Math Errors Committed on Individual Tax Returns: A Review of Math Errors Issued for Claimed Dependents

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FIGURES

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EXECUTIVE SUMMARY

Introduction

Math error authority allows the IRS to correct some types of errors on returns and send notices to taxpayers explaining the changes. It requires taxpayers who do not agree with the correction to respond within a specified time and request an abatement of tax.[1] However, if the taxpayer fails to request abatement timely, the IRS may collect the additional tax.[2]

The IRS processed 141 million individual tax returns in 2010, many of which contained errors in computations or lacked information necessary to process the return.[3] Using its math error authority to correct these errors during processing, the IRS issued more than 11.8 million math errors, some resulting in smaller refunds than the taxpayers originally claimed.[4] The number of math errors flagged by the IRS has increased over time. In fact, from 2005–2010, the number of math errors has increased by more than 150 percent or by about seven million errors.[5] These errors tend to rise substantially in years following significant tax law changes.

Hundreds of thousands of taxpayers receive math error notices for failure to provide a correct Taxpayer Identification Number (TIN) for a dependent, but a significant number subsequently prove to the IRS that they properly claimed the exemptions and associated tax credits. Once the taxpayer has proven that he or she properly claimed the credit, the IRS is obligated by law to reverse its math error corrections and issue any resulting refunds to the taxpayers.

Findings

TAS studied a statistically valid sample of tax year 2009 accounts in which the IRS reversed its math error adjustments related to dependent TINs.[6] The research identified all individual accounts that had received any one of the three standard math error notices related to incorrect or missing dependent TINs affecting the dependency exemption and related

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1   Internal Revenue Code (IRC) § 6213(b)(2)(A). The ability of a taxpayer to protest a math error assessment, even without substantiating explanation, is addressed in Internal Revenue Manual (IRM) 21.5.4.4.4 (Oct. 1, 2010) and IRM 21.5.4.4.5 (Sept. 9, 2010).

2   IRC §§ 6213(g)(2)(A) through 6213(g)(2)(E). At this point, the assessment cannot be appealed in the U.S. Tax Court.

3   IRS, Fiscal Year (FY) 2010 Data Book, 2010 Table 2, *Number of Returns filed by Type of Return, Fiscal Years 2009 & 2010*.

4   IMF Math Error Report (Dec. 24, 2010) 11,858,691 math errors for returns processed in 2010.

5   IMF Math Error Reports (Dec. 2005, Dec. 2010, and Nov. 5, 2011). This figure compares full year 2005 counts to 2010. If considering the most current year data, math errors increased by about 60 percent between 2005 and 2011 or by more than three million math errors.

6   TAS reviewed a random sample of 501 cases with the math error codes for missing or incorrect dependent TINs (Notice Codes 604, 605, and 743) and whose account included an action to reverse a previous disallowance. Ten cases were dropped from the sample because of incomplete data. After reviewing the data, we decided the information was not available to determine if the missing TIN information (Notice Code 604) could be resolved internally. After preliminary analyses, the 89 cases with this math error were dropped from the sample. This left us with a total sample size of 402, which is statistically valid at the 95 percent confidence level and a maximum margin of error of five percent.

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non-refundable credits or the additional child tax credit, or the Earned Income Tax Credit (EITC).[7] Brief descriptions of the three math error notices are contained in Table 1:

TABLE 1, Description of Dependent TIN Math Error Notices

Notice Code	General Description[A]
604	We disallowed one or more exemptions due to a missing dependent TIN. This change may also affect related tax credits.
605	We disallowed one or more exemptions due to an incorrect TIN or name. This change may also affect related tax credits.
743	We disallowed EITC claimed on your return due to an incorrect or missing dependent TIN or name.

A. For a literal and complete description, see Appendix Table 14.

For tax year 2009, nearly 300,000 returns contained errors with dependent taxpayer identification numbers.[8] On average, one dependent TIN error was made per return, and the vast majority of these returns were filed on paper forms. More than half of these returns included a married filing joint filing status and another 28 percent used head of household status. About half of the returns were prepared by the taxpayer and the other half by paid preparers.

In the cases studied for tax year 2009, the IRS subsequently reversed at least part of its dependent TIN math errors on 55 percent of the returns with incorrect TINs. In other words, the IRS denied part of the taxpayer's claim when initially processing the return. However, when later contacted by the taxpayer, the IRS reinstated many credits originally claimed by the taxpayer. Figure 1 shows a breakdown of the type and number of credits claimed by those with incorrect dependent TIN math errors in tax year 2009 and details how many of the claims were allowed or disallowed by the IRS at the time the return was filed.

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7   TAS analyzed data for returns with math error codes, or Taxpayer Notice Codes (TPNC), pertaining to missing or incorrect dependent TINs (math error codes 604, 605, or 743) for tax year 2009. Math error code 604 is issued for a missing TIN, while math error codes 605 and 743 are issued on returns where the TIN or name does not match SSA records. In some instances, math error code 743 may also be issued for a missing dependent TIN.

8   Prior to 2009, errors related to dependent TINs were the top errors, but in 2009 errors involving the Recovery Rebate became the most frequent. In 2010 and 2011, errors associated with the Making Work Pay Credit became the most common math errors.

FIGURE 1, The Number of Returns with Credits Claimed by Those with Incorrect Dependent TIN Math Errors for TY 2009 Shown by Allowed vs. Disallowed at Return Filing[9]

	Child Tax Credit	Additional Child Tax Credit	Earned Income Tax Credit	Education Credits	Child & Dependent Care Credit	Other Credits
Total Credits Claimed	71,035	78,579	63,177	11,179	13,708	375
Allowed	58,231	45,175	33,461	8,556	8,118	375
Disallowed	12,804	33,404	29,716	2,623	5,590	0

Source: Compliance Data Warehouse IRTF and IMF

Figure 2 shows a breakdown of the dollar amount of credits claimed by those with incorrect dependent TIN math errors for tax year 2009, shown by credit type and how many dollars claimed were initially allowed or disallowed by the IRS. The IRS disallowed over $200 million of credits claimed on returns with incorrect dependent TINs.

