

DOES THE INCOME TAX DISCRIMINATE ON THE BASIS OF RACE AND ETHNICITY?

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AUTHORS' NOTE

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I. Introduction

A key issue for researchers and policymakers is the extent to which laws and institutions that are nominally blind with respect to race and ethnicity are in fact neutral in their effects across groups. For example, the federal income tax does not explicitly take race or ethnicity into account; any two tax filing units with identical sources and level of income, deductions, and credits will face the same tax liability, regardless of group identity. Yet the income tax may still generate disparate outcomes across groups because factors that affect liability may be correlated with group identity.1 These factors include the well-documented and extensively studied differences between Black, Hispanic, and white households in terms of household composition, labor earnings, wealth accumulation, and other measures of economic status.2

This policy brief reports our research on how the income tax—a central economic institution in the lives of almost all citizens—differentially affects Black, Hispanic and white households.³ A prominent theme of our analysis is that the differences in economic status noted above are, in fact, among the primary determinants of tax liability and thus spill over into differences across groups in income tax burdens. In turn, the resulting differential income tax treatment may have significant effects on the differences in economic status.

II. Data and Methodology

To carry out the analysis, we use data from nine waves of the Survey of Consumer Finances (SCF), a public-use, triennial household survey that contains information on demographics, income, wealth, and consistent measures of respondents' self-reported race and ethnicity. We split households into tax units using a methodology developed in Gale et al. (2022a, b) and develop measures of adjusted gross income (AGI), deductions, taxable income (TI), and eligibility for credits. We estimate income tax liability using the National Bureau of Economic Research's TAXSIM model, which allows users to specify which year's tax law to use to calculate tax liability.

To develop a reliable measure of households' economic status and to examine the racial implications of items that are not taxed in the current system, we construct a new, broad measure called "expanded income" (EI), which starts with adjusted gross income (AGI) and adds various forms of cash and non-cash income components (Gale and Sabelhaus 2024).

III. Results

We obtain several major results, all under 2018 law unless otherwise specified. First, the descriptive data show that Black, Hispanic, and white tax filing units differ systematically (Tables 1 and 2, and Figures 1 and 2). White units have higher average income and, because the income tax is progressive, face higher average tax rates (ATRs), defined as the ratio of income tax liability to EI. Even after controlling for EI, however, important differences remain. For example, white units are least likely to file as head of household, have the smallest tax unit size, and receive the lowest share of income in the form of wages and the highest share of income as tax-preferred or -exempt capital income. Hispanic units are the most likely to be married, have the largest average family size, and are most likely to be eligible for the Earned Income Tax Credit (EITC) and Child Tax Credit (CTC). These descriptive findings are crucial because they reflect the underlying economic differences across groups noted above and drive all the results that follow, in intuitive ways.

Second, on net, the differences between a comprehensive income tax and the current income tax disproportionately benefit white households, on average. These differences include the non-taxation of items such as imputed rent from owner-occupied housing, unrealized capital gains, and a substantial share of business income. This result holds in the aggregate, which is unsurprising because most untaxed income accrues to high-income households, where white units are disproportionately represented. It also holds, however, after controlling for EI, for Hispanic-white differences in all income groups and Black-white differences in middle-and high-income tax units, reflecting underlying group wealth differences and income tax preferences for capital income (Figure 3). In the lowest two EI deciles,

the differences between a comprehensive income tax and the current system benefit Black households on average, who receive a disproportionate share of government transfers that are not taxed but would be under a comprehensive income tax.

