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Racial Disparities in the Income Tax Treatment of Marriage*

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ABSTRACT

Although it is generally blind with respect to race, the tax code can create racial disparities when factors that affect tax liability are correlated with race. We provide new evidence on racial differences in marriage penalties and bonuses in the income tax, using data from eight waves of the Survey of Consumer Finances. Our results support Brown's (2021) hypothesis that, controlling for income, penalties are more frequent and larger for Black couples than white couples. We link these results to racial differences in income, relative spousal earnings, and the presence of dependents. We examine two policy reforms as well.

I. Introduction

The individual income tax generally does not refer to race, and the relationship between a taxpayer's race and their tax bill has largely been ignored by policymakers and researchers (Bearer-Friend, 2019; Gale, 2021). Nevertheless, the income tax can create and reinforce racial disparities due to the way factors that affect taxes are correlated with race.

For example, the tax treatment of marriage has attracted attention for decades, but only recently have scholars—most notably Brown (2021)—begun to address the racial dimensions of this issue. Marriage penalties and/or subsidies will exist in any progressive, family-based income tax. Generally, under US tax law, controlling for family income, couples with more equal incomes are more likely to face penalties than those with less equal incomes. (Throughout the paper, we refer to married couples as "couples.") Brown (2021) and others show that Black women are more likely to work than white women and are paid more, relative to Black men, than white women earn relative to white men. As a result, she hypothesizes that, controlling for family income, Black couples are more likely to face marriage penalties and to face larger marriage penalties than white couples.

We note two other reasons why Black and white couples may face different tax implications of marriage. First, the groups have differences in family characteristics, such as the presence of children, and various features of the tax code affecting children are not neutral with respect to marriage. Second, Black couples and white couples have different distributions of income, and certain tax provisions that are not marriage-neutral are concentrated at specific income levels.

In this paper, we explore how the federal individual income tax treats Black couples relative to white couples. We use data from eight waves of the Survey of Consumer Finances, a

public-use triennial household survey that contains information on race, demographics, income, and wealth. We split the household data into tax units using a methodology developed in Gale et al. (2022a, b). We calculate marriage penalties and bonuses building off the approach used in Bull et al. (1999) and applying the data to the National Bureau of Economic Research's TAXSIM model.

We obtain several principal findings. First, on an overall basis, Black couples face higher tax costs of marriage. Black couples were more likely to face penalties (46% to 43%) and less likely to receive bonuses (36% to 43%) than were white couples, under 2018 law. We compute marriage penalties and bonuses both in dollar terms and as a "rate"—a share of income. We believe the latter measure is more informative both because the "rate" adjusts for the couple's resources and because the distribution of income differs between Black couples and white couples. Among those with penalties, relative to white couples, Black couples paid less in dollars ($1,804 versus $2,091) but paid more as a share of income (1.8% versus 1.4%). Among those with bonuses, the bonus was smaller for Black couples than white couples ($1,926 versus $3,304) but the bonus rate was about the same: 2.6% for Black couples and 2.7% for white couples. All these differences except the last are statistically significant.

Second, our results support Brown's (2021) hypothesis: Controlling for family income, penalties are more prevalent and larger for Black couples than white couples. For example, under 2018 tax law, among tax units with adjusted gross income (AGI) between $50,000 and $100,000, and relative to white couples, Black couples were more likely to face marriage penalties (59% to 51%) and less likely to receive marriage bonuses (33% to 44%). Among those with a penalty, Black couples faced higher average penalties ($1,394 versus $1,241). Among those with a bonus, Black couples received smaller average bonuses ($1,402 versus $1,576). Taken together, Black

couples in this income group paid, on average, a net penalty of $358. White couples in this income group received, on average, a net bonus of $61. All the differences are highly statistically significant. Results from other income groups—except the lowest, where a sizable fraction of couples do not owe any income tax—are generally consistent with these patterns.

Third, we show that, controlling for income, marriage penalties are substantially higher for couples with relatively equal earnings and couples with dependents, and that Black couples are more likely than white couples to have more equal earnings (both because they are more likely to have two earners and because, among two earner couples, Black couples have more equal earnings than white couples do) and more likely to have dependents.

In regression analysis, we show that the difference in the prevalence of marriage penalties between Black couples and white couples is driven by racial differences in the level of income, the prevalence of two-earner families, and the presence of dependents. The correlation between race and marriage penalties arises largely because of factors—income, dependents, relative spousal earnings—that are correlated with race.

Fourth, we highlight the importance of different marriage rates by race. In our sample, couples represented 24% of Black tax units and 38% of Black adults (persons over the age of 18) but 52% of white tax units and 68% of white adults. As a result, although a greater share of Black couples than white couples experience penalties, a greater share of white tax units and white adults incur marriage penalties than Black tax units and adults. Consequently, policies to reduce marriage penalties, even if they are motivated by racial disparities in marriage penalties, may nevertheless provide tax cuts for a greater share of white tax units than Black tax units.

Fifth, we examine how changes in tax law have affected marriage penalties over time, by comparing penalties under 2018 tax law with the penalties that arise due to the tax laws operating

in 2000 and 2015. The 2001 tax cut reduced marriage penalties by changing the two lowest income tax brackets, the standard deduction, and the phaseout rules for the earned income tax credit (EITC). Rate cuts in 2001 and 2017 and other changes in those years, as well as in 2003 and 2009, affected the tax treatment of marriage as well. We find that the evolution of tax changes generally reduced the overall prevalence of marriage penalties. About 56% of Black and white couples in our sample faced marriage penalties under 2000 law, compared to 47% under 2015 law and 43% under 2018 law. Couples incurred a net penalty of 0.9% of income under 2000 law, falling to 0.1% under 2015 law, and changing to a net bonus of 0.4% under 2018 law. The Tax Cuts and Jobs Act of 2017 (TCJA) boosted net marriage bonuses for high-income white couples in particular.

Sixth, we examine two potential policy changes. Since the main drivers of penalties, other than income, are dependents and relatively equal spousal earnings, we examine reforms that could address each cause.

Giving spouses the choice to file as a married couple or as singles or (if children are present) head of household would help reduce the impact of dependents on marriage penalties by allowing couples to use the head-of-household filing status and to avoid marriage penalties in the EITC and CTC. The policy would eliminate *all* marriage penalties but would be expensive, with an annual cost of $49 billion (in 2018 dollars). Black couples and white couples would receive gains of 1.1% and 0.8% of income, respectively. The changes would be larger among couples with dependents and larger, as a share of income, among lower-income groups: the policy would be progressive among married couples. But the tax cut would only go to 10% of Black tax units (16% of Black adults), compared to 15% of white tax units (22% of white adults).

Reinstating a two-earner deduction, similar to the one in place in the early 1980s, could

help reduce the impact of relatively equal spousal earnings on marriage penalties. Such a policy would have reduced total penalties by nearly $15 billion and increased bonuses by about $5 billion in 2018. But the prevalence of marriage penalties would have fallen by only 3.1 percentage points among white couples and 1.8 percentage points among Black couples. Even among two-earner couples, the prevalence of penalties would fall by less than 7 percentage points. The effects are quite large, however, among the highest income groups, both because they are more likely to use the deduction and because the deduction is worth more to couples in higher tax brackets. That is, the policy is regressive among married couples. The benefits would go to 10% of Black tax units (17% of Black adults), compared to 21% of white tax units (36% of white adults).

Our results are similar in many ways to those in Alm et al. (2022), who presented, to our knowledge, the first systematic empirical investigation of race and the income tax treatment of marriage, using data from the Current Population Survey. Their work and ours finds similar results for: the proportion of Black and white couples with marriage penalties in 2018; the average size of penalties and bonuses in 2018 among those who experience them; declines in the prevalence of marriage penalties due to changes in tax law since 2000; and effects from TCJA of 2017 that helped white couples more than Black couples. Our study and theirs highlight the role of relative spousal earnings in determining marriage penalties, consistent with Brown (2021).

Relative to their work, our paper makes several contributions. First, we provide independent confirmation of their results using a different data set. Second, we highlight the key role that dependents play in the determination of marriage penalties and bonuses. Third, we show in regression analysis that racial differences in the prevalence of marriage penalties can be largely explained by factors that are correlated with race—income levels, spousal earnings

shares, and dependents. Fourth, we provide estimates of the effects of the two policy reforms.[1]

Turning to broader issues, although the specific topic of our paper is how tax penalties on marriage vary by race, the results are related to issues of structural racism. From a political perspective, differential marriage penalties by race did not arise in a societal vacuum. Black legislators have had little role in designing the tax system, especially before 1980. From an economic perspective, higher penalties on Black couples relative to white couples constitute both a cause and an effect of continuing economic disparities by race. Discrimination that has resulted in lower wages for Black men would encourage more Black women to work and would make earnings more equal in Black couples, raising marriage penalties for those households. And differences in marriage penalties reduce Black couples' after-tax income and their ability to accumulate wealth relative to white couples with the same income.

Section II explains how marriage bonuses and penalties can arise in an individual income tax system. Section III describes the data and methodology. Section IV presents the results under 2018 law. Section V presents results under previous years' tax laws and under the two policy reforms mentioned above. Section VI discusses the marriage penalty in the broader context of structural racism and lays out directions for future research.

II. The Income Tax Treatment of Marriage

A couple is said to face a marriage penalty if they owe more individual income tax if they are married than they would if they were single. Conversely, a couple has a marriage bonus if

[1] In addition, we make a number of stylistic and methodological improvements: (a) we examine penalty and bonuses as share of income, which provide more context about the impact of marriage penalties than dollar values because income levels vary across races; (b) we provide estimates of the statistical significance of raw differences in the prevalence and magnitude of penalties and bonuses; and (c) we highlight the role of different marriage rates among Black and white adults and its implications for policy reforms.

they would owe less income tax when married than they would if single.[2]

A reasonable starting point is to ask why the tax system favors or disfavors marriage at all. The answer is that marriage neutrality—the absence of either marriage penalties or subsidies—runs up against other tax policy goals. Specifically, any tax that applies to family income cannot simultaneously be progressive, provide equal taxation of families with the same income, and remain marriage neutral (Bittker 1975, Rosen 1987). Thus, marriage neutrality conflicts with common notions of vertical and horizontal equity.[3]

Consider, for example, a progressive tax that imposes the same burden on families with the same income. In this simple example, the first $20,000 of income is exempt from tax; the next $20,000 faces a 10% rate; and all additional income is subject to a 20% rate. The brackets and rates are the same for single and married filers. There are no dependents, exemptions, deductions, or credits (see Table 1).

Under this system, every married couple with the same income has the same tax liability. Marriage penalties arise because *unmarried* couples with the same combined income face different combined tax liability, depending on the allocation of income across partners. Consider the combined taxes of three unmarried couples, each with $60,000 in income:

- A couple with one earner would owe $6,000;

[2] Typically, these comparisons are made assuming that married couples file a joint return and individuals file as single or, if children are present, as head of household. In practice, married couples are permitted to file individually under a "married, filing separately" status, but usually tax liability is smaller under a "married, filing jointly" status. For example, taxpayers who file separately cannot claim the earned income tax credit under current law.

[3] The notion of imposing the same tax burden on families with the same income can be expanded to cover families in similar circumstances, but the definition of what constitutes similarity is vague and controversial. The tax code mostly uses household income, filing status, and number of children to identify families with similar circumstances. Brown (2021) makes the point that two-earner and single-earner couples with the same household financial income should not be seen as similar for horizontal equity purposes, since the non-working spouse in the single-earner couple can more easily provide household services than either working spouse in the two-earner couple.

- A couple with two earners who earn unequal amounts—one earning $50,000 and the other earning $10,000—would owe $4,000; and
- A couple with two equal earners—each earning $30,000—would owe $2,000.

If the couples married, the combined tax owed would not change for the one-earner couple; it would rise by $2,000 for the couple with unequal earnings and by $4,000 for the couple with equal earnings. That is, a family-based progressive tax imposes greater penalties on couples with more equal earnings.

Modifying the rates and brackets could eliminate marriage penalties but could create marriage bonuses. For example, setting the width of the tax brackets for single filers to be half the levels as for married couples would eliminate marriage penalties entirely but would lead to a $3,000 marriage bonus for the one-earner couple and a $1,000 marriage bonus for the couple where the partners earn $50,000 and $10,000. Other policy changes could generate marriage penalties for some couples and bonuses for others. While creating a bonus for marriage may not appear problematic at first glance, it implies a tax penalty for being single, which helps illustrate the difficult nature of the problem from an equity perspective.

Marriage penalties and bonuses can vary for several reasons besides relative spousal earnings. Income levels can influence the presence and magnitude of marriage penalties. In the example above, if all incomes were cut in half, the marriage penalties would be cut in half.

Policies that assist low- and middle-income parents and workers can also create penalties or bonuses. Bonuses can arise, for example, if a low-income, unmarried childless worker marries a nonworking parent. Under current law, if single, the worker could be eligible for the small EITC available to very low-income workers who do not live with children, while the nonworking parent would not be eligible for any EITC at all. If married, the couple would receive a

substantially larger EITC than the working parent received on their own as well as the child tax credit. In contrast, the phaseouts of the EITC and child tax credit can create marriage penalties, especially for two-earner couples. By filing jointly, couples combine their income, which can push them higher up (or completely out of) the phaseout range than if they filed as singles. The "head-of-household" filing status also causes marriage penalties. By maintaining the home in which their children lived, custodial unmarried parents and others caring for dependent relatives can qualify for a larger standard deduction and a more generous tax rate schedule than other unmarried individuals.

These findings suggest three reasons for differential marriage penalties for Black couples and white couples–differences in income levels, relative spousal earnings, and the presence of dependents. Figure 1 shows that how these characteristics differ between Black and white couples in the sample that we use (and explain further below). First, Black couples generally have lower income than white couples. About 37% of Black couples have AGI below $50,000, compared to 28% of white couples. About 4% of Black couples have AGI above $200,000, compared to 13% of white couples. Second, controlling for income, Black couples are 7-9 percentage points more likely to have two earners. (The overall difference is just 3 percentage points because the distribution of income differs across racial groups.) Third, and again controlling for income, Black couples are 8-16 percentage points more likely to have dependents.

To remove marriage penalties and bonuses completely, policymakers would have to either eliminate the progressivity of the income tax or violate the idea that families with equal income and similar circumstances should pay equal taxes. In practice, the tax system does violate the latter condition, in part because of beliefs about the incentive effects of marriage penalties and/or the social benefits of marriage. Marriage has been linked to positive personal and social

outcomes for couples and their children.[4] It is unclear, however, whether the association is due to marriage itself or whether those who are likely to succeed are also more likely to marry.[5] Furthermore, the limited research that distinguishes effects by race shows that the positive associations between marriage and well-being apply mainly to white households.[6]

III. Data and Methodology

No publicly available data set contains information about both race and taxes. To address this shortfall, we proceed in several steps. To generate household-level data on race, other demographic characteristics, income, and wealth, we access data from eight waves (1998 to 2019) of the Survey of Consumer Finances (SCF). To form income tax units out of the SCF households, we use the methodology developed in Gale et al. (2022a, b).[7] To determine how to treat married couples under the counterfactual that they were unmarried, we generally follow the methodology developed in Bull et al. (1999). To compute tax liabilities. we apply the National Bureau of Economic Research TAXSIM microsimulation model (Feenberg and Coutts, 1993).[8]

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[4] Marriage penalties reduce the incentive to marry but empirical studies generally find that penalties have only a small effect on marriage decisions with a somewhat larger impact on the timing of marriage (Alm and Whittington 1995, 2003; Sjoquist and Walker 1995). The outcomes in question include higher educational attainment and earnings for children, better physical and mental health for parents and children, and more stable relationships for the children of married couples (see, e.g., Brown, 2010; Howard and Reeves, 2014; Kearney and Levine, 2017; McLanahan and Sawhill, 2015; Ribar, 2015; Wilcox, Lerman, and Price, 2015).

[5] Affluent Americans are more likely to get married and stay married, confounding any effect that marriage may inherently have on spouses' and children's wellbeing (Howard and Reeves, 2014; Brown, 2010).

[6] See, for example, Brown (2010) and Shapiro et al. (2013). In one of the few studies that asked whether Black and white individuals responded differently in response to the marriage disincentives embedded in the tax code, Alm and Whittington (1999) did not find any distinctions between Black and white women but found that the probability of marriage for Black men actually rose by a "quite small" amount as marriage penalties increased.

[7] An income tax unit is defined as an individual or married couple that is required to file a tax return, or that would be required to file a tax return if their income were high enough, along with all dependents of that individual or married couple.