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[9] TAS analysis of TY 2009 data from Compliance Data Warehouse's (CDW) Individual Return Transaction File (IRTF) and Individual Master File (IMF) (Oct. 2011).
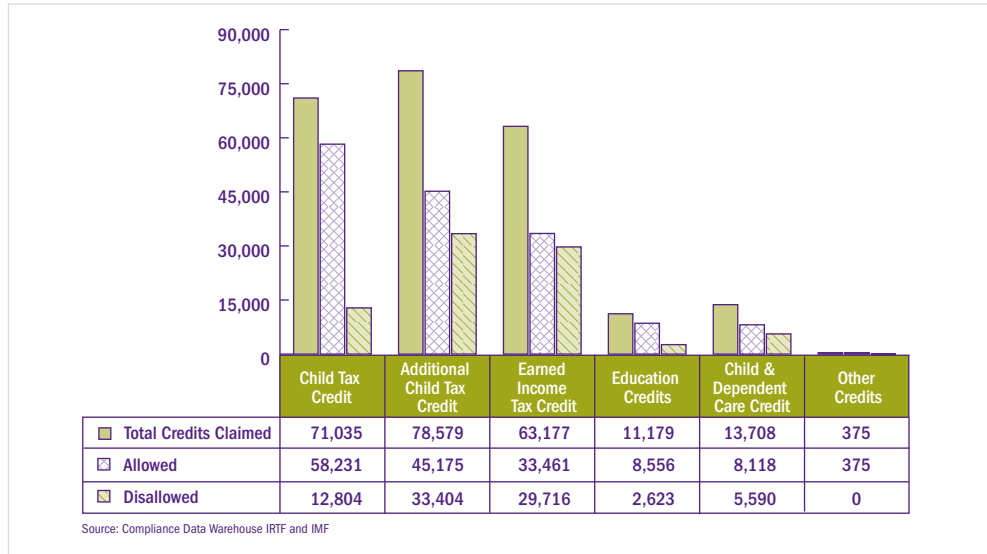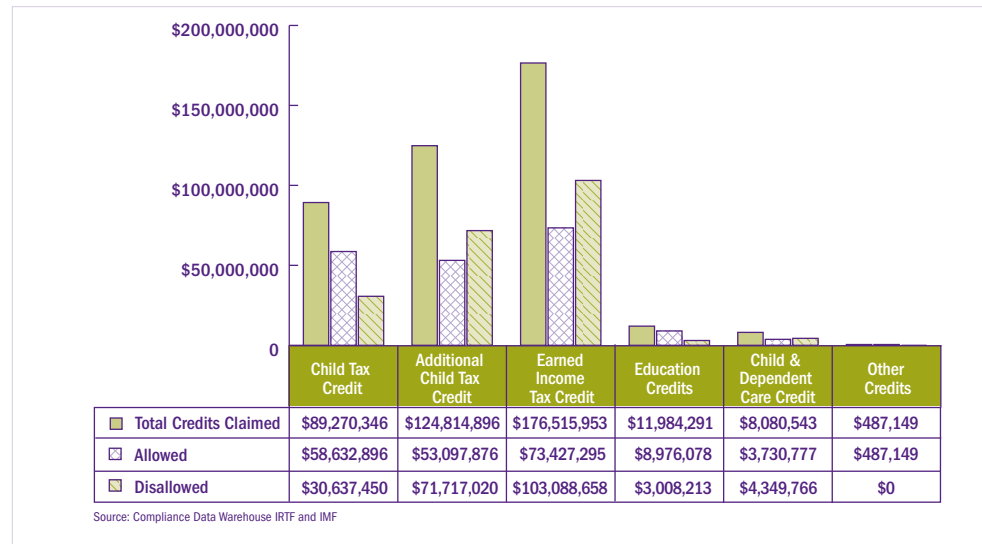
FIGURE 2, The Dollar Amount of Credits Claimed by Those with Incorrect Dependent TIN Math Errors for TY 2009 Shown by Allowed vs. Disallowed at Return Filing[10]

	Child Tax Credit	Additional Child Tax Credit	Earned Income Tax Credit	Education Credits	Child & Dependent Care Credit	Other Credits
Total Credits Claimed	$89,270,346	$124,814,896	$176,515,953	$11,984,291	$8,080,543	$487,149
Allowed	$58,632,896	$53,097,876	$73,427,295	$8,976,078	$3,730,777	$487,149
Disallowed	$30,637,450	$71,717,020	$103,088,658	$3,008,213	$4,349,766	$0

Source: Compliance Data Warehouse IRTF and IMF

Ultimately about 150,000 taxpayers had their refunds restored to them. On average, the IRS subsequently allowed nearly $2,000 per return after the initial disallowance, with a delay of nearly three months.[11] Table 2 below shows the details on the refund amounts allowed by the IRS after math error processing.

TABLE 2, Refunds Subsequently Allowed on Returns with Incorrect TINs for TY 2009

	TY 2009 Population	
Incorrect TIN Math Errors	**Per Return**	**Total**
$ refunded after adjustment	$1,982 (avg.) $1,560 (median)	$292,370,605
Weeks to issue refund for reversed ME	12 (avg.) 4 (median)	1,775,795
Interest paid related to reversed ME	$34 (avg.) $18 (median)	$2,336,019

The results of our sample review show that the IRS had the information necessary to resolve 56 percent of these 2009 dependent TIN math errors and could have avoided making a math error adjustment.[12] This would have significantly reduced taxpayer burden. Using readily available information to resolve TIN errors would have prevented math error

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10   TAS analysis of TY 2009 data from CDW IRTF and IMF (Oct. 2011).

11   TAS analysis of TY 2009 data from CDW IRTF and IMF (Dec. 2010).

12   The IRS refers to math error notices as taxpayer notice codes. The sample results have a margin of error of plus or minus five percent at the 95 percent confidence level.

notices and delays in releasing nearly 75,000 refunds. Additionally, the IRS paid more than $2.3 million in interest for corrected math errors relating to incorrect dependent TINs for tax year 2009.

TAS's study also found that a portion of taxpayers who appear to have valid dependent TINs, never reply to the IRS math error notice, and are actually entitled to dependent related exemptions and credits which they never receive. TAS reviewed a sample of 105 cases that had a math error for missing or incorrect dependent TINs (notice codes 605 or 743) and had no refund issued. TAS found that 38 percent of these cases had either received a refund after TAS pulled its original sample or the adjustment was made but the refund was either offset or the balance due was reduced. However, 62 percent of the sample still had no adjustment.

TAS determined that the IRS could have corrected and allowed all of the dependent TINs in 41 percent of the cases that still had no adjustment, if the IRS had examined its own records. It could have corrected at least one of the dependent TINs in another 11 percent of these cases. These sample percentages translate into over 40,000 taxpayers who may not have received refunds they were entitled to.[13] Further, these 40,000 taxpayers lost at least $44 million related to disallowed dependent TINs, or an average of $1,274 per taxpayer.[14]

Recommendations

The National Taxpayer Advocate recommends that the IRS change its procedures to require that in cases of incorrect dependent TINs, employees conduct internal research to resolve these deficiencies before using math error authority to deny dependency exemptions and associated credits. The National Taxpayer Advocate further recommends that the IRS apply the methodology presented in this study to examine all math errors with significant volume and significant reversal rates to determine how it might expeditiously resolve such deficiencies rather than exercise its math error authority to deny taxpayer claims, thereby burdening taxpayers and creating IRS rework.

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[13]   These sample results have a margin of error of plus or minus 12 percent at the 95 percent confidence level.

[14]   Taxpayers who were ultimately due a complete reversal for disallowed dependent TINs lost an average $1,274 or median $1,113 per taxpayer.

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INTRODUCTION

Because of the extraordinarily large volume of tax returns the IRS receives each year (more than 141 million individual returns in 2010), efficient processing is vital to the IRS and taxpayers.[15] Congress first granted math error authority to the IRS in 1976 in response to the growing complexity of returns and to help the IRS streamline processing.[16] Math error authority allows the IRS to correct some types of errors on returns and send notices to taxpayers explaining the changes. It requires taxpayers who do not agree with the correction to respond within a specified time and request an abatement of tax.[17] However, if the taxpayer fails to request abatement timely, the IRS may collect the additional tax.[18]

Originally, math error authority applied only to calculation errors. Over time, Congress expanded the scope of math error authority to include other true math errors as well as some clerical errors (such as incorrectly entered dependent TINs) and other issues that are based more on "facts and circumstances." Recently, math error authority has been seen as a cost efficient method by which the IRS can stop erroneous credits from being allowed. Although internal data is frequently used by the IRS to make math error adjustments on credits and deductions for which it has the authority to do so, it does not use its own internal databases to fix errors on dependent TINs. This report demonstrates that the IRS has sufficient information to fix many dependent TIN transcription errors, saving the IRS time and money and saving taxpayers the burden of having to dispute the adjustment.

This study focuses on "math errors" that involve the requirement to provide a valid TIN for each dependent claimed on a return, and will investigate the impact on both taxpayers and the IRS. The IRS issues separate math error notices to advise the taxpayer of the disallowance of statutory credits[19] and the disallowance of the EITC.[20] These disallowances involve millions of dollars of tax credits to impacted taxpayers.[21] Nevertheless, these taxpayers are often entitled to the credits but do not receive their full refunds unless they contact the

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[15] IRS, FY 2010 Data Book, 2010 Table 2- *Number of Returns filed by Type of Return, Fiscal Years 2009 & 2010*. For a historical and demographic analysis of the growth and expansion of the United States taxpayer population, see *From Tax Collector to Fiscal Automation: Demographic History of Federal Income Tax Administration, 1913-2011, supra.*

[16] Internal Revenue Code (IRC) § 6213(g)(2)(C) and Pub. L. No. 94-455, 90 Stat. 1520 (Oct. 4, 1976). For a detailed discussion of the history and issues pertaining to IRS math error authority, see *Expansion of Math Error Authority and Lack of Notice Clarity Create Unnecessary Burden and Jeopardizes Taxpayer Rights*, *supra*; *Mandate that IRS, in Conjunction with the National Taxpayer Advocate, Review Any Proposed Expanded Math Error Authority to Protect Taxpayer Rights*, *supra*; National Taxpayer Advocate 2003 Annual Report to Congress 113-121(Most Serious Problem: *Math Error Authority*); National Taxpayer Advocate 2002 Annual Report to Congress 185-197 (Legislative Recommendation: *Math Error Authority*).

