

Pink and Poverty Taxes on Marriage

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Summary:

A “pink tax” is the extra cost charged for goods and services designed for women. In this research, we expand the scope of this pink tax by examining gender and income differentials in marriage taxes. A marriage tax reflects the decline in spending power as a result of the difference in taxes and transfer benefits that arise from marriage. We use a lifetime measure of the marriage tax and show that low-income females with children are penalized the most, with a loss of 3.35 percent of their lifetime resources because of marriage. This marriage tax also makes a significant difference to their marriage decisions. The marriage rate for low-income females with children would be 13 percentage points higher without this marriage penalty.

Key findings:

1. Certain features of the US fiscal system generate significant marriage penalties for low-income people.
2. The marriage tax rates are the highest for low-income females with children.
3. The marriage rate for low-income females with children would be 13 percentage points higher without this marriage penalty.

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1. Introduction

Razors, haircuts, dry cleaning, shampoo, soap...these are just a few examples of goods and services that have been found to be more expensive for females than males. This gender-based discriminatory price differential on products and services imposes an increased financial burden for females and is commonly referred to as the “pink tax.”¹ In addition to the pink tax on women, low-income individuals face even more price differentials relative to those with higher income due to their inability to buy in bulk or time their purchases. This inability results in significantly higher prices for diapers, toilet paper, and other staples (Duesterhaus et al. 2011, de Blasio and Menin 2015, Guittar et al. 2022).

Our recent working paper (Ilin, Kotlikoff, and Pitts 2022) suggests that this “poverty tax” exists not just on goods and services but also on marriage. Moreover, we argue that this tax could be considered a pink tax because certain features of the US fiscal system generate significantly larger marriage penalties for low-income females, especially those with children, relative to similar males. The presence of children is a large contributor to the pink tax, as females are the sole parent in three-fourths of all single-parent households with children and one-fourth of all households with children. Meanwhile, single-parent households headed by males represent just under 8 percent of households with children.²

Certain features of the US fiscal system generate significant marriage penalties for low-income individuals, especially low-income females with children. As we demonstrate, this marriage tax significantly affects marriage decisions. The marriage rate for low-income females with children would be 13 percentage points higher without this penalty for marriage. Consequently, by age 35, some 7 percent fewer women in this demographic are married.

A federal/state fiscal system strongly discouraging marriage raises red flags. It is well known that marriage is correlated with economic well-being for marrying individuals as well as their children.³ The marriage tax is even more problematic for low-income mothers and their children. These disincentives, combined with the ongoing erosion of social capital and lack of traditional sources of social support, hinder low-income mothers’ chances of achieving upward social and economic mobility and can further affect their children’s outcomes (Lopoo 2010, Johnson et al. 2011).

Figure 1 depicts, by personal income quintile, the differences in the marrying rate (the share of single individuals who reported marrying in the prior year) and the marriage rate (the

