## U.S. Inequality and Recent Tax Changes

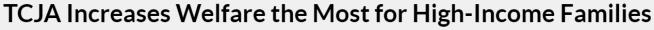
Greg Leiserson Society of Government Economists February 20, 2018

- What effects will TCJA have on economic inequality?
- Two versions of the question for this presentation:
  - What effects will TCJA have on the distribution of economic well-being (welfare)?
    - Central question for economic analysis of policy changes: what impact does the policy change have on economic well-being
  - What effects will TCJA have on the distribution of income?
    - Closely related but distinct question, can be misleading about welfare impacts of supply-side effects of policy changes

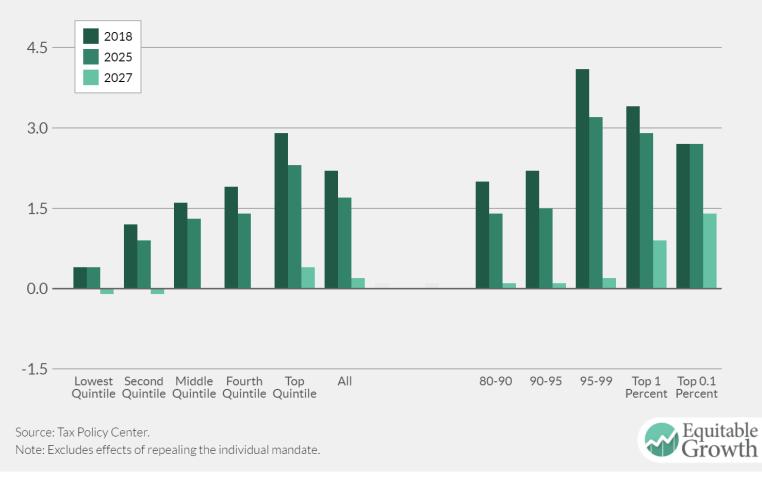
- Difference between the welfare impact and the impact on observed incomes
  - Consider an expansion of the Earned Income Tax Credit
    - Direct reduction in after-tax income inequality from larger credit
    - Indirect reduction in after-tax income inequality from increase in labor force participation
  - But the increase in labor force participation comes at a cost to the worker (e.g. child care costs, commuting costs, etc.)
- Preview of results
  - TCJA will likely increase disparities in economic well-being, after-tax income, and pre-tax income even without assuming fiscal offsets
  - Only suggestive results for market income in this presentation, but expect inequality in market incomes would increase as well

- Distribution tables provide a first-order approximation to the change in welfare
- Change in welfare determined primarily by changes outside the agent's control: <u>mechanical change in tax</u> and <u>changes in relative prices</u>
  - Behavioral changes have no first-order impact on the well-being of the person changing behavior (envelope theorem)
  - Recipe for constructing distribution tables that are informative about welfare:
    - compute change in tax liabilities and relative price effects (i.e. incidence assumptions)
    - exclude behavioral changes reflecting unconstrained, rational choice
    - include other behavioral changes (easier said than done, esp. when there are quantitatively important market failures)
- Converting dollar change in after-tax income into utility requires an assumption about the marginal utility of income (e.g. 1/after-tax income)
  - Conceptual difference between individual or family's marginal utility and social welfare weights used to evaluate redistributive policies
- Policymakers' desire for distribution tables may not reflect an ex ante desire for information about welfare impacts, but plausible that the desire for tables excluding behavioral changes/sample families is an implicit recognition that those changes are different

- Key observations for thinking about welfare impacts of taxation in policy context
  - Changes in macroeconomic aggregates (aka growth) have no first-order impacts on welfare in basic models
  - Potential efficiency gains primarily manifest in relaxation of the government budget constraint impact on the public depends on legislated use
  - Excess burden is largely irrelevant as a practical matter in assessing the welfare impact (distribution tables do not impose a balanced budget constraint)
  - Distribution tables for deficit-increasing tax reform overstate the sustainable welfare gains
- Numerous difficult practical and conceptual questions when extending beyond basic models
  - Interaction of market failures and tax incidence
  - Timing of incidence for tax changes affecting investment incentives
  - Substance and timing of economics effects of higher deficits
  - Role and importance of gimmicks and sunsets
  - Political economy of future policy changes