[8] Our approach—imputing taxes onto a data set that already contains information about race—captures the respondents' self-reported race and, although it may not generate the exact liability a tax unit faces, the error is likely to be small. Other empirical strategies offer different strengths and weaknesses. For example, starting with a

A. Data

To form income tax units out of the SCF households, we proceed in several steps. First, we divide SCF households into tax units as explained in Gale et al. (2022a). For households that account for the vast majority of income—including singles living alone and married couples with either no dependents or with children below age 18—this process is simple. For other households, a variety of financial and demographic measures are used to estimate filing status.

Second, because the SCF's measures of income and itemizable expenses do not always align with tax concepts and because some variables—including net business income and respondent's age—are intentionally rounded or masked in the public version to avoid reidentification of the participants, we derive or estimate (using other variables in the data set) several items that are needed to compute tax liability.[9]

Third, after determining how to treat married couples if they were single (as described below), we run the data for tax units through TAXSIM to estimate income tax liabilities. TAXSIM follows US federal and state income tax rules over the 1998 to 2019 period (tax years 1997 to 2018) spanned by the SCF data.

In general, we replicate the revenue and distributional effects of the actual system fairly

data set that has tax information would provide precise more information on taxes but requires imputations for race. Haas et al. (2019), for example, impute race onto administrative data, and the Tax Policy Center is currently developing its first race imputations to apply to its microsimulation model. Alternatively, linking data sets with information on race (e.g., the Census) and taxes (e.g., tax returns) would provide greater accuracies on both measures, but the amount of tax data provided by the IRS to the Census department is limited by law and regulations and further would not provide data on household wealth that may prove helpful. Akee et al. (2017) and Chetty et al. (2020) follow this approach, although they do not exploit the tax information in the Treasury data.

[9] We build on the procedures in Gale et al. (2022a, b) in several ways. We impose a $10,000 cap on state and local tax deductions in tax year 2018, we separate the alimony and child support received using relevant demographic information from the survey, and we include non-filers. A key finding in Gale et al. (2022b) is that reported pass-through business income is twice as high in the SCF as it is in the IRS's Statistics of Income (SOI) data. For comparability to the IRS data, we cut the SCF-reported business income by half when estimating income tax liabilities.

closely. Appendix Figure 1 shows that the difference between estimated revenues as in Gale et al. (2022b) (the red line) and the reported revenues from tax return data in the IRS's Statistics of Income (SOI) (the blue line) is small and relatively stable over time. Estimated revenues are $1,517 billion in 2018, almost identical to the published IRS figure of $1,510 billion. Appendix Table 1 shows that in data for tax year 2018, the simulated distributions of the number of returns and total income are relatively close to those in the SOI data. Income aggregates by income category are within 10% of published IRS figures in income groups that collectively account for 96% of total income.[10]

Since the 1998 survey, the SCF has asked respondents to describe themselves as white, Black or African American, Hispanic or Latino, Asian, American Indian or Alaska Native, Native Hawaiian or Pacific Islander, or other. Respondents can report more than one race but are asked which race they identify with most strongly, which we use as the race classifier.[11] We assume that the spouse and respondent are the same race, thus allowing us to define couples as either Black or white.

Our sample pools the eight SCF survey waves since 1998. Appendix Table 2 reports sample statistics. The raw count of tax units includes 19,014 with a white respondent and 1,182 with a Black respondent. The SCF generates 5 imputations (called "implicates") for each unit to

[10] The difference in number of tax units for those with AGI below $50,000 units arises largely because we do not include dependent filers. SOI (2019) reports 9.4 million dependent filers in 2018 with AGI under $50,000. Our model generates 9.3 million fewer filers with an AGI under $50,000 than the SOI data (including filers with an AGI of zero).

[11] In sensitivity analysis, we find that restricting the sample to people solely reporting one race has virtually no effect on the results. A relatively small number of people report multiple racial identifications—about 6.8 percent of the sample in the 2019 survey, up from 2.3 percent in 2004. The public-use version of the SCF only provides information about whether a respondent reported identifying as more than one race, not what the other races are. Because questions about ethnicity were only asked starting in the 2004 survey, our sample of those who identify most strongly as Black or white may also include some respondents of Hispanic or Latino culture or origin. However, we note that in 2019, 90.2 percent of those who identified their ethnicity as Hispanic or Latino also reported it as their racial identification.

account for missing data. We employ information on all five implicates for each couple, generating a data set with about 95,000 white couples and almost 6,000 Black couples. We weight results using the SCF's replicate weights divided by eight (because we are using eight survey waves). Income and deductions are adjusted using the urban Consumer Price Index.

About half of white tax units and a quarter of Black units reported being married in each survey year. About 78% of couples in the sample are white and 7% are Black, with the share among whites falling from 83% in 1998 to 75% in 2019, while the Black share was fairly constant (the remainder being other racial categories).

B. Measuring Marriage Bonuses and Penalties

We calculate the marriage penalty or bonus a couple faces as the difference between (a) their tax liability as a couple filing jointly and (b) their combined liability in the event they could both file as singles, or if children are present, as a single filer and a head of household.[12] Many previous researchers have followed this approach.[13] The key issue in these analyses is how to reorganize the family unit and its financial and living arrangements assuming the couple is no longer married.

Following Bull et al. (1999), we assume that married couples could duplicate the pooling of assets and expenses that occurs within their marriages without actually being married. For

[12] In principle, measures of marriage bonuses and penalties can be derived by either estimating (1) the difference between what a sample of married couples would pay if they were not married or (2) the difference between what a sample of unmarried individuals would pay if they were married. As noted, we follow the first approach. Using the second approach requires either estimating the earnings of a single person's potential (but unobserved) spouse (Dickert-Conlin and Houser, 1998) or focusing on people who live with their partner (Alm and Leguizamon, 2015). It was beyond the scope of this paper to match unmarried individuals to one another and compute their tax liabilities as if they were married and filing a joint return. We explored the possibility of computing marriage penalties for cohabitating unmarried couples, but the SCF sample sizes were small. Alm et al. (2022) address this question using the Current Population Survey.

[13] Feenberg and Rosen, 1995; Alm and Whittington, 1996; Congressional Budget Office, 1997; Bull et al., 1999; Alm and Leguizamon, 2015.

income and expenses, we assume that the couple (and dependents) would continue to reside together and share expenses. Wages, self-employment income, pension income, Social Security benefits, unemployment benefits, and miscellaneous forms of earned income would be the same as when married and would be retained by the earner or beneficiary. Unearned income (dividends, interest, capital gains, etc.) and associated expenses would be the same as when married and would be divided evenly between the spouses. (See Appendix Table 3.)

Regarding tax provisions, we assume that the couple would retain the same exemptions (in pre-2018 law), eligible expenses for credits, and above-the-line and itemized deductions. We assume that the higher-income spouse would claim all above-the-line deductions and itemizable expenses. If there are no dependents, the couple would file as singles. If dependents are present, the higher-income spouse would file as head-of-household (if otherwise eligible) and claim all dependents. (See Appendix Table 4.)

These assumptions, consistent with earlier studies, generally hold taxpayer behavior constant with respect to marital status. For example, we do not incorporate any labor supply responses to marriage penalties and bonuses, consistent with Bull et al. (1999), Eissa and Hoynes (2000), Alm and Leguizamon (2015), and Alm et al. (2022). But we allow individuals to itemize deductions to reduce tax liability.

IV. Results Under 2018 Tax Law

A. Results for the whole sample

Table 2 reports results for the whole sample, inclusive of all races. Overall, 43% of couples incurred a marriage penalty, averaging $2,064 or 1.5% of AGI. About 43% of couples received a bonus, averaging $3,062 or 2.7% of AGI. For the remaining 14% of couples, marital

status had a negligible effect (less than $10) on annual income tax liability.[14] On average, couples paid $432 less in income taxes, representing 0.4% of AGI, than if they had not been married.

B. Results by Race

Table 1 also presents summary results by race. In general, Black couples bear greater tax burdens from marriage than white couples do. Because Black couples' AGI is, on average, less than the income of white couples, the dollar amount of their marriage bonuses and penalties may also be lower, but the "penalty rate" or "bonus rate"—the penalty or bonus amount as a share of AGI—can be higher.

A greater proportion of Black couples than white couples faced marriage penalties: 46% compared to 43%. Among those facing penalties, the average penalty rate was higher for Black couples than white couples (1.8% versus 1.4%) but because of the differences in income between the groups, the average dollar amount for Black couples was lower than for white couples: $1,804 compared to $2,091.

Conversely, a smaller proportion of Black couples than white couples received marriage bonuses: 36% compared to 43%. Among those receiving bonuses, the average bonus rate was about the same: 2.6% for Black couples and 2.7% for white couples. This corresponds to average bonuses of $1,926 for Black couples and $3,304 for white couples.

Among all Black couples, the average tax effect of marriage was a penalty of $148, corresponding to a net penalty rate of 0.2% of AGI. Among all white couples, the average tax effect of marriage was a bonus of $514, corresponding to a net bonus rate of 0.4%.

[14] For approximately 30 percent of these couples, this was because they did not have any income tax liability if they filed jointly or as individuals.

C. Results by Race and Income

We now turn to results broken out by race, income, relative spousal earnings, and number of dependents. Figures 2 and 3 present results on the prevalence of marriage penalties and the average penalty as a share of income among those who face penalties. Figures 4 and 5 present analogous information for marriage bonuses. Figure 6 presents net average marriage bonuses (bonuses less penalties, as a share of income).[15]

We break the sample into four income groups: couples with AGI under $50,000, between $50,000 and $100,000, between $100,000 and $200,000, and above $200,000.[16] Within income groups, Brown (2021) posits that the incidence of marriage penalties would be greater for Black couples than for white couples. Our findings support this view. In AGI groups above $50,000, the prevalence of marriage penalties was 8-13 percentage points higher for Black couples relative to white couples. The gap was only 1 percentage point for couples with AGI below $50,000, in part because 31% of these couples faced no income tax liability as couples or if they were single.

Among couples with penalties, the penalty as a share of income was consistently higher for Black couples than for white couples in all income groups, though the difference is negligible in the very top income group. Bonuses were generally more prevalent and a larger share of income for white couples—except in the very top income group.

The net bonus rates followed a U-shape pattern for both Black and white couples—

[15] The full set of results by race, income, and number of earners is shown in Appendix Table 5 (for the prevalence of penalties and bonuses), Appendix Table 6 (for penalties and bonuses in dollars) and Appendix Table 7 (for penalties and bonuses as a share of AGI). Appendix Tables 8-10 show analogous results by race, income, and the presence of dependents.

[16] Married couples with negative AGI constituted 0.4% of the sample and are excluded from the income groups but included in the aggregate figures.

initially hovering around 1% for couples with income below $50,000, declining between $50,000 and $200,000, and then rising to 0.4% for the highest-income Black couples and 0.7% for white couples. But Black couples with income between $50,000 and $200,000 faced a net penalty on average, whereas marriage had little net impact overall for white couples in those income groups.

D. Results by Number of Workers and Earnings Shares

Controlling for income, racial disparities in the tax treatment of marriage could occur for many reasons. We highlight two possible factors: differences in the relative earnings among spouses (including one- versus two-earner couples) and the presence of children.

As described in Section II, controlling for income, couples with more equal spousal earnings were more likely to face penalties and to face larger penalties. As previously shown, Black couples were more likely to have two earners (Figure 1). And even among two-earner couples, relative spousal earnings were more equal for Black couples than white couples (Figure 7). For 59% of Black two-earner couples, but only 45% of white two-earner couples, the lower-earning spouse's labor compensation (wages, salaries, and self-employment income) was at least 60% of the compensation of the other spouse. The lower-earner's compensation was less than 40% of that of other spouse for a third of white two-earner couples but less than 20% of Black two-earner couples.

For these reasons, it follows that marriage penalties were more prevalent and a greater share of income (and bonuses were less prevalent and a smaller share of income) among two-earner Black couples than two-earner white couples. About 75% of Black two-earner couples and 69 percent of their white counterparts experienced marriage penalties—more than 25 percentage points higher for each two-earner group than the shares for each group overall. Conversely, only 18 percent of two-earner Black couples and 26 percent of two-earner white

couples received bonuses from marriage, with each figure at least 17 percentage points below the average for the respective racial group. Among two-earner couples, Black couples faced a net penalty rate of 1.2% of income (a percentage point higher than for the overall group), while white two-earner couples face a net penalty of 0.5% of income (compared to a bonus of 0.4% for the overall group).[17]

E. Results by the Presence of Dependents

As described above, the presence of children can also contribute to marriage penalties, due to the head-of-household filing status, the phase-ins of the child tax credit and the EITC, and the phaseout of the EITC. As previously shown, Black couples were significantly more likely to have children than white couples, controlling for income (Figure 1).

As a consequence, marriage penalties were generally more prevalent and represented a greater share of income (and bonuses were less prevalent and represented a smaller share of income) among Black couples with dependents than among white couples with dependents. Among those with dependents, 62% of Black couples and 57 percent of white couples incurred marriage penalties—16 and 14 percentage points, respectively, higher than the overall average by race.

The impact of having dependents varied significantly by income, because of the EITC and CTC. Couples with dependents and income below $50,000 had a markedly lower probability

[17]We undertook a variety of forms of sensitivity analysis. First, changing the threshold below which a calculated marriage penalty is deemed to be not a penalty from $10 to $100 has virtually no effect on the results. Only 3-4% of those with bonuses or penalties have effects below $100 in absolute value. Second, restricting the sample to couples with respondents between the ages of 25 and 64 slightly raises the overall prevalence of penalties – to 46% from 43% – but only because it increases the percentage of the sample represented by two-earner couples. The prevalence or marriage penalties for one-earner couples and for two-earner couples changed only by 1 percentage point. Third, allocating capital income in the same proportion as labor income (as opposed to splitting it equally among spouse) has very small effects – 42% of couples face penalties, 44% receive bonuses, compared to 43% and 43%, respectively, in the base case.

of facing a marriage penalty–31 percent–compared to couples with higher income, where between 49% and 77% of couples with dependents faced penalties. Low-income households also were more likely to receive bonuses than most other households.

Black couples with dependents faced an average net marriage penalty of 0.7% of income; white couples with dependents obtained, on average, a net marriage bonus of 0.2% of income, increasing the gap between Black and white couples to 0.9 percentage points compared to 0.5 percentage points for all couples regardless of the presence of dependents.

F. Regression Analysis

To analyze these findings more formally and to understand the relative contribution of each characteristic for the presence and size of marriage penalties, we turn to regressions. The sample contains all Black and white couples. The first specification controls for the SCF year, AGI class, the lower earner's labor compensation as a fraction of the higher earner's compensation (earnings ratio, ER), number of dependents (DEP), and the race of the respondent, and is given by:

$$X = \alpha_1 + \sum_{k=2}^{8} \alpha_{2k} Year_k + \sum_{j=2}^{4} \beta_j AGI_{ij} + \gamma_1 ER_i + \gamma_2 Dep_i + \gamma_3 Race_i + \varepsilon \qquad (1)$$

where i indexes couples, j indexes AGI class (with < $50,000 omitted), and k indexes SCF years.

The second specification incorporates interactions between income and the other variables:

$$X = \alpha_1 + \sum_{k=2}^{8} \alpha_{2k} Year_k + \sum_{j=2}^{4} \beta_j AGI_{ij} + \sum_{j=1}^{4} \gamma_{1i} AGI_{ij} ER_i + \sum_{j=1}^{4} \gamma_{2i} AGI_{ij} Dep_i + \sum_{j=1}^{4} \gamma_{1i} AGI_{ij} Race_i + \varepsilon \qquad (2)$$

Table 3 reports results for the prevalence of marriage penalties. In the linear probability model, X =1 if the couple faces a marriage penalty, 0 otherwise. The results in the first column indicate that marriage penalties are more prevalent in income classes above $50,000, when spousal earnings are relatively equal and when dependents are present. Controlling for these factors, the coefficient on the indicators for race is estimated to be zero.

The second column reports results from estimating (2). The same general coefficient patterns occur as in the first specification, for the variables other than race, except that the presence of dependents in the highest income class appear to reduce the prevalence of marriage penalties. The regressions suggest that, even after controlling for other variables, Black couples are more likely to face marriage penalties than other couples. This suggests that other factors besides those presented above affect the creation of marriage penalties or bonuses.

Table 4 reports results from OLS regressions that set X equal to the value of the couple's marriage bonus (+) or penalty (-). In this first specification, bonuses rise with income class, fall with more equal spousal earnings and with dependents, and race has no impact. After interacting the explanatory variables with income, the same patterns emerge for the variables other than race. But Black couples face larger penalties in income classes above $50,000, even after controlling for the other characteristics.