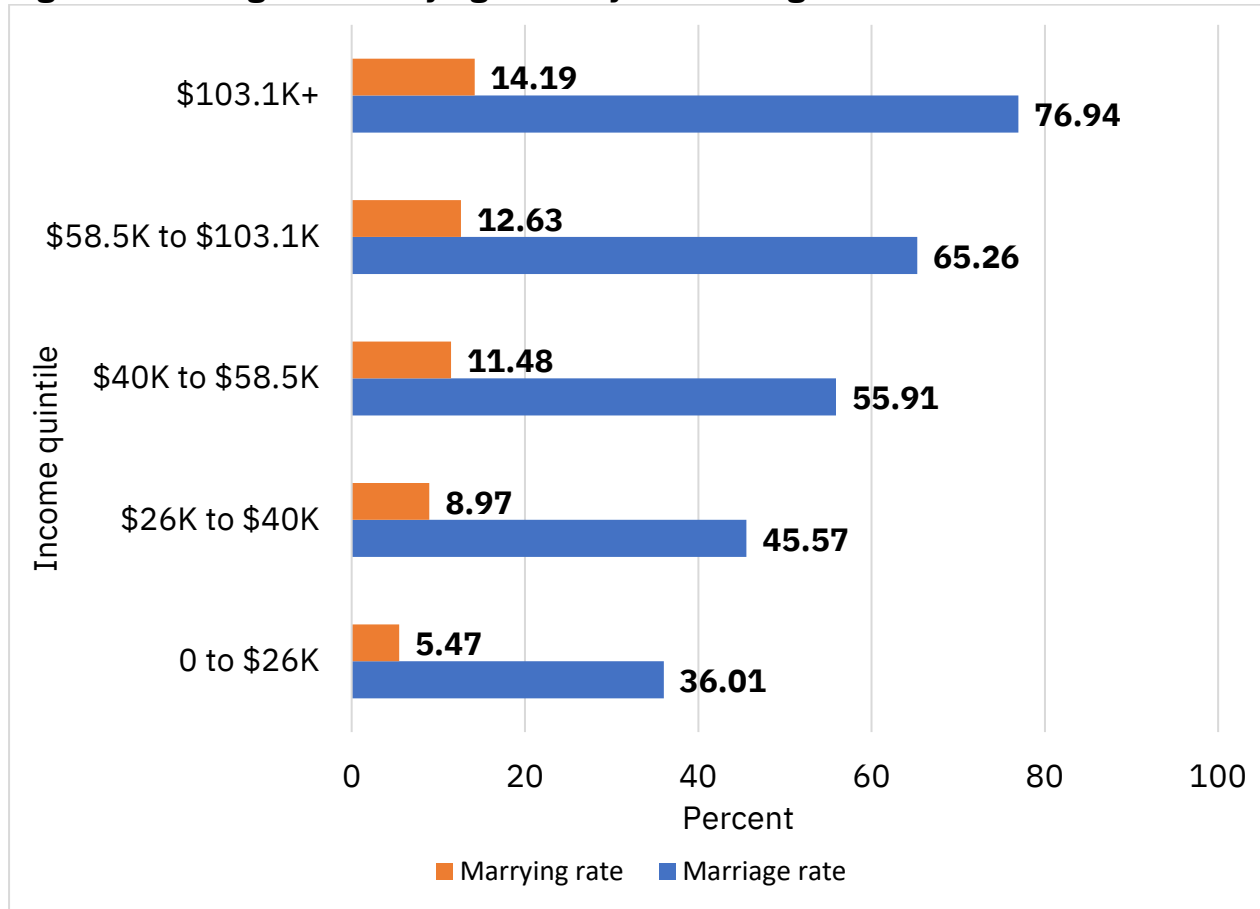
¹ The evidence on the pink tax is mixed, with some gender-based price differences attributed to differentiated products and selected samples. See de Blasio and Menin (2015), Joint Economic Committee (2016), and Light (2022) .

² Source: [Current Population Survey](https://www.census.gov/programs-surveys/cps.html) <census.gov/programs-surveys/cps.html>, March and Annual Social and Economic [Supplements](#), 1950 to 2021, and authors’ calculations.

³ See, for example, Waite (1995), Amato (2005), Matouschek and Rasul (2008), Zissimopoulos et al. (2015) McLanahan and Sawhill (2015), Lundberg et al. (2016), and Lerman et al. (2017).

share of respondents who are married). For both measures, a large gap exists between high- and low-income groups as the rate of marrying increases with income. So not only is income, in itself, an important factor in the marrying rate, but those with higher incomes also see lower marriage taxes. Low-income individuals receive far greater government benefits whose ongoing provision is jeopardized by marrying. This pattern is not merely a function of older individuals having higher income and higher marriage rates, as it also holds for the younger group aged 20–29.

Figure 1: Marriage and Marrying Rates by Income: Age 20–49



Note: The marriage rate is the share of respondents who are married. The marrying rate is the share of share of single individuals who reported marrying in the prior year.