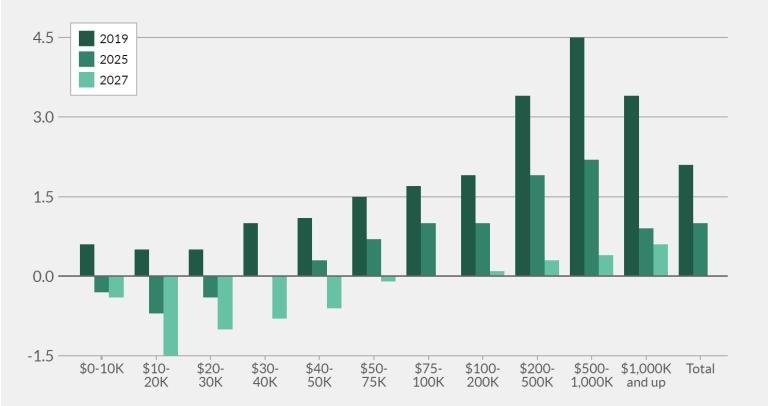
Percent change in after-tax income (static), 2018, 2025, 2027



- TPC analysis excludes the impact of repeal of the individual mandate should it?
  - General points:
    - Include effects of price changes
    - Include effects of behavioral changes if not solely a result of rational, unconstrained choice
    - These effects will not necessarily equal the change in tax liability or outlays received implementation can be complicated
    - Luxury of tax analysis that many impacts are already measured in dollars
  - Takeaways for TCJA:
    - Should be including some value for welfare change of mandate repeal
    - Show CBO and JCT analyses as illustrative, but is only a proxy for a direct measure of welfare impact (what should be included)

#### **TCJA Likely Reduces Welfare for Low-Income Families**

Percent change in after-tax income (conventional ex. Medicaid/CSRs), 2019, 2025, 2027



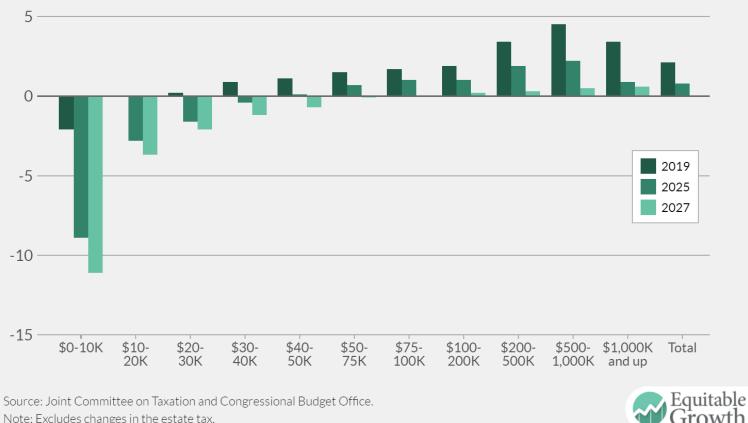
Source: Joint Committee on Taxation.

Note: Excludes changes in the estate tax and Medicaid/CSR effects of repealing the individual mandate.



**TCJA Likely Reduces Welfare for Low-Income Families** 

Percent change in after-tax income (conventional), 2019, 2025, 2027



Note: Excludes changes in the estate tax.

- Key sources of uncertainty
  - Assumptions about static tax incidence, particularly relative price effects
    - Shifting of business tax changes to labor
    - Shifting of labor tax changes to business/capital
    - Timing of incidence effects
  - Assumptions about foreign investors in U.S. businesses
  - Assumptions about the economics of the individual mandate
  - Implicit assumptions (among many)
    - Ignore market clearing, implicit role for international trade
    - Fixed final prices for all goods and services

