

# The US Federal Budget

OLLI-Arizona State University  
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## National Economic Education Delegation

- **Vision**
  - One day, the public discussion of policy issues will be grounded in an accurate perception of the underlying economic principles and data.
- **Mission**
  - NEED unites the skills and knowledge of a vast network of professional economists to promote understanding of the economics of policy issues in the United States.
- **NEED Presentations**
  - Are **nonpartisan** and intended to reflect the consensus of the economics profession.

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## Who Are We?

- **Honorary Board: 54 members**

- 2 Fed Chairs: Janet Yellen, Ben Bernanke
- 6 Chairs Council of Economic Advisers
  - o Furman (D), Rosen (R), Bernanke (R), Yellen (D), Tyson (D), Goolsbee (D)
- 3 Nobel Prize Winners
  - o Akerlof, Smith, Maskin

- **Delegates: 652+ members**

- At all levels of academia and some in government service
- All have a Ph.D. in economics
- Crowdsource slide decks
- Give presentations

- **Global Partners: 49 Ph.D. Economists**

- Aid in slide deck development

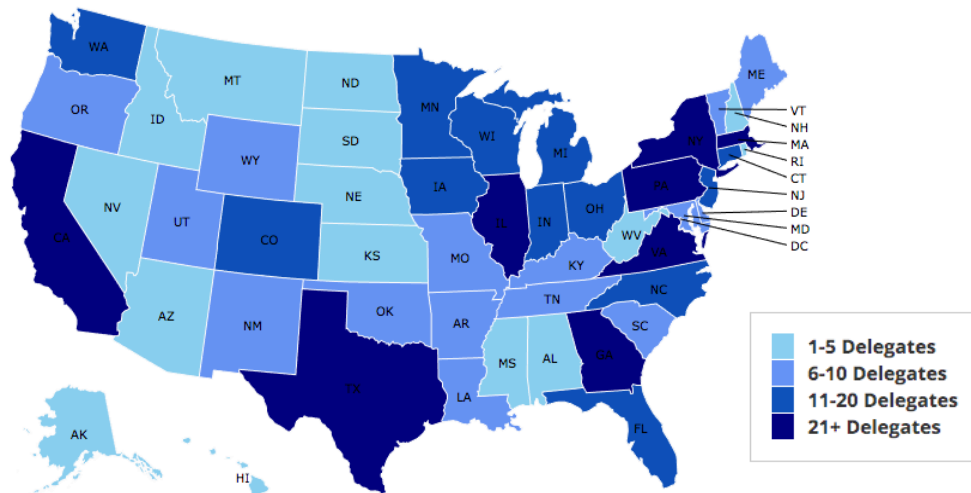


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## Where Are We?



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## Credits and Disclaimer

- **This slide deck was authored by:**

- Jon Haveman, NEED
- Geoffrey Woglom

- **Disclaimer**

- NEED presentations are designed to be nonpartisan.
- It is, however, inevitable that the presenter will be asked for and will provide their own views.
- Such views are those of the presenter and not necessarily those of the National Economic Education Delegation (NEED).

## What Does the U.S. Gov't Budget Look Like?

### Fiscal Year 2022 Budget Summary

| Revenue         | Billions       |              | Expenditures  | Billions       |              |
|-----------------|----------------|--------------|---------------|----------------|--------------|
| Income Taxes    | \$2,632        |              | Mandatory     | \$4,010*       |              |
| Payroll Taxes   | \$1,484        |              | Discretionary | \$1,787*       |              |
| Corporate Taxes | \$425          |              | Interest      | \$475          |              |
| Other           | \$356          |              |               |                |              |
| <b>Total</b>    | <b>\$4,896</b> | <b>19.8%</b> | <b>Total</b>  | <b>\$6,272</b> | <b>25.4%</b> |

**Budget Deficit: \$1,375 Billion 5.5%**

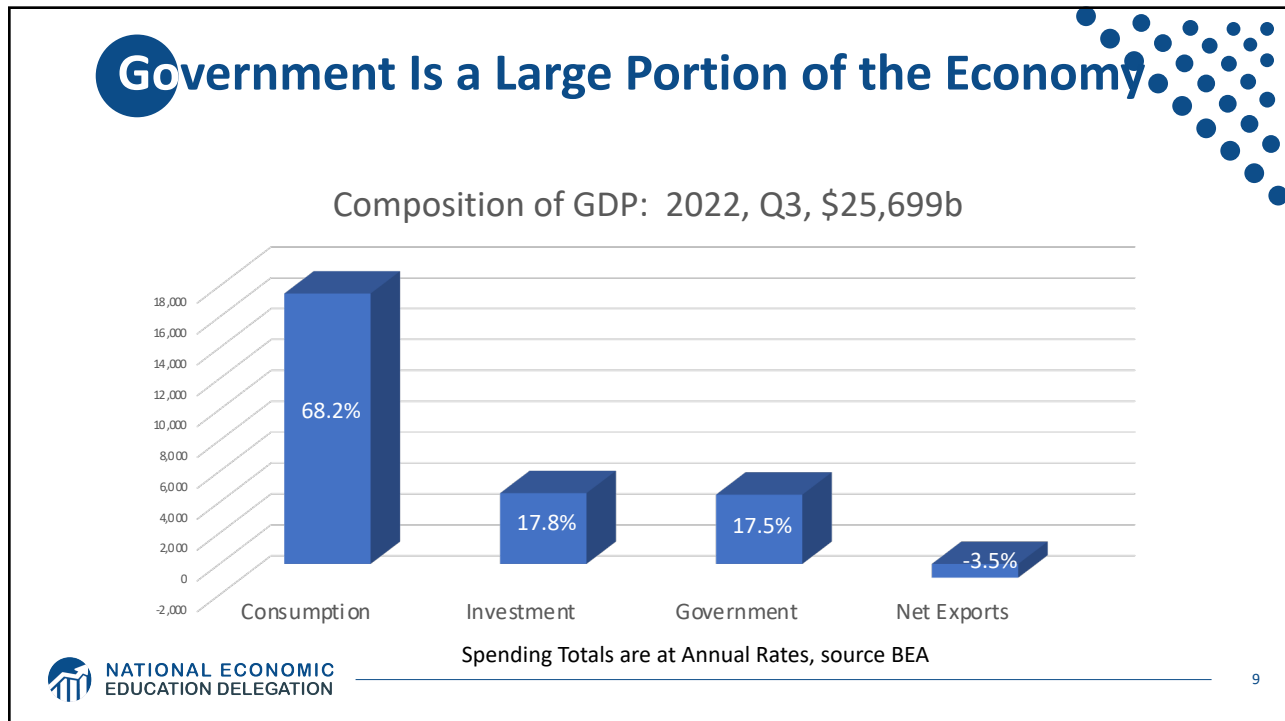
# Outline

- **Government Spending**
- **Government Revenues**
- **Citizen's Guides**
  1. Trump Tax Cuts
  2. Budget Reconciliation Games
  3. The Debt Ceiling
  4. Budget Options



# U.S. Government Spending





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## Some Important Distinctions

- **Government Expenditures in GDP include both *Federal* and State and Local.**
- **In 2021 (latest data), of the \$4,487b of government expenditures in GDP**
  - \$1,657b, or 37% are from the Federal Government.
  - \$2,380b, or 63% are from State and Local governments,
- **From here on, we will only be concerned with the Federal Budget.**

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## Expenditures on GDP vs. Total Spending

- Expenditures on GDP are government purchases of final goods and services, and use up national resources.
- Government Spending on transfers such as Social Security payments and interest payments do not use up resources.
- Total government spending (or outlays) are Government expenditures on GDP plus transfers plus net interest on the debt.



