Double-Claimed Dependents: A Declining Issue for U.S. Taxes

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Dependents claimed on tax returns can increase tax credits. These incentives lead some dependents to be claimed by more than one tax filer, or double-claimed, although each should be claimed only once. Despite increasing dependent tax benefits over the last two decades, tax data show that the number of double-claimed dependents decreased by one million, an 80 percent decline. We argue that this decrease largely resulted from the rise in electronically filed returns, for which double-claiming causes IRS rejections. The two-decade decrease in double-claimed dependents avoids about 80,000 annual audits and reduces annual tax credit overpayments by nearly $3 billion.

JEL: H24, H26, J12, J13
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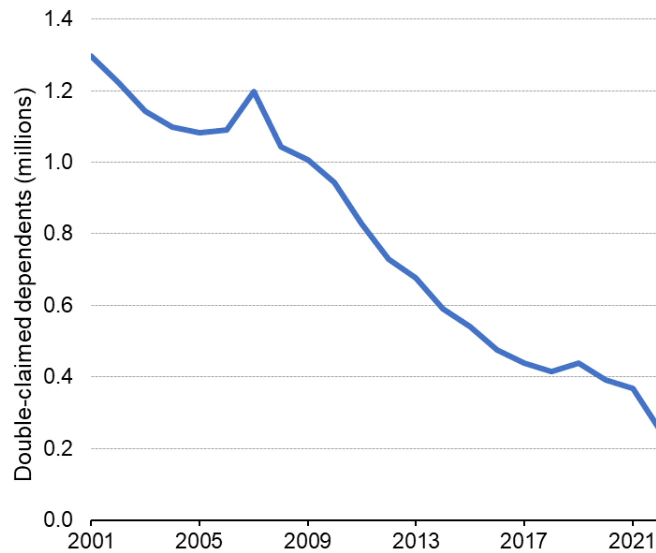
The Internal Revenue Service (IRS) plans to use its recent funding increase to modernize infrastructure and expand paperless interactions with taxpayers.[1] While recent discussions have focused on deficiencies in IRS capabilities, this paper presents an unsung success from the rise of electronic filing (e-filing) over the last two decades. We examine population tax data, which includes all tax returns and audits, between 2001 and 2022. We argue that the expansion of e-filing caused a large decline in the number of dependents claimed by more than one tax filer, or double-claimed dependents. This is an important, but seemingly ignored, increase in tax compliance that highlights a benefit of e-filing.

Double-claiming of dependents is unsurprising given the complexity of dependent claiming rules and the large tax benefits at stake.[2] In 2023, claiming one child could increase a filer's refundable credits by nearly $5,600 from the Earned Income Tax Credit (EITC) and the Child Tax Credit (CTC). Moreover, expansions in these credits between 2001 and 2022 increased the tax benefits from claiming dependents.[3] Despite these increasing incentives, the number of double-claimed dependents decreased from 1.3 to 0.3 million, a decline of one million double-claimed dependents (Figure 1). The pattern is identical for double-claimed dependents as a share of dependents—the double-claiming rate decreased from 1.5% to 0.3%. This is a decline in double-claiming of four-fifths. We estimate that this decline reduced overpayments of tax credits by nearly $3 billion annually.

Figure 1: Double-claimed dependents (millions), 2001–2022



Source: Authors' calculations using population tax data.

[1] The funding increase was part of the 2022 Inflation Reduction Act. The IRS plans to expand paperless correspondence and processing: IRS (2023) and www.irs.gov/newsroom/irs-launches-paperless-processing-initiative.

[2] The eligibility rules for claiming dependents are complicated, especially for multi-generational households and cohabiting unmarried parents (Holtzblatt and McCubbin 2003; Splinter, Larrimore, and Mortenson 2017; Goldin and Jurow Kleiman 2022; Michelmore and Pilkauskas 2022). Internal Revenue Code section 152 describes the eligibility rules.

[3] Nearly 90% of double-claimed dependents are younger than 18 years old and thus qualifying children for the EITC. The EITC increases with inflation and the CTC expanded from $600 in 2001 to $2,000 in 2018. Stimulus payments claimed on 2007 tax returns increased with claimed children (Splinter 2023), perhaps contributing to that year's large double-claiming jump.