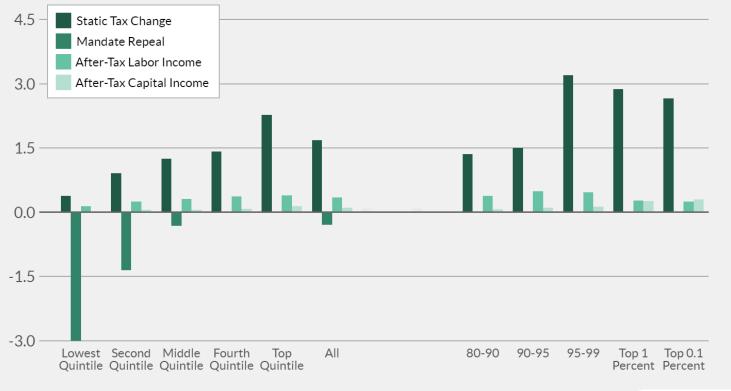
- Welfare impacts of TCJA
  - Increases welfare by more for higher income families than it does for lower income families
  - Reduces welfare for low-income families in the long run (i.e. after individual and estate provisions expire)
  - Likely reduces welfare for low-income families in the short run but quantification is difficult and depends on valuation of Medicaid and other sources of insurance coverage
- General observations
  - Progressivity often defined in terms of the percent change in after-tax income, but note that it requires providing larger tax cuts to high-income families <u>because</u> they receive little value from each additional dollar
  - This measure requires careful interpretation in the context of deficit-increasing and deficit-reducing tax changes specific instance of general challenge of analyzing deficit-increasing and deficit-reducing policies

- Observed Inequality Impacts
  - Distribution tables provide an approximation to the welfare impact of a proposal by excluding certain behavioral responses, but the observed income distribution includes these behavioral responses
  - Impact of a proposal on the observed income distribution is thus a conceptually distinct question
  - Construct estimates of a proposal's impact on the income distribution by combining static distribution estimates and estimates of the behavioral responses
    - Add both the microeconomic response included in conventional revenue estimates and macroeconomic responses excluded from conventional estimates
    - NB: most/all distribution estimates include some microeconomic response (e.g. changes in itemization behavior), some include more types of response
    - In this presentation assume microeconomic behavior other than behavior associated with mandate repeal has no impact on distribution

- A macroeconomic model generally will imply an estimate of the impact of a proposal on the income distribution, but a macroeconomic model is not necessarily the best approach to evaluating these questions
  - Macroeconomic model priority: marginal incentives and equilibrium quantities
  - Distribution model priority: computing tax liabilities and relative prices
  - Tradeoffs may suggest using different models
- In this presentation: ignore any inconsistencies between macroeconomic analysis and distribution analysis (other work in progress on that topic)
- In this presentation, results for 2025 based on Tax Policy Center estimates
  - 2018 includes initial transitory effects on revenues
  - 2027 is after individual tax cuts expire
  - Likely shows legislation in a more favorable light as judged by effects on inequality

#### **TCJA Increases Disparities in Observed After-Tax Incomes**

Percent change in observed after-tax income by channel, 2025



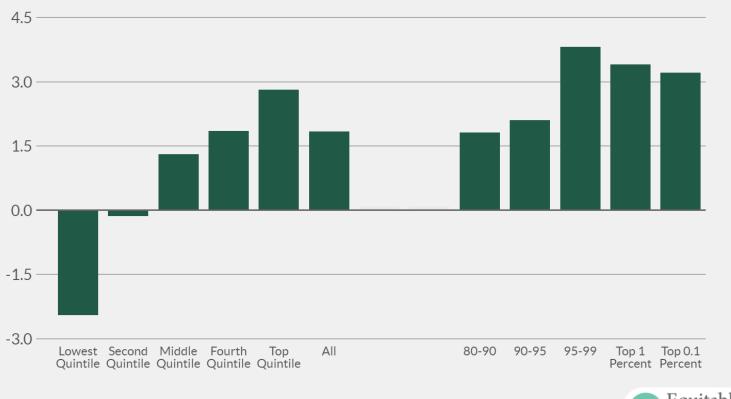
Source: Tax Policy Center, Joint Committee on Taxation, Congressional Budget Office, author's calculations.



- Static tax change (primary driver of total change): regressive
- Impact of repealing individual mandate (major driver for low incomes): regressive
  - No longer motivated by a welfare concept, concerned about distribution of observed incomes. Conventional effect of repealing individual mandate should be included.
- Change in labor incomes: regressive
  - Relatively less labor income in upper and lower tails
  - Percent change in net-of-tax rate increases with income
- Change in capital incomes: regressive
  - Capital income concentrated in the upper tails
- Will discuss the (many) sources of uncertainty in a few slides