Source: American Community Survey (2019) and Ilin, Kotlikoff, and Pitts (2022)

Given the strong correlation between marriage and welfare, the federal government has repeatedly stated that a two-parent household is a policy goal. (Consider [The Healthy Marriage Initiative](#) as an example.) Yet we find that while public policy is trying to raise marriage rates, the attributes of many federal and state tax provisions and social safety net policies indirectly discourage marriage by generating large marriage taxes for low-income individuals contemplating marriage.

2. Calculating Marriage Tax Rates

Marriage taxes arise when the act of marrying raises one's taxes, reduces one's benefits, or both. These tax increases and benefit cuts are accumulated over the life span of the individual, not just in the year the marriage takes place. Taking into account future net taxes requires properly discounting (adjusting for the time cost of money) and incorporating survival prospects. We calculate the lifetime marriage tax using the Fiscal Analyzer (TFA), developed in Auerbach et al. (2016, 2017) and Altig et al. (2020a,b). TFA's expected lifetime calculations assume zero probability of divorce in the future, taking the premise that individuals do not anticipate divorcing when they decide to marry.⁴

We apply TFA to the 2016 Survey of Consumer Finances (SCF) to project the lifetime earnings of each respondent and calculate expected lifetime taxes, transfers, and net resources.⁵ We then repeat this process twice, once for the single childless clone who has exactly the same financial and demographic characteristics and again for the simulated married couple.⁶ By marrying someone just like themselves, we remove any bias in the selection of partners that may arise from the existence of marriage taxes and isolate the marriage tax that arises "mechanically" as a result of the structure of the US fiscal system.⁷ We then calculate the marriage tax by taking the ratio of the present value of the couple's lifetime spending if they were to marry to the sum of the present value of lifetime spending for the single individual and their single childless clone. These calculations produce the *net marriage tax*, or *marriage tax rate* (the overall reduction in net resources from marrying), the *gross tax rate* (increase in the tax liability from marrying), and the *transfer claw-back rate* (loss of public assistance from marrying) for the hypothetical couple. As the impact of marriage differs across states due to different tax codes and transfer program criteria, we estimate these three marriage penalty measures for each SCF respondent for each state, along with the District of Columbia.

The main disadvantage of the SCF is that it has no information on changes in marital status, making it impossible to estimate the effect of marriage taxation on marriage. Therefore, our analysis uses the 2018 American Community Survey (ACS), which asks about prior-year marital status and whether unmarried individuals entered into a marriage. The calculated marriage taxes in the SCF are regressed on characteristics observable in both surveys, and we

⁴ TFA applies a discount rate of 6.5 percent to calculate the present-value of lifetime net resources.

⁵ For married individuals, we singleize them by splitting assets equally and assigning the children to the mother or the primary respondent for same-sex couples.

