts, Entertainment & Recreation	0.84%	0.01%	0.01%	0.04%	7	19
Professional, Scientific & Technical Services	0.79%	0.04%	0.06%	0.19%	8	9
Information	0.71%	0.21%	0.28%	0.93%	9	3
All Industries	**0.49%**	**0.11%**	**0.15%**	**0.49%**		

Corporate Income/Net Receipts Tax Tax Burden by NAICS Sector

Sector Description	Current Business & Occupation Tax	3.59% Corporate Income/Net Receipts Tax	4.75% Corporate Income/Net Receipts Tax	15.80% Corporate Income/Net Receipts Tax	B&O Rank	CINRT Rank
Other Services	0.69%	0.02%	0.03%	0.10%	10	16
Transportation & Warehousing	0.55%	0.03%	0.05%	0.15%	11	14
Management of Companies	0.54%	0.95%	1.26%	4.19%	12	1
Retail Trade	0.51%	0.07%	0.09%	0.31%	13	5
Accommodation & Food Services	0.50%	0.02%	0.03%	0.10%	14	17
Mining, Oil	0.47%	0.04%	0.05%	0.16%	15	10
Construction	0.45%	0.02%	0.02%	0.08%	16	18
Agriculture, Forestry, Hunting & Fishing	0.37%	0.04%	0.05%	0.17%	17	11
Manufacturing	0.28%	0.22%	0.30%	0.99%	18	2
Wholesale Trade	0.28%	0.04%	0.05%	0.17%	19	12
All Industries	**0.49%**	**0.11%**	**0.15%**	**0.49%**		

Personal Income Tax Model

Budget Proviso: Update 2002 Study

1. **Update the data and research** that informed recommendations and other analysis.
2. **Estimate how much revenue** the PIT replacement alternatives would have generated **for the 2017-19 biennium** if implemented on January 1, 2003.
3. **Estimate the tax rates necessary** to implement the PIT in order to achieve the actual revenues generated during the 2017-19 biennium.

PIT Revenue Target Estimates

Model both a flat rate tax and graduated rate tax, featuring various combinations of the following (six options evaluated in the 2002 Gates Study):

State sales tax: Reduce or Eliminate

State property tax: Maintain or Eliminate

State B&O tax: Maintain or Replace with a Corporate Income/Net Receipts Tax

Main Data Sources and Assumptions

Main Data Sources (2017)

- WA Federal Individual Income Tax Returns
- WA Federal Business Tax Returns
- OR Personal Income Tax summary statistics
- Dept of Revenue Excise Tax Data

Key Assumptions

Tax Collection: All income sourced in WA and income for WA residents are subject to the tax.

Compliance: 95% of those who file a federal income tax return comply

Tax Due: Tax due for 2018 and 2019 estimated using 2017 returns and reference forecasts.

*There were several other data sources and assumptions, not included in this presentation due to limited space and time.

Overall Method

Step 1: Identify 2017-2019 biennial revenues from the Economic and Revenue Forecast Council for three major excise taxes being reduced or eliminated (retail sales and use tax, property tax, and B&O tax).

Step 2: Obtain revenue targets for each proposal. Calculate the revenues that would need to be collected for each proposal in which the existing taxes would be reduced or eliminated, in order to replace the 2017-2019 biennial revenues collected by each of the existing taxes.

Step 3: Build the PIT model, using the main data sources and several other data sources required for the B&O credit, out-of-state credit, and disabled deduction models.

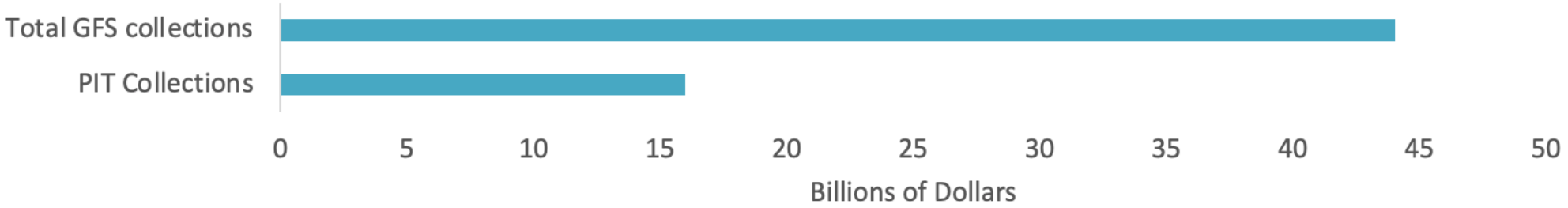
Step 4: Find the flat and graduated PIT rates that most closely meet the revenue targets for each proposal.

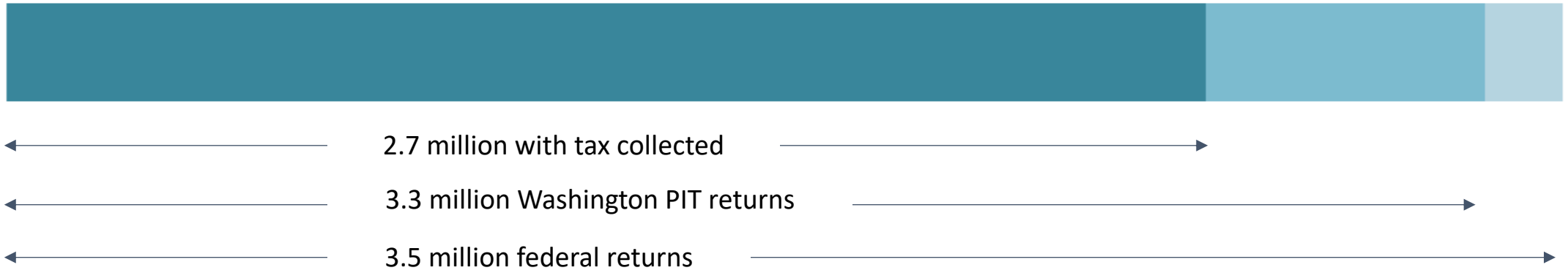
Results: Flat Rate Model

2017-2019 Biennium Revenue Neutral Rates – Flat Rate Model									
Revenue Target Estimate	State Sales/Use Tax		State Property Tax		CINR Tax		B&O Tax		Personal Income Tax
	Reduce rate to 3.5%	Eliminate	Current Law	Eliminate	None	PIT rate	Current Law	Eliminate	
Gates A	X		X		X		X		2.30%
Gates B	X			X	X		X		3.64%
Gates C		X	X		X		X		5.08%
Gates D		X		X	X		X		6.40%
Gates E	X		X			X		X	3.59%
Gates F	X			X		X		X	4.75%

Results

PIT Revenues Compared with General Fund—State Collections
2017-2019 biennium – 3.64 percent flat rate