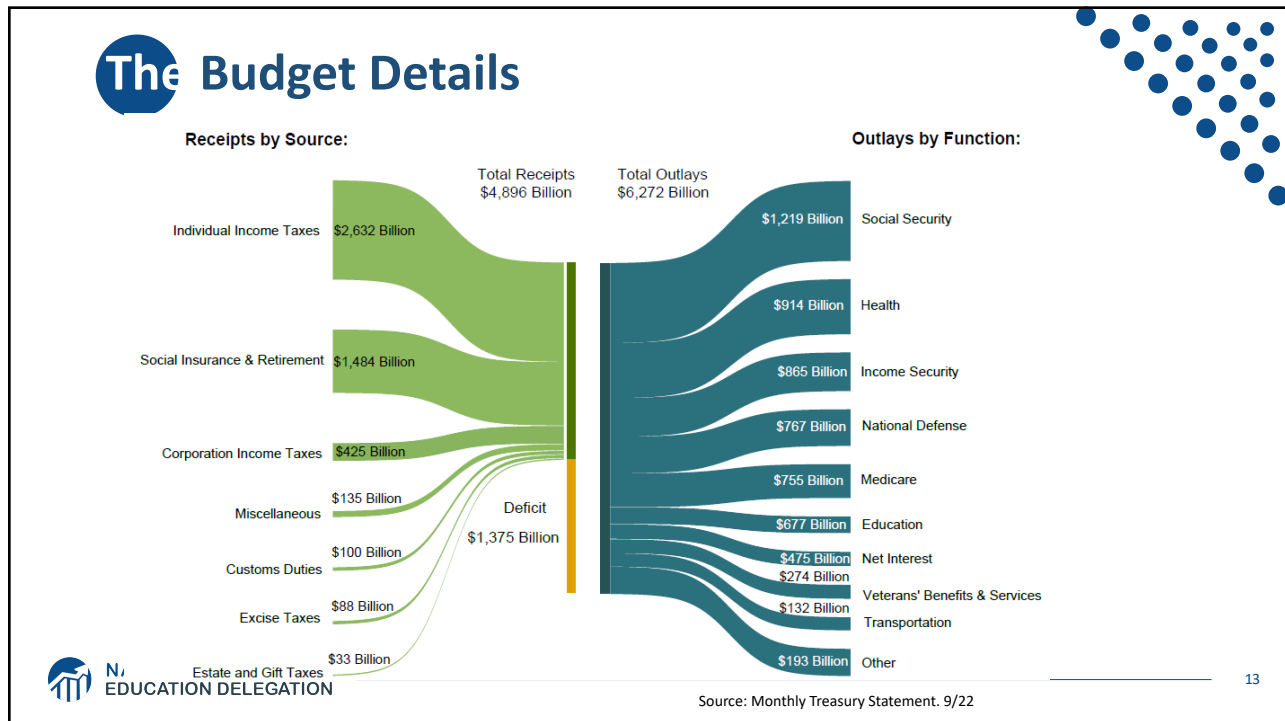
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## The Importance of Transfers

- For Fiscal Year 2022, the CBO projects \$1,585b federal expenditures on GDP; transfers, \$3,888b and net interest of \$399b.
- Why it matters: During Fiscal Year 2021 National Defense was \$782b, or
  - Dove: 49% of Federal expenditures on GDP.
  - Hawk: 13% of total Federal spending.



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## One Last Distinction:

- Mandatory vs. Discretionary Spending:**
  - Discretionary Spending requires annual appropriations, e.g., most of Defense.
  - Mandatory Spending is ongoing authorization to spend mostly on "entitlements:" such as Social Security and Medicare.
- CBO Projects for 2022, Mandatory + Net Interest was 71%; Discretionary 19%.**

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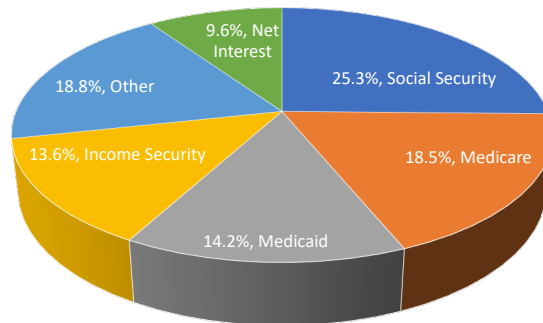
CBO Budget projection Data

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## “Mandatory” Spending + Interest

71% of Total Spending

CBO Projections for FY 2022



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## Mandatory : Social Security (18% of Total Spend)



- **Retirement**
  - Covers 96% of US workers.
- **Survivors**
  - A worker's spouse and dependents may be eligible for survivors' benefits if the worker dies.
- **Disability**
  - A medical condition expected to last at least one year or to be fatal.



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## Where Do Social Security Funds Come From?

- **Payroll taxes**

- Tax rates:
  - Employee: 6.2%
  - Employer: 6.2%
  - Self Employed: 12.4%
- Cap in 2023: \$160,200

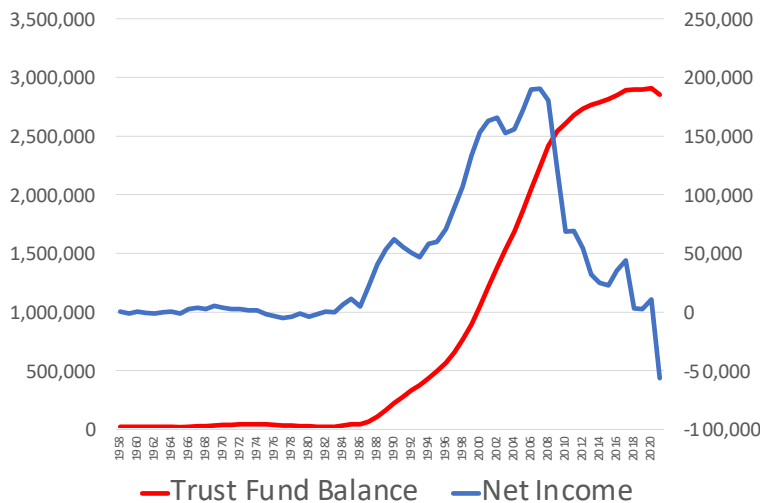
**Key Question:  
Who pays?**

- **Taxes on OASDI benefits**

- Not all benefits are taxed. Up to 85% of benefits are taxable income.