In this paper, we first describe how dependents are double-claimed and how the IRS responds. Next, we argue that the double-claiming decline was predominantly driven by the rise in e-filed returns. This is because the IRS automatically rejects e-filed returns attempting to double-claim a dependent. Compared to 2001, these rejections may avoid about 80,000 audits annually, largely due to reductions in noncompliance. While prior research has estimated rates-of-return for audits (Holtzblatt and McGuire 2020; Boning et al. 2023), other IRS policies can be more cost effective at reducing noncompliance. For the IRS, the essentially costless rejection of e-filed returns double-claiming dependents suggests a nearly infinite rate-of-return of this policy.[4]

I. IRS treatment of double-claimed dependents

A dependent is a qualifying child or relative who relies on the tax filer for financial support, among other requirements. A dependent's tax benefits should only be claimed on one tax return in any given year. Tie-breaker rules for qualifying children usually prioritize the filer who is the parent of the dependent, the filer with whom the child resided the longest that year, and the filer with the highest income. If a dependent has already been claimed, and another filer attempts to claim the same dependent in the same tax year with an e-filed return, the second return will be rejected. An error message explains the reason.[5] If the filer believes they are eligible to claim the dependent, they must paper-file their return. This is the source of double-claimed dependents.[6]

When a filer double-claims a dependent with a paper return, both filers initially receive tax benefits because the IRS is unaware which filer is entitled to claim the dependent. Therefore, the IRS does not have the math or clerical error authority to disallow double-claimed dependents.[7]

After a double-claim occurs, the IRS may send a CP87A notice to both filers. The notice asks the filer to check the dependent's taxpayer identification number and the rules for claiming dependents. It does not disclose the identity of the other filer claiming the same dependent. After receiving the notice, if the filer still thinks they are entitled to claim the dependent, they do nothing. Otherwise, if the filer determines they are not entitled to claim the dependent, they may then self-correct their tax return by filing an amended return (Form 1040-X) that removes the dependent and associated tax benefits. We estimate that an average of 8% of double-claiming cases result in amended returns. These steps do not constitute an audit. However, if neither filer removes the

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[4] Algorithms can have infinite marginal returns because of costless scaling (Ludwig, Mullainathan, and Rambachan 2024). E-file rejects, however, cause non-compliance if rejected returns are not resubmitted (Framinan, Hatton, and Silvia 2011).

[5] Since 2010, individual tax returns (Forms 1040) are part of the IRS Modernized e-File system and have immediate rejections and error messages. E-filed returns with double-claimed dependents appear to have always been rejected.

[6] We refer to "double-claiming" because more than two filers rarely claim these dependents. Our analysis excludes dependent-filer double-claiming: individuals filing a return saying they are not a dependent elsewhere (allowing for a personal exemption or larger standard deduction) while also being claimed as a dependent on another return.

[7] "An example of a math error correction would be where IRS can automatically correct a return by disallowing a child tax credit if the filer fails to provide the correct taxpayer identification number." (Government Accountability Office 2009, p. 1)

double-claimed dependent then an audit may begin.[8] As discussed in Section IV, about 14% of double-claiming cases result in audits (and 7% of double-claiming filers are audited because only one of the pair of filers is usually audited).

When an audit begins, the IRS sends a letter directing a double-claiming filer to provide proof of entitlement to claim the dependent with supporting documents, as listed in Form 886-H-DEP. To show that the filer and dependent lived together for more than half the year, these documents could include school, medical, daycare, or social service records. For divorced or separated couples who have an agreement about who can claim a dependent, these documents could include a divorce decree or separation agreement. After the response deadline, the IRS may decide whether the filer can claim the dependent and adjust the filer's taxes and possibly assess penalties and interest. We find that among those audited this entire process often takes just over one year. To help prevent future issues, filers may submit Form 8332 to release claims to a dependent or re-claim a dependent. This form can codify agreements between competing dependent claimants, such as unmarried or divorced parents agreeing to alternate who claims a child each year.