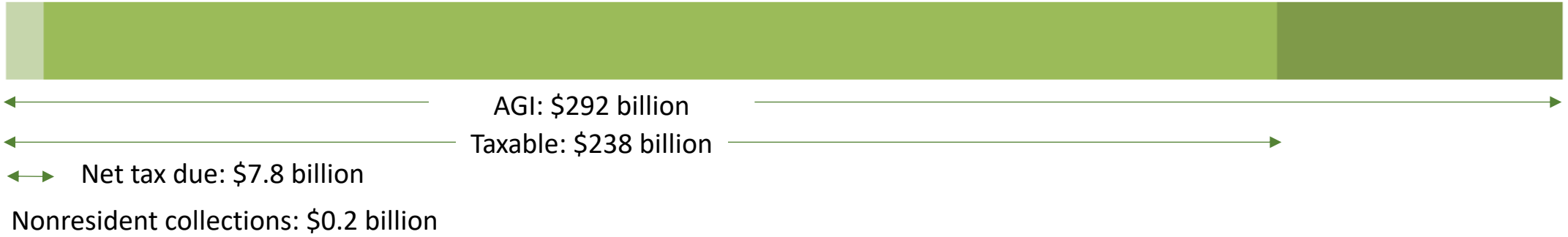




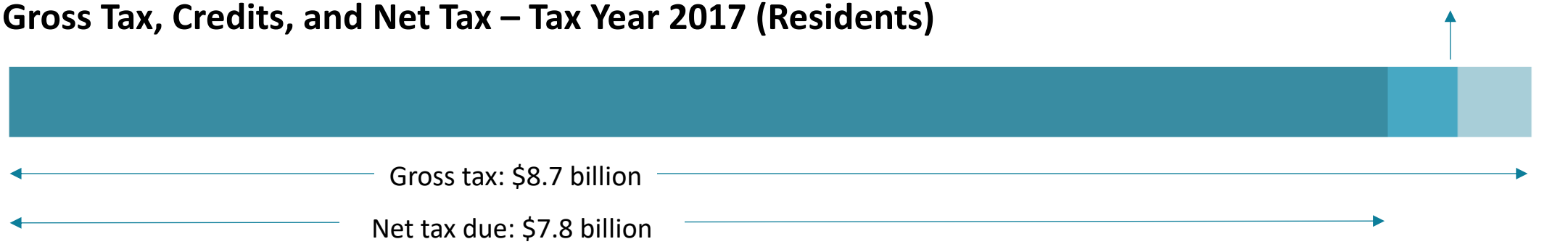
Results

AGI, Taxable, and Collections

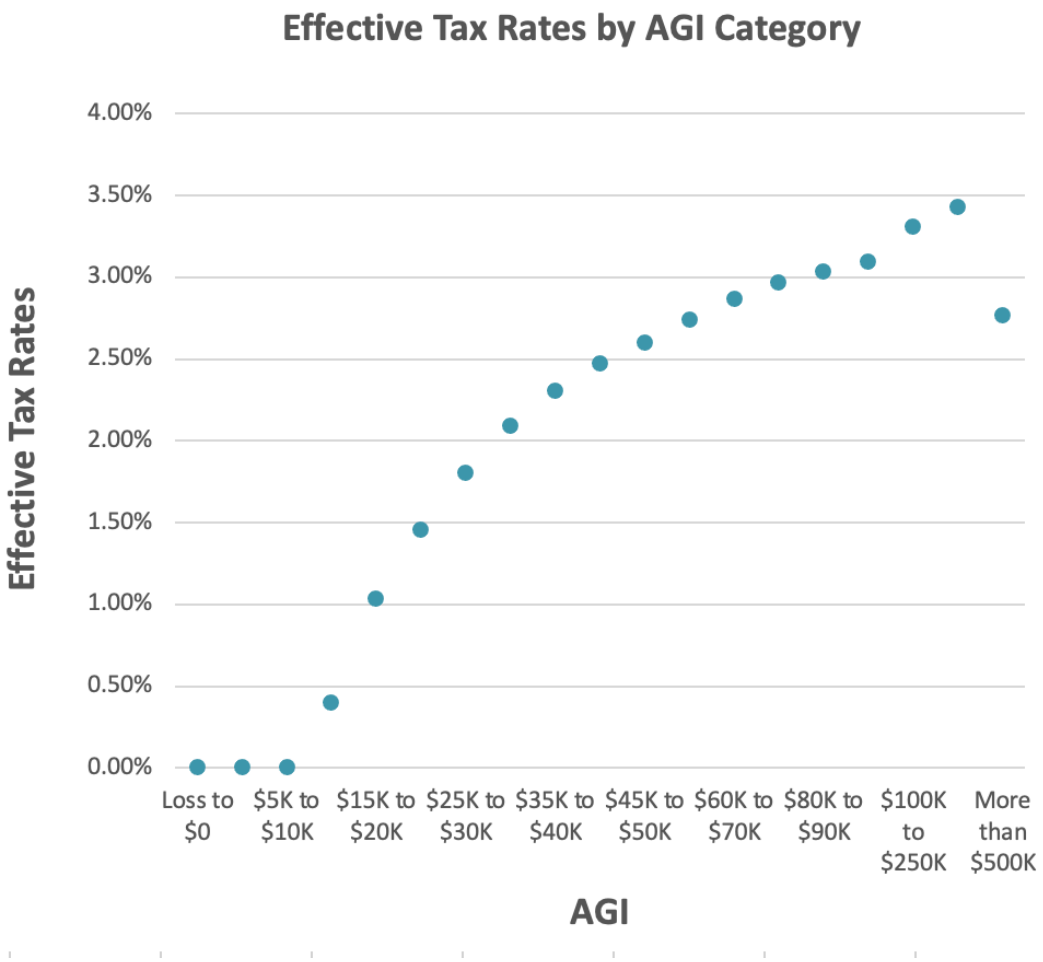
TY2017 – 3.64 percent flat rate - Residents

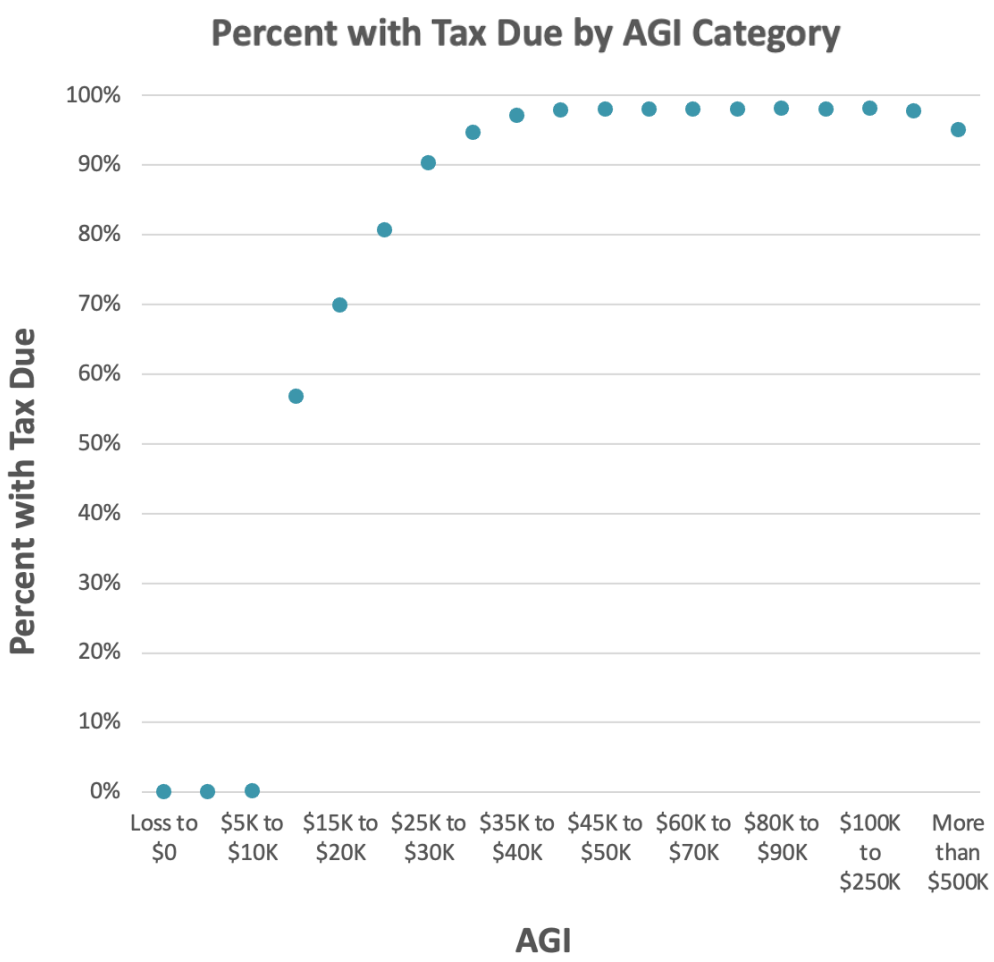


Gross Tax, Credits, and Net Tax – Tax Year 2017 (Residents)



Results: Flat Rate at 3.64 Percent





Model Features: Calculation of WA PIT

[Taxable Income] = AGI – Deductions – Exemptions

- Deductions = [Standard Deduction] + [Elderly Deduction] + [Disabled Deduction]
- Exemptions = $3,650 x [Count of filer, spouse, dependents]

Gross Tax = [Tax Rate] x [Taxable Income]

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

Tax Due = Tax – Total Credits

*$3,650 is the Personal Exemption for 2017.

