



Econ 101: Understanding Tax Policy

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Meet your instructors...



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Tax 101

Today: Contours of current U.S. tax policy

October 18: Most persuasive, evidence-backed arguments for how the tax code affects economic growth

...More TBA

Overall Objective: You leave with the knowledge and confidence you need to make sense of the tax code and advise your boss in next year's high-stakes debate.

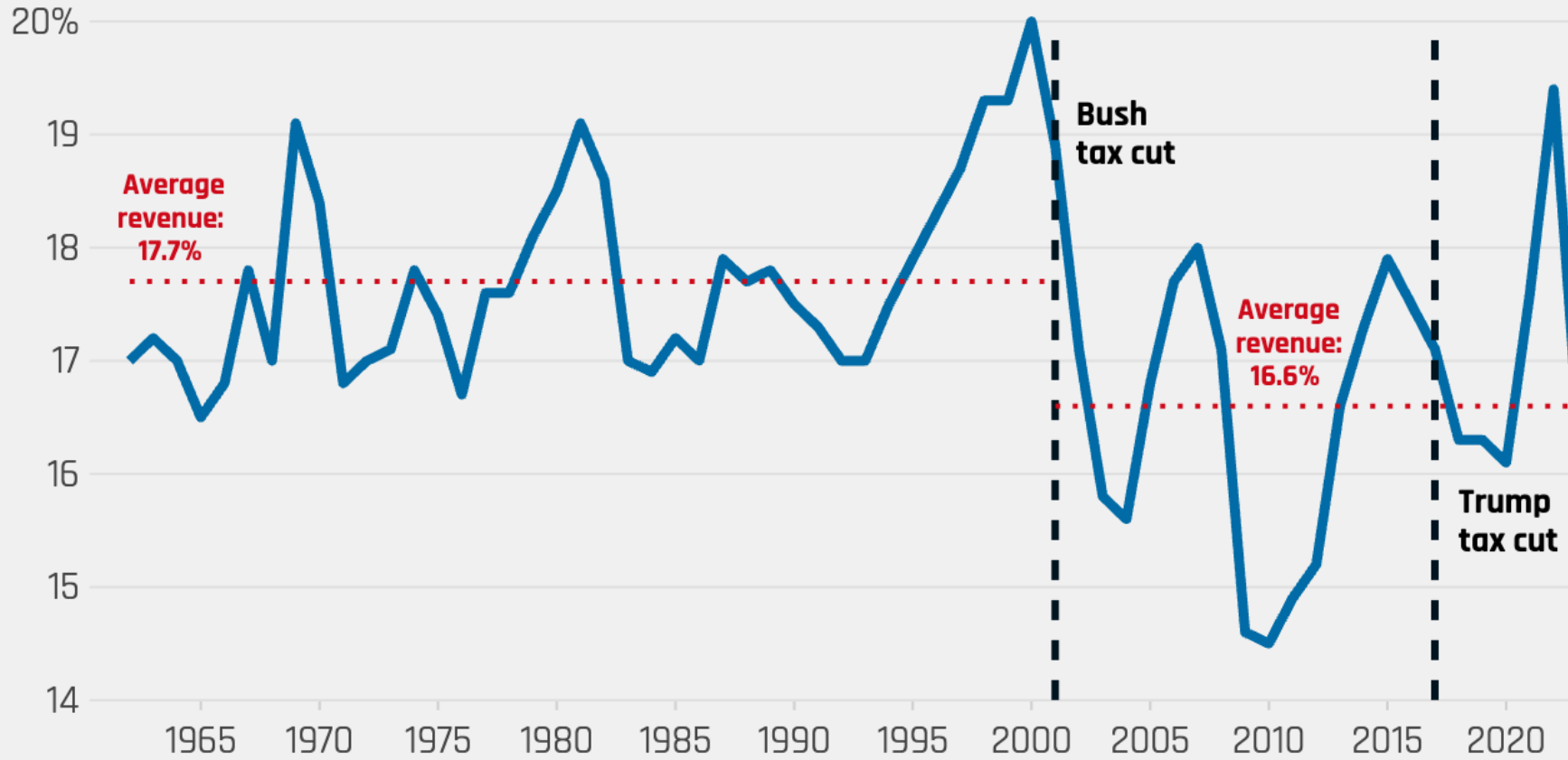
Outline for today

- Basic tax facts
- Overview of major federal taxes
 - Payroll
 - Individual income
 - Business income
- Issues in tax policy
 - Tax expenditures
 - Incidence and progressivity/distribution
 - Revenues/deficits
 - Other behavioral impacts
- Q&A

Basic Tax Facts

Recent tax cuts have reduced revenue

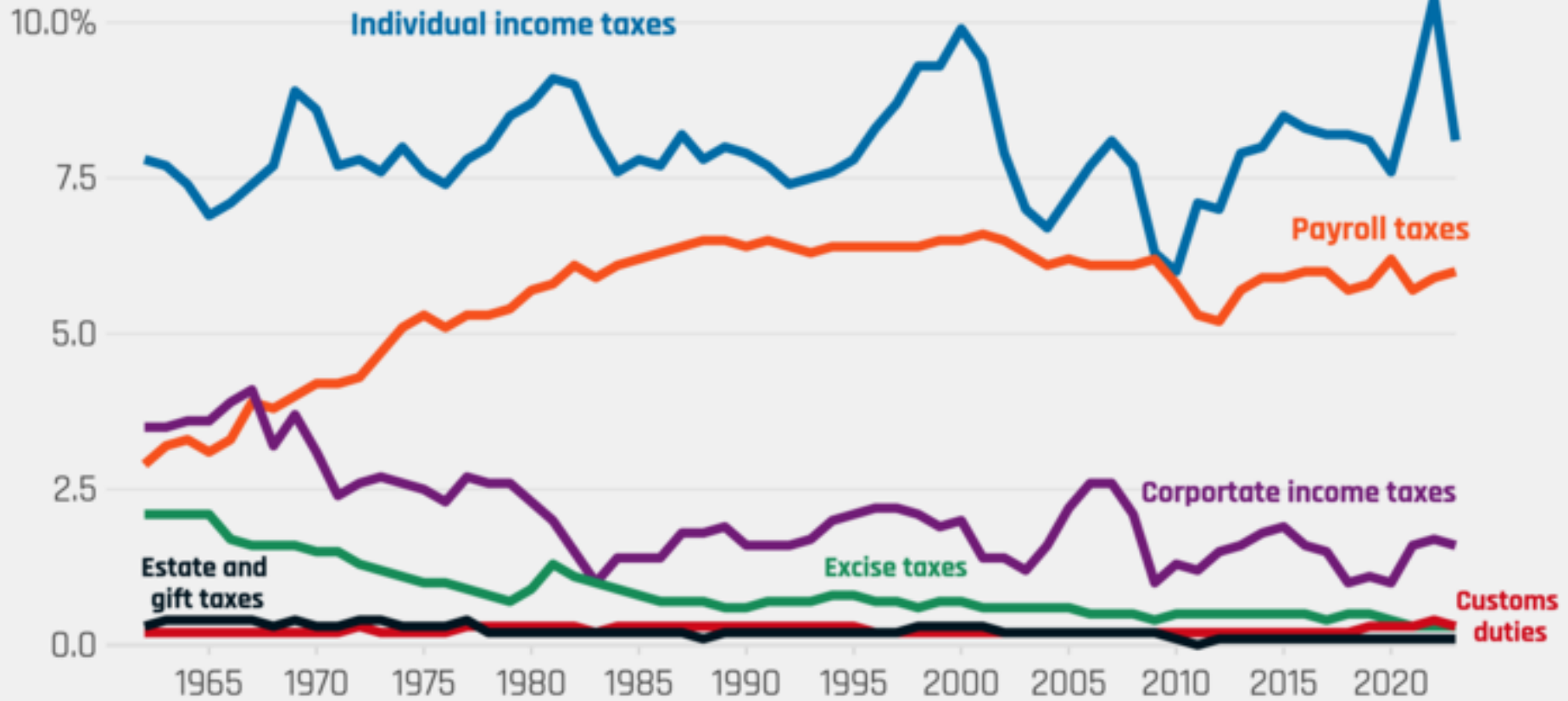
Federal revenues as a share of GDP, 1962-2023



Source: Congressional Budget Office, Supplemental Data Table 1a from "The Budget and Economic Outlook: 2024 to 2034" [February 2024], available at <https://www.cbo.gov/publication/59710>.