II. Reasons for decreased double-claiming

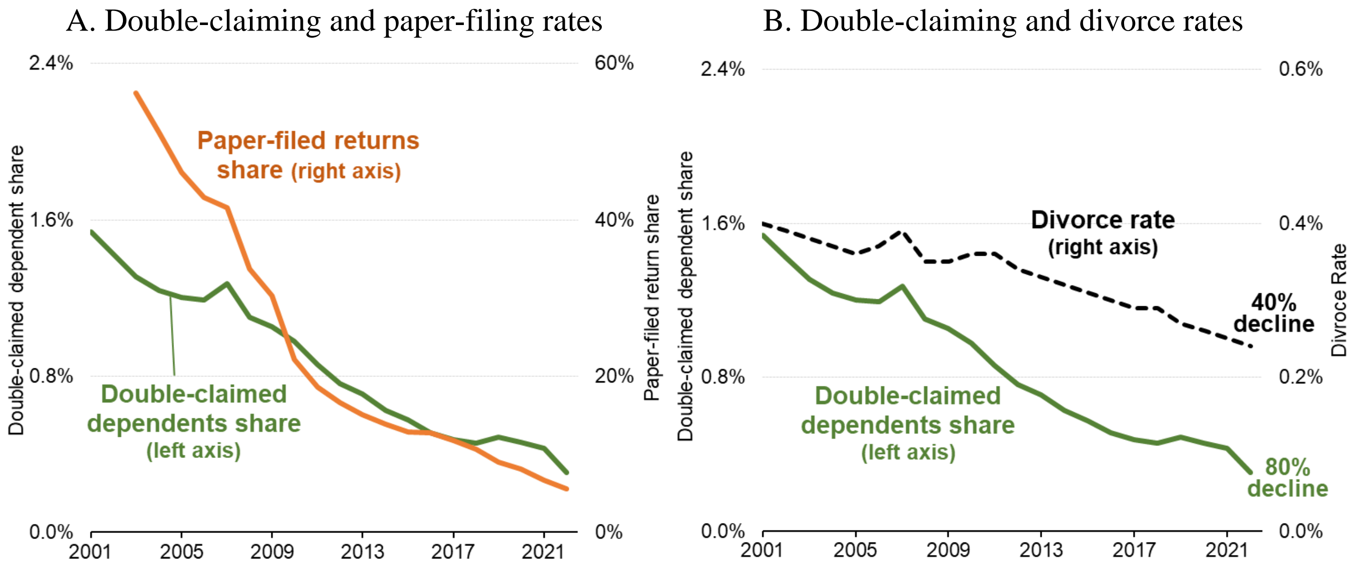
The decrease in double-claimed dependents is highly correlated with falling paper-filing rates (i.e., rising e-file rates). We argue that most of the decrease in double-claimed dependents is due to the rise in e-filing. E-filing can limit double-claiming for multiple reasons. E-filers rejected for double-claiming may be unaware that paper-filing allows them to double-claim a dependent. Furthermore, e-file rejections from the IRS may intimidate filers or suggest further scrutiny from the IRS. We also consider falling divorce rates but find that they explain little of the decrease in double-claiming.

A. Falling paper-filing rates (rising e-file rates)

The share of all individual tax returns filed by paper fell from 56% to 6% between tax years 2003 and 2022. In Figure 2A, the double-claiming and paper-filing rates decline together, where levels have a correlation of 0.95. The correlation was slightly lower (0.88) before 2010, when paper-filing was more widespread and many e-filed returns were from paid preparers, who may have been more likely to know that paper-filing circumvents e-file rejection due to double-claiming. The double-claiming and paper-filing rate correlation is stronger (0.97) since 2010, when the IRS stopped mailing paper-filing packages to residences and paper-filing was less common. As filers became increasingly dependent on electronic filing, paper-filing a return to double-claim a dependent represented further effort or knowledge, which we hypothesize was largely responsible for the decrease in double-claiming.

[8] IRS guidance from www.irs.gov/identity-theft-fraud-scams/identity-theft-dependents and www.irs.gov/individuals/understanding-your-cp87a-notice, accessed May 24, 2024.