**TCJA Increases Disparities in Observed After-Tax Income** 

Percent change in observed after-tax income, 2025

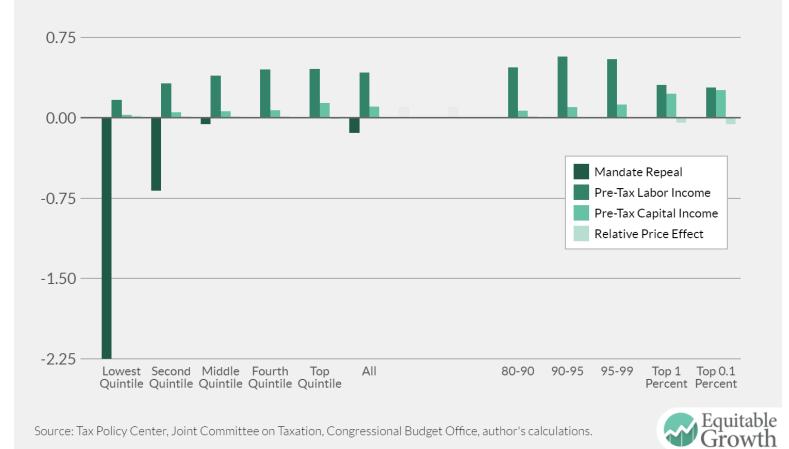


Source: Tax Policy Center, Joint Committee on Taxation, Congressional Budget Office, author's calculations.

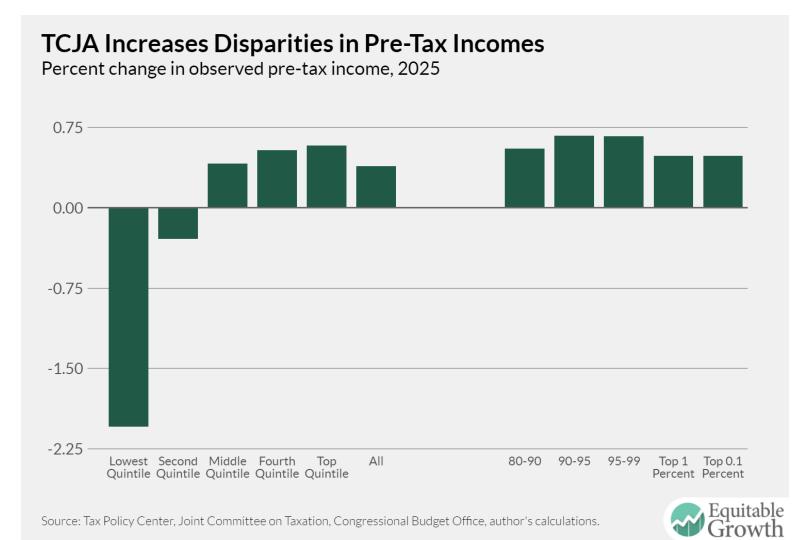


**TCJA Increases Disparities in Pre-Tax Incomes** 

Percent change in observed pre-tax income by channel



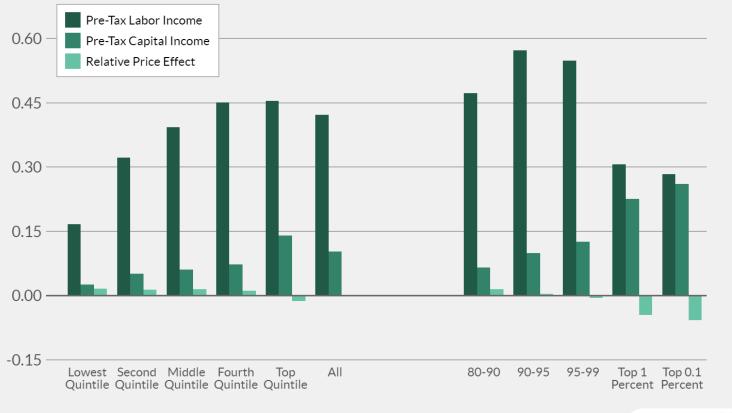
- Static tax change is "gone" (but see below)
- Includes only the Medicaid/CSR effects of repealing the individual mandate
- After-tax labor income is now pre-tax labor income (slightly more regressive)
- After-tax capital income is now pre-tax capital income (slightly more regressive)
- Relative price effect the portion of the static tax change other than the mechanical change in tax liability (progressive)



- Mandate repeal's Medicaid and CSR effects drive the result (regressive)
- Changes in labor income are second largest driver of result (regressive)
  - Labor share of aggregate income is larger than (net) capital share
- Overall impact of TCJA is regressive, though as before there is some tailing off in the upper tail
- Factor income shares would differ from pre-tax shares, particularly at the bottom, where transfer income is a substantial portion of total income
- Assumptions are strong to convert from TPC's expanded cash income to factor so no results in this presentation (but see next slide for one suggestive result)

#### **TCJA Likely Increases Inequality in Factor Incomes**

Percent change in observed pre-tax income by channel



Source: Tax Policy Center, Joint Committee on Taxation, Congressional Budget Office, author's calculations.