V. Alternative Approaches

The tax treatment of marriage has changed over time, reflecting shifting views about what constitutes equitable treatment. The income tax that took effect in 1913 was imposed on individuals' income (Bull et al, 1999; Michelmore, 2018). But couples in community-property states soon discovered that they could reduce their combined tax liability by strategically shifting

income between spouses. This led to protests by residents in other states. In response, Congress created the joint filing status in 1948 and widened the tax brackets for married couples to be twice the width for single filers. This eliminated marriage penalties but increased the prevalence of marriage bonuses (singles penalties), particularly for one-earner couples.

Unmarried individuals then protested, leading Congress to make the tax code more favorable to that group, by creating the head-of-household filing status in 1951 and by changing the tax brackets in 1969. These changes, however, increased the likelihood of marriage penalties, particularly for two-earner couples. To address that concern, Congress enacted a two-earner deduction in 1981 but repealed it two years later. In response to continuing concerns about equity, Congress took several incremental steps between 2001 and 2017 to reduce marriage penalties for two-earner couples, which had the effect of boosting bonuses for many one-earner couples. (See Appendix Table 5 and the text below for details).

These prior discussions notably omitted consideration of racial dimensions of the tax treatment of marriage. In this section, we examine how legislative changes since 2000 and two policy reforms affect Black and white couples differently.

A. Impact of Legislation Since 2000

The Economic Growth and Tax Reconciliation Relief Act (EGTRRA) of 2001 reduced marriage penalties and increased marriage bonuses by raising the standard deduction and the income thresholds for the two lowest tax brackets for couples to twice the levels for single filers Both EGTRRA and The American Recovery and Reinvestment Act of 2009 stretched the EITC phaseout range for married couples, although stopping short of setting the credit thresholds for married couples at double the levels for unmarried filers. In TCJA in 2017, Congress extended (through 2025) the broader rate brackets for married couples to all but those in the top two rate

brackets (El-Sibaie 2018).

Other provisions in post-2000 tax legislation indirectly impacted marriage penalties and bonuses. For example, EGTRRA and TCJA reduced marginal tax rates, which generally lowers marriage penalties, though it could snag high-income taxpayers on the alternative minimum tax. EGTRRA doubled the maximum child tax credit but increased marriage penalties because the beginning of the phaseout of the enhanced credit for couples remained at $110,000—less than twice the threshold of $75,000 for unmarried filers. TCJA doubled the maximum credit again and removed the associated marriage penalty by increasing the phaseout thresholds to $200,000 for unmarried filers and $400,000 for married couples through 2025. A variety of other provisions enacted since 2000 had smaller effects on marriage penalties.

Figures 8-10 show how the evolution of tax law affected marriage penalty patterns.[18] Several aggregate trends are worth highlighting. First, the share of couples who faced marriage penalties fell from 56% under 2000 law to 47% under 2015 law and then to 44% under 2018 law. Second, differences in the prevalence of marriage penalties between Black couples and white couples increased slightly over this period (Figure 8). Third, the share of couples receiving bonuses rose significantly due to tax law changes, from 28% and 32% of Black couples and white couples, respectively, under 2000 law, to 35% and 43% under 2018 law (Figure 9). Fourth, couples incurred a net penalty rate of 0.9% under 2000 law, which fell to 0.1% under 2015 law.

[18] Prior to 2017, the itemized deduction for state and local taxes (SALT) was unlimited. In 2017, TCJA limited the deduction to $10,000. As a result, there are no SOI data for 2018 on what taxpayers would have deducted had the deduction been unlimited. This makes it difficult to calculate SALT under 2000 and 2015 law (when the state and local tax deduction was unlimited) using the 2019 SCF. Therefore, to do the comparisons with prior law, we dropped the 2019 SCF data from the sample. Thus, unlike our earlier analysis, the estimates for prior law and 2018 law in this section are based on seven waves of the SCF through 2016. The estimates of the prevalence and magnitude of marriage bonuses and penalties under 2018 law, using the truncated data, are similar to those using the full sample and reported earlier. Our analysis of the 2015 and 2018 laws do not reflect the premium tax credit, enacted as part of the Affordable Care Act.

The change to 2018 law did not alter the net penalty rate for Black couples but gave white couples a net bonus rate of 0.4 percent. (Figure 10). That is, TCJA eliminated marriage penalties, on average, for white couples but had no discernable effect, on average, for Black couples.

There were somewhat divergent trends by income group. Among couples with AGI below $50,000, the change in law from 2000 to 2015 greatly reduced the prevalence of marriage penalties and increased the prevalence of marriage bonuses. Among high-income households, both the changes between 2000 law and 2015 law and the changes between 2015 and 2018 law significantly reduced marriage penalties and boosted bonuses. In particular, TCJA had a particularly strong effect for couples with AGI above $200,000, raising the net marriage bonus rate by 1.0% of income for Black couples and 1.3% of income for white couples (Figure 10).

B. Individual Filing Option

As noted above, the two major drivers of marriage penalties, besides income, are the presence of dependents and the existence of two-earner families. We examine reforms that could at least partially address these issues. The first reform, analyzed in this section, would give spouses the choice to file as a married couple or as singles or (if children are present) head of household, analyzed in this section, would help address the role of dependents by allowing couples to use the head-of-household status and to avoid marriage penalties in the EITC and CTC.

To be clear, such a change would raise difficult issues. It would be a substantive change to the tax code with implications for horizontal and vertical equity. It would require rules to allocate capital income, deductions, and dependents, and some couples might choose to forgo the tax cut rather than deal with the additional complexity involved in filing tax returns. And even with statutory allocation rules, creative couples probably would still find ways to shift certain

forms of capital income to the partner facing the lower marginal tax rate, creating marriage subsidies—or, more pointedly, singles penalties (Eickmeyer et al., 2019). These issues notwithstanding and assuming that the statutory allocation rules would correspond to those we made above (in Appendix Table 3), we estimate the effects of moving to an optional individual-filing system.

The policy would eliminate *all* marriage penalties, thus reducing taxes for 46% of Black couples and 43% of white couples. It would have *no* effect on previously existing marriage bonuses. The annual cost would be about $49 billion. Figure 11 shows how this policy would *change* net average bonuses as a share of income, relative to 2018 law. Black and white couples would experience an increase in the net bonus rate of 1.1% of income and 0.8% of income, respectively. Among couples with dependents, the effect would be larger—Black couples would receive a change of 1.8% of income; white couples would receive a change of 0.9% of income. Notably, for both races, the increase in bonuses declines as a share of income as income rises. That is, the policy is progressive, among married couples.

Although not shown in Figure 11, the policy change would give tax cuts to a greater share of white tax units and adults (22% and 30%, respectively) than Black tax units and non-dependent adults (10% and 17%, respectively).

C. Two-Earner Deduction

Allowing couples to deduct a portion of the lower-earning spouse's income would help reduce the impact of having two earners on marriage penalties. From 1981 to 1983, two-earner couples could subtract 10% of the lower-earner's earnings up to $30,000, for a maximum deduction of $3,000, from AGI. We examine a simplified variant of that policy, which would have allowed taxpayers to deduct 10% of the lower earner's earnings up to $90,000 in 2018—

roughly the same threshold as under 1981 law, adjusted for inflation. Under our variant, however, the deduction would apply to taxable income rather than AGI; as a consequence, the option would not impact eligibility for the lower tax rates on capital gains, the EITC, and various provisions that are explicitly linked directly to AGI.[19]

The two-earner deduction would have reduced marriage penalties by $14.8 billion in 2018 and raised marriage bonuses by $4.8 billion, reducing overall revenues by $19.6 billion. The policy would reduce the prevalence of marriage penalties by only 2.0 percentage points for Black couples and 3.3 percentage points for white couples and (Figure 12). The effects are somewhat larger among two-earner couples—4.9 percentage points and 7.0 percentage points, respectively—but still small. Figure 13 shows somewhat larger on the prevalence of bonuses.

What stands out in Figures 12 and 13 is how much the reform would benefit higher-income households. Among couples with income above $200,000, the prevalence of penalties would fall by 11.3 and 8.5 percentage points for Black couples and white couples, respectively and 17.4 percentage points and 15.1 percentage points for two-earner couples in those groups. Figure 14 shows that the impact of the reform on net marriage bonuses as a share of income is larger for Black couples than whites and is particularly large among high-income couples. The value of the deduction rises with income because higher-income couples are more likely to be able to claim the maximum deduction of $9,000 and because the value of deductions increases as the taxpayer moves into higher tax brackets. As a result, the reform would be regressive among married couples.

[19]As an illustrative calculation, suppose the lower-earning spouse earned 50% as much as the higher earner (and earned less than $90,000), and the family had only labor income. Then the lower earning spouse would have earned 33.3% of family income. A 10 percent deduction would reduce family income by 3.33%. If the family faced a 15% (25%) marginal federal income tax rate, tax liabilities would fall by about .50% (.83%) of income. This figure can be compared to the average marriage penalty rates reported in the text and the effects of the policy reported below.

The tax cut would go to about 10% of Black tax units (17% of Black adults), compared to about 21% of white tax units (36% of white adults).

V. Conclusion

We provide new evidence on marriage penalties by race using the 1998-2019 Survey of Consumer Finances, coupled with methods that convert SCF household units into tax units, methods for determining the tax liability of married couples if they were unmarried, and the application of NBER's TAXSIM. We find that Black couples are more likely than white couples to experience an income tax penalty from marriage and to face higher penalties. We show that these patterns arise because, controlling for income, Black spouses have more equal earnings than white spouses, as Brown (2021) hypothesizes, and because Black couples are more likely to have dependents.

There is no perfect solution to the tax treatment of marriage, and the byzantine system that has emerged reflects policymakers' struggles to reconcile a variety of conflicting goals. Our findings, along with Brown (2021), Alm et al. (2022) and other emerging research, suggest the need to add one more consideration into the discussion: the impact on racial equity.

Several caveats apply to our analysis. First, we focus solely on annual measures of marriage penalties and bonuses, but the effects could persist over time. Second, we focus on the federal individual income tax, but marriage penalties and bonuses can occur in other taxes and in federal and state benefit programs as well (Ilin et al., 2022). Third, data limitations force us to omit certain key features of the income tax, such as the premium tax credit.

More generally, the differential marriage tax that is imposed on Black couples relative to white couples can be related to issues of structural racism—both the result and the cause of a system of reinforcing disparities. That tax rules can penalize Black taxpayers relative to white

taxpayers should not be surprising from a political perspective, in that the code was developed largely devoid of the influence of Black legislators.

From an economic perspective, the higher marriage penalty faced by Black couples has clear effects on racial disparities: it reduces their after-tax income and thus their ability to accumulate wealth relative to white couples with similar income.

At the same time, racial disparities may have helped cause the situations—more two-earner couples and more dependents—that generate differential marriage penalties in the first place. For example, low earnings and high incarceration rates among Black men—for reasons related to structural racism—may have driven more Black women to work more. Alternatively, Black couples may tend to have a more egalitarian view of marriage than white couples, encouraging Black wives to work even when there is no urgent need for two incomes. Black families may also receive more support from family and friends in childcare, giving Black women more flexibility to choose to work.[20]

Future research could fruitfully focus on empirical investigations of other aspects of the tax code, and public policy more generally, that are race-blind on the surface but are both the cause and effect of racial disparities and structural racism.

[20] For more discussion of these issues, see Beckett and Smith (1981); Benin and Keith (1995); Broman (1991); Buchanan and Selmon (2008); McKinney et al. (2021); Orbuch and Custer (1995); Potamites (2007); Reeves et al. (2020); Ross et al. (2022); Sakamoto et al. (2018); Seitz (2009); and Shiro and Butcher (2022).

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Table 1: Examples of Marriage Penalties and Bonuses Under Simple Tax System[21]

	Married Couple	Two Singles	Two Singles	Two Singles
Total Income	60,000	60,000	60,000	60,000
Partner A's Income	N/A	30,000	10,000	0
Partner B's Income		30,000	50,000	60,000
Simple Tax System				
Combined Tax Owed	6,000	2,000	4,000	6,000
Penalty (-) or Bonus (+)		-4,000	-2,000	0
Simple Tax System with Brackets Cut in Half for Singles				
Combined Tax Owed	6,000	6,000	7,000	9,000
Penalty (-) or Bonus (+)		0	+1,000	+3,000

[21] In the Simple Tax System, the first $20,000 of income is tax-free, the next $20,000 is subject to a marginal tax rate of 10%, and all additional income is subject to a marginal tax rate of 20%. There are no deductions, credits, exemptions, or dependents. Singles and married couples face the same tax schedule. When the tax brackets are cut in half for singles, they receive the first $10,000 of income tax-free and pay 10% on the next $10,000 of income and 20% on income above $20,000.

Table 2: Summary Results for Married Couples

	All Couples	Black Couples	White Couples
Percent with penalty	43	46	43
Percent with bonus	43	36	43
Percent with neither penalty nor bonus	14	18	14
Average penalty among those with penalties ($)	2,064	1,804	2,091
Average bonus among those with bonuses ($)	3,062	1,962	3,304
Net average penalty (-) or bonus (+) ($)	432	-148	514
Average penalty rate among those with penalties (Percent of AGI)	1.5	1.8	1.4
Average bonus rate among those with bonuses (Percent of AGI)	2.7	2.6	2.7
Net average penalty (-) or bonus (+) rate (Percent of AGI)	0.4	-0.2	0.4

Source: Survey of Consumer Finances (SCF). Authors' calculations are derived using TAXSIM 35. Data are from a pooled sample of eight waves of the SCF (1998 – 2019), and population weights are accordingly divided by eight.

Notes: Couples consist of the SCF respondent and spouse. Both filers and non-filers are included in the counts.

AGI = Adjusted gross income

Table 3: Determinants of the Prevalence of Marriage Penalties (Linear Probability Model)

Variables	**Specification 1**	**Specification 2**
AGI: $50,000 – 100,000	0.17***	0.14***
AGI: $100,000 – 200,000	0.17***	0.11***
AGI: More than 200,000	0.15***	0.20***
Earnings Ratio	0.65***	
Has Dependents	0.15***	
Black Couple	0.00	
Earnings Ratio * AGI $0 – 50,000		0.65***
Earnings Ratio * AGI $50,000 – 100,000		0.52***
Earnings Ratio * AGI $100,000 – 200,000		0.72***
Earnings Ratio * AGI More than $200,000		0.82***
Has Dependents * AGI $0 – 50,000		0.11***
Has Dependents * AGI $50,000 – 100,000		0.23***
Has Dependents * AGI $100,000 – 200,000		0.18***
Has Dependents * AGI More than $200,000		-0.05***
Black * AGI $0 – 50,000		-0.04***
Black * AGI $50,000 – 100,000		0.02
Black * AGI $100,000 – 200,000		0.03***
Black * AGI More than $200,000		0.06***
Constant	0.06***	0.08***
Observations	100,107	100,107
R-Squared	0.32	0.33

*** p<0.01, **p<0.05, *p<0.1

Source: Survey of Consumer Finances (SCF). Authors' calculations are derived using TAXSIM 35. Data are from a pooled sample of eight waves of the Survey of Consumer Finances (1998 – 2019), and population weights are accordingly divided by eight.

Notes: Couples consist of the SCF respondent and spouse. Both filers and non-filers are included in the counts. We calculate the earnings ratio as the earnings of the lower-earning spouse as a percent of the higher-earning spouse's earnings, with values between 0 and 1. Earnings are defined as the sum of wages, salaries, and net business income, and couples with negative income (including business losses) are included in the "No-Earner" group. Earnings ratios for no-earner and one-earner couples were set at zero. Couples with negative AGI were dropped from the sample. Indicators for survey waves were included in the regression but are excluded for readability.

AGI = Adjusted gross income

Table 4: Determinants of the Value of Marriage Penalties (OLS)

Variables	Specification 1	Specification 2
AGI: $50,000 – 100,000	909***	862***
AGI: $100,000 – 200,000	1,267***	2,194***
AGI: More than 200,000	5,635***	8,323***
Earnings Ratio	-4,958***	
Has Dependents	-201***	
Black Couple	-58*	
Earnings Ratio * AGI $0 – 50,000		-1,465***
Earnings Ratio * AGI $50,000 – 100,000		-2,274***
Earnings Ratio * AGI $100,000 – 200,000		-5,006***
Earnings Ratio * AGI More than $200,000		-17,364***
Has Dependents * AGI $0 – 50,000		21
Has Dependents * AGI $50,000 – 100,000		-826***
Has Dependents * AGI $100,000 – 200,000		-975***
Has Dependents * AGI More than $200,000		1,631***
Black * AGI $0 – 50,000		27.59
Black * AGI $50,000 – 100,000		-138***
Black * AGI $100,000 – 200,000		-213***
Black * AGI More than $200,000		-807**
Constant	807***	331***
Observations	100,107	100,107
R-Squared	0.14	0.21

*** p<0.01, **p<0.05, *p<0.1

Source: Survey of Consumer Finances (SCF). Authors' calculations are derived using TAXSIM 35. Data are from a pooled sample of eight waves of the Survey of Consumer Finances (1998 – 2019), and population weights are accordingly divided by eight.