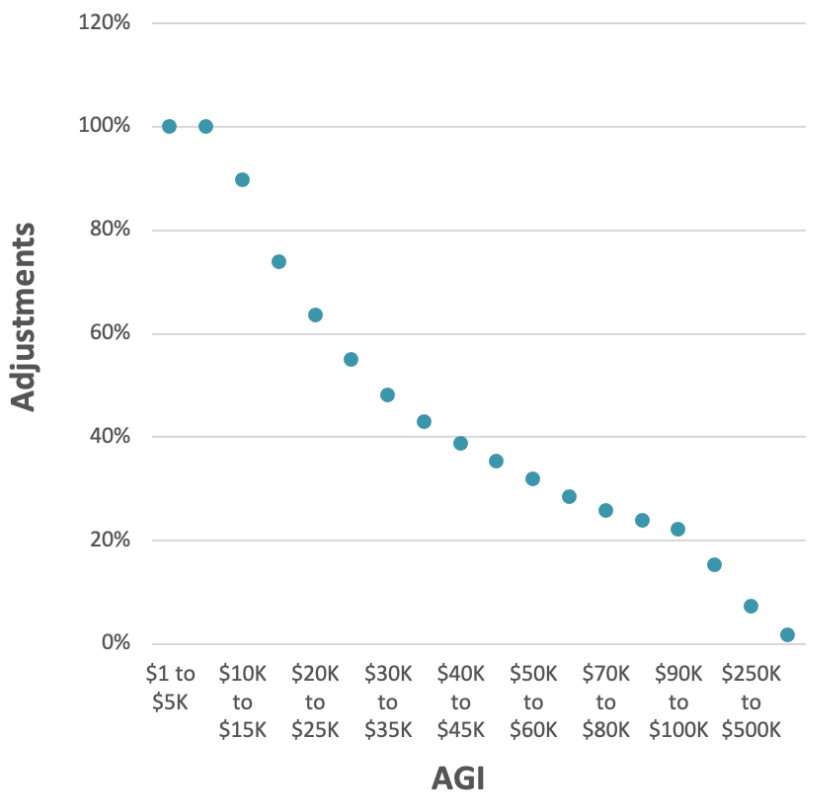
Adjustments to Tax Base

The table below shows the adjustment amounts used for each tax year. We calculated these by inflating the amounts used in the Gates (2002) study.

- Standard deduction for single and joint filers
- Deductions for elderly filers and disabled filers
- Personal exemption for each filer and dependent

	Deductions				
Tax Year	Joint	Single	Head of Household	Elderly/ Disabled	Personal Exemption
2017	12,500	6,250	8,750	1,250	3,650
2018	12,750	6,375	8,950	1,300	3,700
2019	12,950	6,475	9,050	1,300	3,750

Adjustments as a Percentage of AGI



B&O Credit

Helps **avoid double taxing** businesses

"(2) The credit shall not exceed the smaller of:
(a) The **amount of business and occupation tax paid**; or
(b) The **amount of [personal income] tax … 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."[1]

Pass-through businesses pay federal individual income tax: Roughly half of U.S business activity is reported as individual income

Business income is concentrated among higher-AGI individuals (Represents 11% AGI for residents making $100K or more vs. 4-6% for $100K or less)

Out-of-State Credit

"A resident individual is allowed a credit against the tax imposed [...] for the amount of any income tax imposed by another state" (2003 bill)

The out-of-state credit will apply more often to higher-income residents than lower-income residents.

Most out-of-state credit will be related to Oregon tax payments: Clark County receives substantial amount of income from Portland

Household Tax Burden

Objectives of the HH Burden Model

1. Estimate and report household tax burdens, measured as the total tax imposed on a household from state and local sources.

2. Estimate the household tax burden as a share of household income.

3. Model the tax burden from alternative rates and types of taxation.

Main Data Sources

Data Source	Purpose
IRS Individual Income Tax Data	Personal Income
County Property Tax Rolls	Property Valuations and Property Tax Payments Made
Bureau of Labor Statistics - Consumer Expenditure Survey	Consumer Spending Profile for Households
Real Estate Excise Tax Data	Taxable Property Sales

Assumptions

Assumptions

IRS Individual Income Tax Data

- Population of WA residents filing federal income taxes are representative of the state as a whole (may underrepresent low-income and no income households)

CES and IRS Data Connection

- Consumer Expenditure Survey: national survey of spending habits → assume Washingtonians have similar habits as U.S population

IRS Individual Income Tax & Property Tax Rolls

- Housing mobility will not meaningfully bias the results

Consumption will not change with a change in the tax rate.

Method Steps

Step 1: Estimate the tax base for the excise, real estate excise, property, personal income, and capital gains tax using various data sources.

Step 2: Estimate FY 2017 Tax Burdens.

$$Unadjusted\ HH\ Tax\ Burden = HH\ Tax\ Base * Tax\ Rate$$

$$Unadjusted\ Total\ Revenue = \frac{Unadjusted\ HH\ Tax\ Burden}{\%\ HH}$$

$$Adjusted\ Household\ Tax\ Revenue = Unadjusted\ HH\ Tax\ Burden * \frac{Actual\ Total\ Revenue}{Unadjusted\ Total\ Revenue}$$

Step 3: Transform FY 2017 Tax Burdens into 2017-2019 Biennium Estimates. Inflate tax burden estimates using actual revenue figures published by the Washington State Economic and Revenue Forecast Council and Internal Department of Revenue data.

WA Household Taxes and Alternatives

Current Washington Taxes	Possible Alternative Taxes
• State and Local Retail Sales Tax • Alcoholic Beverages Taxes • Cigarette & Tobacco Taxes • Insurance Premiums Tax • Gasoline Tax • Real Estate Excise Tax • Public Utility Taxes • State and Local Property Tax	• Personal Income Tax • Capital Gains Tax

The total amount of taxes paid by each household constitutes the household tax burden.

Household Tax Burden: Current Law

Average Tax Burden on Households (State and Local)

2017-2019 Biennium

Current Law 2017 Household Income (by decile)	$0 $17,000	$17,000 $30,000	$30,000 $44,000	$44,000 $58,000	$58,000 $74,000	$74,000 $92,000	$92,000 $115,000	$115,000 $146,000	$146,000 $208,000	$208,000 ∞
State Retail Sales Tax	$878	$1,106	$1,339	$1,680	$1,981	$2,236	$2,643	$3,020	$3,670	$5,392
Local Retail Sales Tax	$381	$480	$582	$730	$861	$972	$1,148	$1,312	$1,594	$2,342
Alcoholic Beverages Taxes	$30	$49	$51	$80	$78	$175	$125	$120	$172	$214
Cigarette & Tobacco Taxes	$136	$155	$209	$172	$190	$182	$143	$151	$125	$101
Insurance Premiums Tax	$28	$41	$57	$67	$84	$88	$95	$108	$118	$159
Gasoline Tax	$142	$187	$247	$270	$298	$334	$376	$401	$439	$416
Real Estate Excise Tax	$103	$88	$114	$154	$185	$211	$244	$275	$355	$837
State Public Utility Taxes	$44	$59	$62	$67	$73	$81	$89	$93	$102	$134
Local Public Utility Taxes	$91	$119	$128	$142	$152	$166	$185	$192	$200	$259
State Property Tax	$391	$337	$405	$550	$645	$742	$805	$885	$1,015	$1,686
Local Property Tax	$1,247	$1,075	$1,293	$1,753	$2,059	$2,366	$2,568	$2,823	$3,237	$5,377
Total Tax	$3,472	$3,695	$4,487	$5,665	$6,607	$7,553	$8,420	$9,380	$11,026	$16,917
Tax as % of Income		15.0%	11.7%	10.7%	9.6%	8.7%	7.8%	7.0%	6.1%	3.4%

Note: These are average tax burdens by income group by decile (e.g., tax payments by household decile group averaged by number of household per decile). Not all taxpayers will have taxes in the respective tax type (i.e., not everyone will sell real estate every year and be subject to the real estate excise tax), the figures try to illustrate an payment of an "average" taxpayer.