Individual income and payroll taxes account for most federal revenues

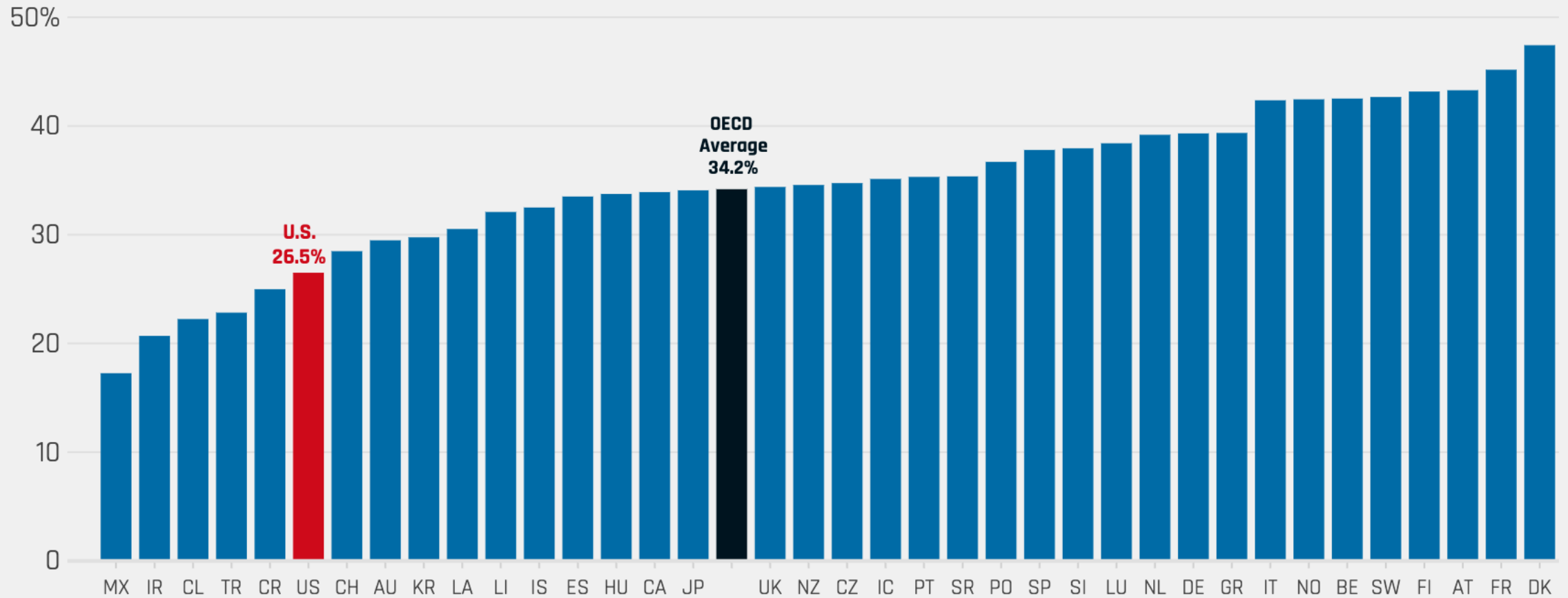
Federal revenues by tax as a share of GDP, 1962-2023



Source: Congressional Budget Office, Supplemental Data Table 2a from "The Budget and Economic Outlook: 2024 to 2034" [February 2024], available at <https://www.cbo.gov/publication/59710>.

The United States is a low-tax country

Revenue as a share of GDP in OECD countries, 2021



Source: Organization for Economic Cooperation and Development

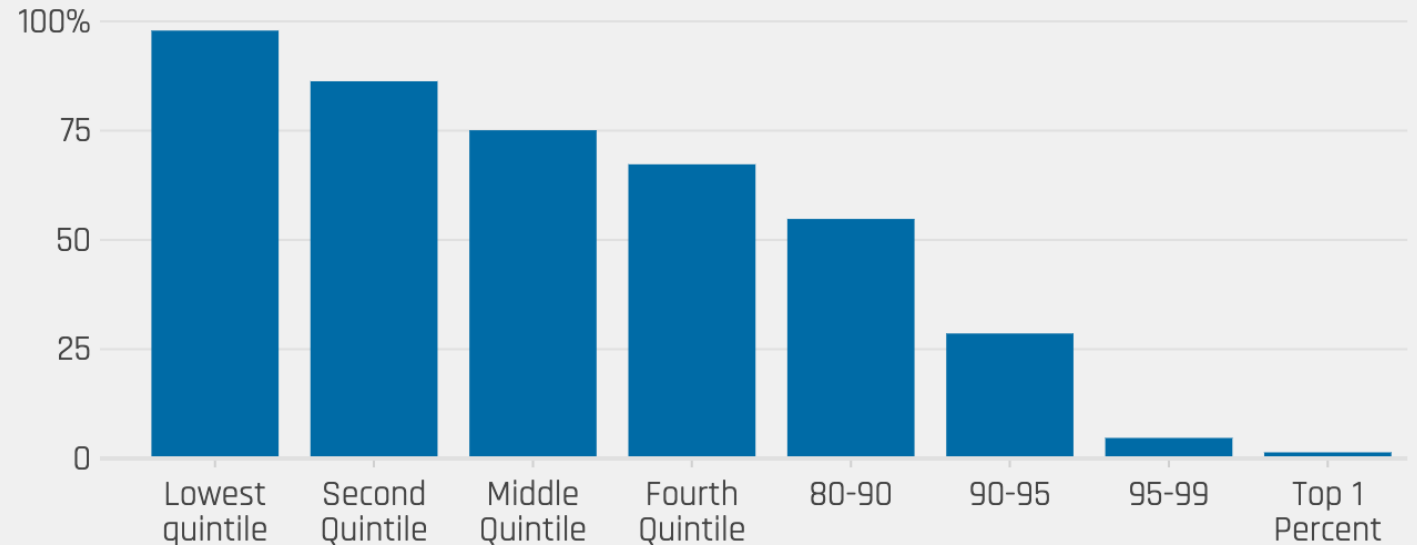
Overview of Major Federal Taxes

Payroll taxes

- 15.3% rate on earnings, remitted by employers (and the self-employed)
 - Half (7.65%) comes from the employer's accounts and half from workers' paychecks (Note: different from economic incidence)
- Employee portion: 6.2% for Social Security, 1.45% for Medicare
- Social Security portion applies only to earnings up to \$168,600 in 2024

Payroll taxes exceed income taxes for most families

Share of families with payroll tax greater than income tax among families paying either tax, 2022



Note: The income cut-offs are \$30,000 for the lowest quintile, \$58,500 for the second quintile, \$103,800 for the middle quintile, \$189,200 for the fourth quintile, \$276,100 for the 90th percentile, \$398,100 for the 95th percentile, and \$982,600 for the top 1 percent (all in 2022 dollars).

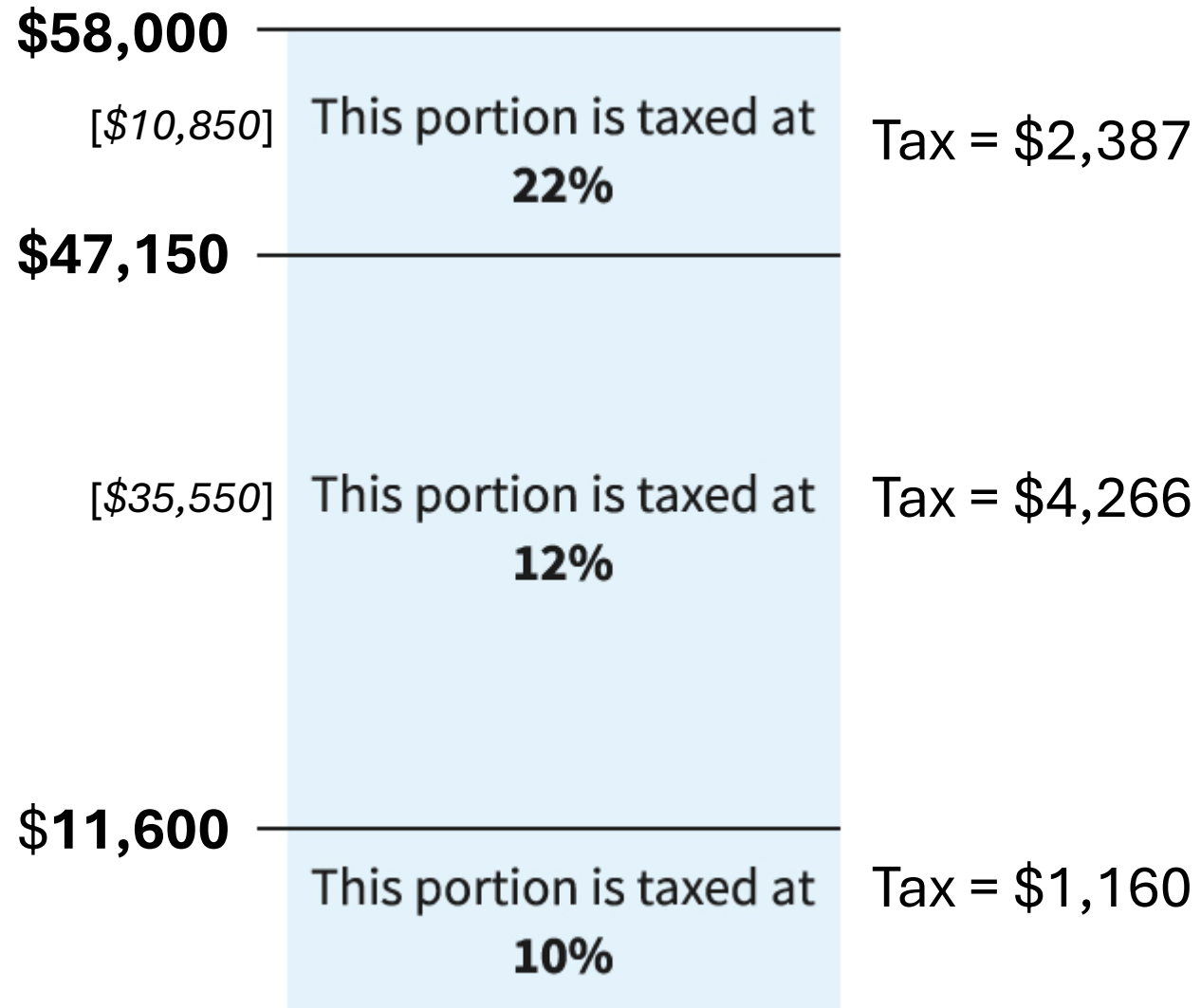
Source: Tax Policy Center, "Table T22-0179: Distribution of Federal Payroll and Income Taxes by Expanded Cash Income Percentile, 2022" December 2022, available at <https://www.taxpolicycenter.org/model-estimates/distribution-federal-payroll-and-individual-income-taxes-december-2022/t22-0179>