Notes: Couples consist of the SCF respondent and spouse. Both filers and non-filers are included in the counts. We calculate the earnings ratio as the earnings of the lower-earning spouse as a percent of the higher-earning spouse's earnings, with values between 0 and 1. Earnings are defined as the sum of wages, salaries, and net business income, and couples with negative income (including business losses) are included in the "No-Earner" group. Earnings ratios for no-earner and one-earner couples were set at zero. Couples with negative AGI were dropped from the sample. Indicators for survey waves were included in the regression but are excluded for readability.

AGI = Adjusted gross income

Figure 1: Characteristics of Couples by Race



Source: Survey of Consumer Finances (SCF). Authors' calculations are derived using TAXSIM 35. Data are from a pooled sample of eight waves of the SCF (1998 – 2019), and population weights are accordingly divided by eight.

Notes: Couples consist of the SCF respondent and spouse. Both filers and non-filers are included in counts. Couples with bonuses or penalties of less than $10 (absolute value) are treated as having neither a bonus nor penalty. We define an earner as an individual whose sum of wages and business income is greater than zero; couples with negative income (including business losses) are included in the "No-Earner" group. Dependents were restricted to those age 18 and under. Couples with negative adjusted gross income are excluded from the lowest-income group but are included in totals.

AGI = Adjusted gross income

Figure 2: Prevalence of Marriage Penalties, 2018 Law

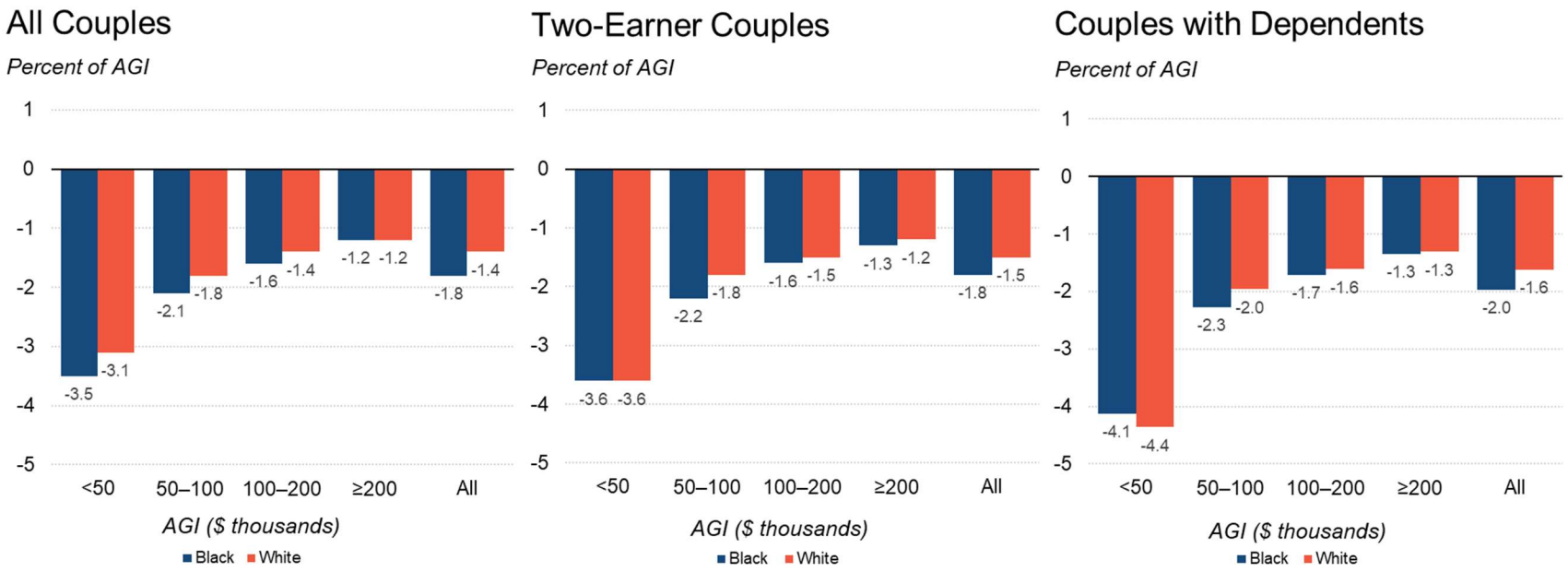


Source: Survey of Consumer Finances (SCF). Authors' calculations are derived using TAXSIM 35. Data are from a pooled sample of eight waves of the SCF (1998 – 2019), and population weights are accordingly divided by eight.

Notes: Couples consist of the SCF respondent and spouse. Both filers and non-filers are included in counts. Couples with bonuses or penalties of less than $10 (absolute value) are treated as having neither a bonus nor penalty. We define an earner as an individual whose sum of wages and business income is greater than zero; couples with negative income (including business losses) are included in the "No-Earner" group. Dependents were restricted to those age 18 and under. Couples with negative adjusted gross income are excluded from the lowest-income group but are included in totals.

AGI = Adjusted gross income

Figure 3: Average Penalty Rates Among Couples with Penalties, 2018 Law

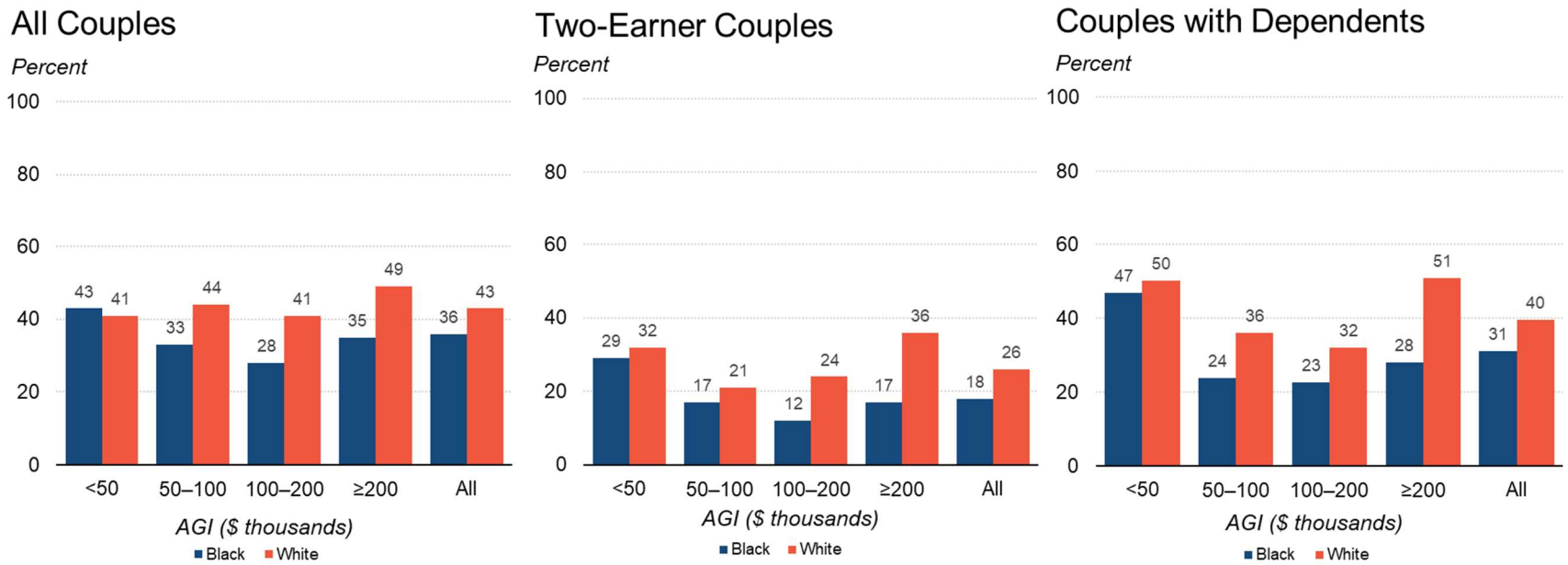


Source: Survey of Consumer Finances (SCF). Authors' calculations are derived using TAXSIM 35. Data are from a pooled sample of eight waves of the SCF (1998 – 2019), and population weights are accordingly divided by eight.

Notes: Couples consist of the SCF respondent and spouse. Both filers and non-filers are included in counts. Couples with bonuses or penalties of less than $10 (absolute value) are treated as having neither a bonus nor penalty. We define an earner as an individual whose sum of wages and business income is greater than zero; couples with negative income (including business losses) are included in the "No-Earner" group. Dependents were restricted to those age 18 and under. Couples with negative adjusted gross income are excluded from the lowest-income group but are included in totals.

AGI = Adjusted gross income

Figure 4: Prevalence of Marriage Bonus, 2018 Law

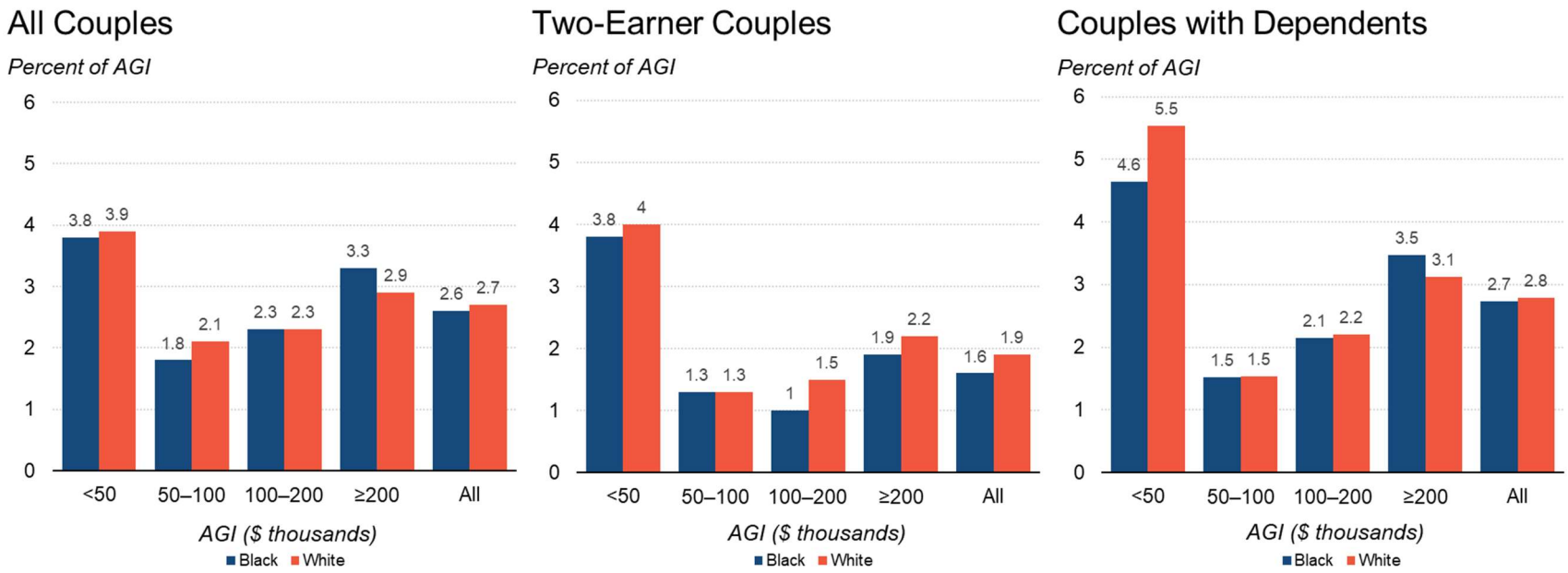


Source: Survey of Consumer Finances (SCF). Authors' calculations are derived using TAXSIM 35. Data are from a pooled sample of eight waves of the SCF (1998 – 2019), and population weights are accordingly divided by eight.

Notes: Couples consist of the SCF respondent and spouse. Both filers and non-filers are included in counts. Couples with bonuses or penalties of less than $10 (absolute value) are treated as having neither a bonus nor penalty. We define an earner as an individual whose sum of wages and business income is greater than zero; couples with negative income (including business losses) are included in the "No-Earner" group. Dependents were restricted to those age 18 and under. Couples with negative adjusted gross income are excluded from the lowest-income group but are included in totals.

AGI = Adjusted gross income

Figure 5: Average Bonus Rates Among Couples with Bonuses, 2018 Law

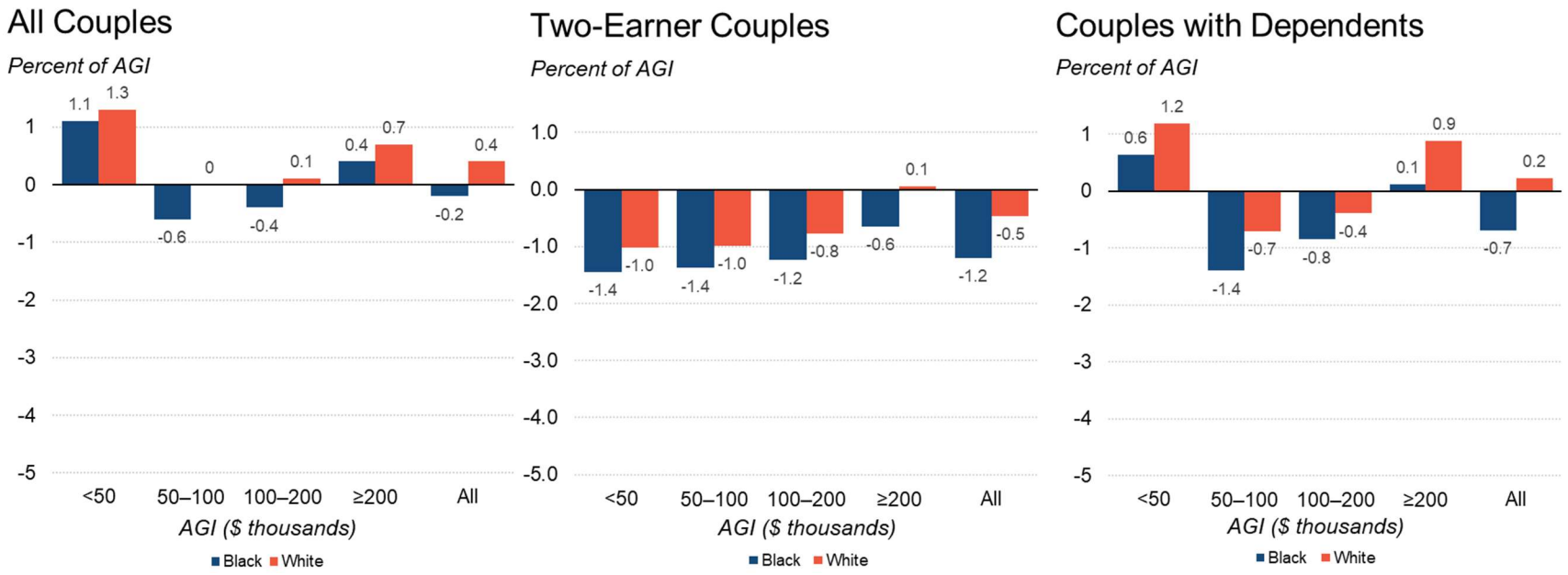


Source: Survey of Consumer Finances (SCF). Authors' calculations are derived using TAXSIM 35. Data are from a pooled sample of eight waves of the SCF (1998 – 2019), and population weights are accordingly divided by eight.

Notes: Couples consist of the SCF respondent and spouse. Both filers and non-filers are included in counts. Couples with bonuses or penalties of less than $10 (absolute value) are treated as having neither a bonus nor penalty. We define an earner as an individual whose sum of wages and business income is greater than zero; couples with negative income (including business losses) are included in the "No-Earner" group. Dependents were restricted to those age 18 and under. Couples with negative adjusted gross income are excluded from the lowest-income group but are included in totals.