Third, the relative taxation of different groups varies over the income distribution. In the bottom five deciles of the EI distribution, controlling for EI, Black units (by 1-2 percentage points) and Hispanic units (by 2-4 percentage points) face lower ATRs than white tax units (Figure 4). These results reflect differences in household composition and largely disappear after controlling for filing status and number of dependents.4 In contrast, in the top five deciles of the EI distribution, and again controlling for EI, Black units face higher ATRs than white units (by about 0.5 percentage points) and ATRs for Hispanic units are statistically indistinguishable from white units. For Black units, controlling for filing status and dependents does not eliminate this difference. Instead, the Black-white difference arises because Black tax units receive a smaller share of their income as tax-preferred or tax-exempt capital income, again reflecting racial wealth differences, and a greater share in the form of wages, which are taxed as ordinary income.5

These results display both "vertical" and "horizontal" differences between Black, Hispanic, and white households. Using a decomposition technique proposed in Slemrod (2022) and implemented in Lin and Slemrod (2023) for gender differences in taxes, we show that 61% (45%) of the overall difference in ATRs between Black (Hispanic) and white units is due to group differences in average income coupled with the progressivity of the income tax. The remainder is due to "horizontal" differences within the same income deciles. Because the difference in ATRs by group changes sign as El rises, we also decompose ATRs separately in the top and bottom halves of the income distribution and find that horizontal factors dominate the difference in the bottom half while vertical (i.e., income) differences dominate in the top half. These results are consistent

with the regression findings and show that many features of the tax system besides its basic progressivity affect relative tax burdens.

Fourth, we analyze prospective and recent tax reforms. Broadening the tax base by taxing capital income more fully reduces ATRs for Black and Hispanic units relative to white units (Figure 5). Lowering marginal tax rates, holding the base constant, has the same effect. Both results occur because, in most income deciles, tax-preferred and tax-exempt capital income is a larger share of income for white units than others, again reflecting underlying wealth differences.

We apply these results to the Tax Cut and Jobs Act of 2017 (TCJA) and the American Rescue Plan of 2021 (ARP). Although TCJA was regressive on an overall basis, thus benefiting white tax units relative to other groups, we find – within El deciles – that the individual income tax provisions did not have substantially different effects by race and ethnicity (Figure 6). In fact, the lower tax rates and increased CTC in TCJA reduced taxes by slightly more for Black and Hispanic tax units relative to white units within each income group. In sharp contrast, the American Rescue Plan (ARP) of 2021 reduced ATRs substantially for Black and Hispanic units relative to white units in the bottom half of the El distribution by substantially raising the CTC and the EITC (Figure 6).

Finally, we trace the evolution of group differences in the income tax over the past fifty-plus years. We show that, after applying 1970 law to the tax units in our sample, there is essentially no difference in average tax rates across the three groups, except at the very top. This is consistent with Strauss and Gouveia (2023), who find no difference in ATRs between Black and white tax units using data from 1967 to 1973. We then trace the effects of the various policy changes that have occurred since then and have led to a system where Black and Hispanic households face lower tax taxes than white households in the bottom half of the distribution but higher rates in the top half.

IV. Conclusion

Even in a tax system that explicitly avoids mention of race, differences in tax liability can arise because the various behaviors and circumstances that affect tax liability may be associated with race. Slemrod (2022) refers to this effect as "implicit discrimination." Alm and Lind (undated) call it "implicit bias." Both note that, given the complexity of the tax system and the large number of ways to divide the population, it is inevitable that such differences will occur. Nevertheless, knowing the nature, source, and magnitude of the differences can be an important input into tax analysis.

Our results help shed light on how the income tax can create, reinforce, or offset pre-existing disparities across groups. Taken together, the findings suggest that, in income ranges where Black and Hispanic units face higher taxes than white units, the principal factor is the tax preferences or exemptions accorded to various forms of capital income. In addition, in income ranges where Black and Hispanic units face lower tax rates than white units, the reason is that the low-income credits, subsidies to heads-of-households relative to singles, and untaxed government transfers help Black and Hispanic tax units relative to white units.

These differences are directly related to – indeed, they stem from – well-known racial and ethnic differences in household composition, earnings, and wealth. Differences in family formation lead to differences in filing status. Differences in earnings lead to different eligibility for credits and different marginal tax rates. Differences in the level and composition of wealth affect the level of El consisting of capital income and hence the share that is taxable. All these differences have plausibly been affected by a history of racism and racist policies in the United States (Kawano 2022).