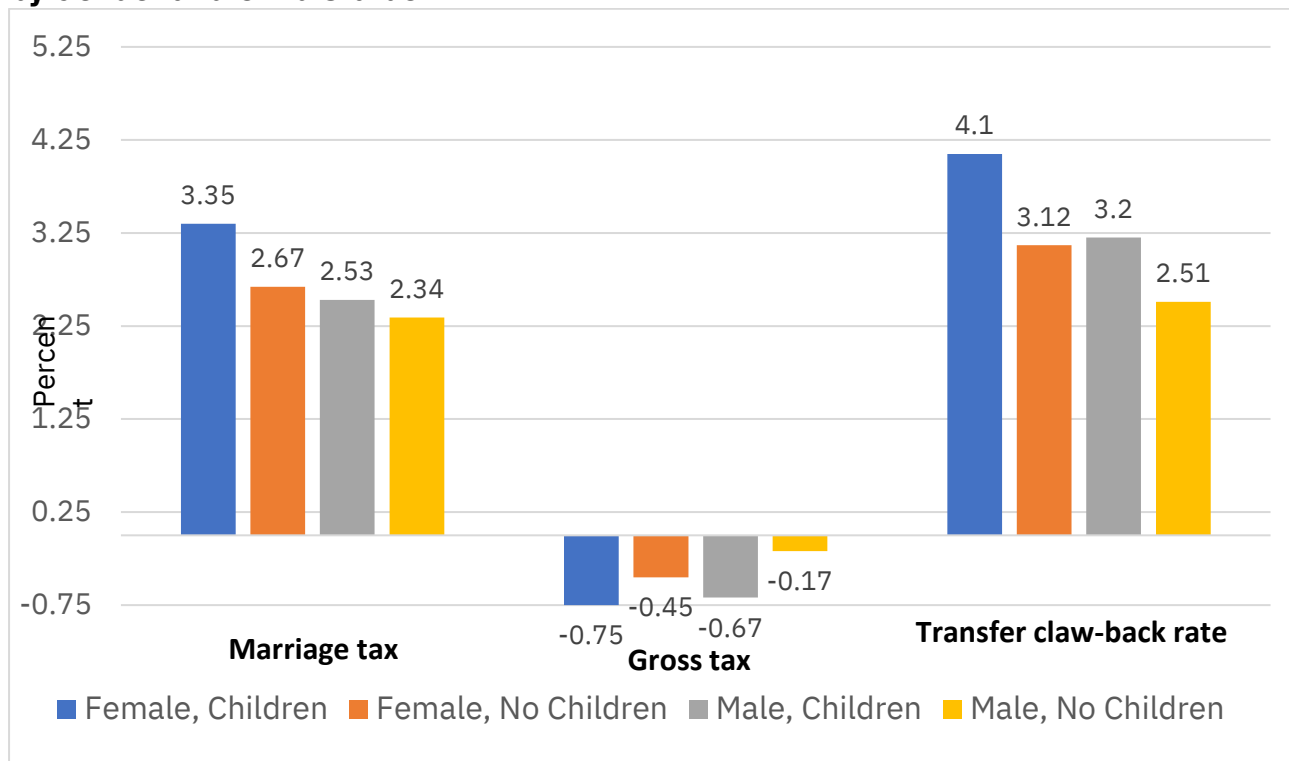
⁶ We abstract from whether the marriage is heterosexual or same sex, since after controlling for other characteristics, a partner's gender does not affect lifetime projections of net taxes and the value of the marriage tax.

⁷ In Ilin, Kotlikoff, and Pitts (2022), we also do a robustness check of having the individual marry someone with 50 percent higher and 50 percent lower income. The results of these robustness checks are similar to the baseline.

use these results to impute a marriage tax in the ACS survey.⁸ We then use these imputed marriage tax rates in estimating the probability of marriage.⁹

Females are eligible for more benefit programs, on average, than males as a result of lower average income and a higher number of children. These characteristics work to significantly increase the marriage tax for women relative to men. As figure 2 shows, on average, female respondents in the ACS face a higher overall marriage tax than males, driven by the high transfer claw-back rate. Females with children face the highest marriage tax rate (3.35 percent) and the highest transfer claw-back rate (4.1 percent), which is partially offset by the gross tax subsidy (−0.75 percent) due to a decline in the family’s total tax liability after marriage.

Figure 2: Average Lifetime Marriage Penalties in the 2018 ACS by Gender and Child Status



Source: 2018 American Community Survey and Ilin, Kotlikoff, and Pitts, 2022

⁸ The marriage taxes are imputed using information on the state of residence, gender, age, level of education, household income from all sources, housing status (homeowner or renter), the presence of a child aged 6–12, and the presence of a child under age 6