[17] IRC § 6213(b)(2)(A). The ability of a taxpayer to protest a math error assessment, even without substantiating explanation, is addressed in IRM 21.5.4.4.4 (Oct. 1, 2010) and IRM 21.5.4.4.5 (Sept. 9, 2010).

[18] IRC §§ 6213(g)(2)(A) through 6213(g)(2)(E). At this point, the assessment cannot be appealed in the U.S. Tax Court.

[19] As used in its internal databases, the IRS defines *statutory credits* as: foreign tax credits, credit for child and dependent care expenses, education credits, retirement savings contributions credit, child tax credit, residential energy credits, and other credits.

[20] The Earned Income Tax Credit (EITC) is a refundable credit designed to provide an incentive to work and offset the burden of Social Security taxes for low income working families. IRC § 32.

[21] TAS Research (Sept. 2011). TAS analysis of 2009 data from CDW IRTF and IMF (Dec. 2010). More than $37 million in statutory credits claimed and over $100 million EITC credits claimed were initially disallowed by IRS in 2009 because of dependent TIN issues (math errors 605 or 743). See Figure 6 for more information.

IRS. When the taxpayer provides corrected dependent information, the IRS releases the full refund but only after a delay of several more weeks. In addition to the burden imposed on taxpayers to contact the IRS and to wait weeks to receive their entire refunds, this subsequent reversal of math errors and processing new refunds costs the IRS additional monies.

Some significant findings from this study follow:

- In calendar year 2010, almost 300,000 taxpayers were issued over 340,000 dependent TIN math errors for tax year 2009. Another 150,000 dependent TIN math errors were issued for prior year returns not filed until 2010.

- Dependent TIN math errors continue to occur in high volumes and rank among the most frequent types of math errors.

- The IRS initially denied about $200 million in credits, which were ultimately restored to taxpayers after math error processing. Taxpayers affected by dependent TIN math errors had an average refund amount of nearly $2,000 delayed 12 weeks.

- Another 40,000 tax year 2009 taxpayers were denied at least $44 million in refunds because they either did not dispute the IRS disallowance of their dependent TIN or were unsuccessful in doing so, even though internal IRS information was available to correct the TIN.

- Dependent TIN math errors conservatively cost the IRS about $650,000 to issue the notice and over $2.3 million in back interest after the taxpayer corrects the TIN.

BACKGROUND

What Is a Math Error?

Math error authority enables the IRS to increase its tax return processing capacity by quickly resolving simple mathematical or clerical mistakes and summarily assessing the adjusted tax. If given authority under IRC § 6213(b) or (g), the IRS can make an assessment without issuing a statutory notice of deficiency (SNOD).[22] Once the IRS notifies taxpayers of a math error, they have 60 days to request abatement of the additional tax. If the taxpayer makes a timely request, but does not provide the necessary information to correct the account, the IRS will abate the assessment and follow formal deficiency procedures to reassess the tax (*i.e.*, send the taxpayer a SNOD, which provides the taxpayer the opportunity to petition the United States Tax Court).[23] However, if the taxpayer fails to request abatement timely, the tax is assessed and IRS may collect the additional tax.[24] At this point, the assessment cannot be appealed in the U.S. Tax Court.[25]

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[22] IRC § 6213(b)(2)(A).

[23] IRC § 6213(b)(2)(A). The ability of a taxpayer to protest a math error assessment, even without substantiating explanation, is addressed in IRM 21.5.4.4.4 (Oct. 1, 2010) and IRM 21.5.4.4.5 (Sept. 9, 2010).

[24] IRC §§ 6213(g)(2)(A) through 6213(g)(2)(E).

[25] Tax Court is the only pre-payment judicial forum (*i.e.*, the taxpayer does not have to pay the liability to contest the assessment in Tax Court, unlike in Federal District Court or the Court of Federal Claims where the taxpayer has to pay the tax and then file for a refund claim).

How Do Math Errors Relate to TINs?

IRC § 151(e) states that for the IRS to allow a deduction for personal exemptions (including the taxpayer, spouse, and any dependents) a return must contain a taxpayer identification number.[26] IRC § 6213(g)(2) provides the IRS authority to correct math and clerical errors during processing, including calculation errors and entries that are inconsistent or exceed statutory limits. The definition of a math or clerical error includes the omission of a correct TIN.[27] The TIN may be considered incorrect or invalid generally if the number or last name is different from Social Security Administration records (or IRS records for taxpayers who use an Individual Taxpayer Identification Number (ITIN)). Thus, if a TIN for a personal exemption is not provided or is not accurate, the IRS may use math error authority to disallow the exemption, and any dependent-related credits, including the EITC, the Dependent Care Credit, or the Child Tax Credit.[28]

In applying this aspect of math error authority, the IRS directs its processing employees to perform different levels of research depending on the use of the TIN.[29] If the TIN is used for a primary taxpayer, employees are to research the return, its attachments and W-2s, and check the Integrated Data Retrieval System (IDRS) to identify the correct TIN. If they do not find a valid number, the employees send the taxpayer a "soft" notice requesting it.[30] If the number is for a secondary taxpayer (spouse), employees are to search the return, attachments, and W-2s, and perform limited IDRS research only if specific conditions are apparent, such as self-employment or an individual retirement account for the secondary taxpayer. If no valid TIN for the secondary taxpayer is found in these limited circumstances, employees also send the taxpayer a "soft" notice requesting it.[31] In both cases, the lack of a valid TIN prevents the IRS from processing the return further, and the IRS makes internal and external efforts to obtain the TIN.

However, if an incorrect TIN is used for a dependent, employees are instructed to search only the return and attachments for a correct number. If a correct TIN is not found, employees disallow the dependent exemption and associated credits. The IRS will continue processing the return and generate a math error notice advising the taxpayer a TIN error was made and how the correction of this error affected their account (*i.e.*, disallowance of the exemption and any related credits). Taxpayers may respond to these math error notices by phone, in person, or in writing with the correct TIN or name and have the dependent exemption and associated credits reinstated.

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26 IRC § 151.

27 IRC 6213(g)(2).

28 IRC §§ 6213(g)(2)(F), (H), and (I).

29 IRM 3.12.3, *Error Resolution, Individual Tax Returns* (Jan. 1, 2011).

30 IRM 3.12.3.4.3.2(3) (Jan. 1, 2011). The soft notice is correspondence requesting the missing TIN. The IRS will suspend action for 40 days, using IDRS command code SSPDN, ERS Action Code 221. See IRM Exhibit 3.12.10-4 (Jan. 1, 2011).

31 IRM 3.12.3.4.3.4(3) (Jan. 1, 2011). *See also Error Resolution System (ERS) for Individual Master File Documents, Training Job Aid* 2532-701 (Rev. 10-2011).

This study focuses on math error codes related to an incorrect or missing TIN. The table below provides a brief description of each of these math error codes.

TABLE 3, Description of Dependent TIN Math Error Notices

Notice Code	General Description[A]
604	We disallowed one or more exemptions due to a missing dependent TIN. This change may also affect related tax credits.
605	We disallowed one or more exemptions due to an incorrect TIN or name. This change may also affect related tax credits.
743	We disallowed EITC claimed on your return due to an incorrect or missing dependent TIN or name.