Household Tax Burden: Current Law

Average Annual Household Tax Burden (State only)

2017-2019 Biennium

Current Law **2017 Household Income (by decile)**	$0 $17,000	$17,000 $30,000	$30,000 $44,000	$44,000 $58,000	$58,000 $74,000	$74,000 $92,000	$92,000 $115,000	$115,000 $146,000	$146,000 $208,000	$208,000 ∞
State Retail Sales Tax	$878	$1,106	$1,339	$1,680	$1,981	$2,236	$2,643	$3,020	$3,670	$5,392
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Cigarette & Tobacco Taxes	$136	$155	$209	$172	$190	$182	$143	$151	$125	$101
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Gasoline Tax	$142	$187	$247	$270	$298	$334	$376	$401	$439	$416
Real Estate Excise Tax	$103	$88	$114	$154	$185	$211	$244	$275	$355	$837
State Public Utility Taxes	$44	$59	$62	$67	$73	$81	$89	$93	$102	$134
State Property Tax	$391	$337	$405	$550	$645	$742	$805	$885	$1,015	$1,686
Total Tax	$1,753	$2,020	$2,484	$3,040	$3,535	$4,049	$4,519	$5,053	$5,995	$8,938

Note: These are average tax burdens by income group by decile (e.g., tax payments by household decile group averaged by number of household per decile). Not all taxpayers will have taxes in the respective tax type (i.e., not everyone will sell real estate every year and be subject to the real estate excise tax), the figures try to illustrate an payment of an "average" taxpayer.

Household Tax Burden: PIT Estimates

The summary table below shows the difference in tax as a percent of income from the current law for each Gates analysis. The data suggests that:

- Graduated rate PIT increases the tax burden for higher income households relative to a flat PIT rate.
- Gates A is the most modest in its effects on household tax burden, estimated to cause the smallest deviation from current law.
- Gates F shifts the tax burden more towards households as the tax burden increases for all measured household income groups.

Summary of Proposal Tax Burdens										
2017 Household Income	**$0**	**$17,000**	**$30,000**	**$44,000**	**$58,000**	**$74,000**	**$92,000**	**$115,000**	**$146,000**	**$208,000**
	$17,000	**$30,000**	**$44,000**	**$58,000**	**$74,000**	**$92,000**	**$115,000**	**$146,000**	**$208,000**	**∞**
	Tax as a Percent of Income									
Gates A Flat PIT Difference	0.0%	-0.5%	0.2%	0.5%	0.7%	0.9%	1.0%	1.1%	1.2%	1.4%
Gates A Graduated PIT Difference	0.0%	-1.4%	-0.7%	-0.4%	-0.2%	0.1%	0.3%	0.5%	0.8%	1.8%
Gates B Flat PIT Difference	0.0%	-1.2%	-0.1%	0.3%	0.6%	0.9%	1.1%	1.3%	1.5%	1.8%
Gates B Graduated PIT Difference	0.0%	-2.3%	-1.3%	-0.9%	-0.5%	-0.1%	0.3%	0.7%	1.3%	2.8%
Gates C Flat PIT Difference	0.0%	-1.4%	0.1%	0.7%	1.1%	1.5%	1.7%	2.0%	2.2%	2.7%
Gates C Graduated PIT Difference	0.0%	-2.9%	-1.6%	-0.9%	-0.4%	0.1%	0.6%	1.2%	1.9%	4.0%
Gates D Flat PIT Difference	0.0%	-1.9%	0.0%	0.7%	1.2%	1.7%	2.0%	2.4%	2.8%	3.4%
Gates D Graduated PIT Difference	0.0%	-3.9%	-2.1%	-1.3%	-0.7%	0.0%	0.7%	1.4%	2.3%	5.1%
Gates E Difference	0.0%	-1.2%	0.0%	0.3%	0.6%	0.9%	1.1%	1.4%	1.6%	2.0%
Gates F Difference	0.0%	1.0%	1.9%	2.2%	2.5%	2.7%	2.8%	3.0%	3.2%	3.3%

Household Burden: Flat Rate PIT

Target Revenue Estimate Key

Gates A
Reduce Sales Tax to 3.5%

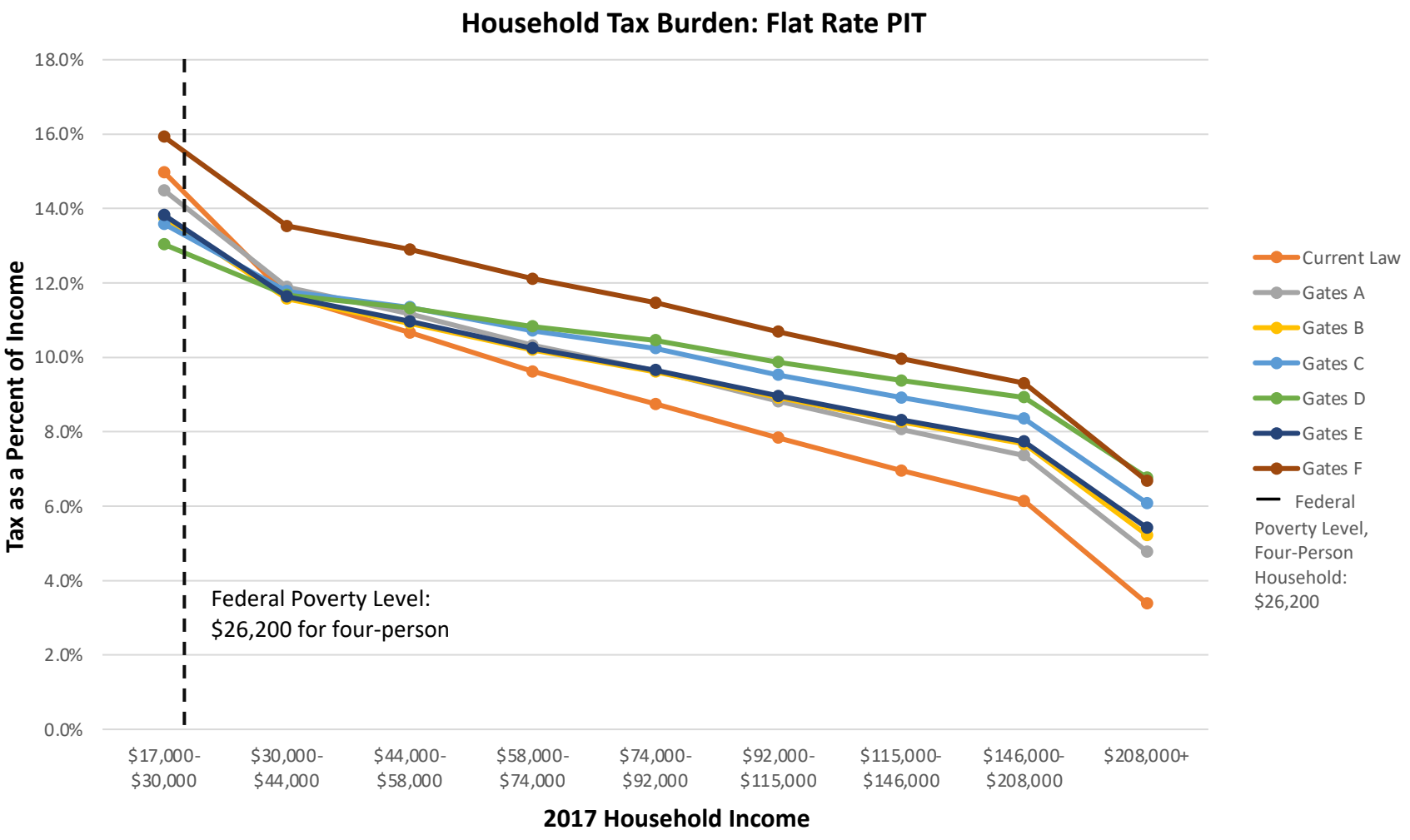
Gates B
Reduce Sales Tax to 3.5%
Eliminate State Property Tax

Gates C
Eliminate Sales Tax

Gates D
Eliminate Sales Tax
Eliminate State Property Tax

Gates E
Reduce Sales Tax to 3.5%
Replace B&O Tax with CINR

Gates F
Reduce Sales Tax to 3.5%
Eliminate State Property Tax
Replace B&O Tax with CINR