AGI = Adjusted gross income

Figure 6: Net Marriage Bonus (+) or Penalty (-) as a Share of Income, 2018 law

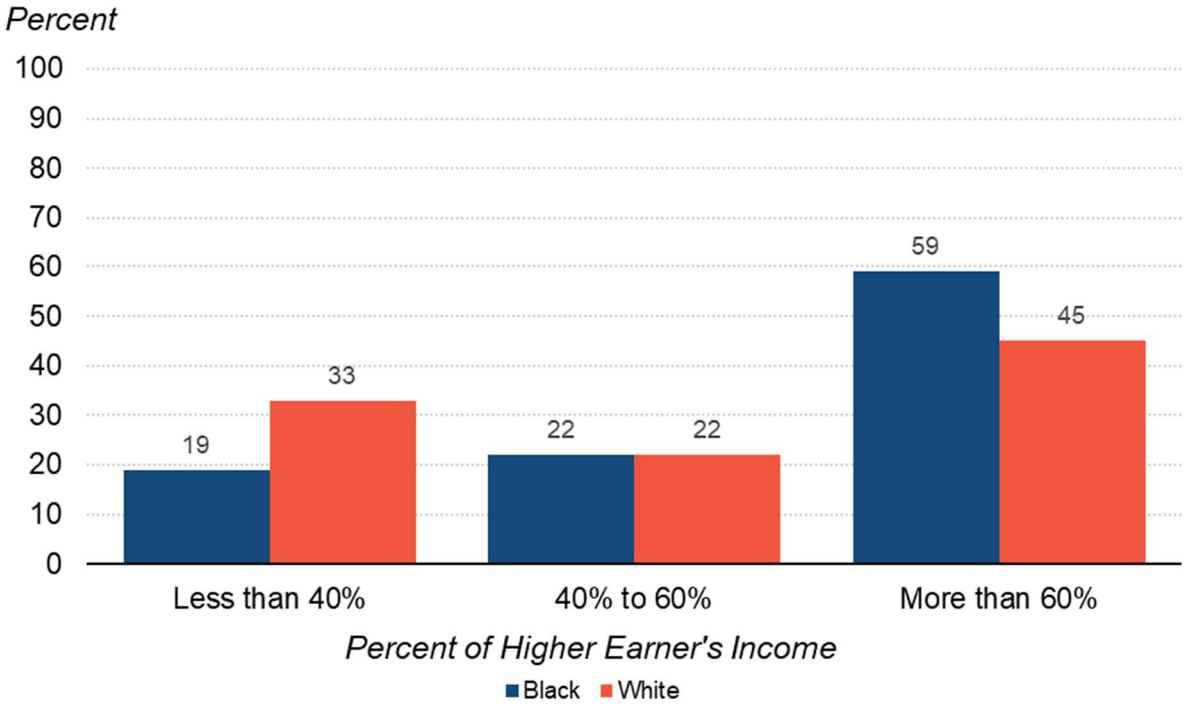


Source: Survey of Consumer Finances (SCF). Authors' calculations are derived using TAXSIM 35. Data are from a pooled sample of eight waves of the SCF (1998 – 2019), and population weights are accordingly divided by eight.

Notes: Couples consist of the SCF respondent and spouse. Both filers and non-filers are included in counts. Couples with bonuses or penalties of less than $10 (absolute value) are treated as having neither a bonus nor penalty. We define an earner as an individual whose sum of wages and business income is greater than zero; couples with negative income (including business losses) are included in the "No-Earner" group. Dependents were restricted to those age 18 and under. Couples with negative adjusted gross income are excluded from the lowest-income group but are included in totals.

AGI = Adjusted gross income

Figure 7: Lower Earner's Income as Share of Higher Earner's Income, Two-Earner Couples

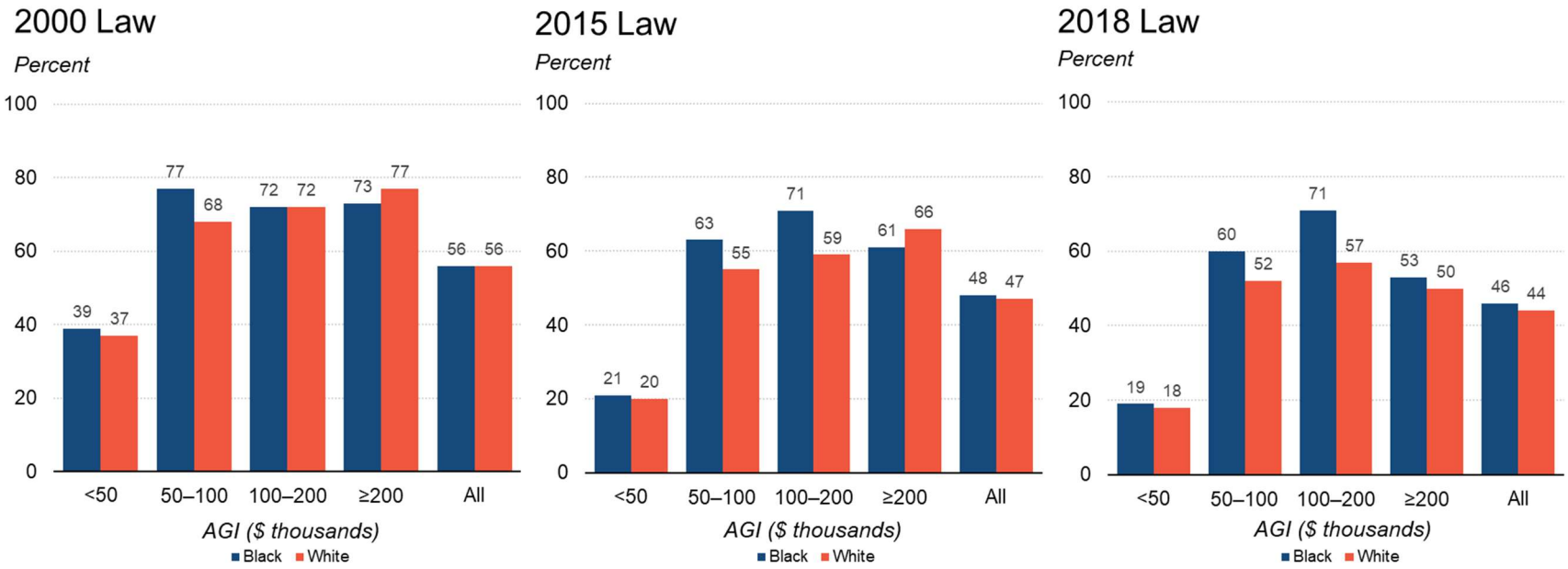


Source: Survey of Consumer Finances (SCF). Authors' calculations are derived using TAXSIM 35. Data are from a pooled sample of eight waves of the SCF (1998 – 2019), and population weights are accordingly divided by eight.

Notes: Couples consist of the SCF respondent and spouse. Both filers and non-filers are included in counts. Couples with bonuses or penalties of less than $10 (absolute value) are treated as having neither a bonus nor penalty. We define an earner as an individual whose sum of wages and business income is greater than zero; couples with negative income (including business losses) are included in the "No-Earner" group. Dependents were restricted to those age 18 and under. Couples with negative adjusted gross income are excluded from the lowest-income group but are included in totals.

AGI = Adjusted gross income

Figure 8: Prevalence of Marriage Penalties, 2000, 2015, 2018 Law

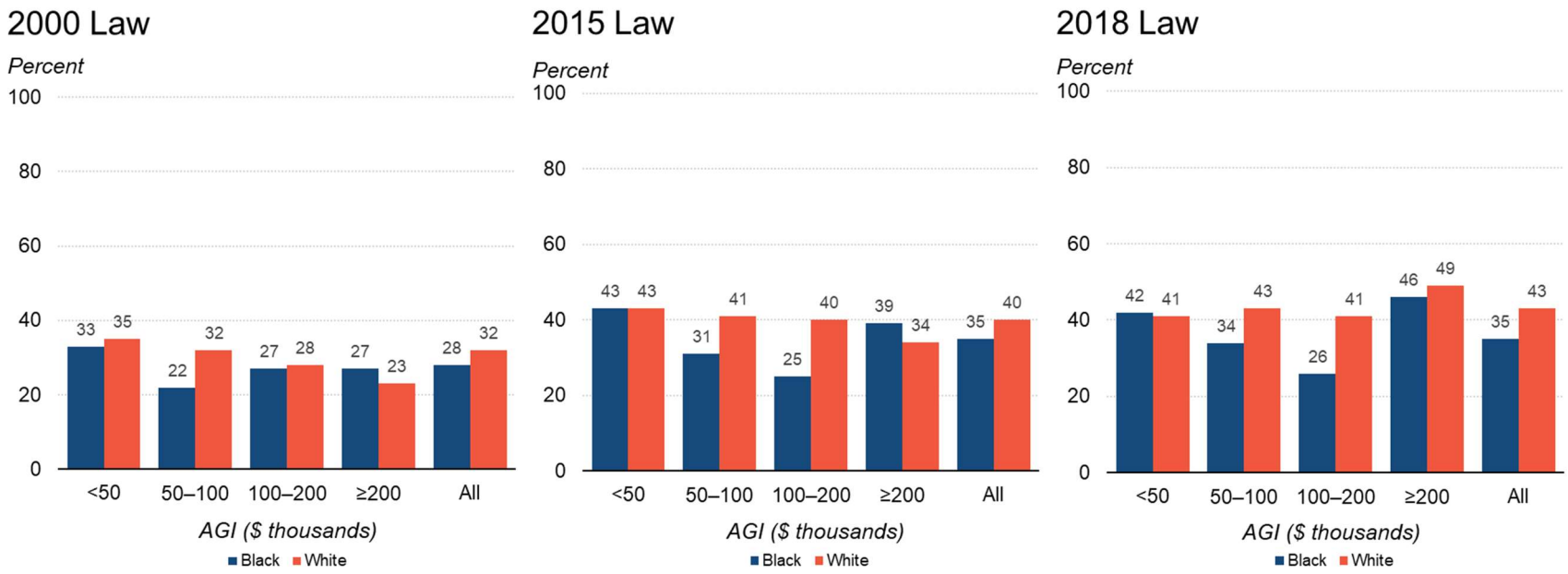


Source: Survey of Consumer Finances (SCF). Authors' calculations are derived using TAXSIM 35. Data are from a pooled sample of seven waves of the SCF (1998 – 2016), and population weights are accordingly divided by seven.

Notes: Couples consist of the SCF respondent and spouse. Both filers and non-filers are included in counts. Couples with bonuses or penalties of less than $10 (absolute value) are treated as having neither a bonus nor penalty. We define an earner as an individual whose sum of wages and business income is greater than zero; couples with negative income (including business losses) are included in the "No-Earner" group. Dependents were restricted to those age 18 and under. Couples with negative adjusted gross income are excluded from the lowest-income group but are included in totals.

AGI = Adjusted gross income

Figure 9: Prevalence of Marriage Bonuses, 2000, 2015, 2018 Law

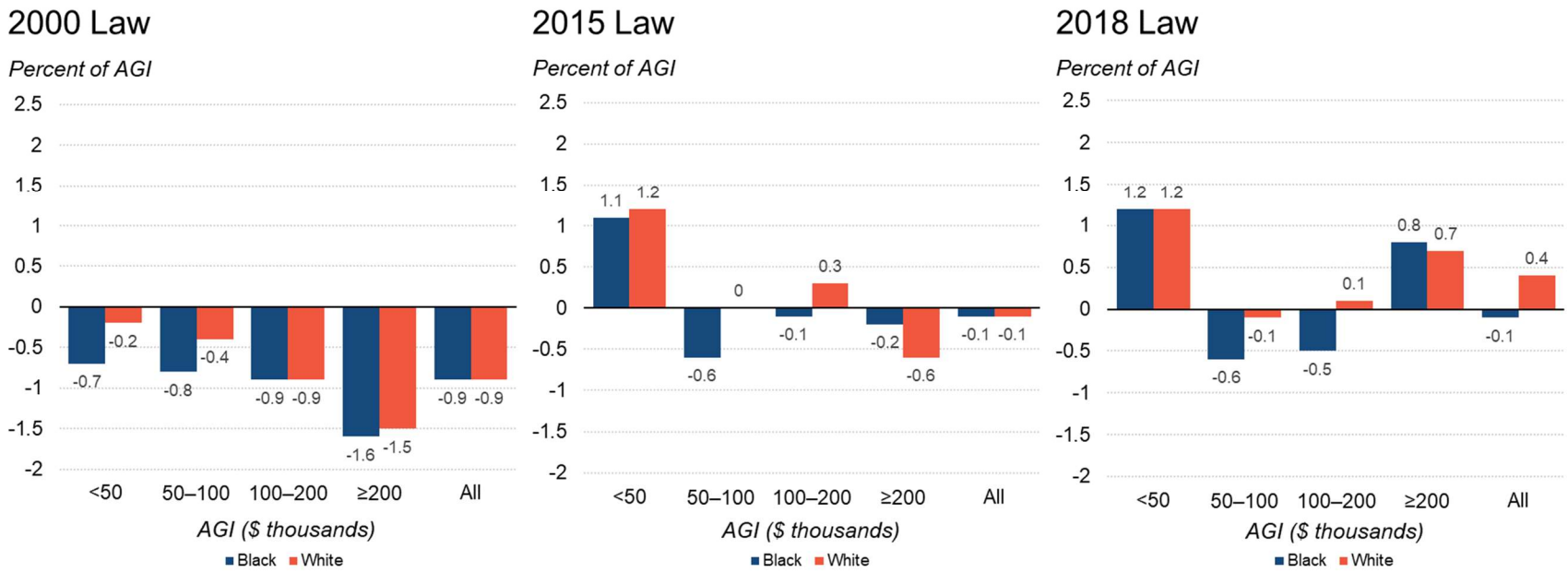


Source: Survey of Consumer Finances (SCF). Authors' calculations are derived using TAXSIM 35. Data are from a pooled sample of seven waves of the SCF (1998 – 2016), and population weights are accordingly divided by seven.

Notes: Couples consist of the SCF respondent and spouse. Both filers and non-filers are included in counts. Couples with bonuses or penalties of less than $10 (absolute value) are treated as having neither a bonus nor penalty. We define an earner as an individual whose sum of wages and business income is greater than zero; couples with negative income (including business losses) are included in the "No-Earner" group. Dependents were restricted to those age 18 and under. Couples with negative adjusted gross income are excluded from the lowest-income group but are included in totals.

AGI = Adjusted gross income

Figure 10: Net Marriage Bonus (+) or Penalty (-) as a Share of Income, 2000, 2015, 2018 Law

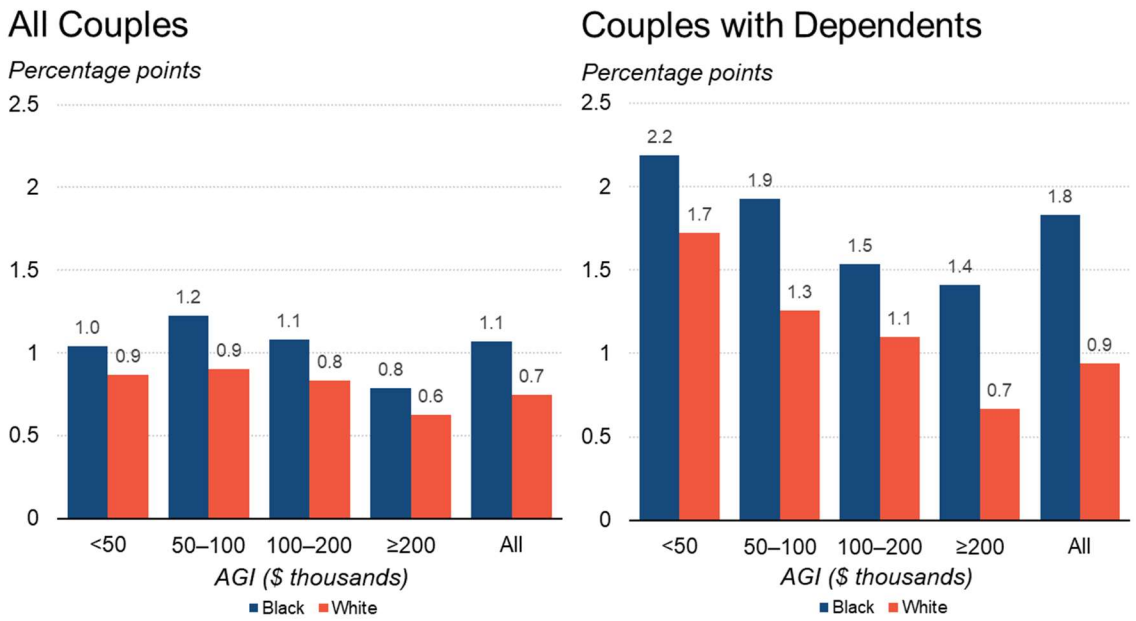


Source: Survey of Consumer Finances (SCF). Authors' calculations are derived using TAXSIM 35. Data are from a pooled sample of seven waves of the SCF (1998 – 2016), and population weights are accordingly divided by seven.