A. For a literal and complete description, see Appendix Table 14.

METHODOLOGY

TAS analyzed data for returns with math error codes pertaining to missing or incorrect dependent TINs (Notice Codes 604, 605, and 743) for tax year 2009, typically returns filed in calendar year 2010.[32] The data were obtained from the IRS's Compliance Data Warehouse (CDW), Individual Returns Transaction File (IRTF), and Individual Master File (IMF). We limited the review to taxpayers whose current-year dependent claims were originally disallowed by the IRS, and were later reversed to allow at least part of the original claim. TAS also used a data collection instrument (DCI) to obtain specifics about the type of incorrect data reported by taxpayers and to determine if the IRS possessed internal data to resolve the error.

TAS reviewed a random sample of 501 cases with the math error codes for missing or incorrect dependent TINs (Notice Codes 604, 605, and 743) and whose account included an action to reverse a previous disallowance. Ten cases were dropped from the sample because of incomplete data. After reviewing the data, we decided the information was not available to determine if the missing TIN information (Notice Code 604) could be resolved internally. After preliminary analyses, the 89 cases with this math error were dropped from the sample.[33] This left us with a total sample size of 402, which is statistically valid at the 95 percent confidence level with a maximum margin of error of five percent.

Additionally, TAS pulled a sample of tax year 2009 cases whose dependent exemption claims were disallowed and where a full refund was not issued by August 2011 (cycle 32), essentially a control group, to see if IRS had the information available to fix the dependent TIN problem and allow the claim. This sample of 105 cases included only those that were charged math error codes 605 or 743 for missing or incorrect dependent TINs. This

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32 Math error code 604 is issued for a missing TIN, while math error codes 605 and 743 are issued on returns where the TIN or name does not match SSA records. In some instances, math error code 743 may also be issued for a missing dependent TIN.

33 All cases involving math errors 605 and 743 were retained. Seven cases that contained both math error 604 and 743 are included because it was not clear whether the errors were related to a missing dependent TIN or a name mismatch.

supplemental sample is statistically valid at the 95 percent confidence level with a nine and one half percent maximum margin of error.[34]

TAS also analyzed data from the Electronic Online-Output Network System (EONS) IMF Error Code report (480-62-11). This report provides counts of math errors by error type and processing center on a calendar year basis. We analyzed data for calendar years (CY) 2005–2011 (as of November 5).

Limitations

Some data gathered on the DCI required reviewers to exercise judgment as to what type of error occurred and whether the IRS had internal data available to resolve the error. To minimize bias and different interpretations, reviewers were thoroughly briefed on the purpose of the data collection and given written guidelines on how to define the attributes. The number of individuals collecting data was kept to a minimum, and a subset of the data was reviewed for accuracy.

OBJECTIVES

The main objective of this study was to determine how many dependent TIN math errors could be corrected from internal IRS information. The study also sought out data on how many math errors involve dependent TINs and how dependent TIN math errors affect taxpayers and the IRS. Finally, the study attempts to determine how often and in what amounts the IRS reverses dependent TIN math errors. To understand how significant the problem of missing or incorrect dependent TINs may be, we have also compared them against math errors as a whole.

The research questions for this study follow:

- **How many math errors do taxpayers commit related to missing or incorrect dependent TINs?**
    - How many math errors for incorrect or missing dependent TINs does the IRS issue annually?
- **How do dependent TIN math errors compare with the entire math error population?**
    - How many and what types of math errors are committed annually?
    - How do incorrect dependent TIN issues rank when compared to other math errors?

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34   Later in the study, we look at a subset of this sample, which increases this margin of error to 12 percent for those with a late issued adjustment or refund. This margin of error is based on stratifying the sample by whether the account was adjusted in some manner or had a late issued refund as compared to accounts that did not have an adjustment.

- **What are the characteristics of returns with incorrect dependent TIN math errors?**

  - What are some general traits of tax returns with incorrect dependent TINs?

  - What TIN type (SSN, ITIN, etc.) do primary taxpayers whose returns have math errors for incorrect or missing dependent TINs have?

  - How many dependent exemptions per return are initially claimed on returns with incorrect dependent TIN math errors?

  - Who prepares the returns that contain math errors for incorrect dependent TINs (self-prepared, paid preparer, etc.)?

  - What filing method was used to file returns with math errors for incorrect dependent TINs (paper vs. electronic)?

- **How much do dependent TIN math error reversals cost the IRS and taxpayers?**

  - What are the IRS costs related to reversed math errors?

  - What type of burden do taxpayers experience as a result of receiving these math error notices?

  - How many and what types of credits are claimed by taxpayers with incorrect TINs?

  - How many dollars per return are refunded to taxpayers after the IRS reverses the math error adjustments?

  - How long does the IRS take to issue refunds related to reversed math errors?

- **How many dependent TIN errors could be corrected from internal IRS information?**

  - How many math errors for incorrect or missing dependent TINs are later reversed?

  - What are the underlying reasons for math error adjustments for incorrect or missing dependent TINs? How many are due to an incorrect or missing TIN or for an incorrect or missing name?

  - How many returns are issued math errors for incorrect dependent TINs that are not reversed even though the taxpayer is actually eligible to claim the dependent?

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FINDINGS

Math Errors Attributable to Dependent TINs Remain High.

For calendar year 2010, the IRS assessed about 341,000 math errors related to dependent TINs against nearly 300,000 taxpayers.[35] As demonstrated by the following figure, this volume has been relatively stable throughout the last several years, although the numbers are decreasing slightly as more taxpayers file electronic returns.[36]

FIGURE 3, Volume of Math Errors for Missing Dependent TIN (604), Incorrect Dependent TIN (605), and Incorrect Dependent TINs or Name Mismatch with EITC Claimed (743) for Calendar Years 2005–2011 (as of November 5, 2011)[37]

Source: Math Error Report, EONS

Note: From this point forward we exclude math error 604, missing dependent TIN, from our analyses (except where specifically stated) because there was insufficient information on file to determine if IRS could have resolved the issue internally.

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35 Each year several thousand of these math error notices are also issued on prior tax year returns. The IRS data on the volume of math error codes issued is based on calendar year and includes current and prior year returns. The TAS study focuses on current year returns and taxpayers who received a reversal of the disallowed claim.

36 Electronic returns will generally reject if a dependent's TIN is listed incorrectly.

37 IRS, IMF Math Error Reports (Dec. 2005 through Dec. 2010, and Nov. 5, 2011). The totals include all individual tax return math error notices in each calendar year (could be current or prior year returns). Original figures for 2008 were overstated because a counter was not reset at the end of 2007. For this chart, 2008 figures were revised by subtracting 2007 figures from the reported 2008 figures.

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Despite Overall Growth in Math Errors, Dependent TIN Math Errors Continue to Comprise a Significant Number of Math Errors.

Overall Growth in Math Errors

The overall number of math errors flagged by the IRS has increased over time. The IRS issued nearly 12 million math errors for individual tax returns processed in calendar year 2010 (primarily tax year 2009 returns). As shown in the chart below, the number of math errors has increased by more than 150 percent — or about seven million errors — from 2005–2010.[38]

FIGURE 4, Math Errors on Individual Tax Returns, Calendar Years 2005 – 2011 (as of November 5, 2011)[39]

	2005	2006	2007	2008	2009	2010	as of 11/5/11
Total Math Errors	4,780,137	4,678,443	4,463,717	4,300,022	14,102,490	11,858,691	7,661,072