- **Interest earnings not taxed**

## Social Security Trust Fund



- **Spending in 2021**

- OASI: \$1,002 billion
- DI: \$146 billion

- **Income in 2021**

- OASI: \$943
- DI: \$172

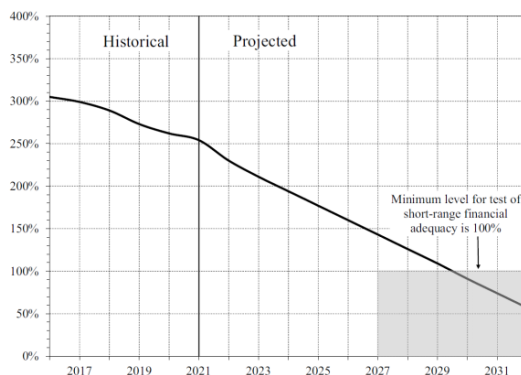
- **Surplus in 2021**

- OASI: \$-59
- DI: \$3

- **Total Deficit: \$56 Billion**

## Trust Fund Solvency?

**Figure II.D1.—Short-Range OASI and DI Combined Trust Fund Ratio**  
[Asset reserves at beginning of year as a percentage of annual cost for the year, under intermediate assumptions]



### • Trust Fund Balances

- Annual projected deficits lead to the exhaustion of the Trust Fund in 2032.
- Under current law, benefits will continue to be paid equal to OASDI income.
- This amounts to about 80% of current benefits.



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SOURCE: 2021 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds, Table IV.B1

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## Mandatory Spending: Medicare (13%)

- **Part A: Hospital Insurance**
- **Part B: Physician, outpatient, home health, and other services.**
- **Part D: Subsidized access to pharmaceuticals.**
- **Part C: Medicare Advantage Plans – offered by private companies approved by Medicare.**
  - Medicare Advantage Plans may offer extra coverage, such as vision, hearing, dental, and/or health and wellness programs. But, you must receive referrals within network.




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## Medicare Finances in 2021

- **Part A:**
  - Income in 2021: \$342 billion
  - Expenses in 2021: \$402 billion
  - **Deficit:** \$60 billion
- **Part B and Part D:**
  - Income in 2021: \$558 billion
  - Expenses in 2021: \$524 billion
  - Surplus: \$24 billion
- **Long term sustainability:**
  - Deficits began in 2016
  - Part A Trust Fund depleted by 2026.



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SOURCE: 2021 Annual Report of the Board of Trustees of the Federal Hospital Insurance and Supplementary Medical Insurance Trust Funds

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## Where Do Medicare Funds Come From?

- **Payroll taxes**
  - Tax rates:
    - Employee: 1.45%
    - Employer: 1.45%
    - Self Employed: 2.9%
  - No Income Cap
- **Interest earnings**
- **General revenues**
- **Beneficiary premiums: Parts B & D**



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## Mandatory Spending: Medicaid (10%)

- Medicaid provides medical insurance for those whose income and resources are insufficient to pay for health care.
- It is a program with costs shared with the states.
- Amount spent in FY 2022: \$838 Billion
  - Federal: 70% or \$589 Billion
  - States: 30% \$249 Billion
- People served in 2022: 83 million (24% of Americans)



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Sources: CBO, Budget Projections, NASBO, State Expenditure Survey, and Medicaid.gov

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## Mandatory Spending: Income Security (10%)

- EITC
- SNAP
- SSI
- TANF
- Housing
- WIC
- School Lunches
- Head Start



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## Mandatory Spending: Interest

- **Interest costs in 2022: \$399 Billion**

- 1.6% of GDP, or 7% of the Federal Budget

- **Forecast to increase to \$1,323 Billion in 2052**

- 7.2% of GDP, or 24% of the Federal Budget



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Source: CBO, July 2022 Long-term Budget Projections

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## Mandatory Spending: Other (13%)

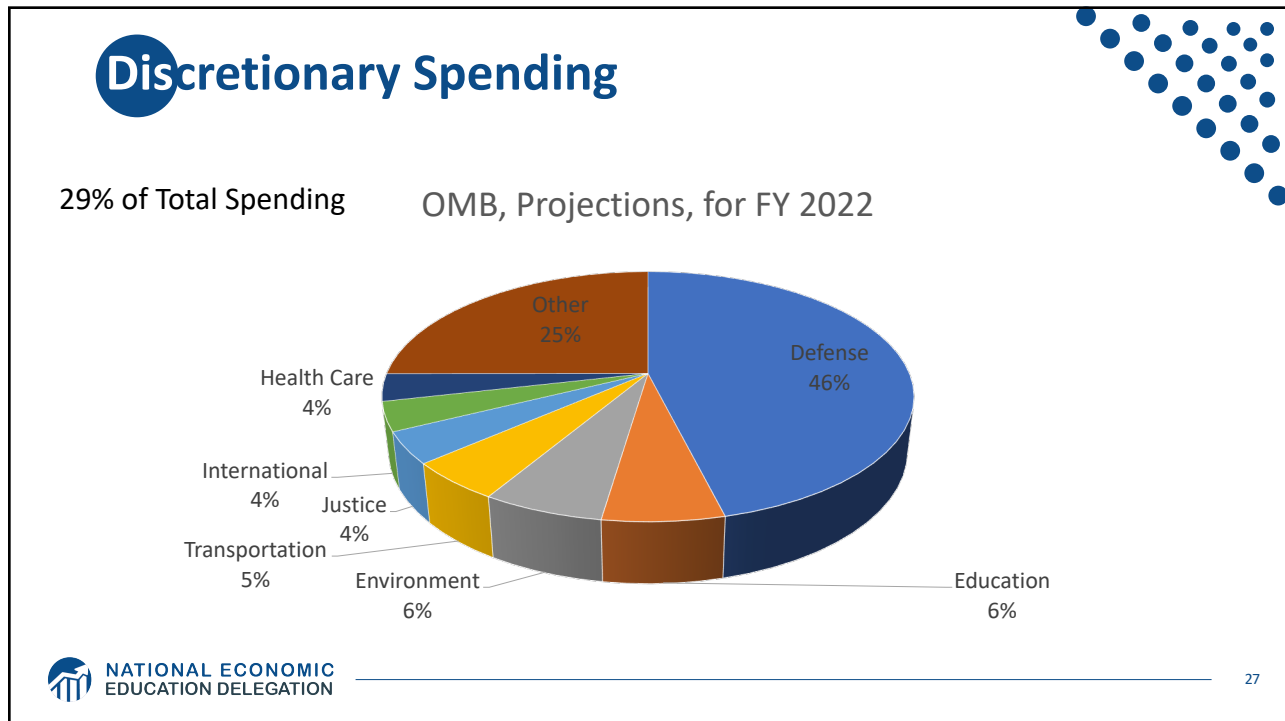
- Food and agriculture
- Veterans' Benefits
- Transportation
- Other