Notes: Couples consist of the SCF respondent and spouse. Both filers and non-filers are included in counts. Couples with bonuses or penalties of less than $10 (absolute value) are treated as having neither a bonus nor penalty. We define an earner as an individual whose sum of wages and business income is greater than zero; couples with negative income (including business losses) are included in the "No-Earner" group. Dependents were restricted to those age 18 and under. Couples with negative adjusted gross income are excluded from the lowest-income group but are included in totals.

AGI = Adjusted gross income

Figure 11: Change in Net Marriage Bonus (+) or Penalty (-) as a Share of Income, Individual Filing Option

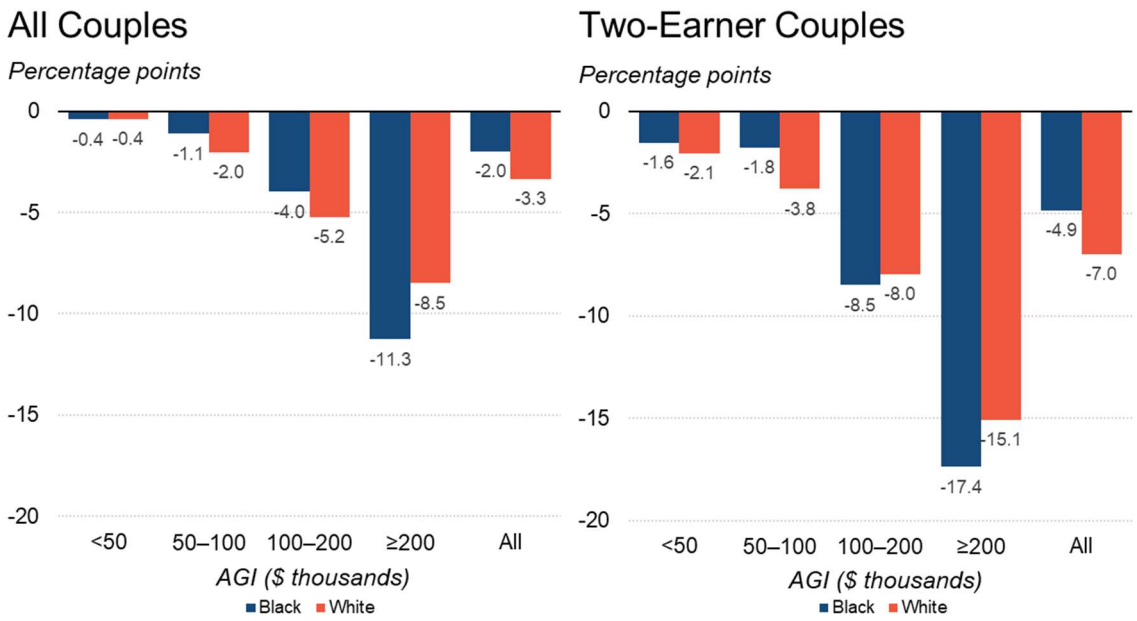


Source: Survey of Consumer Finances (SCF). Authors' calculations are derived using TAXSIM 35. Data are from a pooled sample of eight waves of the SCF (1998 – 2016), and population weights are accordingly divided by eight.

Notes: Under the individual filing option, couples could choose to file jointly or as single (or head of household, if qualified). Change is relative to 2018 law. Couples consist of the SCF respondent and spouse. Both filers and non-filers are included in counts. Couples with bonuses or penalties of less than $10 (absolute value) are treated as having neither a bonus nor penalty. We define an earner as an individual whose sum of wages and business income is greater than zero; couples with negative income (including business losses) are included in the "No-Earner" group. Dependents were restricted to those age 18 and under. Couples with negative adjusted gross income are excluded from the lowest-income group but are included in totals.

AGI = Adjusted gross income

Figure 12: Change in Prevalence of Marriage Penalties, Two-Earner Deduction

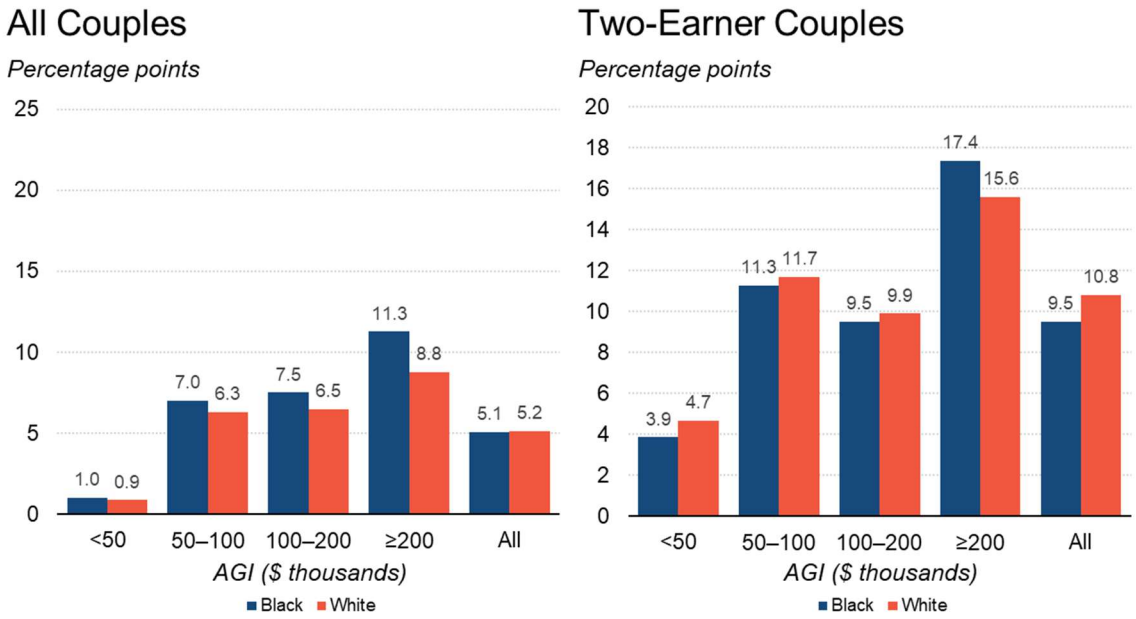


Source: Survey of Consumer Finances (SCF). Authors' calculations are derived using TAXSIM 35. Data are from a pooled sample of eight waves of the SCF (1998 – 2016), and population weights are accordingly divided by eight.

Notes: Under the policy, married couples could choose to deduct from taxable income 10 percent of the lower earner's earnings up to $90,000, for a maximum deduction of $9,000. Change is relative to 2018 law. Couples consist of the SCF respondent and spouse. Both filers and non-filers are included in counts. Couples with bonuses or penalties of less than $10 (absolute value) are treated as having neither a bonus nor penalty. We define an earner as an individual whose sum of wages and business income is greater than zero; couples with negative income (including business losses) are included in the "No-Earner" group. Dependents were restricted to those age 18 and under. Couples with negative adjusted gross income are excluded from the lowest-income group but are included in totals.

AGI = Adjusted gross income

Figure 13: Change in Prevalence of Marriage Bonus, Two-Earner Deduction



Source: Survey of Consumer Finances (SCF). Authors' calculations are derived using TAXSIM 35. Data are from a pooled sample of eight waves of the SCF (1998 – 2016), and population weights are accordingly divided by eight.

Notes: Under the policy, married couples could choose to deduct from taxable income 10 percent of the lower earner's earnings up to $90,000, for a maximum deduction of $9,000. Change is relative to 2018 law. Couples consist of the SCF respondent and spouse. Both filers and non-filers are included in counts. Couples with bonuses or penalties of less than $10 (absolute value) are treated as having neither a bonus nor penalty. We define an earner as an individual whose sum of wages and business income is greater than zero; couples with negative income (including business losses) are included in the "No-Earner" group. Dependents were restricted to those age 18 and under. Couples with negative adjusted gross income are excluded from the lowest-income group but are included in totals.

AGI = Adjusted gross income

Figure 14: Change in Net Marriage Bonus (+) or Penalty (-) as a Share of Income, Two-Earner Deduction



Source: Survey of Consumer Finances (SCF). Authors' calculations are derived using TAXSIM 35. Data are from a pooled sample of eight waves of the SCF (1998 – 2016), and population weights are accordingly divided by eight.

Notes: Under the policy, married couples could choose to deduct from taxable income 10 percent of the lower earner's earnings up to $90,000, for a maximum deduction of $9,000. Change is relative to 2018 law. Couples consist of the SCF respondent and spouse. Both filers and non-filers are included in counts. Couples with bonuses or penalties of less than $10 (absolute value) are treated as having neither a bonus nor penalty. We define an earner as an individual whose sum of wages and business income is greater than zero; couples with negative income (including business losses) are included in the "No-Earner" group. Dependents were restricted to those age 18 and under. Couples with negative adjusted gross income are excluded from the lowest-income group but are included in totals.

AGI = Adjusted gross income

Appendix Table 1: Distribution of Returns and Income, Tax Year 2018

	Number of Returns (Millions)			Aggregate Income Subject to Tax (Millions)		
Adjusted Gross Income Group (Thousands)	**SCF**	**SOI**	**Ratio of SCF/SOI**	**SCF**	**SOI**	**Ratio of SCF/SOI**
Less than 25	40.9	50.4	0.8	503.8	647.7	0.8
25 – 50	38.2	36.5	1.1	1,388.2	1,340.8	1.0
50 -100	37.1	35.1	1.1	2,547.6	2,534.2	1.1
100 – 1,000	30.0	29.2	1.0	6,025.1	5,670.1	1.1
1,000 or more	0.72	0.54	1.3	1,617.6	1,792.6	0.9
Total	147.5	153.8	1.0	12,170.7	11,895.3	1.0

Source: Internal Revenue Service Statistics of Income (SOI) and Gale et al (2022b), calculated using Survey of Consumer Finances (SCF). SCF data estimates are calculated using population weights. Data exclude non-filing tax units but include members of the non-primary economic unit who were deemed to be filers.

Appendix Table 2: Sample Characteristics

	1998	2001	2004	2007	2010	2013	2016	2019	Average	Total
Sample Size (Unweighted Counts)										
Black Couples										
Married	509	584	529	555	920	899	1,037	878	739	5,911
No/One Earner	241	230	226	234	569	504	510	431	368	2,945
Two Earners	268	354	303	321	351	395	527	447	371	2,966
Without Dependents	207	214	233	227	390	346	488	361	308	2,466
With Dependents	302	370	296	328	530	553	549	517	431	3,445
White Couples										
Married	10,631	11,356	10,858	11,037	13,557	12,712	13,005	11,915	11,884	95,071
No/One Earner	6,074	6,493	6,085	6,256	7,919	7,387	7,438	6,766	6,802	54,418
Two Earners	4,557	4,863	4,773	4,781	5,638	5,325	5,567	5,149	5,082	40,653
Without Dependents	5,439	5,857	5,718	5,876	7,042	6,697	7,427	7,027	6,385	51,083
With Dependents	5,192	5,499	5,140	5,161	6,515	6,015	5,578	4,888	5,499	43,988
Share of Tax units that File Joint Return										
Black	25***	26***	22***	27***	24***	24***	22***	24***	24	N/A
White	52	55	52	52	51	50	49	52	52	N/A
Other	53	49	50	53	49	51	55	45	49	N/A
Allocation of Married Couples by Race										
Black	6	6	6	7	7	8	9	9	7	N/A
White	83	83	80	79	77	76	76	75	78	N/A
Other	11	10	14	15	16	17	16	17	15	N/A

Asterisks show ranges of the p-value for differences between the entries of Black couples and the corresponding group of white couples; *** p<0.01, **p<0.05, *p<0.1 For example, 4% of Black couples with AGI below $50,000 face marriage penalties and that proportion is different, with a $p < 0.01$, from the 9 percent of white couples with AGI below $50,000 who face marriage penalties.

Notes: Couples consist of the SCF respondent and spouse. Both filers and non-filers are included in counts. Couples with bonuses or penalties of less than $10 (absolute value) are treated as having neither a bonus nor penalty. We define an earner as someone whose sum of wages and business income is greater than zero; couples with negative income (including business losses) are included in the "No-Earner" group. We define a couple as having dependent(s) if they have any dependents age 18 and under.

Appendix Table 3: Allocation Rules for Income and Deductions

Variable	Modeling Assumption
Wages, salaries, and self-employment income (excluding qualified business income)	**Married scenario:** - Total family amount **"Unmarried" scenario:** - Allocate family amount between the respondent and spouse in proportion to each's share of the couple's combined wage and salary income - If respondent does not report earnings for self and spouse separately, divide family amount equally between respondent and spouse - Apply same allocation rules for self-employment income
Interest received (taxable and non-taxable)	**Married scenario:** - Total family amount **"Unmarried" scenario:** - Divide equally
Dividend income (qualified dividends only for 2003 and beyond)	**Married scenario:** - Total family amount **"Unmarried" scenario:** - Divide equally
Alimony and child support	If there are children under 19 in the family, the full amount is assumed to be child support. **Married scenario:** - Total family amount **"Unmarried" scenario:** - If only one spouse was previously married, that spouse is assumed to receive the full amount - Otherwise, divide equally

Schedule C income (active business income)	**Married scenario:** - Total family amount **"Unmarried" scenario:** - If only one of the spouses is active in the sole proprietorship, that spouse is assumed to receive full amount - If both spouses are active in the sole proprietorship and report positive business incomes, then full amount is allocated in proportion to each spouse's share of the couple's combined business income
Net operating loss	**Married scenario:** - Total family amount **"Unmarried" scenario:** - Divide equally
Long- and short-term capital gains or losses	**Married scenario:** - Total family amount **"Unmarried" scenario:** - Divide equally
Taxable pensions and individual retirement account distributions	**Married scenario:** - Combined amount for respondent and spouse **"Unmarried" scenario:** - Respondent and spouse assumed to receive amount reported for each individual, respectively
Gross Social Security benefits	**Married scenario:** - Combined amount for respondent and spouse **"Unmarried" scenario:** - Respondent and spouse assumed to receive amount reported for each individual, respectively

Unemployment compensation received	**Married scenario:** - Total family amount **"Unmarried" scenario:** - If only one spouse reports being unemployed during the year, the full amount is allocated to that spouse - Otherwise, divide evenly
Schedule E income (passive business income)	**Married scenario:** - Total family amount **"Unmarried" scenario:** - If only one of the spouses is involved in the partnership, S-corporation, limited liability company, or limited liability partnership, that spouse is assumed to receive the full amount - If both tax units are owners and have positive business incomes, then allocated in proportion to each's share of the couple's combined business income
Other property income subject to Net Investment Income Tax, including unearned or limited partnership and passive S-corporation profits; rent not eligible for Qualified Business Income deduction; non-qualified dividends; capital gains distributions on form 1040; and other income or loss	**Married scenario:** - Total family amount **"Unmarried" scenario:** - Allocated to spouse(s) who are (1) self-employed or (2) actively involved in the business. See applicable allocation rules for those income types.
Other taxable income	**Married scenario:** - Total family amount **"Unmarried" scenario:** - Divided evenly
Adjustments to income	**Married scenario:** - Total family amount **"Unmarried" scenario:** - Allocated to spouse with highest adjusted gross income

Deductions	**Married scenario:** - Total family amount **"Unmarried" scenario:** - Allocated to spouse with highest adjusted gross income

Appendix Table 4: Allocation Rules for Family-Related Tax Provisions

Provision	Law	Modeling Assumption
Filing status	Both must file as single if no dependents or children. Taxpayer may claim head of household filing status if provides over half the costs of maintaining home in which taxpayer resides with children or related dependents.	If there are children, partner with highest adjusted gross income (AGI) claims head of household status. The other spouse files as single.
Dependent	Generally, the taxpayer who provides more than half the support of a dependent would receive the dependent-related tax benefits. Beginning in 2005, unmarried parents who live together with their children can decide which parent will claim each child as a dependent. If they cannot agree and both claim the same child, then the dependent would be allowed only for the parent with the highest adjusted gross income (AGI).	Partner with highest AGI claims the child.
Child tax credit	See dependent exemption	See dependent exemption
Earned income tax credit (with qualifying children)	If there are children: eligibility is based on which parent has highest AGI. Beginning in 2002, the AGI tiebreaker rule was relaxed, and unmarried parents can agree which one claims the child if they both live with the child for over half the year. Also beginning in 2002, they can divide their children between them. If they cannot agree and both claim the same child, then the child would be allowed only for the parent with the highest adjusted gross income (AGI).	Partner with highest AGI claims the child. .