Source: Math Error Report, EONS
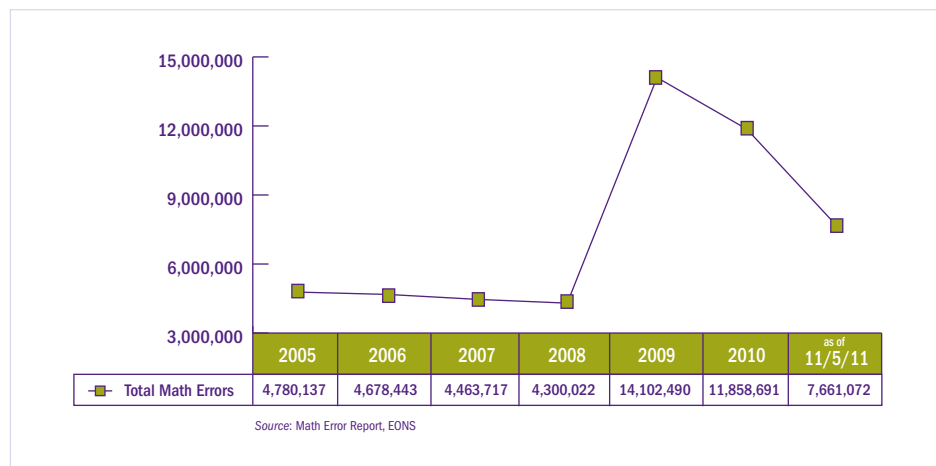
Math errors tend to rise substantially in years following significant tax law changes. In 2008, the Recovery Rebate Credit and First-Time Homebuyer Credit first came into effect, and the IRS received expanded math error authority to administer claims.[40] Effective for TY 2009, the IRS received additional math error authority for the Making Work Pay Credit.[41] As shown in Figure 4, the most significant increases in math errors occurred after 2008. Table 12 in the Appendix (and accompanying Table 13) show that the most common

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[38] IMF Math Error Reports (Dec. 2005, Dec. 2010, and Nov. 5, 2011). This figure compares full year 2005 counts to 2010. If considering the most current year data, math errors increased by about 60 percent between 2005 and 2011, or by almost three million errors.

[39] IRS, IMF Math Error Reports (Dec. 2005 through Dec. 2010, and Nov. 5, 2011). The totals include all individual tax return math errors in each calendar year. Original figures for 2008 were overstated because a counter was not reset at the end of 2007. For this chart, 2008 figures were revised by subtracting 2007 figures from the reported 2008 figures.

[40] Economic Stimulus Act of 2008, Pub. L. No. 110-185, § 101, 122 Stat 613, 613-617 (2008); Housing and Economic Recovery Act of 2008, Pub. L. No. 110-289, § 3011, 122 Stat. 2654, 2888-2891. In 2009 the IRS received additional math error authority for the first-time homebuyer credit. Worker, Homeownership, and Business Assistance Act of 2009, Pub. L. No. 111-92, §§11, 12, 123 Stat. 2848, 2989-2992 (2009).

[41] American Recovery and Reinvestment Act of 2009, PL 111-5, § 1001, 123 Stat. 115, 309-312 (2009).

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math errors in 2009 - 2011 relate to the Recovery Rebate and the Making Work Pay Credit.[42] These changes — and their associated math errors — topped the list of most frequently committed math errors for the past three years.

Dependent TIN Math Errors Compared with Overall Math Errors

In the last five years, only 27 different math error codes (out of more than 400 available) have made the top 20 in terms of frequency, and 18 of those errors occurred over 100,000 times each per year. The top 20 math errors accounted for about 70 percent of all math error notice codes in the four years leading up to 2009. However, math errors spiked in 2009 –due to the Recovery Rebate and Making Work Pay Credit–to about three times as many as in each of the years from 2005–2007, with the top 20 accounting for about 90 percent of the total of all math errors.

The "clerical" incorrect dependent TIN math errors are the only ones in the top 20 that are not "calculation" math errors.[43] These errors disallow dependent(s) claimed on the return and any credits related to that dependent (*e.g.*, child tax credit, dependent care credit).

While the number of dependent TIN math errors has remained relatively consistent over the past few years, the increase of new types of math errors may have downplayed the ongoing significance of dependent TIN errors. Prior to 2009, errors related to dependent TINs were the top rated math errors, but their ranking dropped beginning in 2009. However math errors attributed to incorrect or missing dependent TINs have remained in the top 21 most frequent math errors since calendar year 2005, as shown in the following table.[44]

TABLE 4, Ranking Among Most Frequently Issued Math Errors by Year, by Math Error[45]

Notice Code	2005	2006	2007	2008	2009	2010	2011
Incorrect TIN 605	1	1	1	1	4	9	8
EITC with Incorrect or Missing TIN 743	9	12	13	14	17	20	21
Source: Math Error Report, EONS							

[42] The First-Time Home Buyers Credit, a credit available beginning in 2008 and ending September 30, 2010, was responsible for a sizable number of math errors (Notice Code 346); however, they are not captured in the IRS Math Error Report. IRC § 36. The Recovery Rebate Credit was a one-time benefit for taxpayers who did not receive a full economic stimulus payment the previous year and whose circumstances changed, making them eligible for some or all of the unpaid portion. IRC § 6428. The Making Work Pay Credit was a refundable credit of up to $400 for working individuals and up to $800 for married taxpayers filing joint returns, created by the American Recovery and Reinvestment Act of 2009. American Recovery and Reinvestment Act of 2009, PL 111-5, § 1001, 123 Stat. 115, 309-312 (2009); IRC § 36A.

[43] These dependent TIN math errors include incorrect Social Security numbers, ITINs, or adoption taxpayer identification numbers (ATIN).

[44] For a complete breakdown of the top 20 most frequently committed math errors for 2007 through 2011 and an explanation of the reason for the math error, see Tables 12 and 13 in the Appendix.

[45] IRS, IMF Math Error Reports (Dec. 2005 through Dec. 2010, and Nov. 5, 2011). The totals include all individual tax return math error notices in each calendar year. Math Error 604, related to missing TINs, ranked anywhere from the fifth to the fifteenth most frequently committed math error for calendar years 2005 - 2011 (through Nov. 5, 2011).

While dependent TIN math errors may not currently be the top math errors, they continue to comprise a significant number of overall math errors. As seen in Table 5, dependent TIN math errors accounted for about six percent of math errors in 2011, nearing half a million math errors.[46] This percent is much lower than in previous years where it consistently comprised about 15 percent of math errors. The drop is primarily due to the dramatic increase in errors for new tax provisions such as those for the Recovery Rebate Credit and Making Work Pay Credit.[47] Thus, with the sunsetting of these credits, dependent TIN math errors will probably constitute a much greater percentage of math errors in future years.

TABLE 5, Overall Math Errors, by Year[48]

Year	Dependent TIN Errors				Total # of Overall Math Errors	Dependent TIN Math Errors as a % of Overall Math Errors
	Missing TIN Math Error Notice Code 604	Incorrect TIN Math Error Notice Code 605	EITC Incorrect or Missing TIN Math Error Notice Code 743	Total # of Dependent TIN Math Errors		
2005[49]	178,403	439,814	128,232	746,449	4,780,137	15.6%
2006[50]	173,967	392,447	110,552	676,966	4,678,443	14.5%
2007[51]	221,256	364,431	98,977	684,664	4,463,717	15.3%
2008[52]	176,719	342,617	101,913	621,249	4,300,022	14.4%
2009[53]	191,325	287,270	83,108	561,703	14,102,490	4.0%
2010[54]	154,958	284,397	84,724	524,079	11,858,691	4.4%
2011[55]	148,346	239,851	74,021	462,218	7,661,072	6.0%

Source: Math Error Report, EONS

Characteristics of Returns with Incorrect Dependent TIN Math Errors

It is helpful to understand some basic traits of returns with dependent TIN math errors. Table 6 compares returns with dependent TIN errors with those of all individual tax returns. Of the returns looked at for tax year 2009 with dependent TIN math errors, on average, one dependent TIN error was made per return. Returns with dependent TIN errors claim more than three times the number of dependents, on average, than individual tax returns overall.

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[46] This count includes all math errors committed on returns processed in 2011, both current and prior year.

[47] A large number of math errors committed were related to the First-Time Home Buyers Credit (FTHBC), but those were not part of the report.

[48] For purposes of calculating the number of dependent TIN math errors as a percentage of overall math errors, this table includes math error notice code 604.

[49] IMF Math Error Report (Dec. 26, 2005).

[50] IMF Math Error Report (Dec. 24, 2006).