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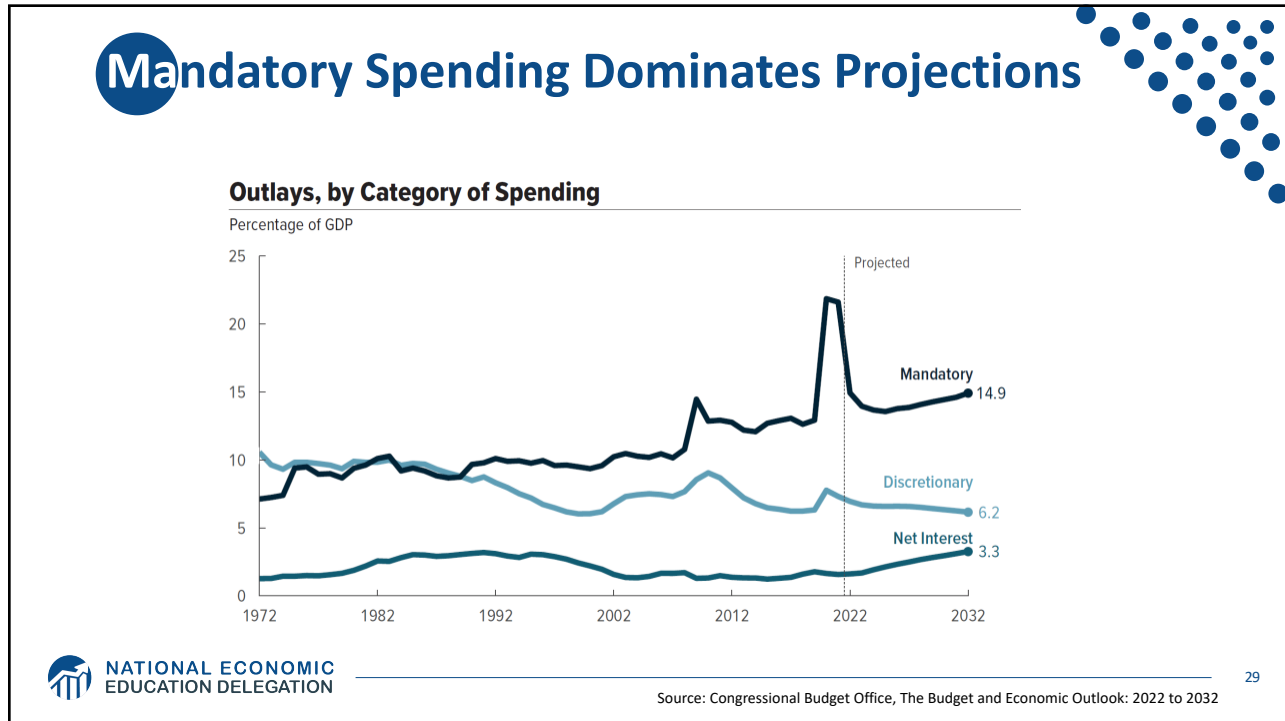
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## Discretionary Spending: Other (25%)

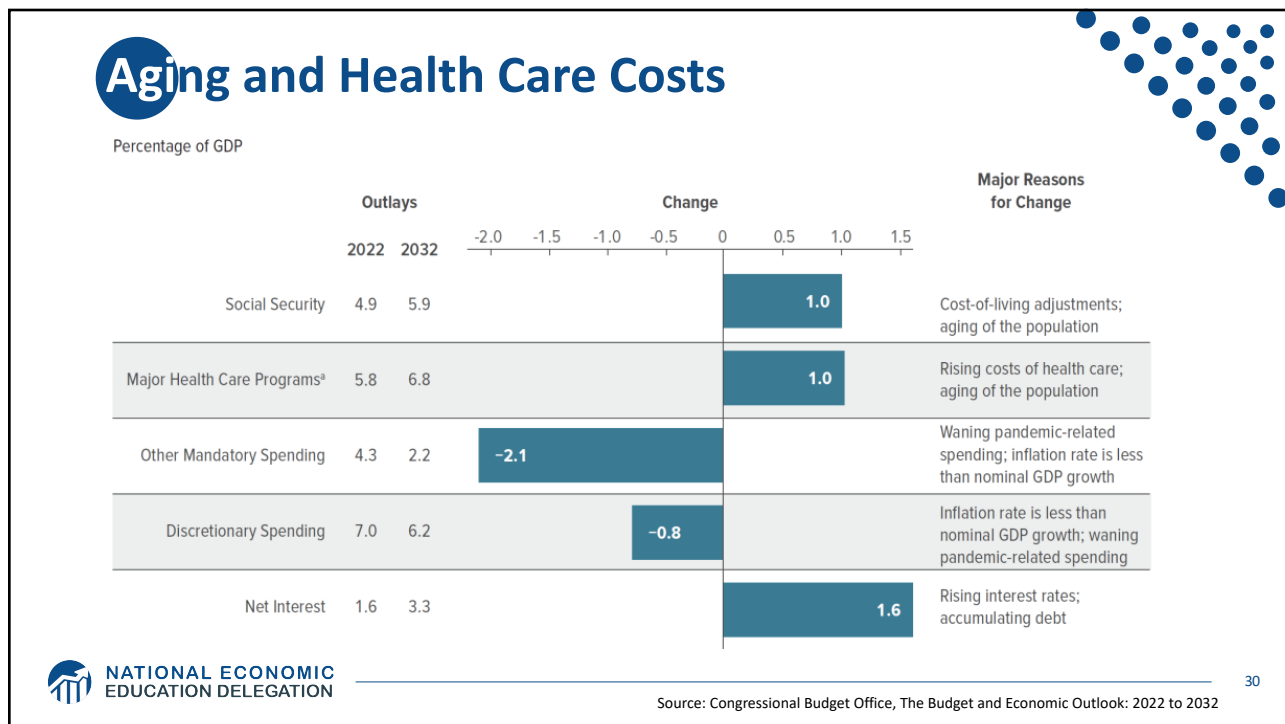
| Category                        | Amount (Millions) |
|---------------------------------|-------------------|
| Energy                          | 26,300            |
| Agriculture                     | 17,219            |
| Medicare                        | 7,788             |
| General government              | 21,101            |
| General science, space and tech | 38,165            |
| Veteran's Benefits              | 111,467           |
| Housing Assistance              | 57,031            |
| Community Development           | 39,179            |

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# Another Category of Spending: Tax Expenditures

- **Description**

- Social policies that are implemented and paid for through the tax code.

- **List of the largest tax breaks:**

- Mortgage interest deduction
- Retirement contributions
- State and local taxes
- Health insurance
- Low tax rates for Capital Gains
- Child related tax credits
- Charitable gifts
- Lifetime Learning

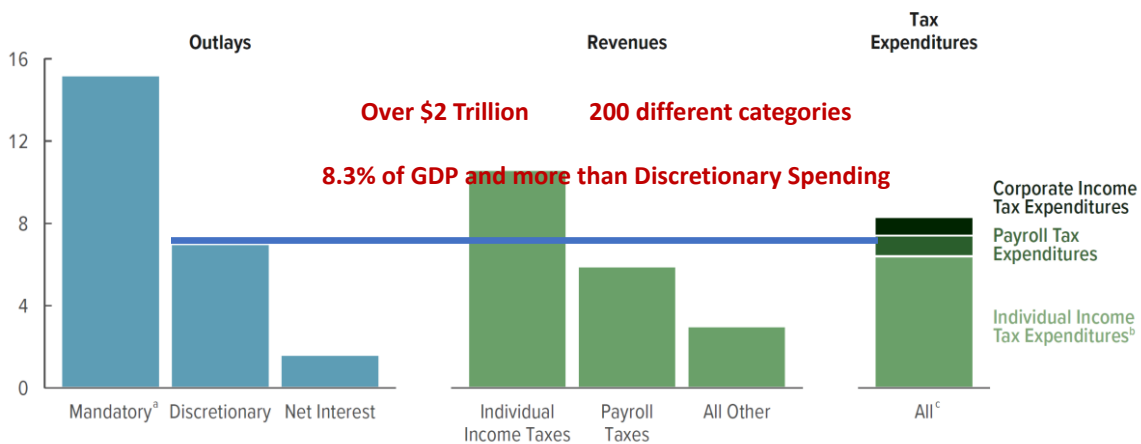
- **Evidence of who they benefit**

- Regressive

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# Tax Expenditures are Significant