Individual income tax

- More complex tax than payroll tax
 - Allows for greater personalization
 - Reflects pursuit of wide range of policy goals:
 - Anti-poverty policy (e.g., Earned Income Tax Credit)
 - Retirement policy (e.g., 401(k)s)
 - Health policy (e.g., Premium Tax Credit)
 - Preference for “capital”:
 - Ordinary income (wages, self-employment, interest, Social Security) versus...
 - Capital gains (increase in the price of an asset, paid on realization) and dividends (payment from corporate stock)
- Highly progressive due to increasing marginal tax rates

Applying marginal tax rates

A single person with **taxable ordinary income** in 2024 of \$58,000:



Total income tax liability = \$7,813

Rate = 13.5%

Credits vs. deductions

Use credits to pursue specific policy aims, deductions to measure income

Deductions

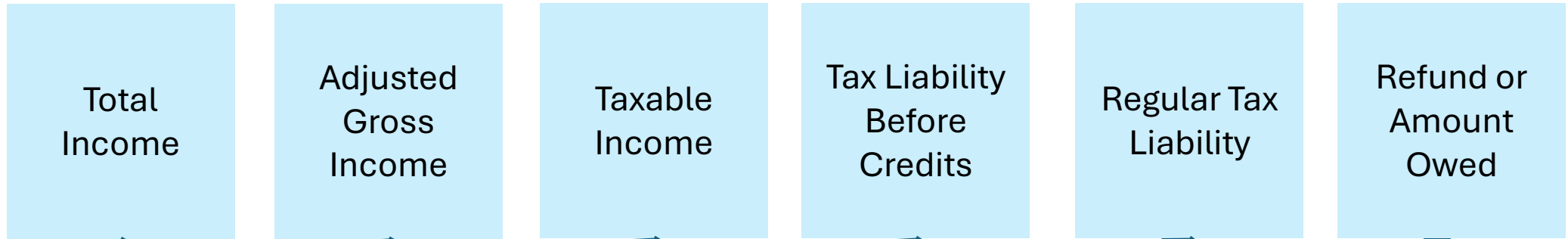
- Reduce taxable income
- Value increases with your marginal tax rate
- Often only valuable for those who *itemize*
- Worth more to higher-income families

Credits

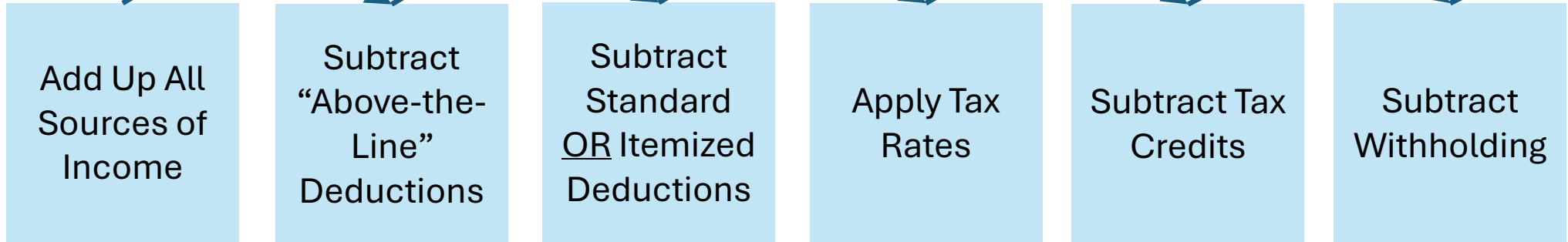
- Nonrefundable – can reduce tax to zero but not below zero
- Refundable – can reduce tax below zero
- Value is specified directly in law
- Worth more to lower-income families, esp. if refundable

Determining individual income tax liability

WHAT:



HOW:



Already excluded: health insurance, unrealized capital gains, imputed rent, gifts, and inheritances

Includes wages, self-employment, interest, dividends, capital gains, pensions, rents, and Social Security

Includes educator expenses, IRA contributions, HSA contributions, and student loan interest

Includes charitable contributions, medical expenses, state and local taxes, and mortgage interest

Ordinary rates: 10, 12, 22, 24, 32, 35, and 37% (only on amount >\$609,350K)

Capital gains/dividend rates: 10, 15, and 20%

Includes earned income tax credit, child tax credit, education credits, and saver's credit

Amounts withheld from your paycheck and estimated tax payments

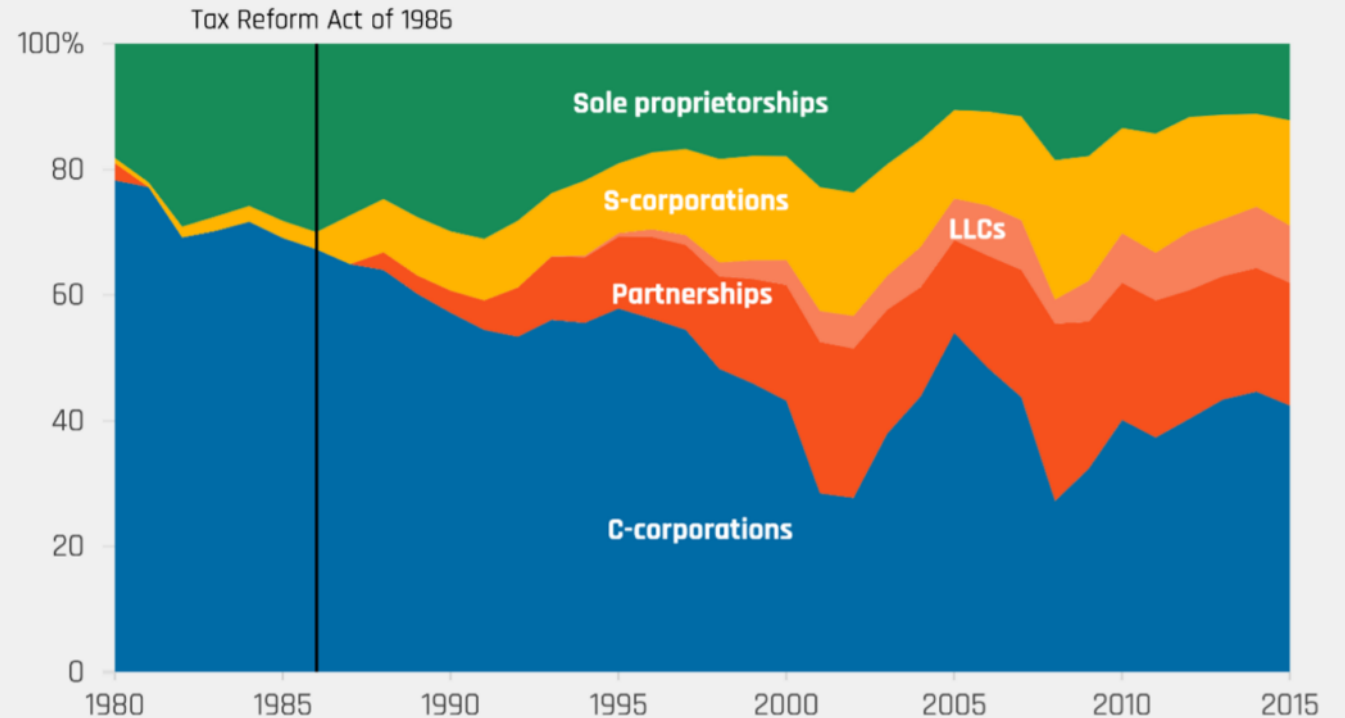
Taxation of business income

Two major types for tax purposes:

- C corporations
 - Pay the *corporate income tax*
 - Owners pay dividend income tax when profits are distributed
 - Publicly traded companies must be C-corps
- Pass-throughs
 - Owners pay tax on profits on their own income tax return
 - Partnerships can be owned by other companies, even other partnerships → complexity

Growth in income of pass-through businesses has outpaced traditional C-corporations over recent decades

Share of net income (less deficit) by business type, 1980-2015



Source: Internal Revenue Service, "SOI Tax Stats - Integrated Business Data" [2023], Table 1, available at <https://www.irs.gov/statistics/soi-tax-stats-integrated-business-data>.

Note: Partnerships reported a loss in 1981 through 1987. The LLCs in the chart are those that were treated as partnerships for tax purposes, the most common form of filing status for multi-owner LLCs. But note that in certain cases an LLC can instead elect to be treated as a S-corporation, C-corporation, or sole proprietorship.