Both Slemrod (2022) and Alm and Lind (undated) argue that it would be neither feasible nor desirable to eliminate all such differences, given the many goals of tax policy. Still, one notable implication of our results for tax reform is that standard arguments for moving to a system with a broader base (typically meant to imply removal of the exclusions and tax preferences related to capital and labor income) and lower rates would also have the effect of helping Black and Hispanic taxpayers, on average, relative to white taxpayers, relative to the current system. Likewise, expansion of low-income refundable credits, as in the ARP, can help minority households, in absolute terms and relative to white households.

We do not address why income tax rules might favor one group – for example, whether the differences are due to explicit or implicit racism, lack of representation in the legislature, or other causes (see Brown 2021, Martinez and Martinez 2011, Martinez 2017, Moran and Whitford 1996, and Strand and Mirkay 2023). Regardless of the cause, however, the results shed light on the racial and ethnic dimensions of the income tax.

Future research could constructively build on the results in this paper in at least four ways: by providing better understanding of how such differences arise in the political system; by broadening the list of taxes considered; by examining differential tax effects for other racial and ethnic groups; and by examining how the differences in income tax liability in turn affect other factors, such as racial differences in wealth, household composition, and economic mobility.

ENDNOTES

- 1 Moran and Whitford (1996) and Brown (2021) provide several examples where the tax code favors the activities, resources, and behaviors more common among white than Black families. Martinez and Martinez (2011) and Martinez (2017) provide similar analysis for Latino families. Gale (2021) provides examples where pre-existing discrimination in public policies, social practices, or economic conditions can cause policies that are race-neutral on the surface to nevertheless have disparate racial impacts.
- **2** See, for example, Aladangady et al. (2023); Altonji and Blank (1999); Boddupalli et al. (2024), Derononcourt et al. (2024); Holtzblatt et. al. (2024); Haskins and Sawhill (2009); Moynihan (1965), and Thompson and Suarez 2019.
- 3 According to the Oxford English Dictionary (2024), "Hispanic" refers to people with ancestry from Spanish-speaking countries, whereas "Latino" refers to people of Latin American origin. The Survey of Consumer Finances asks respondents their racial identification, including one category given as "Hispanic or Latino." We use the term Hispanic throughout the paper and use it to refer to any respondent who identifies with either term. Limited sample size in the SCF constrains our ability to analyze other ethnic or racial groups. For a preliminary of income taxes and Asian-American households see Gale and Gnany (2024).
- 4 There is an issue as to whether to control for tax unit characteristics, as such characteristics themselves may be the results of racism. We believe both types of comparisons with and without controls are informative. We control for tax unit characteristics here in order to explain the source of the differences in average tax rates, not to argue for the absence of racism in other parts of society. For further discussion, see Logan (2022) and Moran and Whitford (1996).
- 5 Holtzblatt, et al. (2023) and Cronin et al. (2023) obtain similar results on the share of wage and capital income.

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TABLE 1

Summary Statistics

	White	Black	Hispanic
SAMPLE SIZE			
Unweighted	206442	35259	28837
Weighted (Thousands)	114927	23198	18423
INCOME			
Average Taxable Income	60838	23655	22894
Average AGI	81448	37438	38631
Average El	155958	68523	66582
Average TI/Average EI	0.39	0.35	0.34
Average AGI/Average EI	0.52	0.55	0.58
TAX			
Average Income Tax Liability	10650	2104	1317
Average Tax Rate (taxes/TI, aggregate)	0.175	0.089	0.058
Average Tax Rate (taxes/AGI, aggregate)	0.131	0.056	0.034
Average Tax Rate (taxes/EI, aggregate)	0.068	0.031	0.020
Average Tax Rate (taxes/TI, personal)	-0.067	-0.342	-0.473
Average Tax Rate (taxes/AGI, personal)	0.032	-0.021	-0.038
Average Tax Rate (taxes/EI, personal)	0.023	-0.003	-0.019
FILING STATUS AND FAMILY CHARACTERISTICS			
Single	0.46	0.53	0.45
Head of Household	0.10	0.25	0.19
Married Filing Jointly	0.42	0.19	0.33
Married Filing Separately	0.01	0.03	0.03
Average Tax Unit Size	2.04	2.00	2.38
Has Children	0.31	0.38	0.45
Average Number of Dependents	0.63	0.81	1.06
EITC Eligibility	0.12	0.26	0.32
CTC Eligibility	0.27	0.27	0.35
Itemized Deductions Eligibility	0.20	0.10	0.09

TABLE 1 CONT.