[51] IMF Math Error Report (Dec. 30, 2007).

[52] IMF Math Error Report (Dec. 28, 2008).

[53] IMF Math Error Report (Dec. 27, 2009).

[54] IMF Math Error Report (Dec. 24, 2010).

[55] IMF Math Error Report (Nov. 5, 2011).

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TABLE 6, Characteristics of Returns with Incorrect or Missing Dependent TINs compared with All Individual Returns

	Math Error 605 or 743 Returns		All Individual Tax Returns
	Count or Percentage	Total Amount	Count or Percentage
Dependent Exemptions Claimed[56]	2.2 (avg) 2.0 (median)	324,503	0.7 (avg) 0.0 (median)
Preparer type for returns with incorrect TIN	50.5% (pd preparer) 49.3% (self prepare) 0.2% (IRS prepared)	74,246 (pd preparer) 72,902 (self prepare) 343 (IRS prepared)	59.4% (pd preparer) 40.5% (self prepare) 0.1% (IRS prepared)
Filing Method	4.5% (electronic) 95.5% (paper)	6,681 (electronic) 140,810 (paper)	78.9% (electronic) 28.1% (paper)
Filing Status	18.9% (single) 51.7% (MFJ) 1.3% (MFS) 28.1% (HOH) 0.0% (widow)	27,941 (single) 76,281 (MFJ) 1,874 (MFS) 41,396 (HOH) 0 (widow)	44.7% (single) 38.2% (MFJ) 2.0% (MFS) 15.0% (HOH) 0.1% (widow)

Source: Compliance Data Warehouse IRTF and IMF

Taxpayers' Filing Status and Their Method of Filing Returns

More than half of the returns with dependent TIN errors had a married filing joint filing status and another 28 percent used a head of household status. These numbers are significantly higher than the breakdown of filing status for all individual tax returns.

Half of the returns with dependent TIN errors were prepared by the taxpayer and the other half by paid preparers. These returns are only slightly more likely to be self-prepared than individual tax returns overall. Thus, TIN errors cannot be attributable only to taxpayers preparing their own returns.

The overwhelming majority of returns with dependent TIN errors — over 95 percent — were filed on paper forms. This contrasts with individual returns overall where almost 80 percent are filed electronically. This fact is not surprising as a tax return's TINs, including dependent TINs, are electronically reviewed by the IRS prior to the return being accepted. Returns with incorrect TINs are generally rejected until the TIN is corrected. Thus, electronic filing usually prevents dependent TIN errors.

ITIN Filers Are More Likely to Be Assigned a Missing TIN Math Error than SSN Filers.

ITIN filers, who are but a small part of the filing population, receive a large number of math error notices for missing or incorrect dependent TINs. As we noted from the sample, a large component — over 26 percent — of those with missing dependent TIN (code 604) errors reflect primary taxpayers filing with Individual Taxpayer Identification Numbers. ITINs are not nearly as prevalent in cases associated with an incorrect SSN, where less

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56   *Dependent Exemptions Claimed* excludes the primary and secondary taxpayer exemptions. Exemptions for disability or age are included.

than 15 percent of the returns included a primary taxpayer ITIN. Although a primary taxpayer filing under an ITIN does not preclude having dependents with Social Security numbers, many alien dependents will not qualify for an SSN and will need to apply for the ITIN.[57] When an alien taxpayer has a tax return filing requirement, but he, his spouse, or his dependent is ineligible to obtain an SSN, the taxpayer must file a tax return, absent a TIN, attached to the W-7, *Application for Individual Taxpayer Identification Number (ITIN).*[58] The processing of the tax return itself cannot commence until the processing of the ITIN application is concluded, at which time the IRS assigns the ITIN or rejects the application.[59]

Missing dependent TIN math errors are more common to ITIN filers than SSN filers. This is primarily because once the IRS rejects a dependent W-7 application (Form W-7, *Application for IRS Individual Taxpayer Identification Number*), it may send the return forward for processing without any TIN, and the processing unit will assign a missing dependent TIN math error code.[60] Although refund claim returns submitted with ITIN applications should be returned to taxpayers whose applications are rejected, balance due returns are not returned and are processed.[61] Once the IRS processes the return with the rejected ITIN application, it disallows the dependency exemption and associated credits with an assignment of math error 604 for a missing TIN.[62]

The EITC and Child Tax Credit Were More Likely to Be Claimed by Taxpayers with Incorrect TINs.

During initial processing, the IRS allowed some of the credits claimed on nearly 75 percent of the returns with incorrect dependent TINs. However the IRS only allowed 56 percent of the credit amount (dollars) claimed on these returns.[63] Often, some credits are allowed because only one of the dependents claimed on the return has an incorrect TIN. The IRS will still allow credits for any dependent with a correct TIN on the return. The EITC shows the highest disallowance rate of the credits reviewed, with the IRS disallowing almost half of the credits claimed and nearly 60 percent of the amount claimed. The IRS allowed almost 90 percent of statutory credits claimed, but less than 75 percent of the dollars claimed during return processing. The IRS also disallowed about 40 percent of the additional child tax credits and over half of the amounts claimed. See figures five and six for a detailed analysis of the allowance and disallowance of claimed credits by type and their dollar amounts.

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57 IRC § 6109; Treas. Reg. § 301.6109-1(d)(3).

58 *See* National Taxpayer Advocate 2010 Annual Report to Congress 319.

59 *Id*.

60 TAS Research (Sept. 2011). TAS analysis of 2009 data from CDW IRTF and IMF (Dec. 2010). For tax year 2009 Notice Code 604 (missing TIN), 47 percent or 36,000 of the notice assessments were resolved fully or partially.

61 IRM 3.21.263.6.1.32.4 (Jan. 1, 2011); IRM 3.21.263.7.2.4 (Jan. 1, 2011).

62 IRM 3.14.1.6.12.4.2 (Jan. 1, 2011). Math error inquiries for missing dependent TINs are worked under normal math error procedures. IRM 3.21.263.7.6 (Jan. 1, 2011). The taxpayer is given the explanation that "[f]or one or more of your dependents the SSN or ITIN was missing." This explanation is not adequate for the taxpayers whose ITIN applications for their dependents were rejected, because they had and continue to have no TIN to enter on the return.

63 Statutory credits are defined as: foreign tax credits, credit for child and dependent care expenses, education credits, retirement savings contributions credits, child tax credits, residential energy credits, and other credits. Some of the disallowances of credits may be due to other errors on the return.

FIGURE 5, The Number of Returns with Credits Claimed by Those with Incorrect Dependent TIN Math Errors for TY 2009 Shown by Allowed vs. Disallowed at Return Filing[64]

	Child Tax Credit	Additional Child Tax Credit	Earned Income Tax Credit	Education Credits	Child & Dependent Care Credit	Other Credits
☐ Total Credits Claimed	71,035	78,579	63,177	11,179	13,708	375
☒ Allowed	58,231	45,175	33,461	8,556	8,118	375
☒ Disallowed	12,804	33,404	29,716	2,623	5,590	0

Source: Compliance Data Warehouse IRTF and IMF
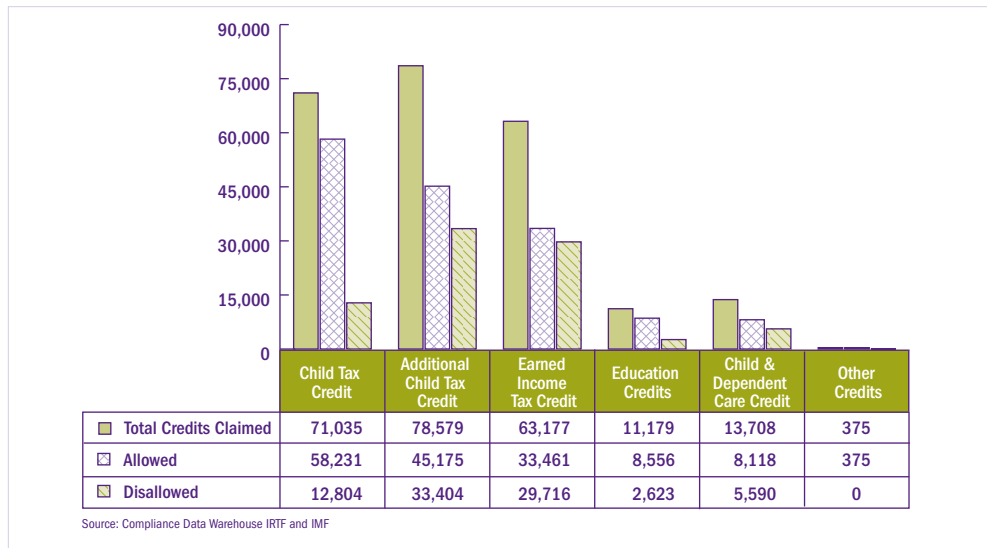
Figure 6 shows a breakdown of the dollar amount of credits claimed by those with incorrect dependent TIN math errors for tax year 2009, shown by credit type and how many dollars claimed were initially allowed or disallowed by the IRS. The IRS disallowed over $200 million of credits claimed on returns with incorrect dependent TINs.