Determining the business tax base

WHAT:

Gross
Receipts
or Sales

Gross
Profit

Total
Income

Taxable
Income

HOW:

Add Up
Receipts or
Sales from
Business
Operations

Subtract
Cost of
Goods Sold

Add
Investment
Income

Subtract
Operating
Costs

Subtract
Interest

Subtract
Depreciation

Cost of
purchases for
resale and costs
of production of
goods for sale

Includes
interest,
dividends, rents,
royalties, capital
gains, and other
income

Includes
employee
compensation,
rents, repairs,
and taxes

Includes
interest paid on
mortgages, lines
of credit, and
corporate bonds

The assumed
decline in value
of capital such
as structures,
industrial
machinery, and
cars and trucks

Taxing international activities

- Individual income taxes apply to the worldwide income of U.S. citizens and resident aliens
- Corporate taxes apply to U.S.-resident corporations and U.S. activities of foreign corporations, but the rules are much more complex
 - Minimum taxes apply to some foreign income of U.S. corporations to discourage avoidance (subpart F, GILTI) and to certain other payments (BEAT)

Issues in Tax Policy

Tax expenditures

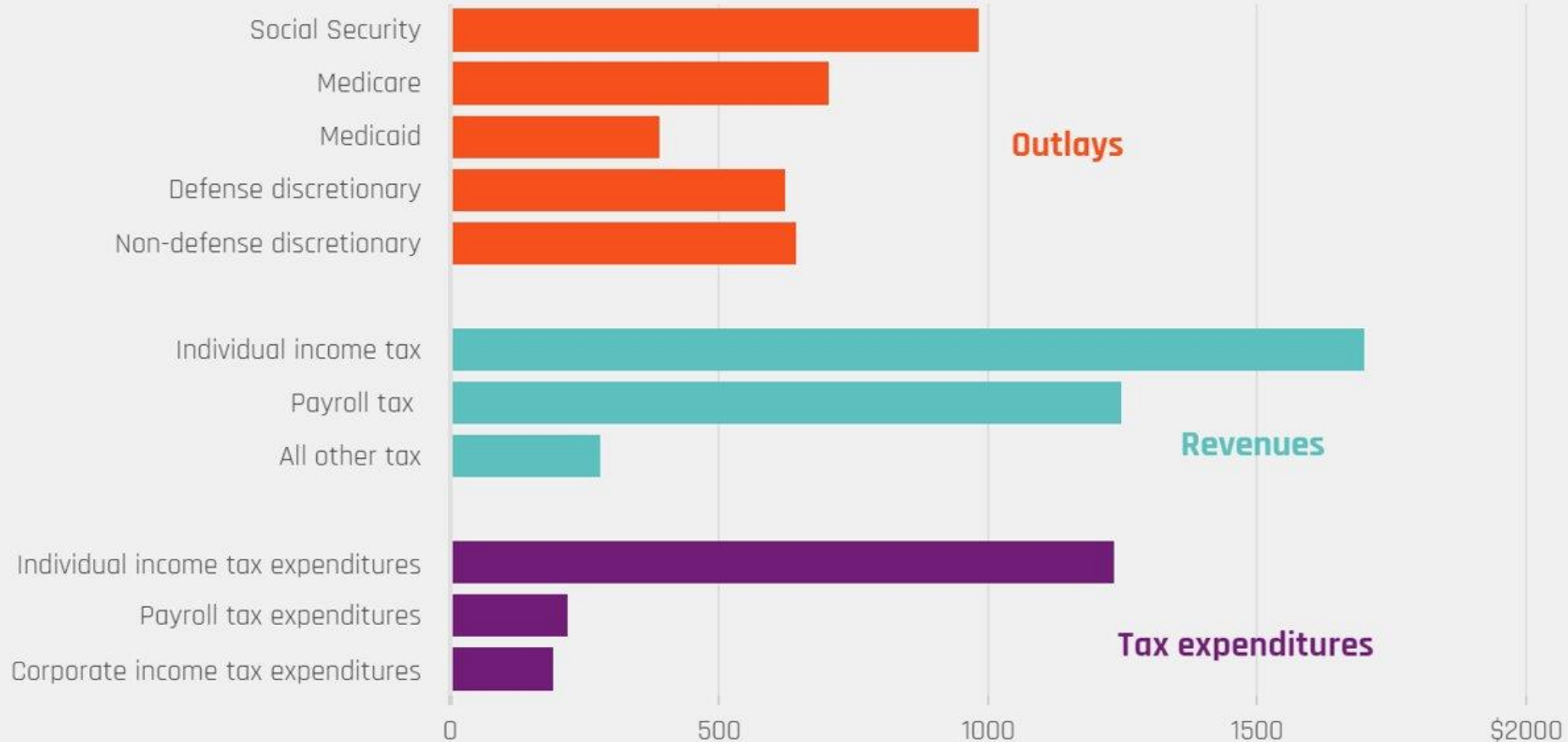
- Distinction between taxes and spending is ambiguous
 - Tax expenditure: spending through the tax code
 - Tax credit for higher education vs. Pell grants
 - JCT and Treasury estimate annually
 - Tax expenditures are often inferior to better-designed spending proposals that would achieve the same end

Top Individual Income Tax Expenditures			
(in billions of dollars)			
Provision	2023	2024	2024-33
Exclusion of employer contributions for medical insurance premiums and medical care	216	231	3,436
Exclusion of net imputed rental income	147	152	1,946
Defined contribution employer plans	134	136	1,904
Capital gains	116	114	1,566
Deductibility of charitable contributions, other than education and health	47	48	847
Deductibility of mortgage interest on owner-occupied homes	32	31	828
Deductibility of nonbusiness State and local taxes other than on owner-occupied homes	7	7	797
Defined benefit employer plans	70	69	757
Capital gains exclusion on home sales	54	58	747
Self-Employed plans	43	44	614
Treatment of qualified dividends	36	38	518
Step-up basis of capital gains at death	49	34	510
Individual Retirement Accounts	33	33	474

Source: <https://home.treasury.gov/policy-issues/tax-policy/tax-expenditures>

Tax expenditures are large relative to revenues and spending

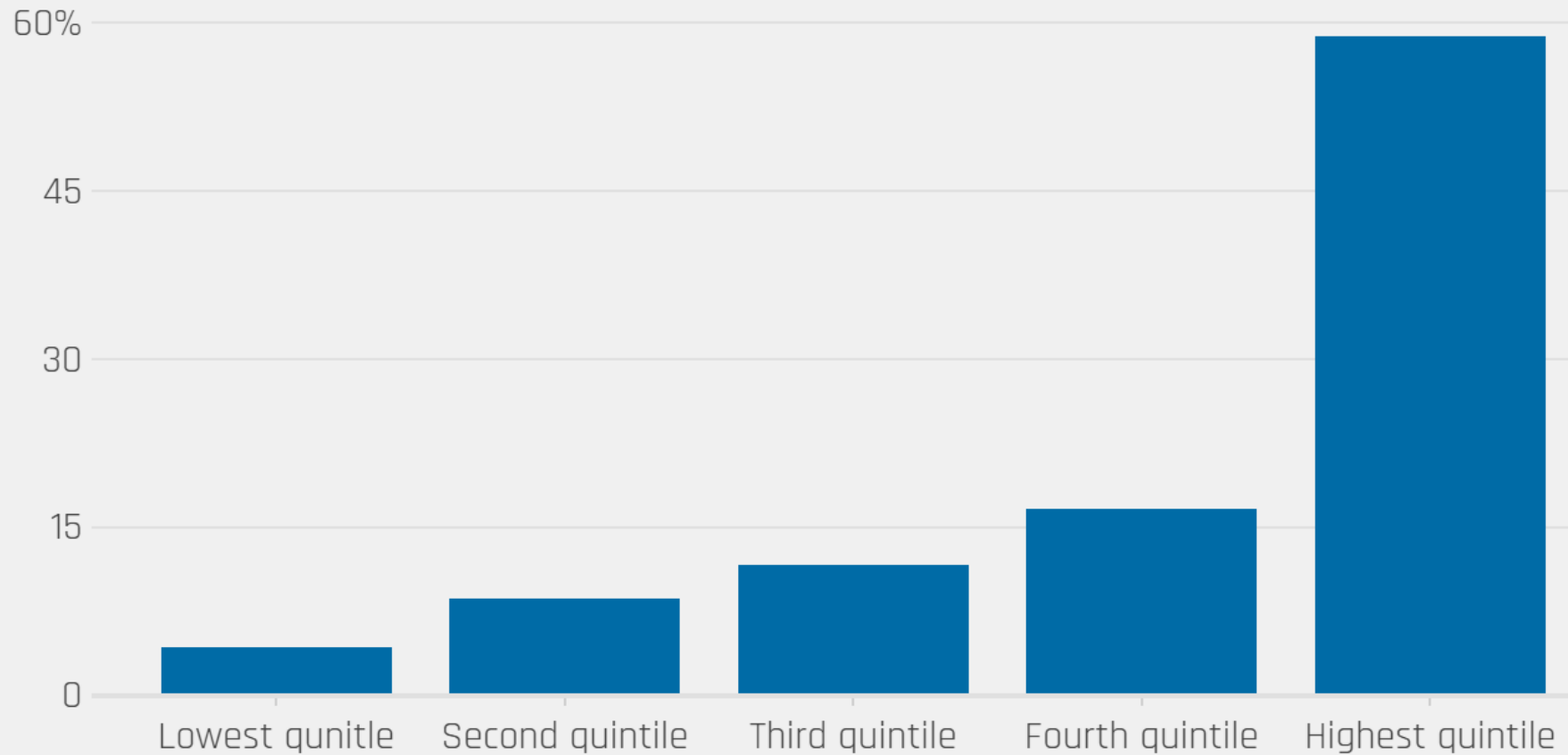
Components of revenues, tax expenditures, and spending in billions of dollars, 2019



Source: Congressional Budget Office

Benefits of tax expenditures skew to the top

Share of benefits received from federal income tax expenditures by income group, 2019