Household Burden: Graduated Rate PIT

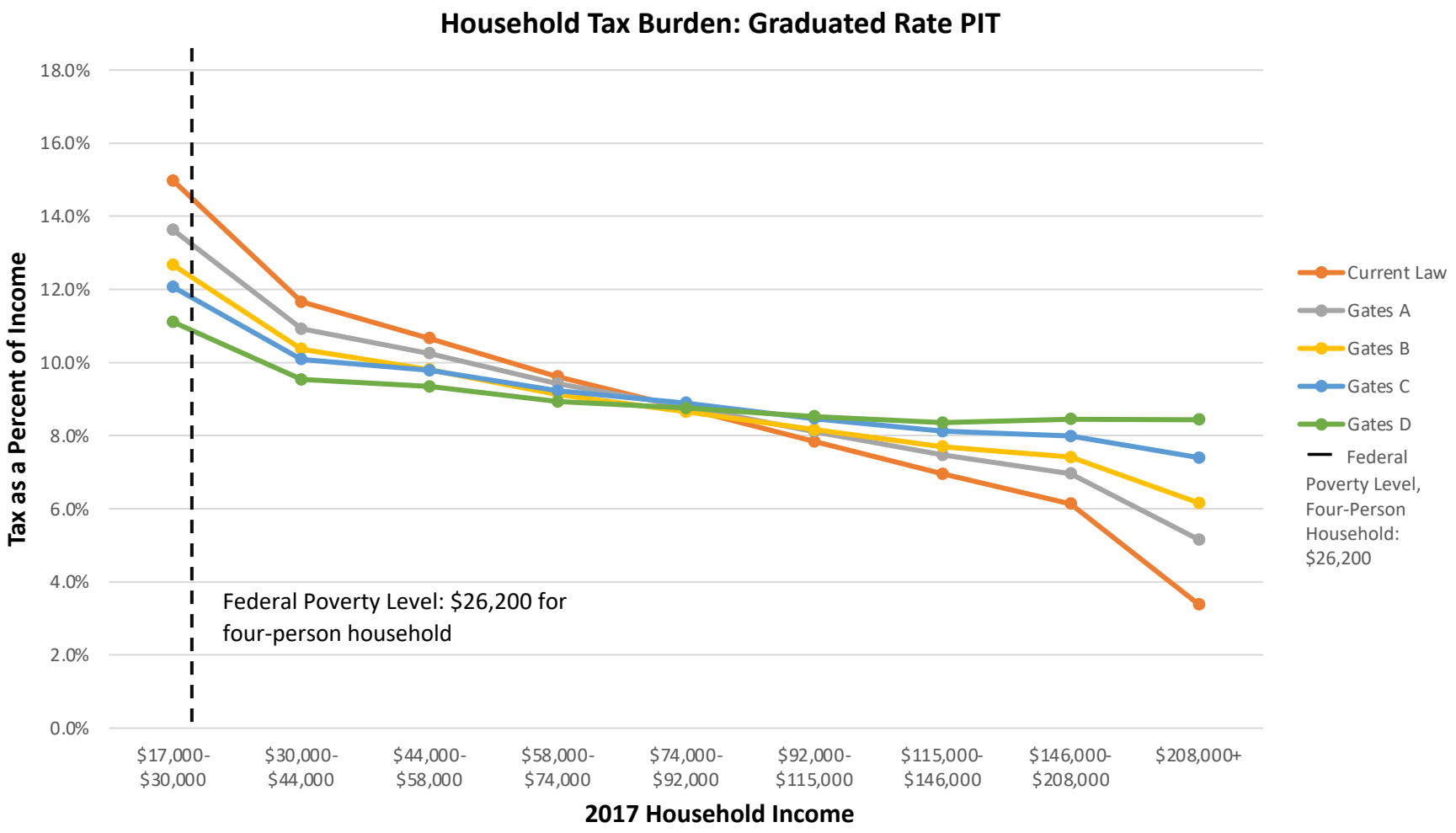
Target Revenue Estimate Key

Gates A
Reduce Sales Tax to 3.5%

Gates B
Reduce Sales Tax to 3.5%
Eliminate State Property Tax

Gates C
Eliminate Sales Tax

Gates D
Eliminate Sales Tax
Eliminate State Property Tax



Flat Rate: Change in HH Burden

Target Revenue Estimate Key

Gates A
Reduce Sales Tax to 3.5%

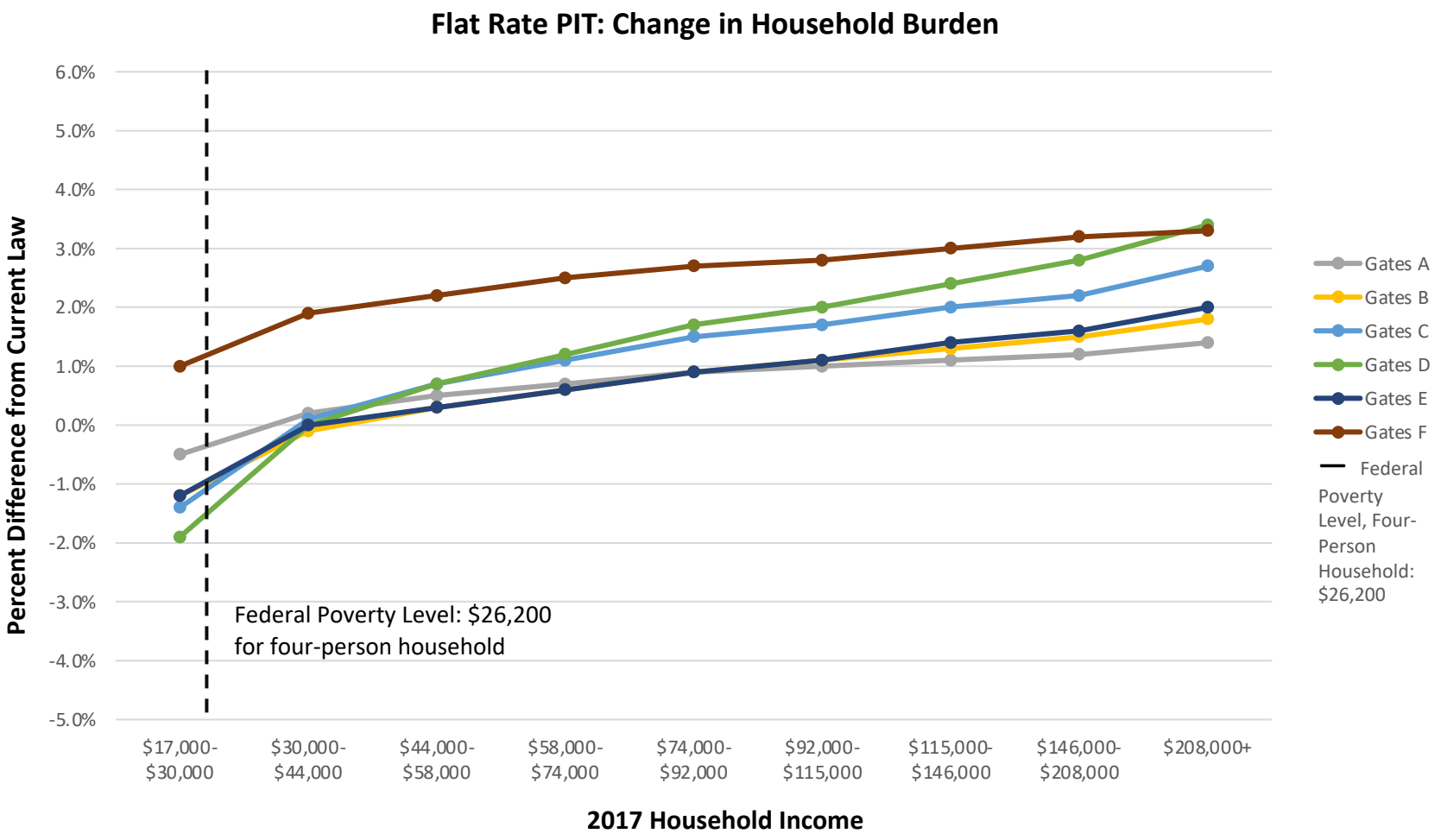
Gates B
Reduce Sales Tax to 3.5%
Eliminate State Property Tax

Gates C
Eliminate Sales Tax

Gates D
Eliminate Sales Tax
Eliminate State Property Tax

Gates E
Reduce Sales Tax to 3.5%
Replace B&O Tax with CINR

Gates F
Reduce Sales Tax to 3.5%
Eliminate State Property Tax
Replace B&O Tax with CINR