Figure 2: What caused falling double-claiming rates?



Notes: Divorce rates are the number of divorces and annulments divided by the total population.
We only report double-claiming since 2001 and paper-filing rates since 2003 because of issues with earlier data.
Source: Authors' calculations using population tax data and CDC/NCHS National Vital Statistics System:
www.cdc.gov/nchs/data/dvs/marriage-divorce/national-marriage-divorce-rates-00-22.pdf (accessed May 24, 2024).

B. Falling divorce rates

Divorces contribute to double-claiming of dependents when former spouses both claim their children. Thus, the number of divorces decreasing over the last two decades may have contributed to the double-claiming decline. Figure 2B shows that, between 2001 and 2022, annual divorce rates fell from 0.40% to 0.24% of the total population—a decline of 40%. Divorce and double-claiming rates decline together, and levels have a correlation of 0.84. Despite this correlation, only a small share of double-claiming was among filers who may have divorced. About 14% of the 2001 cases of double-claimed dependents were among divorced couples—i.e., filers married anytime in the prior five years, the earliest the data allows. This suggests falling divorce rates explain around 6% of the fall in double-claimed dependents ($0.14 \cdot 0.40 = 0.06$).

The small impact of divorce rates is because there are other situations where two filers try to claim a dependent. While about one-quarter of recent double-claiming was by two parents who were ever married, about one-third of double-claiming was by two parents who were *never* married.[9] The remaining double-claiming (nearly half) was where one filer was not the parent, such as a grandparent. We find that about one-tenth of double-claiming filers live at the same address, which can occur with unmarried cohabiting parents or multi-generational households (Splinter, Larrimore, and Mortenson 2017). Within this small group, decreasing teenage pregnancy rates may contribute to declining double-claiming because of less claiming confusion between a child's mother and grandparents.

[9] Due to data limitations, parents include all opposite-sex double-claiming filers aged within ten years of one another.

III. Double tax credits and repeat double-claiming

Double-claimed dependents can result in double tax credits—simultaneous tax credits made for the same dependent. Only one filer is entitled to claim tax benefits for a given dependent each year, which means double-claiming contributes to tax noncompliance. Given that over three-quarters of double-claimed dependents are qualifying children for the CTC and half of double-claiming filers claim the EITC, the fall in double-claiming reduced overpayments of refundable tax credits. But not all double-claiming filers keep these tax benefits. Some amend their returns or are subject to IRS enforcement activity.

A. Reversed double tax credits: Amended returns and IRS enforcement

Filers may amend their tax returns to remove the disputed dependent. We estimate that amended returns resolve about 8% of cases of double-claimed dependents. This suggests only a small share of double-claiming filers drop the dependent upon receiving an initial notice from the IRS or a direct complaint from the other filer. Still, the amending rate among double-claiming returns is more than five times that of all returns, considering that only one filer per double-claimed dependent should amend (Figure A1). In addition to amending, the IRS removed some disputed dependents through audits. About 14% of double-claimed dependents resulted in one or both double-claiming filers being audited. The combined effects from amended returns and IRS audits suggest that about one-fifth of double tax credits may have been reversed after IRS action (although not all tax credits are repaid due to outstanding collections).

B. Reduction in double tax credits since 2001

To estimate the effect of declining double-claiming on tax liabilities, we focus on the largest relevant tax credits because four-fifths of double-claiming filers had incomes below $40,000, meaning personal exemptions and other tax effects were small. In 2001, initial EITCs and CTCs among double-claiming filers were $5.5 billion (all values here are 2023 dollars). This suggests double tax credits after accounting for two filers, amendments, and IRS audits totaled $2.2 billion in 2001. In 2022, this approach suggests double tax credits of $0.8 billion. Ignoring policy changes, falling double tax credit rates appear to have reduced credit overpayments by about $1.4 billion. To control for policy changes from the refundable CTC increasing from $600 in 2001 to $1,500 in 2022 and a more generous credit phase-in, we triple initial-year CTCs. This suggests falling double tax credit rates reduced tax credit overpayments by nearly $3 billion.[10]