	White	Black	Hispanic
AGE OF HEAD			
Average Age	49.6	45.8	40.9
Younger than 25	0.09	0.09	0.14
65 or Older	0.24	0.16	0.09

NOTES: The Table reports summary statistics by race/ethnicity for our sample, which is comprised of 156,548 weighted tax units constructed according to Gale et al. (2022a, 2022b). Federal income tax liability, filing status, and credit eligibility is determined by the TAXSIM tax calculator (Feenberg and Coutts 1993) and tax rates are calculated either as the ratio of aggregate taxes to aggregate income or the average of individual tax unit ratios of taxes to income. Age of Head refers to the age of the head of household.

Composition of Income

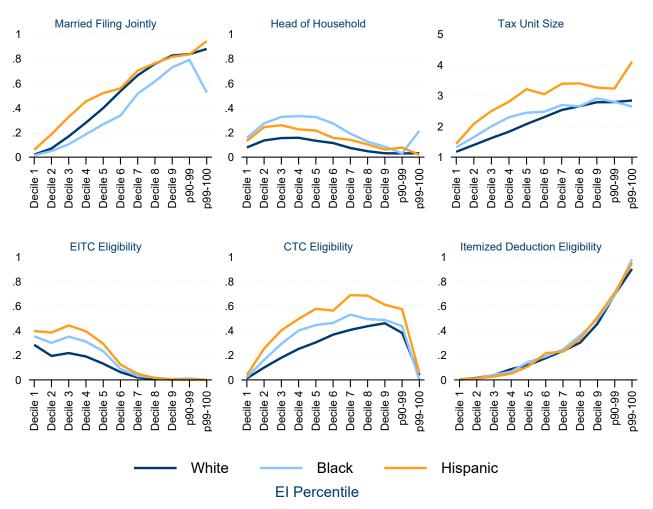
	White	Black	Hispanic
FULLY TAXABLE LABOR/RETIREMENT	0.40	0.51	0.52
Wage Income	0.35	0.45	0.50
Taxable Retirement Withdrawals	0.04	0.05	0.02
Taxable Social Security	0.01	0.01	0.00
UNTAXED LABOR/RETIREMENT	0.16	0.21	0.17
Employee-paid Benefits	0.01	0.01	0.01
Employer-paid Benefits	0.03	0.05	0.05
Employer-paid Payroll and UI Taxes	0.03	0.04	0.05
Non-taxable Social Security	0.02	0.04	0.02
Retirement Contributions and Buildup	0.07	0.06	0.04
FULLY TAXABLE CAPITAL	0.03	0.01	0.01
Taxable Interest	0.01	0.00	0.00
Net Operating Loss	0.00	0.00	0.00
Taxable Business Income	0.03	0.01	0.01
TAX-PREFERRED CAPITAL	0.06	0.02	0.02
Dividends	0.01	0.00	0.00
Realized Capital Gains	0.04	0.01	0.00
Section 199A	0.01	0.01	0.02
UNTAXED CAPITAL	0.23	0.10	0.13
Tax-exempt Interest	0.00	0.00	0.00
Unrealized Capital Gains	0.17	0.08	0.10
Untaxed Business Income	0.04	0.02	0.03
Imputed Rent on OOH	0.02	0.01	0.01
GOVERNMENT TRANSFERS	0.04	0.13	0.11
Unemployment Income	0.00	0.00	0.01
SSI, TANF, and Other Transfers	0.01	0.04	0.03
Medicare	0.02	0.04	0.03
Medicaid	0.01	0.05	0.05

TABLE 2 CONT.