FIGURE 6, The Dollar Amount of Credits Claimed by Those with Incorrect Dependent TIN Math Errors for TY 2009 Shown by Allowed vs. Disallowed at Return Filing[65]

	Child Tax Credit	Additional Child Tax Credit	Earned Income Tax Credit	Education Credits	Child & Dependent Care Credit	Other Credits
☐ Total Credits Claimed	$89,270,346	$124,814,896	$176,515,953	$11,984,291	$8,080,543	$487,149
☒ Allowed	$58,632,896	$53,097,876	$73,427,295	$8,976,078	$3,730,777	$487,149
☒ Disallowed	$30,637,450	$71,717,020	$103,088,658	$3,008,213	$4,349,766	$0

Source: Compliance Data Warehouse IRTF and IMF

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64 TAS analysis of TY 2009 data from CDW IRTF and IMF (Oct. 2011).

65 *Id.*

Demographic History	IRS Examination Strategy	Lien Study	Math Errors	Pay-As-You-Earn

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Costs and Burden of Reversing Math Errors

In TAS's review of 341,000 math errors issued for TY 2009 disallowing dependency exemptions and tax credits tied to dependents, we found that over half (about 184,000) of these math errors had a reversal of at least part of the amount disallowed.[66] Given the number of dependent TIN math errors and the high rate of reversal, our study also considered the costs and burden associated with reversing these math errors, for both the IRS and taxpayers. We were unable to calculate a total cost, since cost information for all aspects of charging and reversing dependent TIN math errors was not available. However, we were able to calculate a conservative estimate based on figures published on the IRS's internal website in February 2006, and unchanged as late as January 2008. The estimate includes costs for review of the math error notices, files, and downstream toll-free customer service, but not the expenses for supplies, postage and printing.

Reversed Math Errors Are a Significant Burden and Cost to the IRS

TAS Research was able to quantify some of the costs associated with sending out dependent TIN math error notices. The following items cost the IRS about three million dollars on tax year 2009 returns filed during 2010:

- Math error notice preparation, excluding printing, and mailing;

- Preparation and issuance of a second refund and correction notice; and

- Interest paid on delayed refund.

Costs vary depending on the type of notice sent to the taxpayer, as seen in the table below:

TABLE 7, Math Error Notice Costs Per Thousand (February 2006)

Costs per 1,000 Math Error Notices, February 2006		
Notice	**Description**	**Cost per 1,000**
CP11	Math Error, Balance due of $5 or more	$3,186.84
CP12	Math Error, Overpayment of $1 or more	$1,827.98
CP21B	Math Error, Data Processing Adjustment, Overpayment of $1 or more	$ 539.38

Our estimate of about three million dollars is based on the costs cited above. We calculate that the IRS spent at least $500,000 sending initial letters related to math error notices for incorrect dependent TIN errors on the return for 2009 tax returns. A second notice for the reversal would cost at least $142,000 more. Additionally, the IRS paid more than $2.3 million in interest for corrected math errors relating to incorrect dependent TINs for tax year

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[66] TAS Research (Sept. 2011). TAS analysis of TY 2009 data from CDW IRTF and IMF (Dec. 2010). For Notice Code 605 (incorrect TIN), 55 percent, or 114,000 were resolved fully or partially; and for Notice Code 743 (incorrect TIN for EITC), 61 percent, or 35,000 were resolved fully or partially. Although the IRS later reversed 47 percent of math errors with missing TIN data (Notice Code 604), the IRS does not have the information needed to fill in missing TINs. Consequently, the analysis was narrowed to include only returns with math error 605 or 743.

2009. [67] These estimates are very conservative, using cost figures that are at least five years old and excluding the expenses of supplies, postage, and printing.[68]

We were unable to quantify numerous additional processing costs the IRS incurs for sending out incorrect math error notices, which may later have to be reversed. They include:

- Error Resolution System (ERS)[69] action disallowing dependent exemption and related credits;
- Preparation and issuance of Form 1099-INT if more than $10 interest is paid on second refund.

These IRS processing actions involve considerable time and expense. The original return is "corrected" by return processing employees to disallow the dependent(s) and associated credits. This disallowance is followed, in most cases, by a refund for a reduced amount and a math error notice systemically issued describing the error of an incorrect dependent TIN. Customer service employees must handle a minimum of one taxpayer inquiry to verify the dependent TIN provided by the taxpayer, adjust the account again to reverse the math error "corrections," and arrange for a second refund or corrected balance due notice to be issued. Additionally, if the IRS does not issue the second refund within required processing time-frames, it must pay interest. If the interest amount is $10 or more, the IRS must also issue Form 1099-INT, *Interest Income*, for the year in which it was paid.

Reversed Math Errors are a Significant Burden and Cost to Taxpayers.
Sending out incorrect math error notices, which are later reversed, increases burden and costs for taxpayers, such as:

- Delayed processing (approximately two weeks, depending on the complexity of the errors);
- Decreased refund/increased balance due;
- Math error notice receipt/response (calls/walk-in to identify pertinent dependent, provide correct TIN);
- Delayed payment of full refund; and
- Reporting requirement for tax year in which interest (on delayed refunds) was received.

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[67] IRC § 6611(a) provides that interest must be paid by the government on overpayments at a rate set out in IRC § 6621.

[68] TAS analysis of TY 2009 data from CDW IRTF and IMF (Nov. 2011). Notice Gatekeeper, Estimates include notice review, files, and downstream toll-free costs. Our estimates are based on an assumption that the CP 12 letter for overpayment was sent for all 264,175 different math errors because this was the most conservative approach. It is likely that a sizable portion of these letters were actually the CP11 instead. Assuming the CP21B letter was sent as a second notice to taxpayers, those could account for another $142,000 in expenses. When considering the expenses for missing dependent TIN (math error 604), the IRS likely spent a minimum of another $140,000 on first letters and $40,000 on second letters.

[69] IRM 3.12.37.8.1 (Jan. 1, 2011). The Error Resolution System is a real-time computer system that corrects errors that are discovered during the General-ized Mainline Framework processing.

Dependent TIN math errors delay refunds and create burden for taxpayers by requiring them to contact the IRS to resolve the matter. Taxpayers may use various methods to provide information that will reinstate the dependent exemption and associated credits — phone, walk-in, correspondence, or referral of the matter to their practitioner. If a taxpayer has claimed more than one dependent, and has not identified the erroneous TIN through his or her own research, the taxpayer must first contact IRS to determine which TIN is inaccurate. It is not uncommon for these taxpayers to have to contact the IRS a second time after securing the correct TIN data for the appropriate dependent. If the account is adjusted for an additional refund that includes interest, these taxpayers have a new reporting requirement for the tax year in which the interest was received. Inevitably, some of these taxpayers have to contact the IRS again to find out why they received Form 1099-INT.