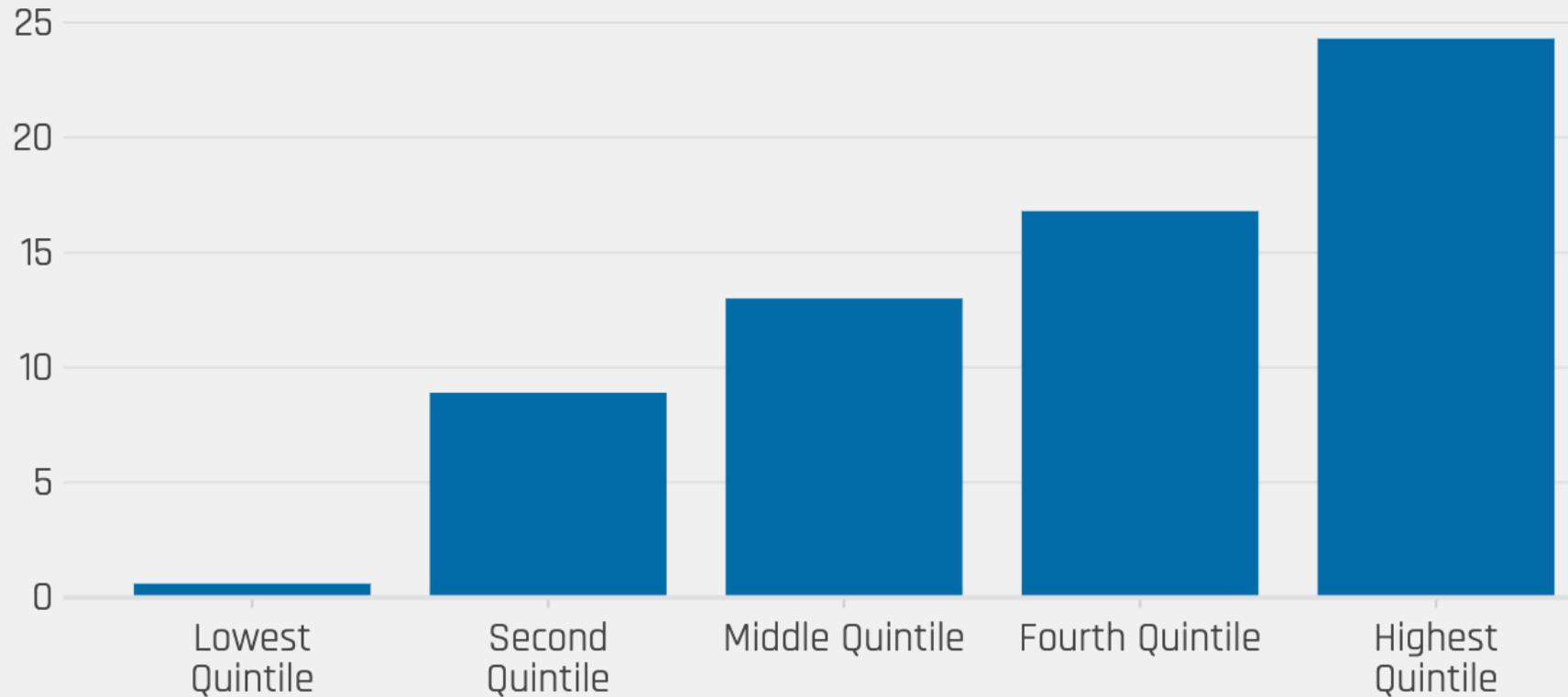
Source: Tax Policy Center

Incidence and progressivity/distribution

- **Statutory incidence:** which groups have legal responsibility to remit taxes
- **Economic incidence:** which groups bear the economic burden of a tax
- Economic incidence is transmitted via price changes
 - Example 1: Importers remit tariffs, but...
 - Example 2: Employers remit payroll taxes, but...
- The economic force behind incidence is sensitivity (elasticity) to price changes
 - In Ex. 1, key is that importers are more responsive to price changes than domestic consumers
 - (ability to import elsewhere, unavailability of domestic substitutes, etc.)
- Analyses of incidence aim to report economic burden but there can be controversy/disagreement

Federal taxes are progressive

Average federal tax rates by income, 2019

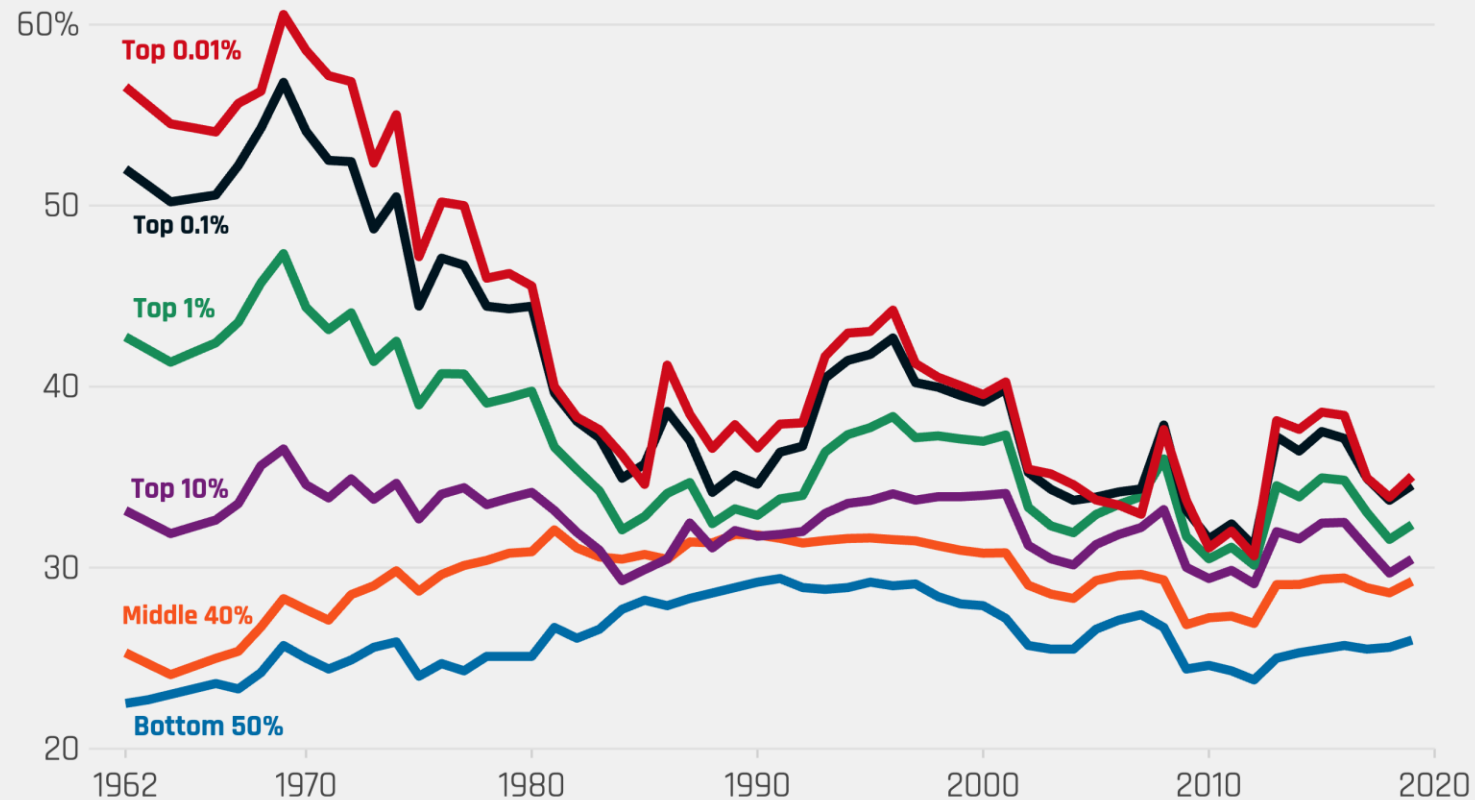


Note: For reference, the average pre-tax income for the bottom quintile in 2019 was \$25,200, the second quintile average was \$55,600, the third quintile average was \$86,600, the fourth quintile average was \$130,400, and the top quintile average was \$351,500 [all in 2021 dollars]

Source: Congressional Budget Office, Supplemental Data Table 9: Average Federal Tax Rates, by Income Group, 1979 to 2021, from "The Distribution of Household Income in 2021" [September 2024], available at www.cbo.gov/publication/60341.

Taxes have become less progressive in the U.S. over time

Average effective tax rates as a percentage of pre-tax income, by income group, 1962-2019