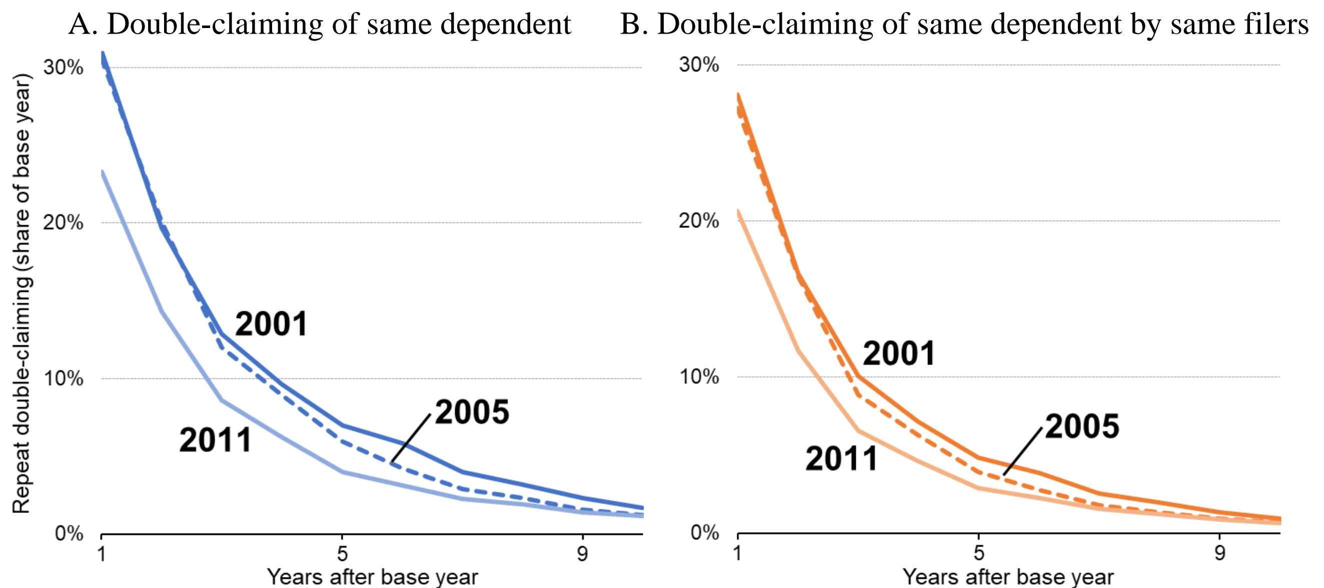
[10] The calculations are: [$5.5 billion ÷ 2 • (1 – 0.2)] – [$2.0 billion ÷ 2 • (1 – 0.2)] = $2.2 billion – $0.8 billion = $1.4 billion; [($1.7 billion • 3 + $3.9 billion) ÷ 2 • (1 – 0.2)] – [$2.0 billion ÷ 2 • (1 – 0.2)] = $3.6 billion – $0.8 billion = $2.8 billion.

C. Repeat double-claimed dependents

Given that many double-claimed dependents result in double tax credits, it is unsurprising that a large share are repeatedly double claimed. To estimate repeat double-claiming, we follow double-claimed dependents in a base year over subsequent years. For example, among 2001 double-claimed dependents, 31% were also double-claimed the following year and 7% were still double-claimed after five years (Figure 3A).[11] After the first year, repeat double-claiming rates decrease about one-third each year, implying a decay rate of about one-third. The levels and patterns are only slightly lower when restricting repeat double-claiming to the same primary filers (Figure 3B), meaning the same pair of filers keep double-claiming the same dependent. When following double-claiming filers (rather than dependents), the results are the same, suggesting repeat double-claiming is caused by dependents contested by the same two filers.

The annual decay rate in repeat double-claiming (after the first year) is only slightly higher than the share of double claims reversed due to IRS interventions. This suggests double claiming and double tax credits may be repeated for several years until the IRS intervenes. This highlights the importance of both IRS interventions (with notices and audits) and the decline in *initial* double-claiming (with e-file rejections) as important ways to limit double tax credits. Again, we believe the decline in initial double-claiming largely resulted from the rise of e-filing and the policy to automatically reject e-filed returns with double-claimed dependents.