	White	Black	Hispanic
PRIVATE TRANSFERS	0.02	0.01	0.00
Alimony Income	0.00	0.00	0.00
Net Child Support	0.00	0.00	0.00
Inheritance Income	0.02	0.01	0.01
CORPORATE TAX BURDEN	0.02	0.02	0.01

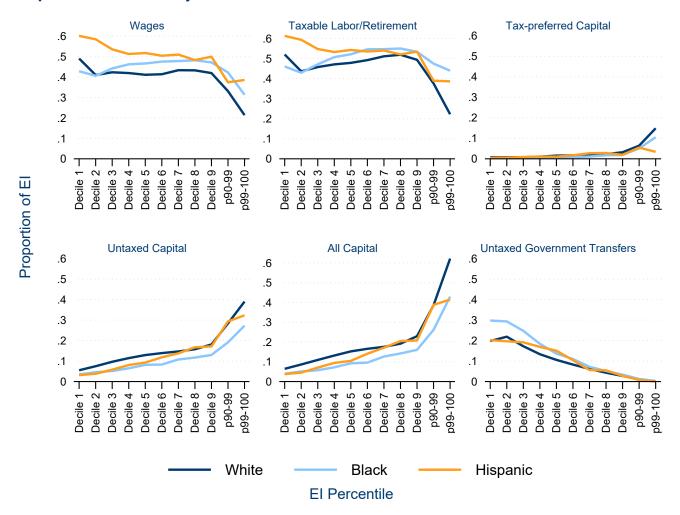
NOTES: The Table reports statistics on the composition of Expanded Income (EI) by race/ethnicity for our sample, which is comprised of 156,548 weighted tax units constructed according to Gale et al. (2022a, 2022b). For more information on the construction of EI, see the Online Appendix and Gale and Sabelhaus (2024).

Filing Status and Household Composition by El Percentile



NOTES: The Figure reports statistics on filing status, tax unit size, and eligibility for credits and deductions by race/ethnicity across the Expanded Income (EI) distribution. Distributional breaks are calculated using population weights, and other statistics are calculated using tax unit weights. Tax units are constructed according to Gale et al. (2022a, 2022b) and filing status and credit/deduction eligibility are determined by TAXSIM.

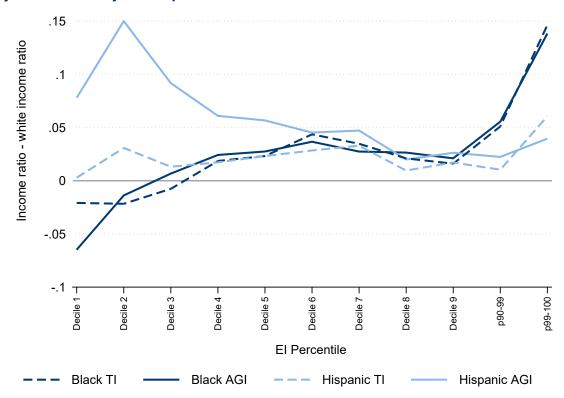
Composition of Income by El Percentile



NOTES: The Figure reports statistics on filing status, tax unit size, and eligibility for credits and deductions by race/ethnicity across the Expanded Income (EI) distribution. Distributional breaks are calculated using population weights, and other statistics are calculated using tax unit weights. See Figure 2 for the components of each income category. For more information on the construction of EI, see the Online Appendix and Gale and Sabelhaus (2024).