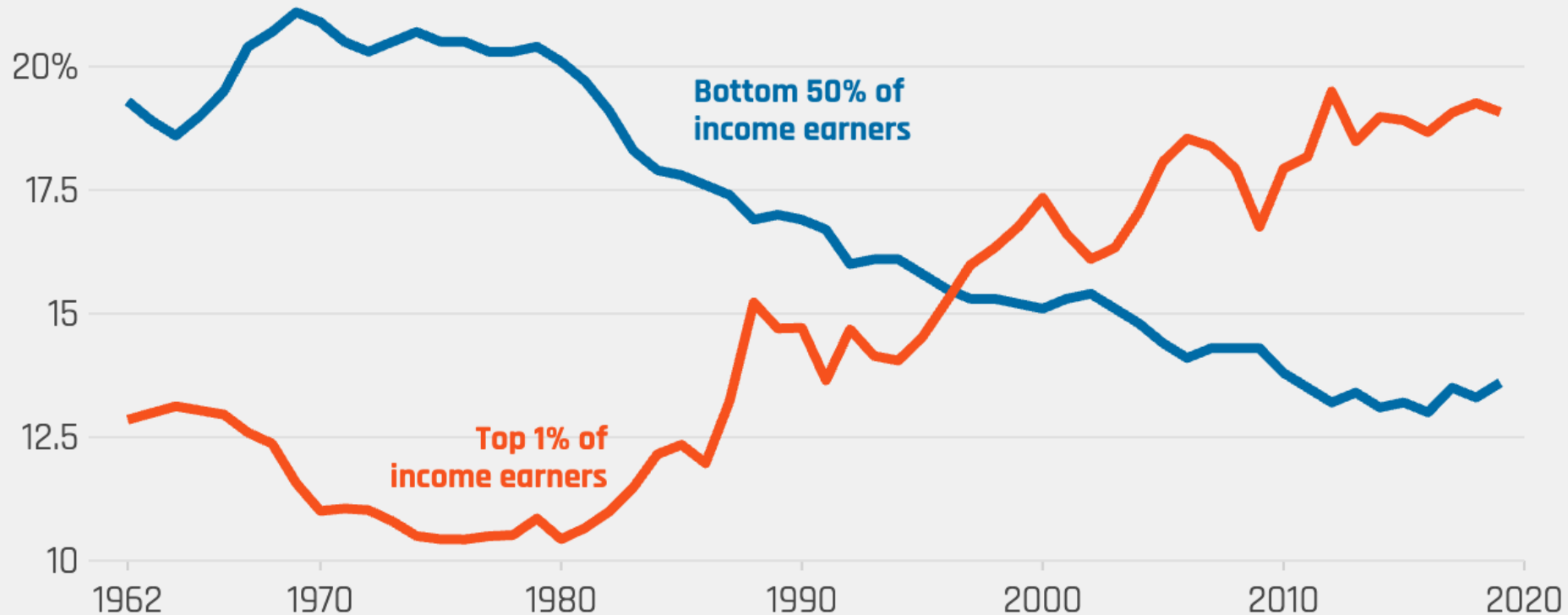


Note: To construct income groups, the unit of observation is the adult individual (aged 20 or above), and adults are ranked by their pre-tax national income, with income equally split between married spouses. All taxes at all levels of government are included in the numerator, and all pre-tax national income is included in the denominator. Pure realized capital gains (defined as realized gains in excess of 3 percent of national income) are included in pre-tax income. For reference, in 2019, the bottom 50% had an average pre-tax income of \$19,779; the middle 40% earned an average of \$74,190; the top 10% averaged \$333,011; the top 1% was \$1,390,129; the top 0.1% was \$6,205,332; the top 0.01% was \$27,680,833.

Source: Thomas Piketty, Emmanuel Saez, and Gabriel Zucman, Data Appendix II, Table G1: Average tax rate by pre-tax income group from "Distributional National Accounts: Methods and Estimates for the United States" (February 2022), available at <https://gabriel-zucman.eu/usdina/>

Income trend for the top 1% diverges from most Americans after 1980

Share of U.S. pretax income accruing to the bottom 50 percent and top 1 percent of income earners, 1962-2019

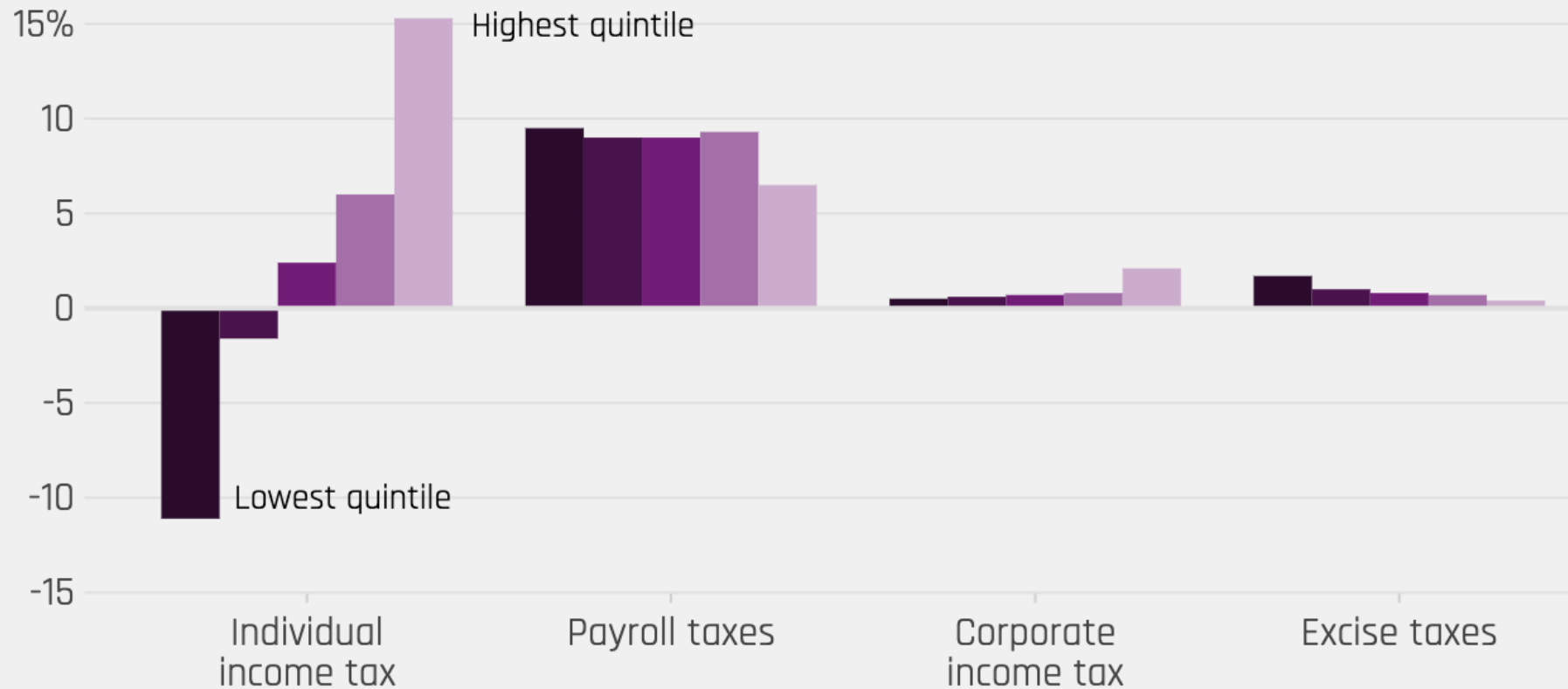


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Source: Thomas Piketty, Emmanuel Saez, and Gabriel Zucman, Data Appendix II, Table B1: Shares of total pre-tax income from "Distributional National Accounts: Methods and Estimates for the United States" [February 2022], available at <https://gabriel-zucman.eu/usdina/>

Progressivity varies dramatically by tax

Average tax rates by income by tax, 2019



Note: For reference, the average pre-tax income for the bottom quintile in 2019 was \$25,200, the second quintile average was \$55,600, the third quintile average was \$86,600, the fourth quintile average was \$130,400, and the top quintile average was \$351,500 (all in 2021 dollars).

Source: Congressional Budget Office, Supplemental Data Table 9: Average Federal Tax Rates, by Income Group, 1979 to 2021, from "The Distribution of Household Income in 2021" (September 2024), available at www.cbo.gov/publication/60341.

**DISTRIBUTIONAL EFFECTS OF
THE CONFERENCE AGREEMENT FOR H.R.1,
THE "TAX CUTS AND JOBS ACT"**

Calendar Year 2019

INCOME CATEGORY (2)	CHANGE IN FEDERAL TAXES (3)		FEDERAL TAXES (3) UNDER PRESENT LAW		FEDERAL TAXES (3) UNDER PROPOSAL		Average Tax Rate (4)	
	Millions	Percent	Billions	Percent	Billions	Percent	Present Law	Proposal
							Percent	Percent
Less than \$10,000.....	-\$396	-5.6%	\$7.0	0.2%	\$6.6	0.2%	9.1%	8.6%
\$10,000 to \$20,000.....	-\$1,792	(5)	-\$2.4	-0.1%	-\$4.2	-0.1%	-0.7%	-1.2%
\$20,000 to \$30,000.....	-\$2,982	-13.5%	\$22.1	0.7%	\$19.1	0.6%	3.9%	3.4%
\$30,000 to \$40,000.....	-\$5,416	-11.5%	\$47.0	1.5%	\$41.5	1.4%	7.9%	7.0%
\$40,000 to \$50,000.....	-\$6,728	-10.0%	\$67.3	2.1%	\$60.6	2.0%	10.9%	9.9%
\$50,000 to \$75,000.....	-\$23,046	-8.7%	\$265.3	8.2%	\$242.3	8.2%	14.8%	13.5%
\$75,000 to \$100,000.....	-\$22,437	-8.0%	\$279.5	8.7%	\$257.1	8.7%	17.0%	15.6%
\$100,000 to \$200,000.....	-\$70,372	-7.5%	\$939.8	29.1%	\$869.4	29.3%	20.9%	19.4%
\$200,000 to \$500,000.....	-\$65,485	-9.0%	\$724.3	22.4%	\$658.8	22.2%	26.4%	23.9%
\$500,000 to \$1,000,000..	-\$23,947	-9.4%	\$254.7	7.9%	\$230.8	7.8%	30.9%	27.8%
\$1,000,000 and over.....	-\$36,853	-5.9%	\$624.1	19.3%	\$587.2	19.8%	32.5%	30.2%
Total, All Taxpayers.....	-\$259,454	-8.0%	\$3,228.7	100.0%	\$2,969.3	100.0%	20.7%	19.0%

Source: Joint Committee on Taxation

Detail may not add to total due to rounding.