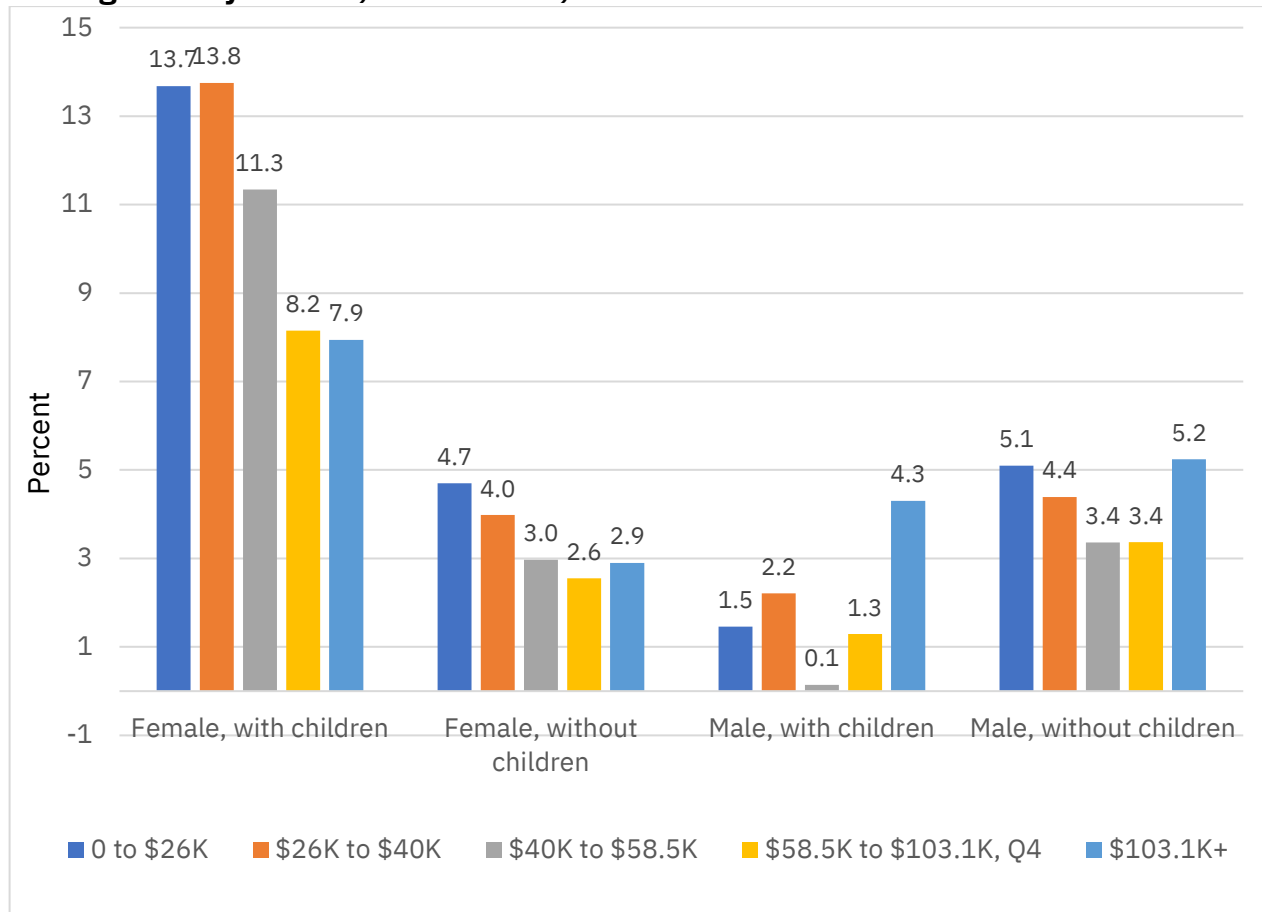
⁹ The mean marriage tax rates for the ACS differ slightly from the SCF sample. In the SCF sample, females with children have the highest transfer claw-back rate and the second highest overall marriage tax rates after childless females. This reflects the older ages and higher levels of wealth of the SCF sample compared to the ACS.

From a policy perspective, it is important to not only determine if groups are disproportionately harmed by policy rules, but also how these rules affect behavior. After calculating marriage tax rates for the ACS respondents, we regress the marriage decision on the imputed marriage tax, controlling for income, state of residence, race, education, and number of children.¹⁰ Of course, many other factors that are unavailable in our data might affect the probability. The model is estimated separately for males and females, as well as for each of three marriage tax measures: the net marriage tax rate, the gross tax rate, and the transfer claw-back rate. We find the marriage tax to have a significant negative impact on the probability of marriage for both males and females, regardless of the number of children, with the largest impact for females with children.