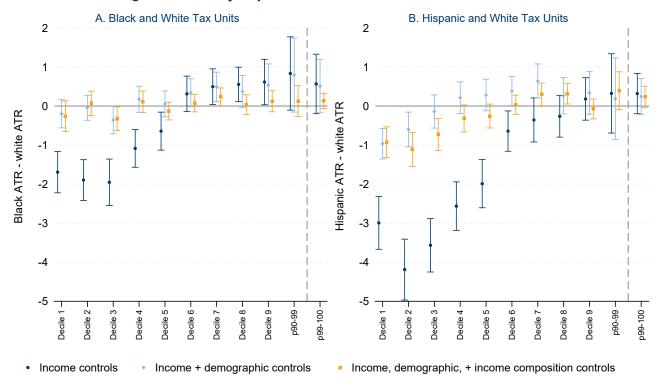
FIGURE 3

Adjusted Gross Income and Taxable Income as a share of Expanded Income, by Race/Ethnicity and Expanded Income Percentile



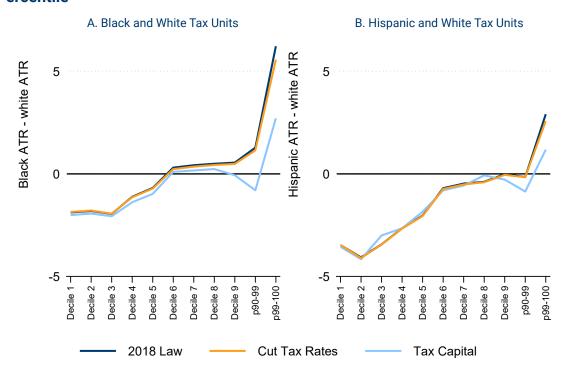
NOTES: The Figure reports the difference between Black and Hispanic and white ratios of Taxable Income (TI) and Adjusted Gross Income (AGI) to Expanded Income (EI) by EI percentile. Distributional breaks are calculated using population weights, and income ratios are calculated as the share of aggregate TI (AGI) to EI in a given percentile using tax unit weights.

Difference in Average Tax Rate by Expanded Income Percentile



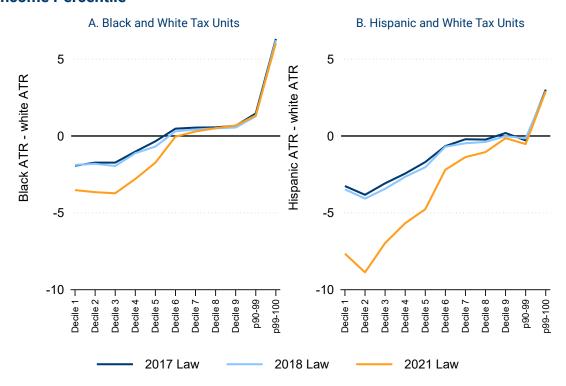
NOTES: The Figure reports point estimates and 95% confidence intervals (both divided by 10 in the top 1 percent for scale) from regressions displayed in Table 4 of the main paper. The dark blue circles plot coefficients for separate regressions by Expanded Income (EI) decile that regress Average Tax Rate (ATR) on EI, a Black indicator, a Hispanic indicator, and survey round fixed effects. The light blue diamonds display the same coefficients for regressions that additionally control for filing status and number of dependents, and the gold squares display the same coefficients for regressions that additionally control for the share of fully and partially taxed income in EI. Panel A displays coefficients on the Black indicator variable, and Panel B displays coefficients on the Hispanic indicator variable. Distributional breaks are calculated using population weights, and regressions are estimated using tax unit weights.

Effects of Tax Reform on Average Tax Rate Differences by Expanded Income Percentile



NOTES: The Figure reports the differences in ATR by El decile for Black and white tax units (Panel A) and Hispanic and white tax units (Panel B) under 2018 law, a reform that reduces income tax rates by 10 percent and a reform that broadens the tax base by (a) removing preferential rates for realized capital gains and qualified dividends, (b) repealing the section 199A deduction, and (c) incorporating imputed rent, unrealized gains, untaxed business income, and tax-exempt interest into the tax base. Distributional breaks are calculated using population weights, and other statistics are calculated using tax unit weights.

Effects of TCJA and ARP on Average Tax Rate Differences by Expanded Income Percentile



NOTES: The Figure reports the differences in ATR by El decile for Black and white tax units (Panel A) and Hispanic and white tax units (Panel B) under 2017, 2018, and 2021 tax law. Distributional breaks are calculated using population weights, and other statistics are calculated using tax unit weights.