**ESTIMATED BUDGET EFFECTS OF THE CONFERENCE AGREEMENT FOR H.R. 1,
THE "TAX CUTS AND JOBS ACT"**

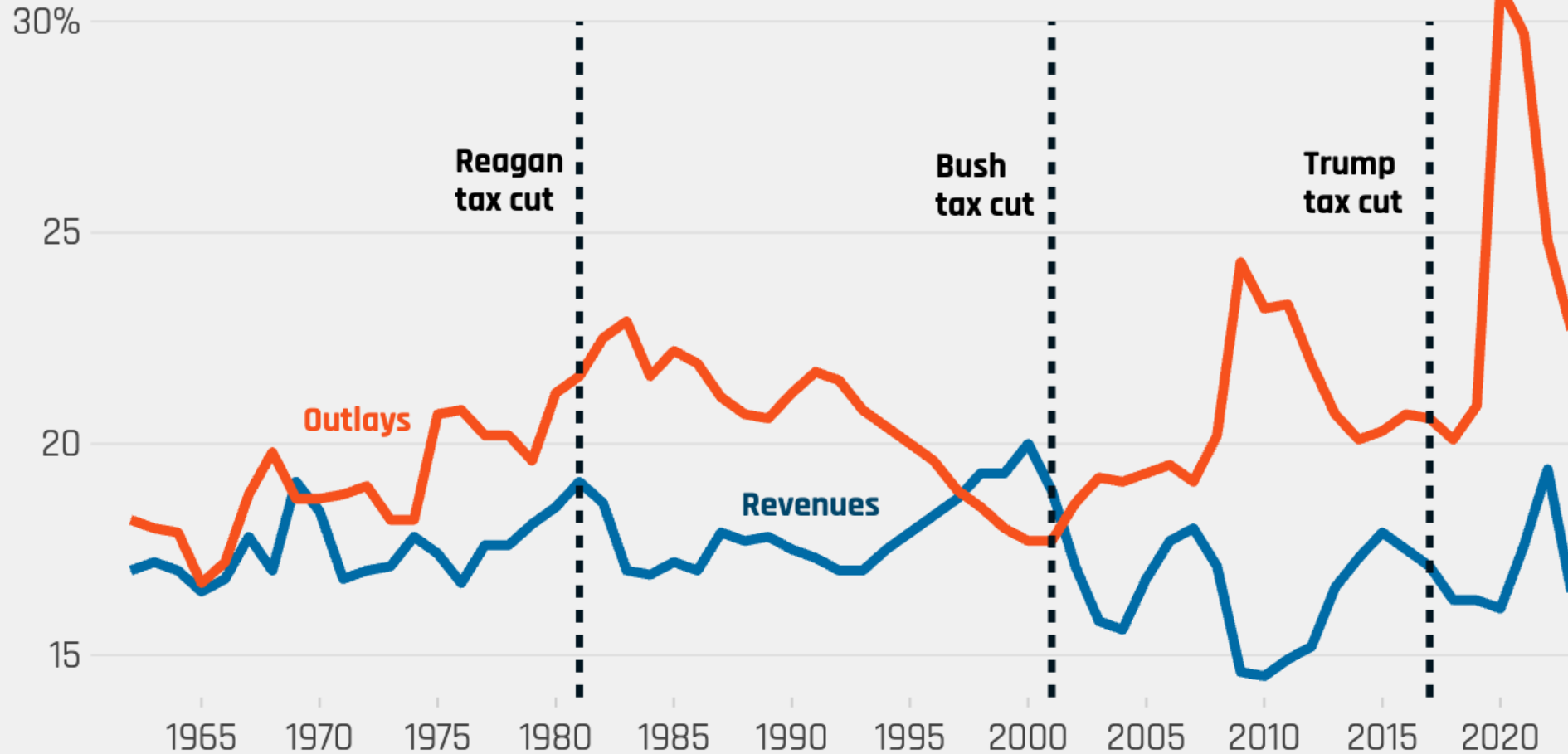
Fiscal Years 2018 - 2027

[Billions of Dollars]

Provision	Effective	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2018-22	2018-27
I. Individual Tax Reform													
A. Simplification and Reform of Rates, Standard Deductions, and Exemptions													
1. 10%, 12%, 22%, 24%, 32%, 35%, and 37% income tax rate brackets (sunset 12/31/25) [1][2].....	tyba 12/31/17	-94.1	-135.3	-140.9	-146.4	-152.0	-158.1	-164.3	-171.1	-52.0	[3]	-668.7	-1,214.2
2. Modify standard deduction (\$12,000 for singles, \$24,000 for married filing jointly, \$18,000 for HoH) (sunset 12/31/25) [2].....	tyba 12/31/17	-57.2	-82.6	-84.7	-87.5	-90.7	-92.9	-95.7	-99.1	-30.0	[3]	-402.6	-720.4
3. Repeal of deduction for personal exemptions (sunset 12/31/25) [2].....	generally tyba 12/31/17	93.3	137.1	141.6	146.4	151.8	157.6	163.3	169.2	51.3	---	670.1	1,211.5
4. Alternative inflation measure [2].....	tyba 12/31/17	0.8	2.1	5.5	8.2	10.4	12.8	16.6	20.0	25.6	31.5	27.0	133.5
B. Treatment of Business Income of Individuals, Trusts, and Estates													
1. Allow 20 percent deduction of qualified business income and certain dividends for individuals and for gross income of agricultural or horticultural cooperatives (sunset 12/31/25) [4].....	generally tyba 12/31/17	-27.7	-47.1	-49.9	-51.8	-52.8	-52.2	-53.6	-53.2	-24.2	-1.9	-229.5	-414.5
2. Disallow active passthrough losses in excess of \$500,000 for joint filers, \$250,000 for all others (sunset 12/31/25).....	tyba 12/31/17	9.5	16.2	17.2	18.0	18.8	19.6	20.4	19.4	9.3	1.3	79.7	149.7
C. Reform of the Child Tax Credit													
1. Modification of child tax credit: \$2,000 not indexed; refundable up to \$1,400 indexed down to nearest \$100 base year 2018; \$2,500 refundability threshold not indexed; \$500 other dependents not indexed; phase outs \$200K/\$400K not indexed (sunset 12/31/25) [2].....	tyba 12/31/17	-29.3	-67.7	-69.2	-70.4	-71.4	-73.8	-74.9	-76.0	-40.7	---	-308.1	-573.4
2. Require valid Social Security number of each child to claim refundable and non-refundable portions of child credit, non-child dependents and any child without a valid Social Security number still receives \$500 non-refundable credit (sunset 12/31/25) [2].....	tyba 12/31/17	---	3.9	3.8	3.8	3.7	3.8	3.7	3.7	3.0	0.5	15.2	29.8

Recent tax cuts have reduced revenue

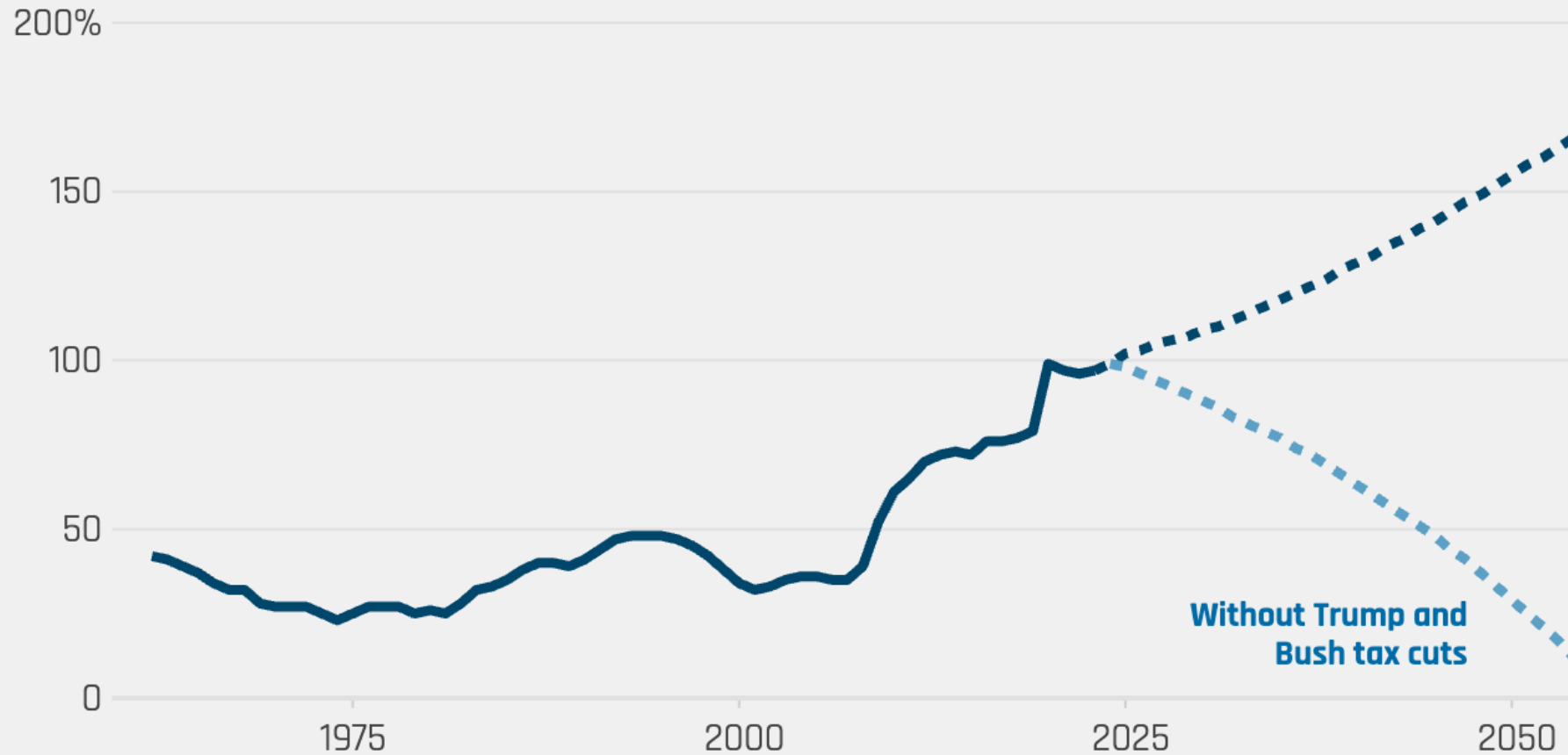
Federal revenues and outlays as a share of GDP, 1962-2023



Source: Congressional Budget Office, Supplemental Data Table 1a from "The Budget and Economic Outlook: 2024 to 2034" [February 2024], available at <https://www.cbo.gov/publication/59710>.