Percentage of GDP

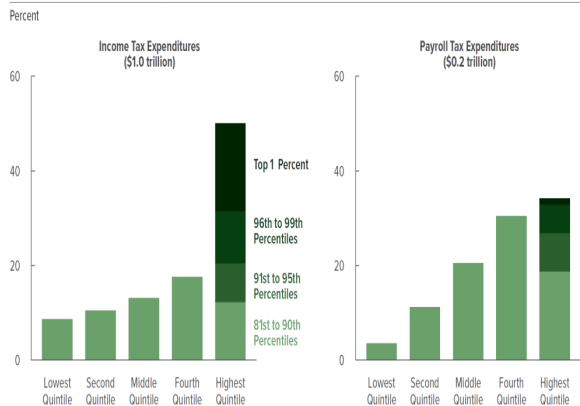


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# Distributional Effects of Tax Expenditures

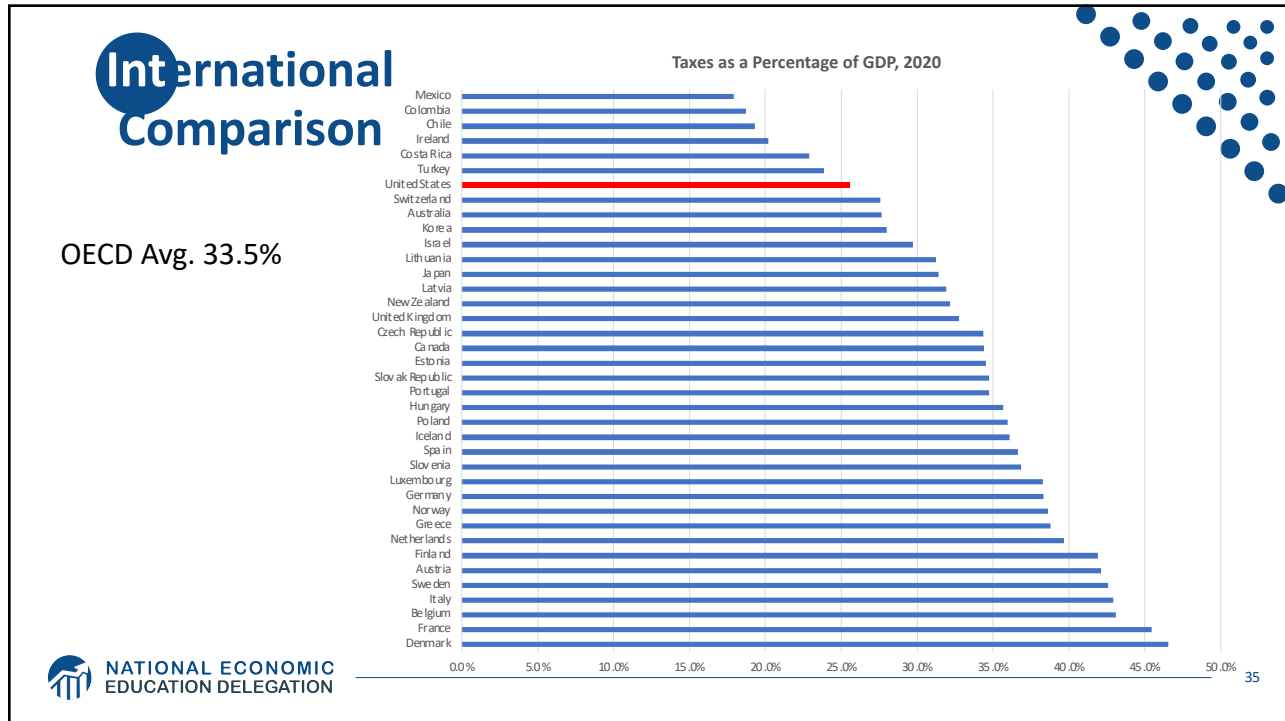
Shares of Combined Major Tax Expenditures, 2019



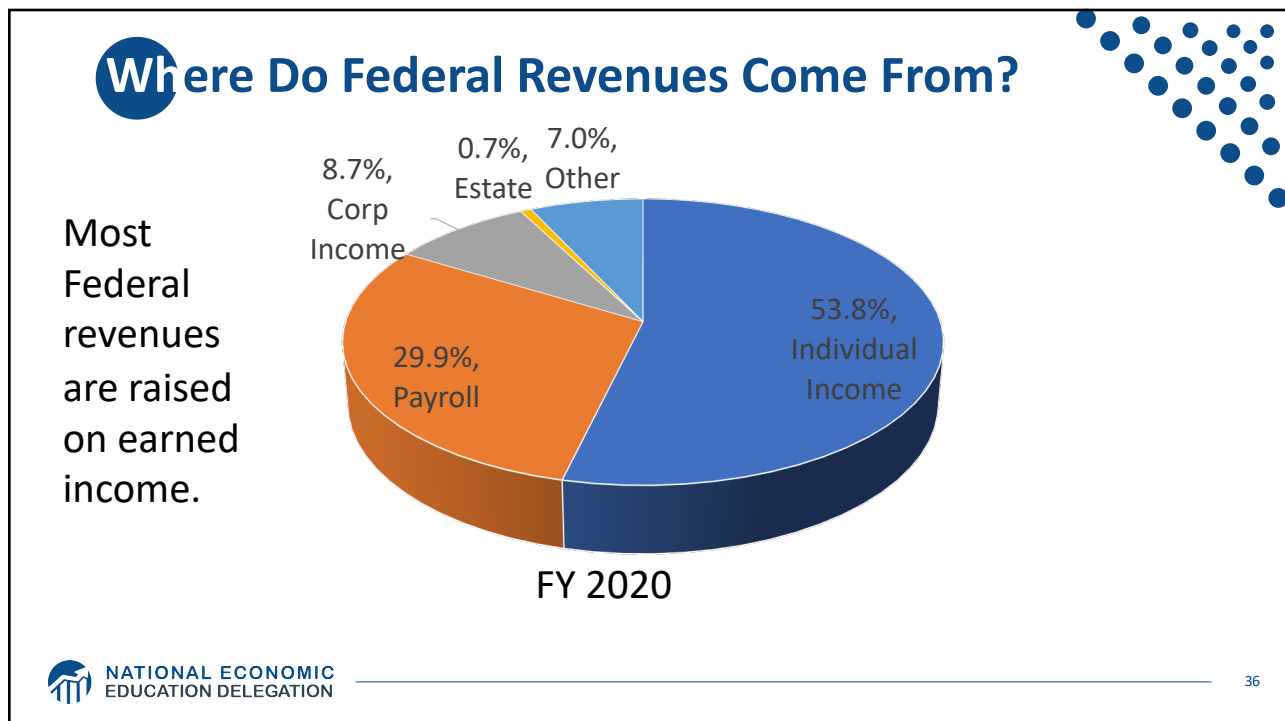
Combined Major Tax Expenditures as a Share of Income, 2019