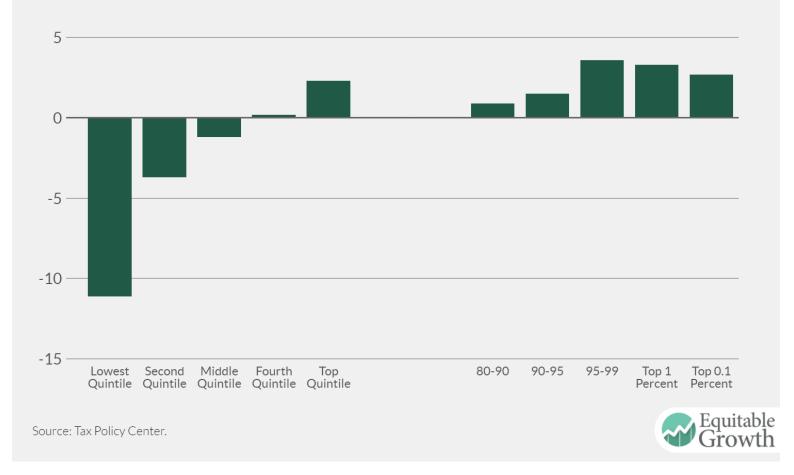


- Key sources of uncertainty
  - The sources of uncertainty in the welfare results
  - Assumptions about microeconomic behavioral responses on the distribution of income (here: zero except for health-related)
  - Assumptions about macroeconomic behavioral responses on output and income
  - Assumptions about macroeconomic behavioral responses on the distribution of income (here: proportional to current incomes adjusted for changes in tax rates)
    - Key role of reduction in pre-tax capital incomes
    - Is this reduction proportional to capital incomes in the baseline? Is the capital income of the very wealthy the same?
    - Assumptions about foreign investors
  - Assumptions about difference between NIPA income concepts and realization-based income concepts (here: half of net capital income change appears in ECI)
  - TPC estimates are ranked by pre-tax incomes (distribution of after-tax incomes ranked by after-tax incomes would differ)

- Recognizing a Role for Deficits
  - Estimates above ignore the deficits created by TCJA
  - Sufficiently large permanent deficits require offsetting fiscal adjustments in the future
    - Fiscal adjustments will also affect welfare and inequality
    - Size of adjustment is where growth/revenue feedback/excess burden matter
    - Assuming lump-sum offsets means you can assume a smaller fiscal adjustment for a deficit-financed tax cut

Lump-sum Financing Would Make TCJA Even More Regressive

Percent change in (static) after-tax income with lump-sum financing, 2018



- Financing with proportional spending cuts would make TCJA even more regressive and make bottom 60% of the population worse off on average, even in the short run
- Progressive raisers required to undo TCJA's effects on inequality, e.g.
  - Higher statutory corporate rate
  - Tighter limits on interest deductibility (or deny deduction for net interest)
  - Strengthen minimum tax provisions
  - Reform investor-level taxation, e.g. mark-to-market, wealth taxation/taxation of imputed returns, deferral charges
  - Progressive increases in individual tax rates

- Concluding Thoughts
  - TCJA likely to increase disparities in economic well-being and incomes
  - Distribution tables provide a first-order approximation to the change in welfare
  - Growth does not have a first-order impact on welfare (already ignoring deficits)
    - Incorporating deficits directly (and thus incorporating benefits of growth) reduces the apparent benefits of a deficit-increasing proposal
    - Increases in total factor productivity are very different from increases in the use of inputs
  - Growth and other behavioral changes do have a first-order impact on the distribution of observed incomes distinct question from welfare impact of proposals
  - Possible to design proposals that combine static tax cut and zero deficit impact: growth does not affect welfare, but it can *finance* policy changes that deliver a welfare gain
    - Gains will tend to be smaller than the apparent gains offered by deficit-increasing proposals
    - Proposals require tax offsets that are more efficient than the taxes that are cut
  - Policies intended to generate progressive increases in welfare and shared growth would look quite different from TCJA