Graduated: Change in HH Burden

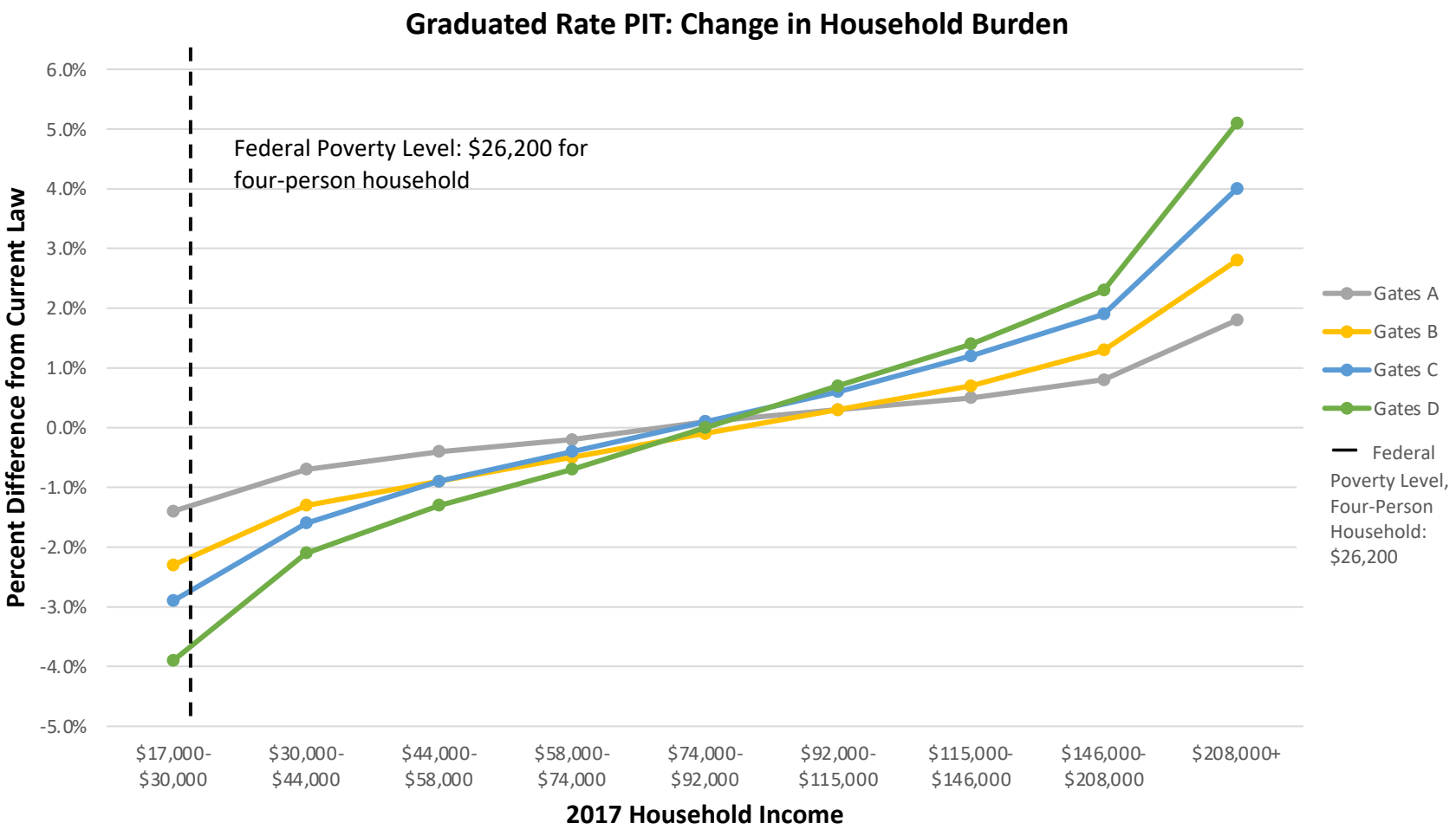
Target Revenue Estimate Key

Gates A
Reduce Sales Tax to 3.5%

Gates B
Reduce Sales Tax to 3.5%
Eliminate Property Tax

Gates C
Eliminate Sales Tax

Gates D
Eliminate Sales Tax
Eliminate State Property Tax



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10:40 – 10:50 a.m.

Property Tax

Property Tax Analysis

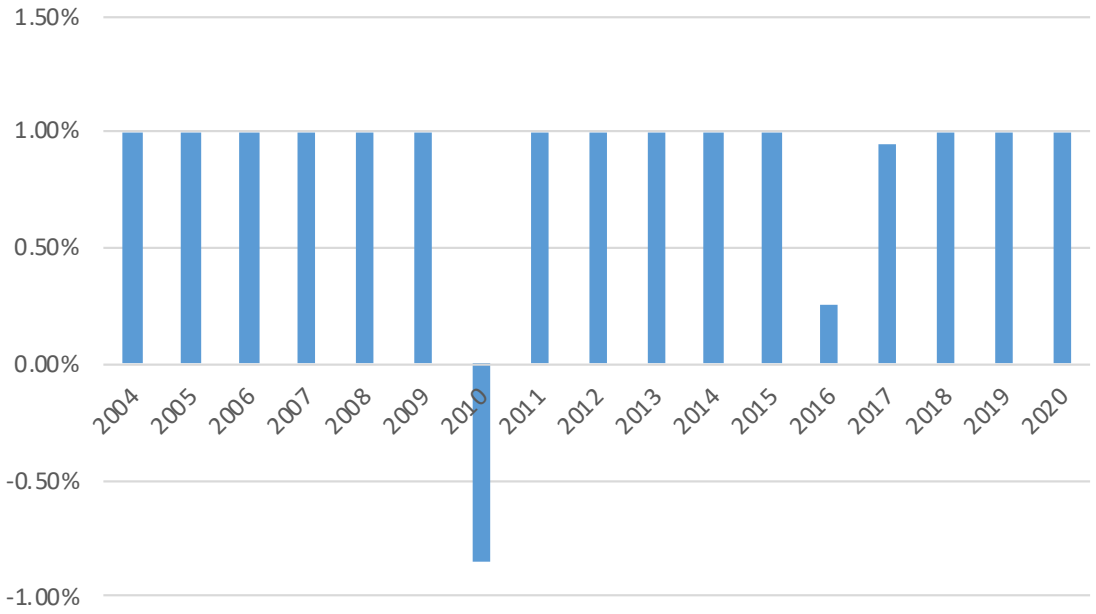
Estimate how much revenue would have been generated for the 2017-19 Biennium if the 1 percent revenue growth limit on regular property taxes was replaced with a limit based on population growth and inflation if the state had implemented this alternative on January 1, 2003?

Due to 2017 and 2018 legislative changes to the state property tax levy, two comparative analyses:

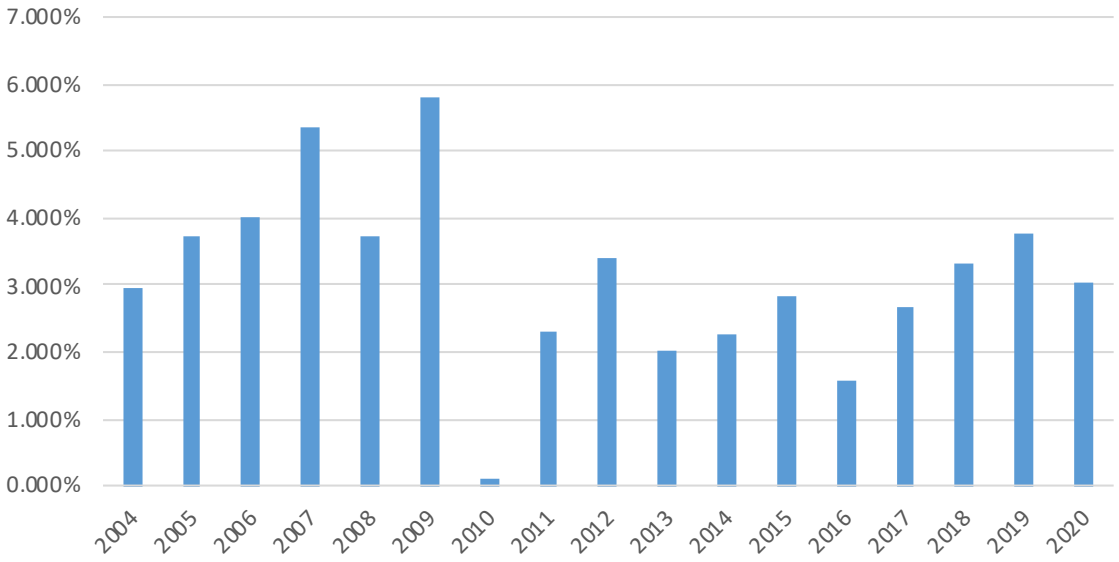
- Property tax with no changes
- Property tax with the changes