# US Government Revenues



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## Individual Income Taxes

- **Marginal tax rates**
- **Not all income is subject to the same tax rates**
  - capital gains
- **Deductions**
  - Talked about as Tax Expenditures



## Marginal Tax Rates: Married Filing Jointly (2022)

- **Taxable Income is taxed differently at different levels.**
- **Individuals are taxed the same way, regardless of overall taxable income:**
  - First dollar is taxed at 10%
  - 20,551st dollar is taxed at 12%

| Income Above | Tax Rate |
|--------------|----------|
| 0            | 10%      |
| 20,550       | 12%      |
| 83,550       | 22%      |
| 178,150      | 24%      |
| 340,100      | 32%      |
| 431,900      | 35%      |
| 647,850      | 37%      |



## Marginal and Average Tax Rates

Example Tax on \$1 million in taxable income:

- Marginal Tax rate is 37%
- Average Tax rate is Less:  

$$=.1(20,550)+.22(83,550-20,551)+...+.37(1,000,000-647,851)=$$
**\$304,548, or an *average tax rate on taxable income* is 30.5%**
- The higher taxable income the closer the average tax gets to 37%



## History of the Top Marginal Rate

| First Year | Top Rate |
|------------|----------|
| 1951       | 91.00%   |
| 1964       | 77.00%   |
| 1965       | 70.00%   |
| 1968       | 75.25%   |
| 1969       | 77.00%   |
| 1970       | 71.75%   |
| 1971       | 70.00%   |
| 1981       | 69.13%   |
| 1982       | 50.00%   |
| 1987       | 38.50%   |
| 1988       | 28.00%   |
| 1991       | 31.00%   |
| 1993       | 39.60%   |
| 2001       | 39.10%   |
| 2002       | 38.60%   |
| 2003       | 35.00%   |
| 2013       | 39.60%   |
| 2018       | 37.00%   |

- The 91% rate in 1963 applied to couple's income of about \$1.4 million in today's \$s.
- Don't forget the marginal average distinction.
- I agree with Ronnie; 91% is too high.



## Progressivity Tax System

- **Tax Systems are:**

- Progressive: increasing average tax with income
- Neutral or flat: same share of income at all income levels
- Regressive: decreasing average tax with income (sales tax)

- **Ability to pay rises with income.**

- **Income Inequality.**



## Average Tax is a Bit More Complicated

- **Is ability to pay better measured by taxable income, or before tax income?**
- **Remember tax expenditures.**
- **But not all tax expenditures are bad: medical expense deductibility.**
- **In judging inequality you have to look at the effect of *transfers* as well as *all* taxes.**
- **No perfect answers**



## Income Quintiles in 2019

Average Income within the quintile:

1. \$17,200

2. \$39,600

3. \$67,500

4. \$108,700

5. \$318,900

81-90, \$166,600; 91-95, \$236,700; 96-99, \$403,600; top 1%, \$1,983,700



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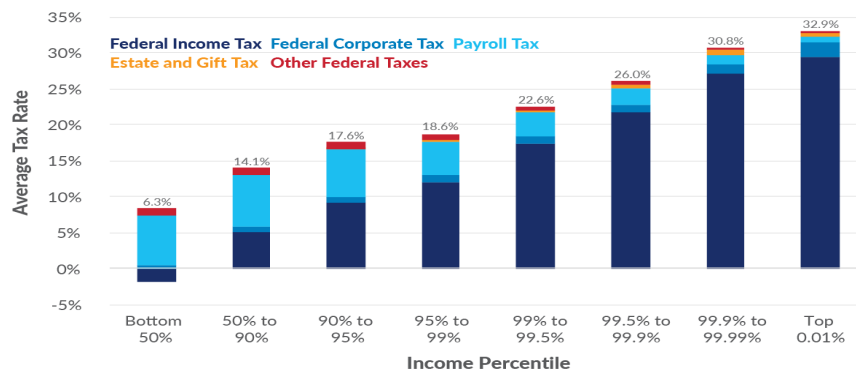
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## All Federal Taxes

### The Federal Tax System is Progressive Overall

Average Tax Rates for Federal Tax Types by Income Group, 2018



Source: "Present Law and Background on the Taxation of High Income and High Wealth Taxpayers," Joint Committee on Taxation, Table 4.



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TAX FOUNDATION

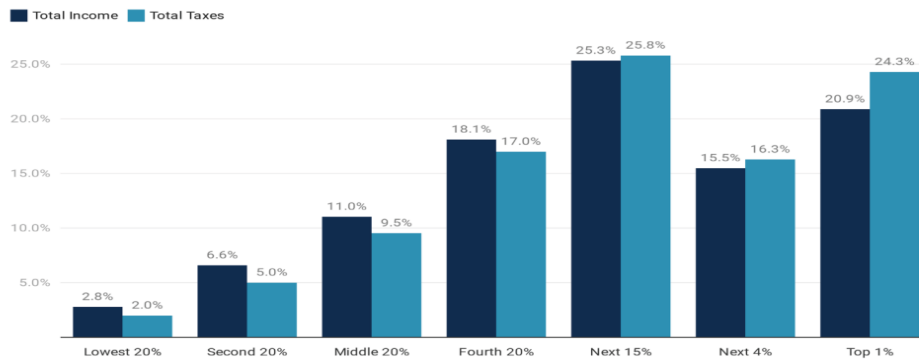
@TaxFoundation

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# All Taxes

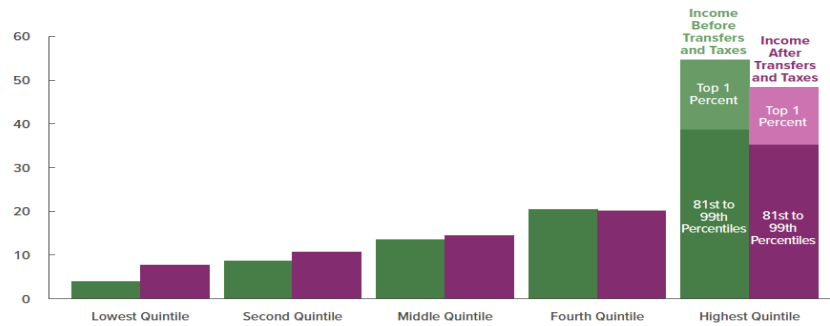
**FIGURE 1**  
**Shares of Total Taxes Paid Compared to Shares of Total Income**  
 2020, by income group