Tax cuts are to blame for increasing debt ratio

Total publicly held debt, as a percent of GDP, 1962-2054



Source: Calculations from Equitable Growth Senior Policy Fellow Michael Linden, based on 2012 Congressional Budget Office revenue projections of expiring Bush tax cuts

Other behavioral impacts

- Tax revenue is affected by behavioral responses to reforms
 - Example 1: if an income tax cut induces individuals to work more hours because each hour pays a little more after tax, this increases tax revenue
 - Example 2: If a corporate income tax hike induces companies to dodge taxes by shifting profits overseas, this reduces tax revenue
- Types of behavioral responses:
 - **Real responses:** working fewer hours, changing jobs/occupations, firms' producing less goods and services, less saving/investment, etc.
 - **Avoidance and evasion:** reducing one's tax burden without changes to real economic activity, whether legally (avoidance) or not (evasion)
- Importance of various behavioral responses is an empirical question
 - E.g. people do not seem to work a much less when income taxes go up, but where avoidance/evasion is possible we often see large responses

Behavioral responses: Novel examples



Kopczuk and Slemrod (2001): reported timing of **death** responds to changes in estate tax rates.

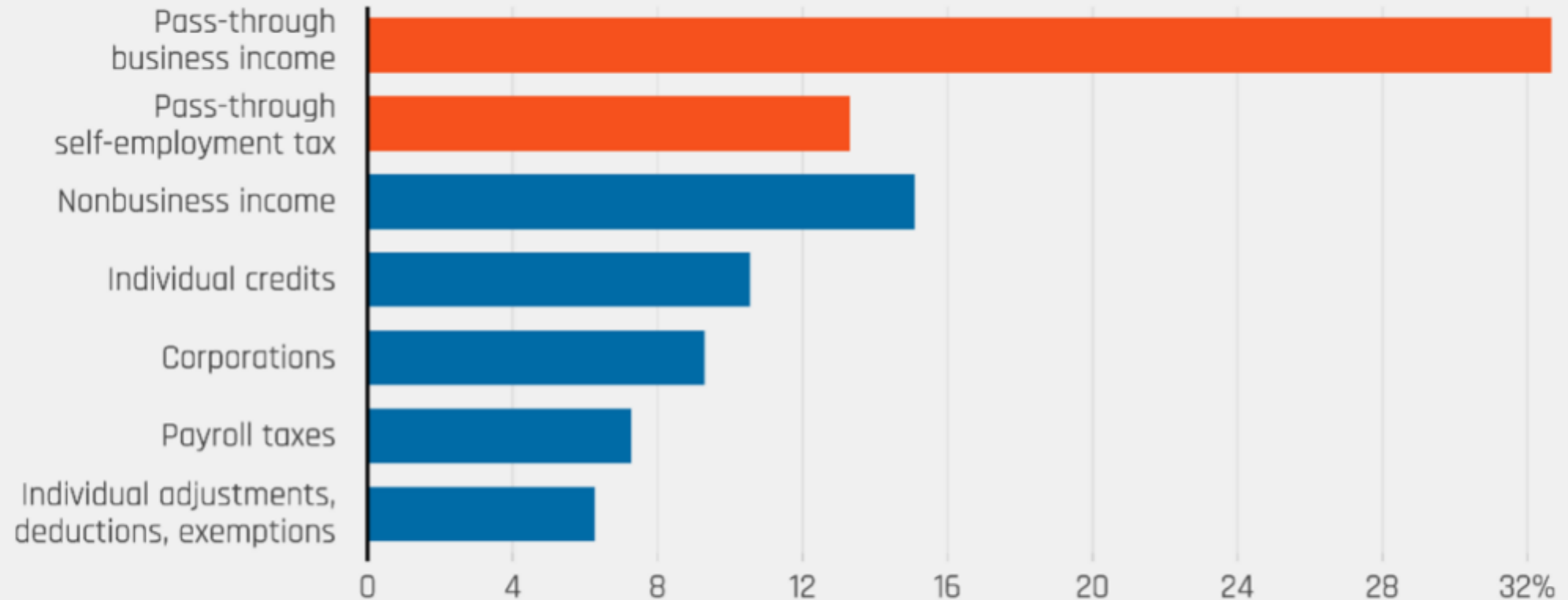
See Slemrod and Keen's recent book for many more examples.

Corrective taxes vs. revenue-raising taxes

- A corrective tax is one where policymakers wish to cause a behavioral response
 - You can pay less carbon taxes by using less carbon
 - In this case, behavioral responses improve economic efficiency
- A revenue-raising tax is one where they are not
 - You can reduce your income and payroll taxes by working less
 - You can evade an income tax by underreporting/mischaracterizing your income
 - In this case, the behavioral responses create inefficiency (deadweight loss)
 - The amount of inefficiency is increasing in the magnitude of the response

Underreporting of pass-through income is the major driver of the U.S. tax gap

Share of annual gross tax gap caused by underreporting of income, by income source, 2014-2016

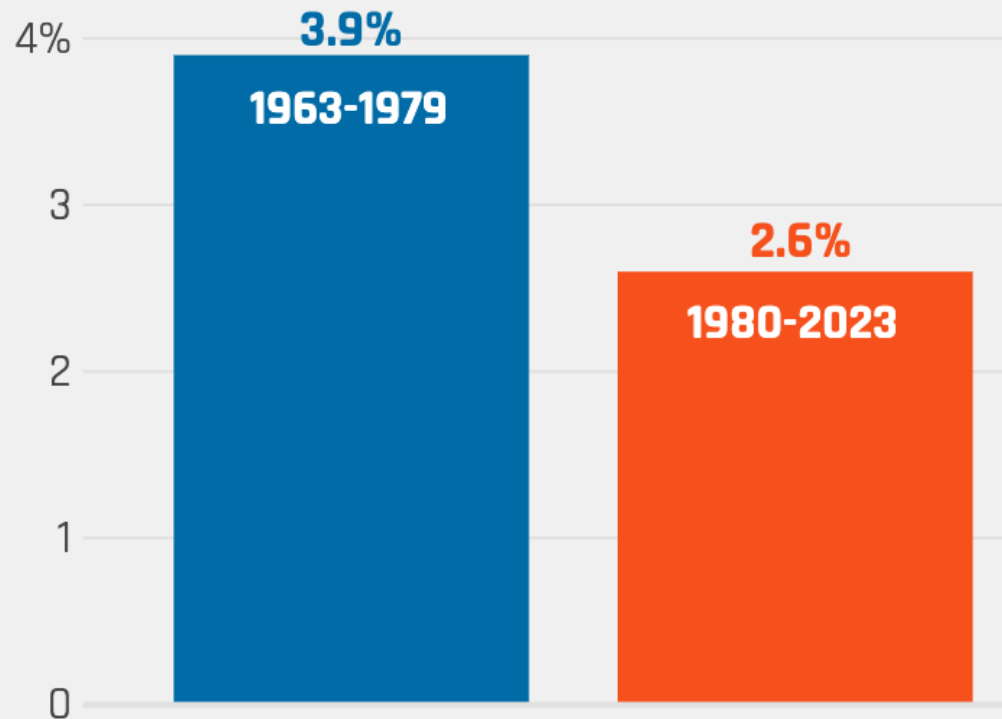


Source: Internal Revenue Service, "Federal Tax Compliance Research: Tax Gap Estimates for Tax Years 2014-2016" (2022), available at <https://www.irs.gov/pub/irs-pdf/p1415.pdf>; Samantha Jacoby, "Policymakers Should Ensure Pass-Throughs Pay More of Taxes They Owe" (Center on Budget and Policy Priorities, 2019), available at <https://www.cbpp.org/blog/policymakers-should-ensure-pass-throughs-pay-more-of-taxes-they-owe>.

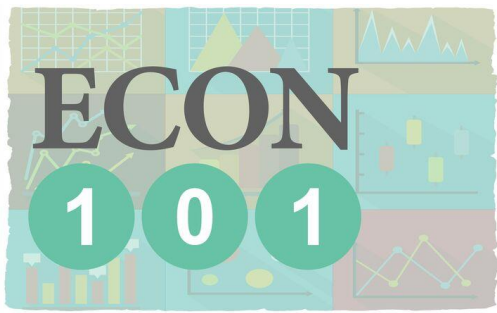
Note: Payroll taxes includes Federal Insurance Contributions Act (FICA) and Federal Unemployment Tax Act (FUTA).

Growth in the United States fell as taxes fell

Average annual growth in U.S. gross domestic product during a period of high taxation on corporations and the wealthy, 1963-1979, and a period of low taxation on corporations and the wealthy, 1980-2023



Source: Bureau of Economic Analysis, Table 1.1.1. Percent Change From Preceding Period in Real Gross Domestic Product



Questions?



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