Earned income tax credit (without qualifying children)	If there are no children, both may be eligible for EITC for those without children. In 2017, Treasury and the Internal Revenue Service determined that under the code the spouse who does not claim their child is eligible to claim the smaller EITC for workers without children	If there are no children, both partners claim the childless EITC if eligible. Otherwise, the partner with the highest AGI claims the EITC for taxpayers with children and the other claims the smaller credit if eligible.
Child and dependent care tax credit, education tax credits, kiddie tax	Omitted from estimates due to insufficient information in SCF.	

Appendix Table 5: Prevalence of Marriage Penalties and Bonuses, 2018 Tax Law (%)

Adjusted Gross Income ($ thousands)	All Married Couples				No or One-Earner Married Couples				Two-Earner Married Couples			
	Penalty	*Bonus*	*Neither*	*Total*	*Penalty*	*Bonus*	*Neither*	*Total*	*Penalty*	*Bonus*	*Neither*	*Total*
All Couples												
Less than 50	19	44	37	100	8	47	44	100	58	31	11	100
50 – 100	51	43	6	100	27	71	3	100	72	20	8	100
100 – 200	57	41	2	100	23	76	1	100	75	23	3	100
200 or more	52	48	-	100	34	66	-	100	65	35	1	100
All	43	43	14	100	18	60	22	100	70	25	6	100
All Black Couples												
Less than 50	19	43	38**	100	4***	48***	48	100	62**	29	9*	100
50 – 100	59***	33***	7***	100	36**	60***	4*	100	73***	17***	10	100
100 – 200	68***	28***	4***	100	29	69**	1	100	83***	12***	5***	100
200 or more	64***	35***	1	100	29	69	2**	100	83***	17***	-***	100
All	46***	36***	18***	100	16***	55***	29***	100	75***	18***	7***	100
All White Couples												
Less than 50	18	41	41	100	9	44	47	100	56	32	12	100
50 – 100	51	44	6	100	28	70	2	100	70	21	8	100
100 – 200	57	41	2	100	24	75	1	100	74	24	2	100
200 or more	51	49	-	100	35	65	-	100	63	36	1	100
All	43	43	14	100	20	59	22	100	69	26	5	100

Source: Authors' calculations using Survey of Consumer Finances data. Data are derived from a pooled sample of eight waves of the Survey of Consumer Finances (1998 – 2019), and population weights are accordingly divided by eight.

- indicates less than 0.5 percent in absolute terms. Asterisks show ranges of the p-value for differences between the entries of Black couples and the corresponding group of white couples; *** p<0.01, **p<0.05, *p<0.1 For example, 4% of Black couples with AGI below $50,000 face marriage penalties and that proportion is different, with a p < 0.01, from the 9 percent of white couples with AGI below $50,000 who face marriage penalties.

Notes: The table shows the percent of couples – by AGI, race, and number of earners – that face a marriage penalty, a marriage bonus or neither (defined as a bonus or penalty less than $10 in absolute value). "All Couples" includes all Black couples, all white couples, and all couples of other races. Couples consist of

the SCF respondent and spouse. Both filers and non-filers are included in counts**.** An earner is someone whose sum of wage and business income is positive. Adjusted gross income (AGI) is computed using 2018 law. Couples with negative labor compensation (comprised of wages, salaries, and business income or losses) are included in the "No-Earner" group. Couples with negative adjusted gross income are not included in the lowest income group but are included in total.

AGI = Adjusted gross income

Appendix Table 6: Average Marriage Penalty (-) or Marriage Bonus (+), 2018 Tax Law ($)

Adjusted Gross Income ($ thousands)	All Married Couples				No or One-Earner Married Couples				Two-Earner Married Couples			
	Penalty	*Bonus*	*Neither*	*Average*	*Penalty*	*Bonus*	*Neither*	*Average*	*Penalty*	*Bonus*	*Neither*	*Average*
All Couples												
Less than 50	-1,181	1,017	0	224	-789	1,056	0	434	-1,391	794	0	-557
50 – 100	-1,303	1,547	0	-8	-1,226	1,719	0	883	-1,327	1,037	0	-748
100 – 200	-2,049	3,012	0	50	-1,669	3,652	0	2,367	-2,111	1,907	0	-1,147
200 or more	-4,880	11,516	0	2,988	-6,899	13,965	0	6,830	-4,103	8,134	0	179
All	-2,064	3,062	0	432	-2,237	3,184	0	1,498	-2,014	2,735	0	-738
All Black Couples												
Less than 50	-1,363***	960	0	159**	-935	1,000	0	448***	-1,440*	768	0	-669***
50 – 100	-1,394***	1,402***	0	-358***	-1,151	1,582***	0	540***	-1,466***	1,016	0	-903***
100 – 200	-2,174***	3,147	0	-599***	-1,680	4,023***	0	2,301	-2,241***	1,222***	0	-1,711***
200 or more	-3,664***	10,837	0	1,496***	-3,926***	12,833	0	7,657	-3,614***	6,548*	0	-1,852***
All	-1,804***	1,926***	0	-148***	-1,402***	2,145***	0	946***	-1,888***	1,274***	0	-1,193***
All White Couples												
Less than 50	-1,083	978	0	209	-743	1,012	0	372	-1,324	778	0	-499
50 – 100	-1,241	1,576	0	61	-1,214	1,770	0	907	-1,250	1,022	0	-665
100 – 200	-2,024	2,995	0	90	-1,653	3,649	0	2,331	-2,087	1,922	0	-1,082
200 or more	-4,970	11,609	0	3,139	-6,920	13,983	0	6,643	-4,129	8,307	0	410
All	-2,091	3,304	0	514	-2,329	3,461	0	1,570	-2,017	2,911	0	-645

Source: Authors' calculations using Survey of Consumer Finances data. Data are derived from a pooled sample of eight waves of the Survey of Consumer Finances (1998 – 2019), and population weights are accordingly divided by eight.

Asterisks show ranges of the p-value for differences between the entries of Black couples and the corresponding group of white couples; *** p<0.01, **p<0.05, *p<0.1 For example, 4% of Black couples with AGI below $50,000 face marriage penalties and that proportion is different, with a p < 0.01, from the 9 percent of white couples with AGI below $50,000 who face marriage penalties.

Notes: The table shows average marriage penalties among couples with penalties and average bonuses among couples with bonuses by AGI, race, and number of earners. Couples with bonuses or penalties of less than $10 (absolute value) are treated as having neither a bonus nor penalty and are counted as zeroes in

calculating the average figures. "All Couples" includes all Black couples, all white couples, and all couples of other races. Couples consist of the SCF respondent and spouse. Both filers and non-filers are included in counts**.** An earner is someone whose sum of wage and business income is positive. Adjusted gross income is computed using 2018 law. Couples with negative labor compensation (comprised of wages, salaries, and business income or losses) are included in the "No-Earner" group. Couples with negative adjusted gross income are not included in the lowest income group but are included in total.

AGI = Adjusted gross income

Appendix Table 7: Average Marriage Penalty Rate (-) or Bonus Rate (+), 2018 Tax Law (percent of AGI)

Adjusted Gross Income ($ thousands)	All Married Couples				No or One-Earner Married Couples				Two-Earner Married Couples			
	Penalty	*Bonus*	*Neither*	*Average*	*Penalty*	*Bonus*	*Neither*	*Average*	*Penalty*	*Bonus*	*Neither*	*Average*
	All Couples											
Less than 50	-3.3	4.0	0.0	1.3	-2.5	3.9	0.0	2.4	-3.8	4.1	0.0	-1.2
50 – 100	-1.9	2.0	0.0	-0.1	-1.7	2.3	0.0	1.1	-1.9	1.3	0.0	-1.1
100 – 200	-1.5	2.3	0.0	0.1	-1.2	2.8	0.0	1.8	-1.5	1.5	0.0	-0.8
200 or more	-1.2	3.0	0.0	0.7	-1.1	3.6	0.0	1.4	-1.2	2.2	0.0	0.0
All	-1.5	2.7	0.0	0.4	-1.2	3.2	0.0	1.5	-1.5	1.9	0.0	-0.6
	All Black Couples											
Less than 50	-3.5	3.8	0.0	1.1	-2.5	3.8	0.0	2.7	-3.6	3.8***	0.0	-1.4
50 – 100	-2.1***	1.8***	0.0	-0.6	-1.6	2.1***	0.0	0.7	-2.2***	1.3***	0.0	-1.4
100 – 200	-1.6	2.3	0.0	-0.4	-1.3	2.9**	0.0	1.7	-1.6***	1.0***	0.0	-1.2
200 or more	-1.2*	3.3*	0.0	0.4	-1.0	4.0**	0.0	1.9	-1.3***	1.9***	0.0	-0.6
All	-1.8	2.6	0.0	-0.2	-1.4	3.1	0.0	1.6	-1.8	1.6	0.0	-1.2
	All White Couples											
Less than 50	-3.1	3.9	0.0	1.3	-2.3	3.9	0.0	2.1	-3.6	4.0	0.0	-1.0
50 – 100	-1.8	2.1	0.0	0.0	-1.7	2.3	0.0	1.2	-1.8	1.3	0.0	-1.0
100 – 200	-1.4	2.3	0.0	0.1	-1.2	2.8	0.0	1.8	-1.5	1.5	0.0	-0.8
200 or more	-1.2	2.9	0.0	0.7	-1.1	3.5	0.0	1.3	-1.2	2.2	0.0	0.1
All	-1.4	2.7	0.0	0.4	-1.2	3.1	0.0	1.4	-1.5	1.9	0.0	-0.5

Source: Authors' calculations using Survey of Consumer Finances data. Data are derived from a pooled sample of eight waves of the Survey of Consumer Finances (1998 – 2019), and population weights are accordingly divided by eight.

Asterisks show ranges of the p-value for differences between the entries of Black couples and the corresponding group of white couples; *** p<0.01, **p<0.05, *p<0.1 For example, 4% of Black couples with AGI below $50,000 face marriage penalties and that proportion is different, with a p < 0.01, from the 9 percent of white couples with AGI below $50,000 who face marriage penalties.

Notes: The table shows average marriage penalty rates (i.e., the penalty as a share of AGI) among couples with penalties and average bonus rates among couples with bonuses by AGI, race, and number of earners. Couples with bonuses or penalties of less than $10 (absolute value) are treated as having neither a bonus nor penalty and are counted as zeroes in calculating the average figures. "All Couples" includes all Black couples, all white couples, and all couples of other races. Couples consist of the SCF respondent and spouse. Both filers and non-filers are included in counts**.** An earner is someone whose sum of wage and business income is positive. Adjusted gross income is computed using 2018 law. Couples with negative labor compensation (comprised of wages, salaries, and business income or losses) are included in the "No-Earner" group. Couples with negative adjusted gross income are not included in the lowest income group but are included in total.

AGI = Adjusted gross income

Appendix Table 8: Prevalence of Marriage Penalties and Bonuses by Dependent Presence, 2018 Tax Law (%)

Adjusted Gross Income ($ thousands)	All Married Couples				Couples with No Dependents				Couples with Dependents			
	Penalty	*Bonus*	*Neither*	*Total*	*Penalty*	*Bonus*	*Neither*	*Total*	*Penalty*	*Bonus*	*Neither*	*Total*
All Couples												
Less than 50	19	44	37	100	12	38	50	100	29	53	18	100
50 – 100	51	43	6	100	36	52	12	100	64	36	1	100
100 – 200	57	41	2	100	44	52	5	100	67	33	-	100
200 or more	52	48	-	100	52	47	1	100	51	49	-	100
All	43	43	14	100	30	46	24	100	55	40	5	100
Black Couples												
Less than 50	19	43	38**	100	8****	40	52	100	31	47*	22**	100
50 – 100	59***	33***	7***	100	33*	49*	18***	100	75***	24***	1	100
100 – 200	68***	28***	4***	100	52***	37***	11***	100	77***	23***	-***	100
200 or more	64***	35***	1	100	52	48	-1***	100	71***	28***	1**	100
All	46***	36***	18***	100	26***	42***	32***	100	62***	31***	7***	100
White Couples												
Less than 50	18	41	41	100	12	37	51	100	31	50	19	100
50 – 100	51	44	6	100	37	52	11	100	63	36	1	100
100 – 200	57	41	2	100	43	53	4	100	68	32	-	100
200 or more	51	49	-0	100	53	46	1	100	49	51	-	100
All	43	43	14	100	31	46	23	100	57	40	4	100

Source: Authors' calculations using Survey of Consumer Finances data. Data are derived from a pooled sample of eight waves of the Survey of Consumer Finances (1998 – 2019), and population weights are accordingly divided by eight.

- indicates less than 0.5 percent in absolute terms. Asterisks show ranges of the p-value for differences between the entries of Black couples and the corresponding group of white couples; *** $p<0.01$, ** $p<0.05$, * $p<0.1$ For example, 4% of Black couples with AGI below $50,000 face marriage penalties and that proportion is different, with a $p < 0.01$, from the 9 percent of white couples with AGI below $50,000 who face marriage penalties.

Notes: The table shows the percent of couples – by AGI, race, and number of earners – that face a marriage penalty, a marriage bonus or neither (defined as a bonus or penalty less than $10 in absolute value). "All Couples" includes all Black couples, all white couples, and all couples of other races. Couples consist of the SCF respondent and spouse. Both filers and non-filers are included in counts**.** An earner is someone whose sum of wage and business income is positive. Adjusted gross income is computed using 2018 law. Couples with negative labor compensation (comprised of wages, salaries, and business income or losses) are included in the "No-Earner" group. Couples with negative adjusted gross income are not included in the lowest income group but are included in total. Couples who are noted as having dependents have dependents under the age of 18.

AGI = Adjusted gross income

Appendix Table 9: Average Marriage Penalty (-) or Marriage Bonus (+) by Dependent Presence, 2018 Tax Law ($)

Adjusted Gross Income ($ thousands)	All Married Couples				Couples with No Dependents				Couples with Dependents			
	Penalty	*Bonus*	*Neither*	*Total*	*Penalty*	*Bonus*	*Neither*	*Total*	*Penalty*	*Bonus*	*Neither*	*Total*
All Couples												
Less than 50	-1181	1017	0	224	-424	843	0	270	-1640	1205	0	155
50 – 100	-1303	1547	0	-8	-1017	1864	0	601	-1429	1187	0	-484
100 – 200	-2049	3012	0	50	-1606	3057	0	881	-2259	2961	0	-557
200 or more	-4880	11516	0	2988	-4719	10874	0	2611	-5012	12007	0	3289
All	-2064	3062	0	432	-1820	2850	0	755	-2190	3288	0	128
Black Couples												
Less than 50	-1363***	960	0	159**	-295***	795	0	294*	-1657	1110**	0	14*
50 – 100	-1394***	1402***	0	-358***	-943*	1633***	0	485*	-1516***	1113	0	-877***
100 – 200	-2174***	3147	0	-599***	-1747***	3502**	0	408***	-2335**	2816	0	-1166***
200 or more	-3664***	10837	0	1496***	-3134***	9367*	0	2819	-3900***	12326	0	706***
All	-1804***	1926	0	-148***	-1348***	1937***	0	464***	-1948***	1916***	0	-605***
White Couples												
Less than 50	-1083	978	0	209	-443	841	0	260	-1613	1198	0	97
50 – 100	-1241	1576	0	61	-1027	1867	0	599	-1353	1198	0	-422
100 – 200	-2024	2995	0	90	-1585	3023	0	921	-2244	2959	0	-568
200 or more	-4970	11609	0	3139	-4842	10935	0	2530	-5090	12147	0	3670
All	-2091	3304	0	514	-1890	2958	0	777	-2211	3745	0	226

Source: Authors' calculations using Survey of Consumer Finances data. Data are derived from a pooled sample of eight waves of the Survey of Consumer Finances (1998 – 2019), and population weights are accordingly divided by eight.

- indicates less than 0.5 percent in absolute terms. Asterisks show ranges of the p-value for differences between the entries of Black couples and the corresponding group of white couples; *** p<0.01, **p<0.05, *p<0.1 For example, 4% of Black couples with AGI below $50,000 face marriage penalties and that proportion is different, with a $p < 0.01$, from the 9 percent of white couples with AGI below $50,000 who face marriage penalties.

Notes: The table shows the percent of couples – by AGI, race, and number of earners – that face a marriage penalty, a marriage bonus or neither (defined as a bonus or penalty less than $10 in absolute value). "All Couples" includes all Black couples, all white couples, and all couples of other races. Couples consist of the SCF respondent and spouse. Both filers and non-filers are included in counts**.** An earner is someone whose sum of wage and business income is positive.

Adjusted gross income is computed using 2018 law. Couples with negative labor compensation (comprised of wages, salaries, and business income or losses) are included in the “No-Earner” group. Couples with negative adjusted gross income are not included in the lowest income group but are included in total. Couples who are noted as having dependents have dependents under the age of 18.