Source: Institute on Taxation and Economic Policy (ITEP) Tax Model, July 2020

# Federal Taxes and Transfers

**Exhibit 21.**  
**Shares of Income Before and After Transfers and Taxes, 2019**  
 Percent



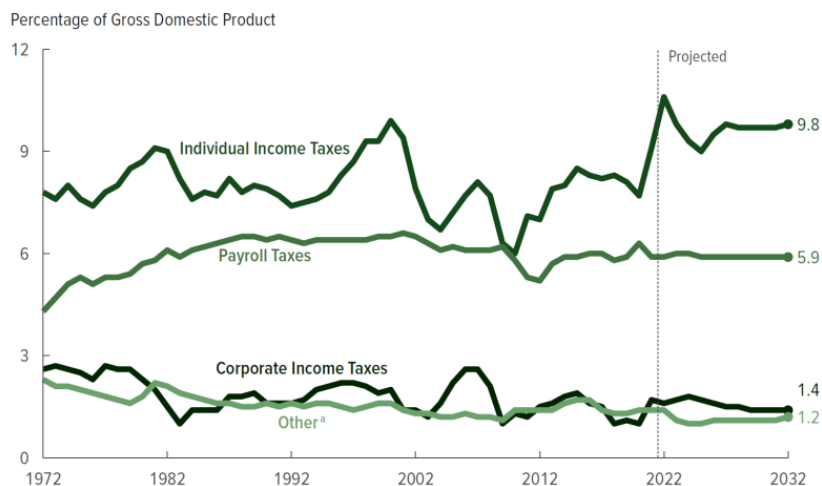
Data source: Congressional Budget Office. See [www.cbo.gov/publication/58353#data](http://www.cbo.gov/publication/58353#data).  
 Shares do not add up to 100 percent because households with negative income are not shown.  
 For information about the methods underlying this analysis, see Appendix A. For detailed definitions of income measures, see Appendix B.

## The Bottom 40% Don't Pay Income Taxes?

- There is a common narrative that the bottom 40% don't pay income taxes.
- But they pay other taxes and they also pay state and local taxes
  - Payroll
  - State and local taxes
  - Excise taxes – see the slide 4 slides ago.
- But, previous slide shows that the bottom 60% are net beneficiaries of *Federal* tax and transfer system.
- Is that bad?



## Revenue Sources: Share of GDP over Time

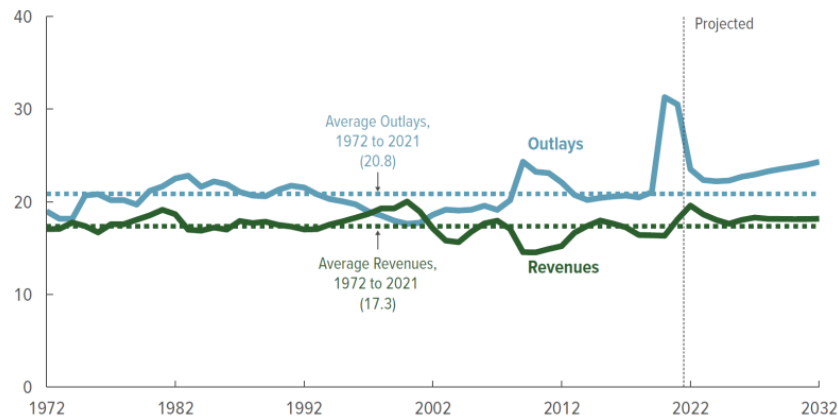




## Summary: Past and Future Budgets

### Total Outlays and Revenues

Percentage of Gross Domestic Product



Data source: Congressional Budget Office. See [www.cbo.gov/publication/57950#data](http://www.cbo.gov/publication/57950#data).



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Source: Congressional Budget Office, The Budget and Economic Outlook: 2022 to 2032

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## Summary: Slide 1

- **Total Federal Spending: \$4.9 Trillion in FY 2022**
- **There is remarkably little discretion in each budget:**
  - Mandatory: 71%
  - Discretionary 29%
- **Fastest growing parts of the budget: Health Care and Interest**
- **By 2052:**
  - Debt is forecast to grow to 185% of GDP, from 98% now
  - Interest payments are forecast to grow from 7% to 24% of budget



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## Summary Slide1a: Tax Expenditures

- ...Are policy enacted through the tax code.
- ...Are not explicitly on the books.
- ...Add > 25% to budget deficit.
- ...Reduce the progressive nature of the tax code.
- ...Are larger than all of “Discretionary Spending”.



## Summary: Slide 2

- **Most Federal Revenues come from taxes on earned income.**
- **Tax and Transfer System is modestly progressive, particularly at the lowest quintile.**
- **Both these statement are true:**
  - Top 20% of earners pay 2/3rds of total taxes.
  - But, this is only slightly more than their share of pre-tax income, 62%



# Citizen's Guide: Trump Tax Cuts (TCJA, 12/17)

## Individual Income Taxes

1. Lowered "marginal rates."
2. Eliminated personal exemptions, but raised standard deduction to \$24,000 for couple. (currently, \$25,900)
3. Limited deductibility of State and Local taxes to \$10,000.
4. Most provisions "sunset" after 2025.

## Corporate Income Tax (permanent)

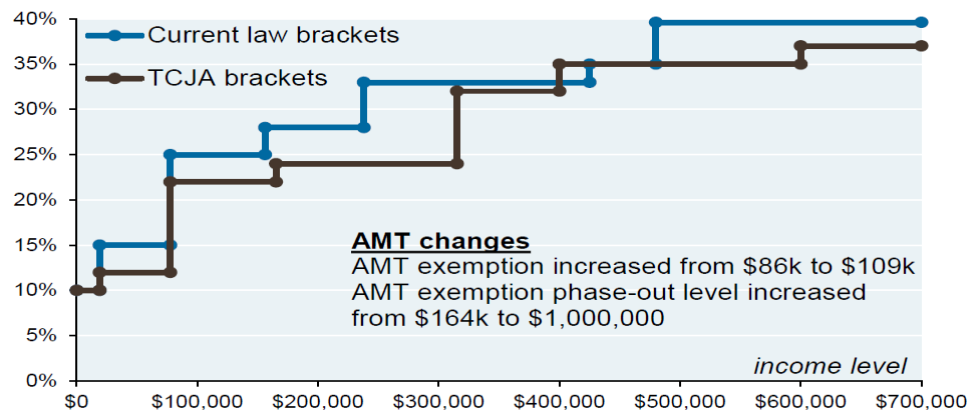
1. Lowers statutory rate from 35% to 21%
2. Cuts interest deductibility; provides investment incentives for 5 years.
3. Attempts to eliminate "corporate inversions."

**Estate Taxes: Doubles exemption to \$22.4 million for a couple (currently, \$24.1)**



# Change in 2018 Marginal Tax Rates

**Marginal tax rates and brackets**



Source: JP Morgan Asset Management. 2017.