Comparison of Rates

Lesser of 1% or the Implicit Price Deflator

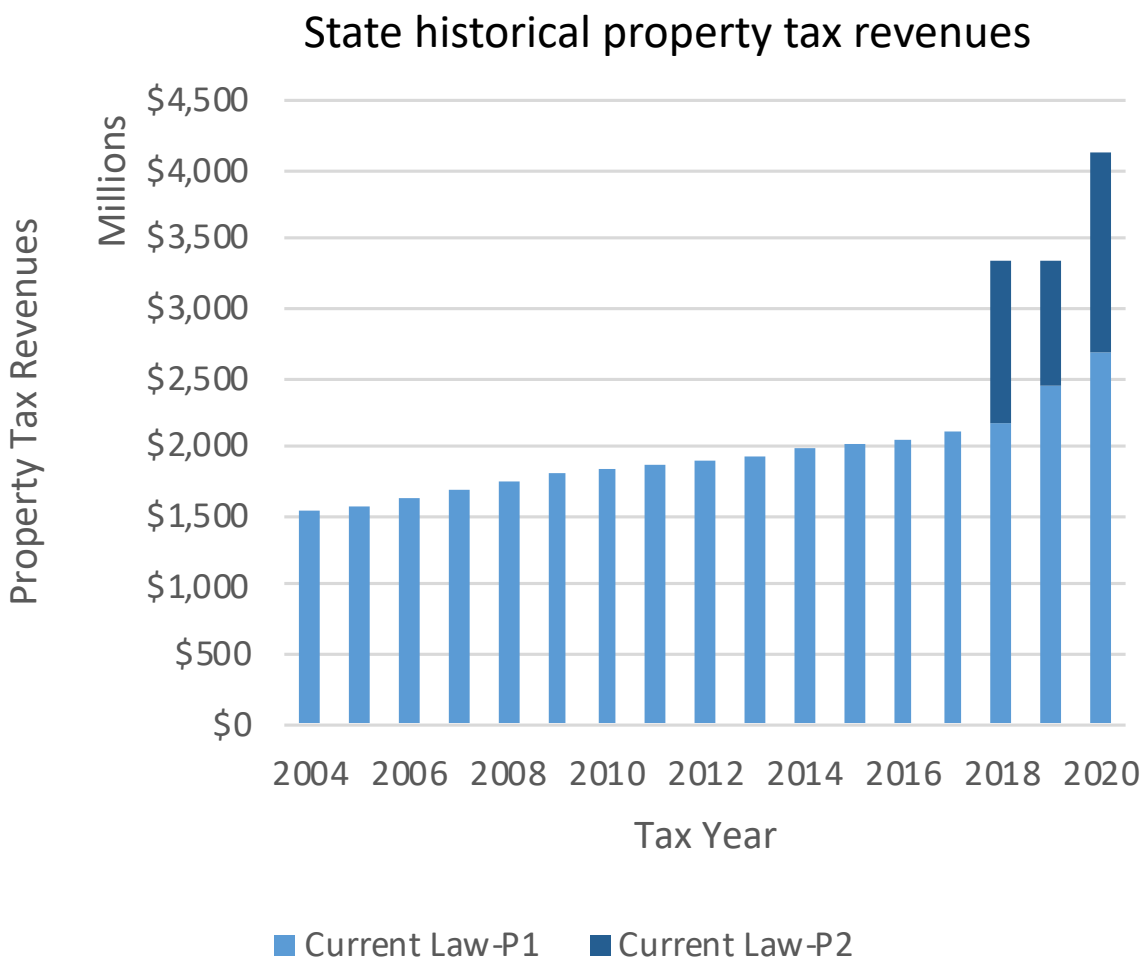


Combined Inflation and Population Rates



Washington State Property Tax

- Prior to 2017, the state property tax was budget-based
- After McCleary, property tax is two parts (both rate-based)
- Both parts revert to budget-based in tax year 2022 and beyond

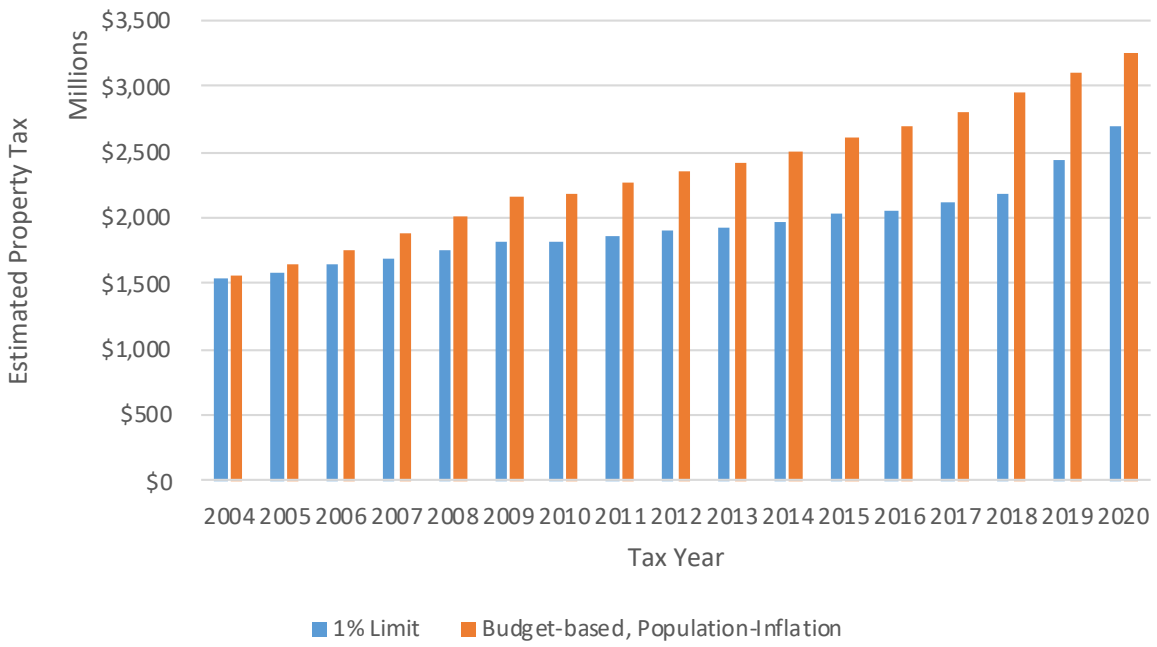


Property Tax – without McCleary changes

- A population and inflation rate limitation would have generated more revenue
- Approximately 37% more in taxes over the FY 2017-2019.

State Property Tax Levy: Budget-Based Approach

Fiscal Year	1% Limit	Population-Inflation	Revenue Difference	Percent Difference
FY 2017	$2,147,000,000	$2,878,000,000	$731,000,000	34.0%
FY 2018	$2,208,000,000	$3,030,000,000	$822,000,000	37.2%
FY 2019	$2,272,000,000	$3,181,000,000	$909,000,000	40.0%



Property Tax – with McCleary changes

- A population and inflation rate limitation would have generated more revenue
- Approximately 3.4% more in taxes over the FY 2017-2019.

State Property Tax Levy: Rate-Based Approach

Fiscal Year	Current Law	Population-Inflation	Revenue Difference	Percent Difference
FY 2017	$2,766,000,000	$3,091,000,000	$324,000,000	11.7%
FY 2018	$3,340,000,000	$3,346,000,000	$6,000,000	0.2%
FY 2019	$3,761,000,000	$3,767,000,000	$6,000,000	0.2%

Oregon and Idaho Tax Structure Analysis

Oregon and Idaho Tax Analysis

Estimate the revenue that would have been generated during the 2017-19 Biennium had Washington adopted the tax structure of our border states?

Comparative Approach

- Selected major tax sources from all three states.
- Oregon and Idaho both have state level personal income and corporate income taxes.