AGI = Adjusted gross income

Appendix Table 10: Average Marriage Penalty Rate (-) or Bonus Rate (+) by Dependent Presence, 2018 Tax Law (percent of AGI)

Adjusted Gross Income ($ thousands)	All Couples				Couples with No Dependents				Couples with Dependents			
	Penalty	*Bonus*	*Neither*	*Total*	*Penalty*	*Bonus*	*Neither*	*Total*	*Penalty*	*Bonus*	*Neither*	*Total*
All Couples												
Less than 50	-3.3	4.0	0.0	1.3	-1.5	2.9	0.0	1.4	-4.4	5.1	0.0	1.2
50 – 100	-1.9	2.0	0.0	-0.1	-1.4	2.5	0.0	0.8	-2.1	1.5	0.0	-0.8
100 – 200	-1.5	2.3	0.0	0.1	-1.1	2.4	0.0	0.7	-1.6	2.2	0.0	-0.4
200 or more	-1.2	3.0	0.0	0.7	-1.0	2.7	0.0	0.6	-1.3	3.1	0.0	0.8
All	-1.5	2.7	0.0	0.4	-1.1	2.6	0.0	0.7	-1.7	2.8	0.0	0.2
Black Couples												
Less than 50	-3.5***	3.8	0.0	1.1	-1.1	2.8	0.0	1.8	-4.1	4.6***	0.0	0.6
50 – 100	-2.1***	1.8***	0.0	-0.6	-1.3***	2.1***	0.0	0.6	-2.3***	1.5	0.0	-1.4
100 – 200	-1.6***	2.3	0.0	-0.4	-1.3	2.5	0.0	0.3	-1.7***	2.1	0.0	-0.8
200 or more	-1.2**	3.3*	0.0	0.4	-1.0	3.1*	0.0	0.9	-1.3	3.5	0.0	0.1
All	-1.8	2.6	0.0	-0.2	-1.2	2.5	0.0	0.7	-2.0	2.7	0.0	-0.7
White Couples												
Less than 50	-3.1	3.9	0.0	1.3	-1.5	2.9	0.0	1.3	-4.4	5.5	0.0	1.2
50 – 100	-1.8	2.1	0.0	0.0	-1.4	2.5	0.0	0.8	-2.0	1.5	0.0	-0.7
100 – 200	-1.4	2.3	0.0	0.1	-1.1	2.3	0.0	0.7	-1.6	2.2	0.0	-0.4
200 or more	-1.2	2.9	0.0	0.7	-1.0	2.7	0.0	0.6	-1.3	3.1	0.0	0.9
All	-1.4	2.7	0.0	0.4	-1.1	2.6	0.0	0.7	-1.6	2.8	0.0	0.2

Source: Authors' calculations using Survey of Consumer Finances data. Data are derived from a pooled sample of eight waves of the Survey of Consumer Finances (1998 – 2019), and population weights are accordingly divided by eight.

Asterisks show ranges of the p-value for differences between the entries of Black couples and the corresponding group of white couples; *** p<0.01, **p<0.05, *p<0.1 For example, 4% of Black couples with AGI below $50,000 face marriage penalties and that proportion is different, with a $p < 0.01$, from the 9 percent of white couples with AGI below $50,000 who face marriage penalties.

Notes: The table shows the percent of couples – by AGI, race, and number of earners – that face a marriage penalty, a marriage bonus or neither (defined as a bonus or penalty less than $10 in absolute value). "All Couples" includes all Black couples, all white couples, and all couples of other races. Couples consist of the SCF respondent and spouse. Both filers and non-filers are included in counts**.** An earner is someone whose sum of wage and business income is positive. Adjusted gross income is computed using 2018 law. Couples with negative labor compensation (comprised of wages, salaries, and business income or losses) are included in the "No-Earner" group. Couples with negative adjusted gross income are not included in the lowest income group but are included in total. Couples who are noted as having dependents have dependents under the age of 18.

AGI = Adjusted gross income

Appendix Table 11: Legislation with Direct and Indirect Effects on Marriage Bonuses and Penalties, 2001-2017

Provisions Intended to Reduce Marriage Penalties	**Other Key Provisions with Potential Effects on Marriage Bonuses and Penalties**
Fully Phased-in Provisions in Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA) and the Jobs and Growth Tax Relief Reconciliation Act of 2003 (JGTRRA)22	
Prior law: The ratio of the width of the 15 percent rate bracket for married couples filing jointly (joint filers) to the width of that bracket for single filers was set at 1.67:1. **New law:** Increased that ratio to 2:1 for both the 15 percent rate bracket and the new 10 percent rate bracket. **Effect:** A ratio of 2:1 is marriage neutral. A ratio of less than 2 causes marriage penalties.	**Prior law:** Individual income tax rates ranged from 15 percent to 39.6 percent. **Policy**: Reduced income tax rates to between 10 percent and 35 percent. **Effect:** For most taxpayers, lowering the rates reduced marriage penalties and bonuses. However, no changes were made to the tax rates for the alternative minimum tax (AMT), and the AMT thresholds for married filers remained at less than twice the levels for unmarried filers. The interaction between the reduced regular income tax rates and the AMT increased the probability of becoming subject to the AMT and incurring marriage penalties—especially for couples with high income, large families, or sizable state and local taxes.
Prior law: The ratio of the standard deduction for joint filers to the amount for single filers was set at 1.67:1. **New law**: Increased that ratio to 2:1. **Effect**: A ratio of 2:1 is marriage neutral.	**Prior law:** The ratio of the standard deduction for joint filers to the amount for head-of-household filers was set at 1.14:1. **New law:** No change **Effect:** The ratio of the standard deduction for joint filers to that for heads of households rose to 1.36:1 due to the statutory increase in the former.

22 Most provisions were phased in, with full implementation by 2010. Those provisions, however, were scheduled to expire at the end of 2010. With the exception of a few provisions, they were extended permanently by the American Taxpayer Relief Act of 2012.

Prior law: The earned income tax credit (EITC) began to phase out at the same income level for both unmarried and joint filers—a ratio of 1:1. **New law:** Increased the starting point by $3,000 for joint filers relative to unmarried filer—a ratio of 1.19:1 (for couples with children) **Effect:** Reduced but did not eliminate marriage penalties in EITC.	**Prior law:** If an unmarried couple had children and lived together, only the parent with the highest adjusted gross income (AGI) was eligible for the EITC. **New law:** Unmarried cohabitating parents could choose which one claimed their children for the EITC. In addition, they could split their children (e.g., in a two-child family, each could claim one of the children). **Effect:** Gave unmarried couples more flexibility to maximize the household's total EITC relative to married couples, thus increasing marriage penalties or reducing marriage bonuses.
	Prior law: Personal exemptions began to phase out when AGI exceeded $128,950 for singles, $161,150 for heads of households, and $193,400 for joint filers. **New law:** Phaseout repealed. **Effect:** Because the threshold at which exemptions had begun to phase out for joint filers was less than half the level as for unmarried filers, repealing the provision reduced marriage penalties.
	Prior law: The sum of itemized deductions was limited if AGI exceeded $128,950. **New law:** Limitation on itemized deductions repealed. **Effect:** Because the threshold at which itemized deductions had been limited for married couples was the same as for unmarried filers, repealing the provision reduced marriage penalties.
	Prior law: The maximum amount of the child tax credit was $500, and the credit began to phase out when AGI exceeded $75,000 for unmarried filers and $110,000 for joint filers (a ratio of 1.46:1). The credit was refundable only for taxpayers with three or more children who met certain other criteria. **New law:** The credit amount was doubled. The credit became partially refundable, phasing in at 15 percent of earned income in excess of $10,000 (indexed for inflation).

	Effect: Because the phaseout thresholds were not changed, the larger amount of the credit resulted in higher marriage penalties for couples affected by the phaseout. The phased-in refundable tax credit could result in marriage bonuses—if, for example, a childless worker married a nonworking parent.
Economic Stabilization Act of 2008 and American Recovery and Relief Act of 2009	
Prior law: The EITC phaseout began at a higher level for joint filers than for unmarried filers: ratio of 1.19:1. **New law:** Increased the starting point to $5,000 more for married couples relative to unmarried filer—a ratio of 1.30:1. **Effect:** Reduced but did not eliminate marriage penalties in EITC.	**Prior law:** The EITC amount increased with the presence and number of children, up to two or more children. **New law:** Added a fourth tier to the EITC, so that the EITC was now higher for families with three or more children than for smaller families. **Effect:** The provision increased marriage bonuses and reduced marriage penalties for some couples with larger families (e.g., a worker with two children could marry a nonworking parent with one child and receive a larger EITC).
	Prior law: The refundable portion of the child tax credit was phased in, beginning at $10,000 (indexed for inflation). **New law:** Temporarily lowered the earnings threshold for eligibility for the refundable portion of the child tax credit to $8,500 in 2008 and $3,000 in 2009. **Effect:** Increased marriage bonuses for very low-income income working families (e.g., a childless worker married to a nonworking parent).
Affordable Care Act of 2010	
	New law: Established premium tax credits for individuals and families with income between 100 percent and 400 percent of the poverty line, with the amount of the subsidy declining over that range. **Effect:** Because the official poverty line does not increase linearly with family size, the premium tax credits can result in marriage penalties (e.g., in combination, two unmarried parents could be eligible for larger credits than if they married).
	New law: Created the net investment income tax, starting at $200,000 for unmarried filers and $250,000 for married couples filing jointly—a ratio of 1.25:1.

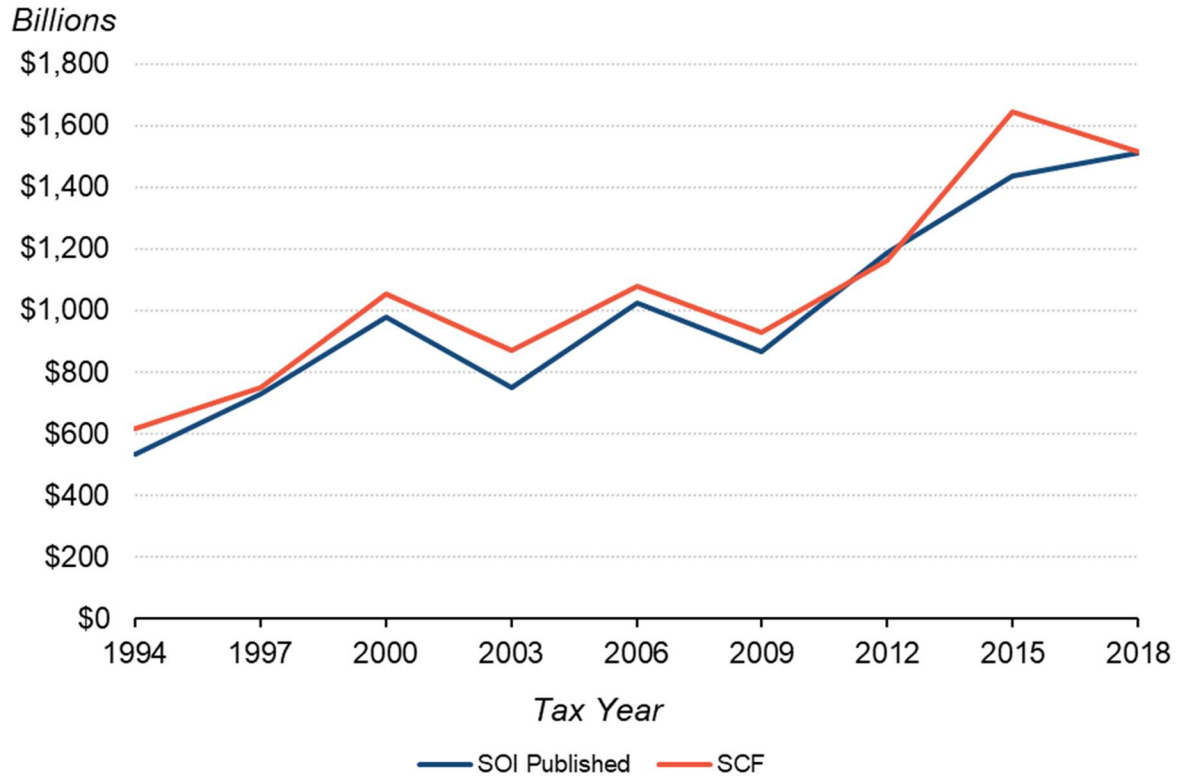
	Effect: Some couples incur a marriage penalty because the threshold for joint filers is less than twice the amount as for unmarried filers.
	New law: Created the Additional Medicare Tax, starting at $200,000 of wages for unmarried filers and $250,000 for married couples filing jointly—a ratio of 1.25:1. **Effect:** Some couples incur a marriage penalty because the threshold for joint filers is less than twice the amount as for unmarried filers.
American Taxpayer Relief Act of 2012	
	Prior law: EGTRRA's tax rate reductions were scheduled to expire at end of 2012. **New law:** EGTRRA's tax rate reductions were extended—except for the reduction in the top rate bracket. **Effect**: Restored the top income tax rate of 39.1 percent. Because the top bracket for joint filers begins at $450,000—less than twice the level as for single filers ($400,000)—marriage penalties increased for high-income taxpayers relative to the prior year.
	Prior law: The phaseout of the personal exemption was scheduled to be restored. **New law:** The phaseout of the personal exemption was restored. **Effect:** Because the phaseout began at $300,000 for joint filers—less than twice the threshold ($250,000) for single filers—marriage penalties increased for higher-income taxpayers relative to prior year.
	Prior law: Limitation on total itemized deductions was scheduled to be restored in 2013. **New law:** The limitation on itemized deductions was restored. **Effect:** Because the limitation began at $300,000 for joint filers—less than twice the threshold ($250,000) for single filers—marriage penalties increased for higher-income taxpayers relative to prior year.
	Prior law: Child tax credit parameters scheduled to be restored to pre-EGTRRA levels. **New law:** Retained $1,000 maximum credit and partial refundability and lower threshold for refundability. **Effect:** Maintained increased marriage bonuses for very low-income childless workers who married nonworking parent.

Tax Cuts and Jobs Act of 2017 (TCJA)23	
Prior law: Rate brackets for joint filers were less than twice the width of single filers' brackets, other than for the 10 percent and 15 percent brackets. **New law:** Set width of the rate brackets below the 35 percent bracket for joint filers to equal twice the width for single filers **Effect:** Reduced marriage penalties for most taxpayers, other than those with very high income.	**Prior law:** Individual income tax rates ranged from 10 percent to 39.6 percent. **New law:** Individual income tax rates ranged from 10 percent to 37 percent. **Effect:** Reduced individual income tax rates, thus reducing marriage penalties. Because the AMT thresholds were substantially increased, the interaction between the lower rates on ordinary income and the AMT was markedly reduced relative to the impact in EGTRRA.
	Prior law: Personal and dependent exemption began to phase out for married couples when income exceeded a threshold that was less than twice the level as for single filers. **New law:** Eliminated the personal and dependent exemption. **Effect:** Eliminating the exemption reduced marriage penalties by also effectively eliminating the phaseout.
	Prior law: The limitation on itemized deductions reduced a taxpayer's itemized deductions above a certain threshold of income. This threshold for married couples was less than twice the level as for single filers. **New law:** Eliminated the limitation on itemized deduction **Effect**: Elimination of limitation reduced marriage penalties.
	Prior law: No limit on amount of state and local taxes that can be itemized (if taxpayer has sufficient amount of deductions to make itemizing more valuable than standard deduction).

23 The individual income tax provisions in TCJA are scheduled to expire at the end of 2025

	New law: Imposed a $10,000 cap on deductible state and local taxes. The cap is the same amount for unmarried and married filers. **Effect:** Flat limit, without regard to filing status, increased marriage penalties.
	Prior law: The maximum of the child tax credit was $1,000 per qualifying child, phasing out beginning at $75,000 for unmarried filers and $110,000 for joint filers. Eligibility for the refundable portion began at $3,000 of earned income. **New law:** Increased the maximum amount of the nonrefundable portion of the child tax credit to $2,000 per qualifying child, phasing out beginning at $200,000 for unmarried filers and $400,000 for joint filers. The refundable portion of the credit was capped at $1,400 per child, and the income threshold for eligibility was lowered to $2,500. **Effect:** Setting the phaseout threshold for married couples to be twice that of unmarried couples eliminated marriage penalties attributable to that region. The effects in the phase-in range are less clear: the higher amount of the credit and the lower threshold for refundability increases bonuses for some couples, but the cap on the refundable portion might offset that impact.

Appendix Figure 1: Aggregate Tax Liability After Credits, Statistics of Income and Survey of Consumer Finances



Source: Gale et al. (2022b)