Figure 3: Repeat double-claiming of the same dependent



Source: Authors' calculations using population tax data.

[11] In these estimates, the base-year double-claimed dependents include some dependents who were already repeat double-claimed in the base year. About one-third of double-claiming filers who do not repeat double-claim the following year do not even file a return, suggesting they had volatile incomes or were filing primarily to claim a dependent-based refundable tax credit, like the EITC or CTC.

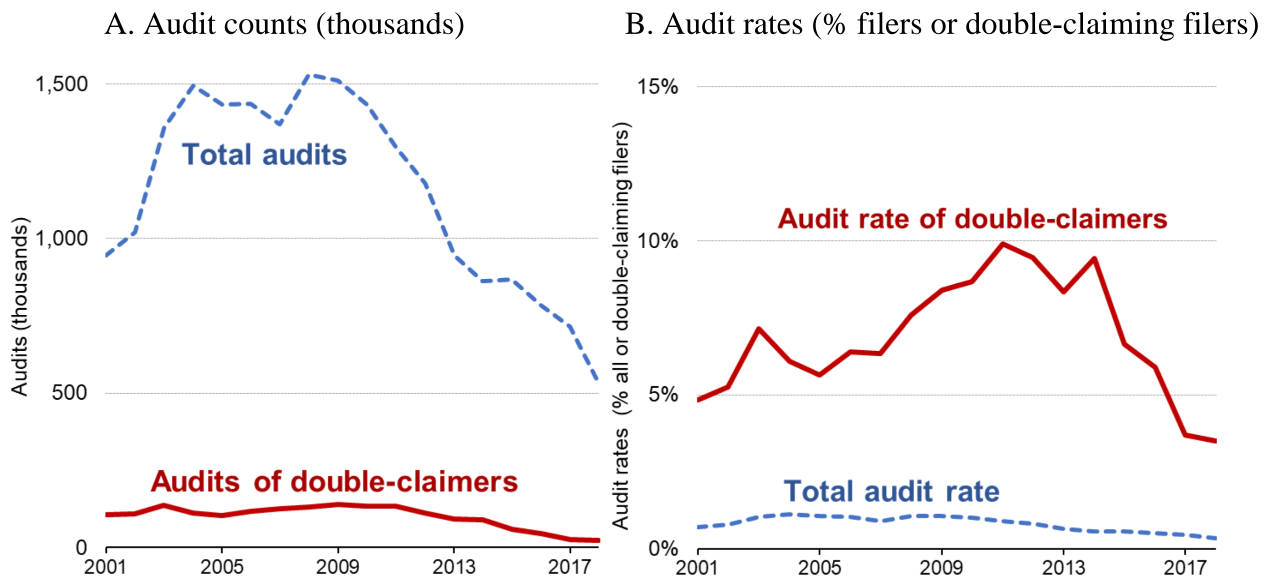
IV. Audits of double-claiming filers

If a double-claimed dependent was not dropped by a filer with an amended return, the IRS may start an audit to determine which filer can claim the dependent. Only one of the double-claiming filers is usually audited, although both are audited for one to two percent of double-claiming cases. Audits do not appear associated with which double-claimed return was filed first or second, nor is there clear evidence of earlier filing after a double-claiming case that would support a "race to file first." We find that audit rates roughly double the second year a dependent is double-claimed, which is consistent with our analysis above regarding repeat double-claiming. Among double-claiming filers, the audit typically ends just over one year (median of 15 months) after the date the second double-claiming return is received. The IRS usually adjusts the taxes of the filer losing the dependent.

The number of annual audits among double-claiming filers decreased by about 80,000 over the last two decades. The number of all annual audits also decreased over the last two decades (Figure 4A). Double-claiming audit rates, however, followed an inverted U-shape (Figure 4B). Between 2001 and 2011, audit rates of double-claiming filers increased from 5% to 10%, as the total number of double-claiming audits was steady, but the number of double-claiming filers decreased by about half. Between 2011 and 2018, audit rates of double-claiming filers fell by more than half (from 10% to 4%) in tandem with overall audit rate decreases (from 0.9% to 0.3%). Note that relative to all filers, double-claiming filers are about nine times as likely to be audited.