Tax Source	Washington	Oregon	Idaho
Retail Sales Tax	X		X
Property Tax	X	X	X
Business & Occupation Tax	X		
Public Utility Tax	X		
Real Estate Excise Tax	X		
Gas Tax	X	X	X
Cigarette Tax	X	X	X
Corporate Income Tax		X	X
Personal Income Tax		X	X

Analytic Methods

Document fiscal year 2018 and 2019 Washington tax revenues for the selected major state taxes.

Identify and approximate comparative state tax rates applicable to relevant segments of Washington's tax base for both state and local portions.

Transform Washington respective tax bases to adjust to identified relevant Oregon or Idaho tax law and exemptions and/or deductions.

Estimate alternative Oregon and Idaho tax revenues by applying respective rates to the transformed Washington State tax bases.

Comparison of OR & ID Tax Structures

- Overall, the application of both states' tax structures would generate more tax revenues to the state of Washington

- Idaho would outperform Oregon's in terms of total collections.

Tax Revenues (in millions of dollars)

	Washington	Oregon	Idaho
FY 2018	$21,839	$22,154	$26,799
FY 2019	$23,027	$24,473	$29,655
Total (FY 18-19)	$44,866	$46,627	$56,454
Difference		$1,761	$11,588

Sales Tax

- Idaho state rate is 6% (no local).
- Idaho does not exempt basic food purchases.
- The State would generate less revenue with OR or ID structure.

Comparison of Sales Tax Revenues

(Tax Revenues in the millions of dollars)

	Washington		Oregon		Idaho	
	State	Local	State	Local	State	Local
FY 2018	$10,994	$4,776	$0	$0	$10,148	$0
FY 2019	$11,936	$5,189	$0	$0	$11,018	$0
Total (FY 18-19)	$22,930	$9,966	$0	$0	$21,166	$0
Difference			-$22,930	-$9,966	-$1,764	-$9,966

Property Tax

- Both and OR and ID do not have a state portion of the property tax (schools are funded by local levies).
- WA's state and local levies compare ID and OR local levies.
- WA State property tax collections would be lower in the OR and ID structure.

Comparison of Tax Rates

	Washington		Oregon		Idaho	
	State	Local	State	Local	State	Local
Tax Year 2018	$2.70	$8.66	$0.00	$10.89	$0.00	$12.98
Tax Year 2019	$2.40	$7.37	$0.00	$10.53	$0.00	$12.41

Comparison of Property Taxes Revenues

	Washington		Oregon		Idaho	
	State	Local	State	Local	State	Local
Tax Year 2018	$3,346,000,000	$9,894,000,000	$0	$12,598,000,000	$0	$12,795,000,000
Tax Year 2019	$3,349,000,000	$9,471,000,000	$0	$13,705,000,000	$0	$13,956,000,000
Total (FY 18-19)	$6,695,000,000	$19,365,000,000	$0	$26,303,000,000	$0	$26,751,000,000
Difference			-$6,695,000,000	$6,938,000,000	-$6,695,000,000	$7,386,000,000

Gas Tax

- The State would generate less revenue with OR or ID structure.

Comparison of Tax Rates

January 1, 2017	Washington	Oregon	Idaho
State Excise Tax	$ 0.494	$ 0.300	$ 0.320
Other State Taxes/Fees	$ 0.001	$ 0.011	$ 0.010
Total State Rate	**$ 0.495**	**$ 0.311**	**$ 0.330**

January 1, 2018	Washington	Oregon	Idaho
State Excise Tax	$ 0.494	$ 0.340	$ 0.320
Other State Taxes/Fees	$ 0.001	$ 0.028	$ 0.010
Total State Rate	**$ 0.495**	**$ 0.368**	**$ 0.330**

January 1, 2019	Washington	Oregon	Idaho
State Excise Tax	$ 0.494	$ 0.340	$ 0.320
Other State Taxes/Fees	$ 0.001	$ 0.028	$ 0.010
Total State Rate	**$ 0.495**	**$ 0.368**	**$ 0.330**

Comparison of Gas Tax Revenues

	Washington	Oregon	Idaho
FY 2018	$1,380,000,000	$950,000,000	$920,000,000
FY 2019	$1,350,000,000	$1,000,000,000	$900,000,000
Total (FY 18-19)	$2,730,000,000	$1,950,000,000	$1,820,000,000
Difference		-$780,000,000	-$910,000,000

Cigarette Tax

- The State would generate less revenue with OR or ID structure.

Comparison of Tax Rates

Fiscal Year	Washington	Oregon	Idaho
FY 2018	$3.025	$1.330	$0.570
FY 2019	$3.025	$1.330	$0.570

Comparison of Gas Tax Revenues

(Tax revenues in the millions of dollars)

	Washington	Oregon	Idaho
FY 2018	$361.5	$234.1	$100.3
FY 2019	$342.1	$222.6	$95.4
Total (FY 18-19)	$703.6	$456.8	$195.8
Difference		-$246.9	-$507.9

Personal Income Tax

- Using Oregon's tax structure, it is estimated that it could raise $39 billion.
- Using Idaho's tax structure it is estimated that it could raise $28 billion.

Comparison of Personal Income Tax Revenues

	Washington	Oregon	Idaho
FY 2018	$0	$18,701,000,000	$13,611,000,000
FY 2019	$0	$20,657,000,000	$14,324,000,000
Total (FY 18-19)	$0	$39,358,000,000	$27,935,000,000
Difference		$39,358,000,000	$27,935,000,000

OR and ID Average Tax per Filer

Federal AGI Level		Oregon		Idaho	
Min.	Up To	2017	2018	2017	2018
$0	$5,000	$20	$19	$4	$7
$5,000	$10,000	$110	$114	$13	$7
$10,000	$15,000	$284	$303	$55	$17
$15,000	$20,000	$522	$551	$166	$99
$20,000	$25,000	$802	$833	$328	$257
$25,000	$30,000	$1,109	$1,160	$513	$449
$30,000	$35,000	$1,426	$1,498	$714	$652
$35,000	$40,000	$1,738	$1,822	$899	$868
$40,000	$45,000	$2,037	$2,136	$1,098	$1,082
$45,000	$50,000	$2,330	$2,439	$1,333	$1,313
$50,000	$60,000	$2,700	$2,837	$1,670	$1,658
$60,000	$70,000	$3,260	$3,387	$2,172	$2,128
$70,000	$80,000	$3,870	$4,008	$2,726	$2,659
$80,000	$90,000	$4,496	$4,630	$3,308	$3,182
$90,000	$100,000	$5,176	$5,302	$3,929	$3,775
$100,000	$250,000	$9,209	$9,351	$6,984	$6,686
$250,000	$500,000	$25,639	$25,940	$20,177	$18,319
$500,000	...or more	$104,752	$103,351	$84,837	$81,010

Corporate Income Tax

- Using Oregon's tax structure, it is estimated that it could raise $4.9 billion.
- Using Idaho's tax structure it is estimated that it could raise $4.6 billion.
- Note: Washington B&O raised $8.59 billion (2017-19 biennium).

Comparison of Corporate Income Tax Revenues

	Washington	Oregon	Idaho
FY 2018	$0	$2,274,000,000	$2,022,000,000
FY 2019	$0	$2,589,000,000	$2,337,000,000
Total (FY 18-19)	$0	$4,863,000,000	$4,359,000,000
Difference		$4,863,000,000	$4,359,000,000

Report Outline:
TSWG Economic Analysis

TSWG: Economic Analysis Report

	Summary Report	Technical Notes
Audience:	General Public	Those interested in the technical details and analysis
Length	Approximately 20 pages	Detailed, but not voluminous
Orientation:	Graphically oriented with charts and infographics	Text with supporting tables and charts
Production Quality:	Professional designed and produced	Professional produced

Summary Report Sections

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- Submittal Letter from TSWG
- Executive Summary
- Main Body

Main Body Outline

- About the TSWG and Economic Modeling
  - Summary of 2018 TSWG Report
  - Summary of Budget provisos and economic questions
- WA Current Tax Structure
  - Summary of 2002 Gates Study
  - Summary of Tax principles
- 2019-2021 Economic Analysis
  - Tax Analyses
  - Household and Business Tax Burden Analyses
  - Economic Competitiveness
- Next: Overview of 2021 TSWG Work Program