## Effect on Itemized Deductions

Number of Returns Utilizing Itemized Deductions

| Income Category          | Number of Returns (Thousands) |       |                |
|--------------------------|-------------------------------|-------|----------------|
|                          | 2017                          | 2018  | Percent Change |
| Less than \$10,000       | 178                           | 65    | -63.5%         |
| \$10,000 to \$20,000     | 517                           | 154   | -70.2%         |
| \$20,000 to \$30,000     | 933                           | 237   | -74.6%         |
| \$30,000 to \$40,000     | 1,595                         | 410   | -74.3%         |
| \$40,000 to \$50,000     | 2,222                         | 635   | -71.4%         |
| \$50,000 to \$75,000     | 6,683                         | 2,136 | -68.0%         |
| \$75,000 to \$100,000    | 6,622                         | 2,442 | -63.1%         |
| \$100,000 to \$200,000   | 17,959                        | 6,513 | -63.7%         |
| \$200,000 to \$500,000   | 8,207                         | 4,185 | -49.0%         |
| \$500,000 to \$1,000,000 | 1,089                         | 791   | -27.4%         |
| \$1,000,000 and over     | 509                           | 444   | -12.8%         |

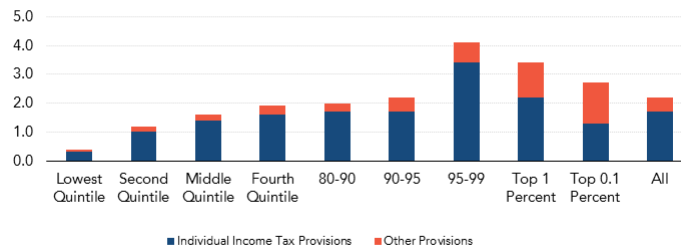
Source: The Joint Committee on Taxation, "Tables Related to the Federal Tax System as in Effect 2017 Through 2026"; authors' calculations

## Distributional Effects of TCJA

Top 20% got almost 2/3rds of the benefit!

But, Top 20% get over 80% of all income

Percent Change in After-Tax Income from the Tax Cuts and Jobs Act in 2018  
By type of provision



## Citizen's Guide to "Budget Reconciliation."

- Procedure successfully used 22 times since 1974 to avoid a Senate filibuster.
- Reconciliation can be used for changing taxes and mandatory spending (not Social Security) subject to the Byrd Rule.
- **Byrd rule:**
  1. No extraneous provisions.
  2. No increase in the deficit after 10 year window.
- **Reconciliation games played by both parties:**
  1. Trump Tax Cut.
  2. Build Back Better.



## Reconciliation and CBO Projections

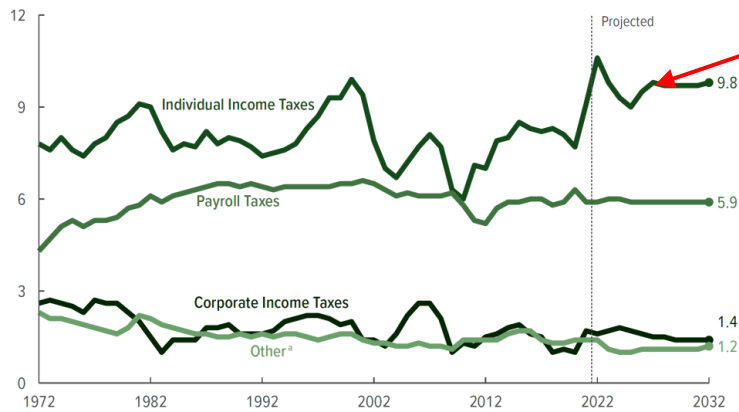
- For the CBO to be effective it must be perceived to be (and must be) nonpartisan.
- Therefore, CBO "baseline" projections and legislative scoring must not try to predict changes in legislation.
- Instead, CBO must analyze the data based on the current law as written.
- CBO is allowed to provide analyses of policy options.



## Example: Trump Tax Cut

### Revenues, by Category

Percentage of Gross Domestic Product



Most provisions  
“sunset” after  
2025

## CBC Scores Build Back Better

|          | 2022-2026 | 2027-2031 |
|----------|-----------|-----------|
| Outlays  | 940,933   | 695,055   |
| Revenues | 149,315   | 1,119,549 |
| Deficit  | 791,618   | -424,494  |

In addition there was an unscored “revenue enhancement” of \$207b from greater IRS funding.

## Citizen's Guide to the Debt Ceiling

### Pre 1917:

Constitution provides Congress with the power to borrow. Congress must authorize specific borrowing.

### Post 1917:

In 1917, Congress passes a law that transfers its power to borrow to the Treasury to provide flexibility to finance World War 1, but imposes a limit.

1953: Democrats threaten to use the debt ceiling to prevent Eisenhower's Interstate Highway program.

1995: Newt Gingrich threatens to use the debt ceiling, but backs down in 1996.

2011: Debt ceiling standoff causes S&P500 to downgrade US debt from AAA to AA leading to stock market decline and increase in borrowing costs.

2023: At some point we will hit the debt ceiling



## Debt Ceiling

- Congress already has the power through the budget process to limit borrowing.
- Is it Constitutional for Congress to legislate taxing and spending that leads to borrowing above the ceiling?
- Republicans have offered the elimination of the debt ceiling in exchange for limits on entitlements.
- Biden in October: Eliminating the debt ceiling would be "irresponsible."
- Minting \$1 trillion dollar coin!



# Budget Options to deal with the Debt

- CBO “baseline” projections suggest unsustainable increases in debt and deficits.
- CBO projects that to stabilize the current debt-to GDP ratio the deficit needs to be reduced by 2025 by 2.9 percentage points, or \$730 billion per year.
- Last week CBO published budget options (its not pretty):

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# Do Any of these Strike Your Fancy?

## Projected Savings From Options for Reducing the Deficit

Billions of Dollars

| Option | Title   | Savings, 2023-2032* |
|--------|---|---------------------|
| 1      | Establish Caps on Federal Spending for Medicaid   | 501 to 871          |
| 2      | Limit State Taxes on Health Care Providers  | 41 to 526           |
| 3      | Reduce Federal Medicaid Matching Rates  | 68 to 667           |
| 4      | Increase the Premiums Paid for Medicare Part B  | 57 to 448           |
| 5      | Reduce Medicare Advantage Benchmarks  | 392                 |
| 6      | Reduce Tax Subsidies for Employment-Based Health Insurance                              | 500 to 893          |
| 7      | Reduce Social Security Benefits for High Earners  | 40 to 184           |
| 8      | Set Social Security Benefits to a Flat Amount   | 270 to 593          |
| 9      | Increase the Maximum Taxable Earnings That Are Subject to Social Security Payroll Taxes | 670 to 1,204        |
| 10     | Reduce Spending on Other Mandatory Programs   | 580                 |
| 11     | Reduce the Department of Defense's Annual Budget  | 995                 |
| 12     | Reduce Nondefense Discretionary Spending  | 332                 |
| 13     | Increase Individual Income Tax Rates  | 502 to 1,329        |
| 14     | Eliminate or Limit Itemized Deductions  | 541 to 2,507        |
| 15     | Impose a New Payroll Tax  | 1,136 to 2,253      |
| 16     | Impose a Tax on Consumption   | 1,950 to 3,050      |
| 17     | Impose a Tax on Emissions of Greenhouse Gases   | 571 to 865          |

Remember:  
We need \$730 billion  
*per year!*

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 **On That Happy Note:**

## Your Questions?

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