The change in the marriage rate that would occur with the elimination of the net marriage tax is shown in figure 3. In all cases, marrying rates would be higher in the absence of the marriage tax, but the differential is largest for women with children, especially those in the lower income quintiles. Females in the lowest two quintiles would see marrying rates increase almost by 14 percentage points, from 9.4 to 23.1 percent for the lowest quintile and from 11.82 percent to 25.6 percent for the second-lowest quintile. There is very little impact of the marriage tax on males with children, except in the highest income quintile. However, the impact on the probability of marriage is slightly higher for males without children relative to females without children, reflecting the lower sensitivity to the marriage tax for single females without children. It should also be noted that these are the direct effects of the marriage tax, but the marriage tax could have broader indirect effects on the overall marriage market, since the presence of these marriage taxes could lead to a decrease in the supply of potential mates.

¹⁰ Of course, many other factors (such as the quality and quantity of potential mates and religious preferences) affect the decision to marry, and these factors are not available in our data. We hope that the fixed effects will pick up most of this variation, although no research project using existing data will be able to fully control for all potential factors. However, these results are our best approximation of the relationship between marriage taxes and the propensity to marry.

Figure 3: The Predicted Increase in the Marrying Rate in the Absence of Lifetime Marriage Tax by Gender, Child Status, and Household Income



Source: 2018 American Community Survey and Ilin, Kotlikoff, and Pitts, 2022

One important contribution of this research is that it takes the lifetime view on marriage taxation instead of the static marriage-tax measures from the earlier literature. Past research found that marriage penalties have statistically significant but very small negative effects on marriage and/or the probability of divorce (for example, see Whittington and Alm 1997, Dickert-Conlin 1999, Alm and Whittington 2003, and Wilcox et al. 2016). As a validation test, we construct a measure of the current-year marriage tax, defined as the percentage change in current-year net taxes due to marriage divided by current-year net resources. Compared to the main results in our article, the impact of current-year penalties on marriage is much smaller and similar in magnitude to the results found in earlier research. This finding suggests that ignoring the lifetime aspect of the marriage tax leads to an understatement of the impact on both net resources and, specifically, the probability of marriage for low-income females.

3. Conclusion

Calculating marriage tax rates, their imputation to ACS respondents, and the analysis of the impact of these imputed taxes on the propensity of ACS respondents to marry represents a new method to study government-imposed marriage disincentives. Besides controlling for the endogenous choice of partner, the marriage tax rate focuses on the impact of the changes in the expected lifetime spending of getting married. Specifically, the tax rate captures the actuarial expected present value of the percentage reduction in a person's lifetime spending from marrying themselves.

The lifetime marriage tax rates differ dramatically from conventionally measured marriage tax rates, which only capture the current year's taxes. They also are much stronger determinants of the decision to marry than prior measures. For low-income females with children, the combined federal and state marriage disincentive can represent the equivalent of several years of labor earnings. And it matters for this group. In the presence of the marriage tax, this group is 13 percent less likely to marry in a given year and 7 percent less likely to be married by age 35 compared to the situation when the marriage tax is removed. Given the documented benefits to individuals and their children arising from marriage, policymakers might wish to rethink the penalties they are imposing on the act of marriage, especially for such a vulnerable group.