Figure 4: Audits, overall and among double-claiming filers, tax years 2001–2018

A. Audit counts (thousands) B. Audit rates (% filers or double-claiming filers)



Notes: Audits are shown through tax year 2018 because tax year 2019 audits may have been slowed by Covid-related issues, and it can take several years for audits to be completed. Audits counts only include closed examinations and are by the tax year of the return (not fiscal year of the examination). *Source:* Authors' calculations using population tax data.

V. Discussion

Double-claiming of dependents contributes to tax noncompliance. For example, over half of improper EITC payments resulted from filers inappropriately claiming a child, usually because the child did not reside with the tax filer (Internal Revenue Service 2014). While this has been a perennial issue for tax compliance, this paper focuses on a bright spot: the decline in double-claimed dependents. We argue that most of this decline was from the rise in e-filed returns. This is because the IRS rejects e-filed returns if they include double-claimed dependents. We estimate that these rejections avoid about 80,000 annual audits and reduce annual tax credit overpayments by nearly $3 billion. This suggests compliance benefits could result from current IRS plans to expand paperless interactions with taxpayers.

Our analysis has limitations. First, there is no distinct policy change in the period analyzed that would allow for clear causal identification of why double-claiming declined. Second, the discussion here only considers changes in two factors: e-filing and divorce rates. Some other factors were relatively constant or had no clear pattern, like the share of double-claiming filers amending returns or subject to audits. Additional factors, such as increasing tax benefits of dependents, could push towards increasing counterfactual double-claiming had there not been a rise in e-filing. These factors could imply an even stronger impact of e-filing on double-claiming than discussed here.

E-filed returns are rejected for many reasons. While over one million rejections in 2009 were for double-claimed dependents, there were five million rejections for other reasons (Framinan, Hatton, and Silvia 2011). These e-file rejections may also have helped improve compliance and reduce the need for enforcement activities. Therefore, rejections from rising e-filing may help resolve the puzzle of estimated voluntary compliance rates remaining stable despite audit rates falling substantially.

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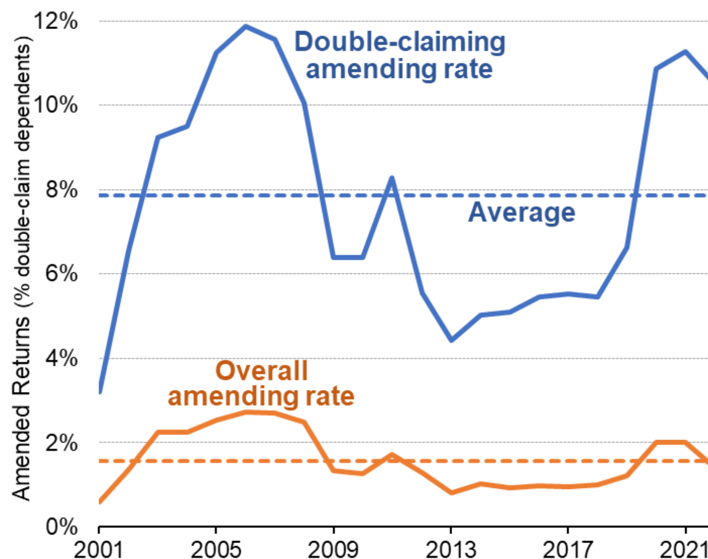
Appendix Figure A1: Amended return rates, 2001–2022



Notes: The solid blue line shows the number of amended returns divided by the number of double-claimed dependents, where both double-claiming filers are considered but usually only one amends. Amending rates fluctuated with incentives. In 2001, amending rates were low when the CTC first became refundable. Around when the IRS stopped mailing paper forms there was a sharp increase in e-filing and the amending rate fell. In 2020 and 2021, the amending rate increased when dependents were temporarily more valuable due to stimulus and expanded CTCs.
Source: Authors' calculations using population tax data.