References

- Alm, J., and L.A. Whittington. 2003. Shacking up or shelling out: Income taxes, marriage, and cohabitation. *Review of Economics of the Household* 1(3), 169–86.
- Altig, D., A. Auerbach, P. Higgins, D. Koehler, L.J. Kotlikoff, E. Terry, and V. Ye. 2020. Did the 2017 tax reform discriminate against blue-state voters? *National Tax Journal* 73(4), 1087–108.
- Altig, D., A.J. Auerbach, L.J. Kotlikoff, E. Ilin, and V. Ye. 2020. *Marginal net taxation of Americans' labor supply*. National Bureau of Economic Research.
- Amato, P.R. 2005. The impact of family formation change on the cognitive, social, and emotional well-being of the next generation. *The Future of Children*, 75–96.
- Auerbach, A.J., L.J. Kotlikoff, and D. Koehler. 2016. U.S. inequality and fiscal progressivity: An intragenerational accounting. National Bureau of Economic Research working paper no. w22032.
- Auerbach, A.J., L.J. Kotlikoff, D. Koehler, and M. Yu. 2017. Is Uncle Sam inducing the elderly to retire? *Tax Policy and the Economy* 31(1), 1–42.
- De Blasio, B., and J. Menin. 2015. *From Cradle to Cane: The Cost of Being a Female Consumer*. <https://www1.nyc.gov/assets/dca/downloads/pdf/partners/Study-of-Gender-Pricing-in-NYC.pdf>. <accessed August 10, 2022>
- Dickert-Conlin, S. 1999. Taxes and transfers: Their effects on the decision to end a marriage. *Journal of Public Economics* 73(2), 217–40.

- Duesterhaus, M., L. Grauerholz, R. Weichsel, and N.A. Guittar. 2011. The cost of doing femininity: Gendered disparities in pricing of personal care products and services. *Gender Issues* 28(4), 175–91.
- Guittar, S.G., L. Grauerholz, E.N. Kidder, S.D. Daye, and M. McLaughlin. 2022. Beyond the pink tax: Gender-based pricing and differentiation of personal care products. *Gender Issues* 39(1), 1–23.
- Ilin, E., L.J. Kotlikoff, and M.M. Pitts. 2022. *Is Our Fiscal System Discouraging Marriage? A New Look at the Marriage Tax*. National Bureau of Economic Research working paper no. 30159.
- Johnson, J.A., J.A. Honnold, and P. Threlfall. 2011. Impact of social capital on employment and marriage among low-income single mothers. *Journal of Sociology and Social Welfare* 38, 9.
- Joint Economics Committee. 2016. The pink tax: How gender-based pricing hurts women’s buying power. jec.senate.gov/public/_cache/files/8a42df04-8b6d-4949-b20b-6f40a326db9e/the-pink-tax---how-gender-based-pricing-hurts-women-s-buying-power.pdf. December. <accessed August 10, 2022>.
- Lerman, R.I., J. Price, and W.B. Wilcox. 2017. Family structure and economic success across the life course. *Marriage & Family Review* 53(8), 744–58.
- Light, L. 2022. There’s a pink tax on women. *Forbes*, February 12. forbes.com/sites/lawrencelight/2022/02/12/theres-a-pink-tax-on-women/?sh=d31cf8573189 <accessed August 10, 2022>.
- Lopoo, L.M. 2010. Family structure and the economic mobility of children. Pew Charitable Trusts.
- Lundberg, S., R.A. Pollak, and J. Stearns. 2016. Family inequality: Diverging patterns in marriage, cohabitation, and childbearing. *Journal of Economic Perspectives* 30(2), 79–102.
- Matouschek, N., and I. Rasul. 2008. The economics of the marriage contract: Theories and evidence. *Journal of Law and Economics* 51(1), 59–110.
- McLanahan, S., and I. Sawhill. 2015. Marriage and child well-being revisited: Introducing the issue. *The Future of Children*, 3–9.
- Waite, L.J. 1995. Does marriage matter? *Demography* 32(4), 483–507.
- Whittington, L.A., and J. Alm. 1997. 'Til death or taxes do us part: The effect of income taxation on divorce. *Journal of Human Resources* 32(2) 388–412.
- Wilcox, W.B., A. Rachidi, and J. Price. 2016. Marriage, penalized: Does social-welfare policy affect family formation? aei.org/wp-content/uploads/2016/07/IFS-HomeEconReport-2016-Final-072616.pdf?x91208 <accessed August 10, 2022>
- Zissimopoulos, J.M., B.R. Karney, and A.J. Rauer. 2015. Marriage and economic well-being at older ages. *Review of Economics of the Household* 13(1), 1–35.