As mentioned, the dependent TIN math error explanations are so broadly written that it is difficult to identify which dependent TIN has an error. For example, the wording of Notice Code 605 for incorrect dependent TIN presumes the dependent TIN supplied by the taxpayer is correct, and the name of the dependent is incorrect. The analysis of our sample shows the error most common to Notice Code 605 accounts is a digit transcription mistake in the dependent TIN, not an error in the dependent's name.[70]

In addition to the time it takes taxpayers to resolve their math error, there are significant dollars at stake for taxpayers. The taxpayers' accounts we studied (Notice Codes 605 or 743) indicated claim amounts of over $400 million in statutory, additional child tax, and earned income tax credits. The IRS held over half of these funds pending math error resolution. Table 8 below shows the average and median credits originally claimed per return for the different types of credits. Those claiming the EITC and Additional Child Tax Credit (ACTC) were least likely to have their claims allowed both in numbers and amount claimed.

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[70] For a detailed discussion on the lack of specificity in math errors and how that impacts taxpayers' ability to respond, see *Expansion of Math Error Authority and Lack of Notice Clarity Create Unnecessary Burden and Jeopardize Taxpayer Rights, supra*.
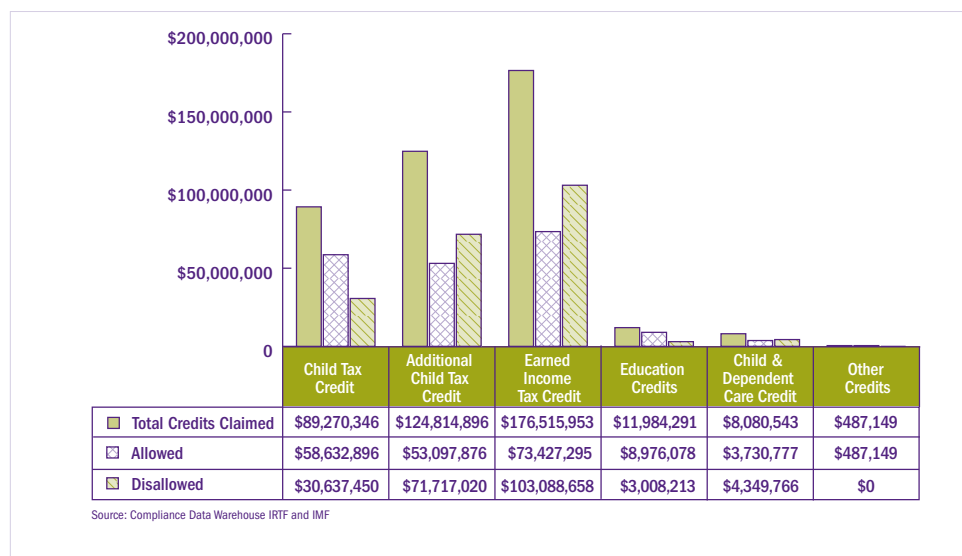
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TABLE 8, Dollar Amounts of Credits Claimed on Returns with Incorrect Dependent TINs for TY 2009

	Total Returns with Credits Claimed	Total Dollars Claimed	Dollars Claimed Per Return	
Child Tax Credit (CTC)	71,035	$89,270,346	$1,257 $1,000	(avg.) (median)
Additional Child Tax Credit (ACTC)	78,579	$124,814,896	$1,588 $1,425	(avg.) (median)
Earned Income Tax Credit (EITC)	63,177	$176,515,953	$2,794 $2,946	(avg.) (median)
Education Credit	11,179	$11,984,291	$1,072 $1,015	(avg.) (median)
Child & Dependent Care Credit	13,708	$8,080,543	$ 590 $ 600	(avg.) (median)
Other Credits	375	$487,149	$1,300 $1,300	(avg.) (median)

Source: Compliance Data Warehouse IRTF and IMF

Overall, the IRS allowed only $200 million of $400 million claimed on these original returns. Figure 7 below graphically displays the amount of credit claimed by taxpayers with incorrect TINs and the amounts originally allowed by the IRS. This data is displayed separately for the most common credits. The EITC and the additional child tax credit had the largest disallowances on both a percentage and amount basis. Over half of the amount of these credits was disallowed at about $103 million and $72 million, respectively. The child and dependent care credit also had over half of the amount claimed disallowed, but the amount was only about four million dollars.

FIGURE 7, The Dollar Amount of Credits Claimed by Those with Incorrect Dependent TIN Math Errors for TY 2009 Shown by Allowed vs. Disallowed at Return Filing[71]

	Child Tax Credit	Additional Child Tax Credit	Earned Income Tax Credit	Education Credits	Child & Dependent Care Credit	Other Credits
Total Credits Claimed	$89,270,346	$124,814,896	$176,515,953	$11,984,291	$8,080,543	$487,149
Allowed	$58,632,896	$53,097,876	$73,427,295	$8,976,078	$3,730,777	$487,149
Disallowed	$30,637,450	$71,717,020	$103,088,658	$3,008,213	$4,349,766	$0

Source: Compliance Data Warehouse IRTF and IMF

[71] TAS analysis of TY 2009 data from CDW IRTF and IMF (Oct. 2011).

Ultimately about 150,000 taxpayers had their refunds restored to them. On average, the IRS subsequently allowed nearly $2,000 per return after the initial disallowance, with a delay of nearly three months.[72] See Table 9 below for details on the refund amounts allowed by the IRS after math error processing.

TABLE 9, Refunds Subsequently Allowed on Returns with Incorrect TINs for TY 2009

Incorrect TIN Math Errors	TY 2009 Population	
	Per Return	Total
$ refunded after adjustment	$1,982 (avg.) $1,560 (median)	$292,370,605
Weeks to issue refund for reversed ME	12 (avg.) 4 (median)	1,775,795
Interest paid related to reversed ME	$34 (avg.) $18 (median)	$2,336,019

Source: Compliance Data Warehouse IRTF and IMF

Research of Internal Records May Resolve Many Incorrect Dependent TINs.

Given the considerable cost and burden in charging and resolving dependent TIN math error notices, it would be in the best interest of the IRS and taxpayers to minimize them. IRS could readily adopt procedures for internal research of dependent TINs similar to those used for perfecting primary and secondary TINs.[73] For example, the IRS could use IDRS and its related systems to research prior year returns and taxpayer contact records for previous accurate reporting of a dependent TIN by the taxpayer.[74] By conducting such research upfront during return processing, IRS could eliminate a significant number of dependent TIN math error notices and their downstream impact on both the IRS and taxpayers. The following table shows the results of a TAS analysis of a sample of accounts in which the IRS abated its math error assessment. As shown below, the IRS had sufficient information to resolve over half of these TIN math errors instead of sending a math error notice.

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[72] TAS analysis of TY 2009 data from CDW IRTF and IMF (Dec. 2010).

[73] IRM 3.12.3.4 (Rev. Jan. 1, 2011) allows research of the return and its attachments, and use of IDRS to locate an accurate TIN for the primary or secondary taxpayer.

[74] IDRS Command Codes RTVUE and TRDBV record prior year return data, including the names and TINs used for dependents. Account Management Services (AMS) is a web-based resource which Customer Service employees use to record actions taken as a result of taxpayer inquiries, including the dependent TINs validated to resolve math error notices.

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TABLE 10, TY 2009 Data Shows Opportunity for IRS to Resolve Incorrect Dependent TINs and Avoid Math Error Adjustments[75]

Sample Results Using Internal IRS Data	Incorrect Dependent TINs with credits other than EITC (605)	Incorrect Dependent TINs with EITC (743)	Total Incorrect Dependent TINs
Resolved All TINs Completely	51%	50%	50%
Resolved Some TINs	6%	5%	6%
Total Completely and Partially Resolved	57%	55%	56%

Source: Compliance Data Warehouse IRTF and IMF

Taxpayers with Valid Dependent TINs May Not Be Receiving Tax Credits to Which They Are Entitled

Still other taxpayers appear to have valid dependent TINs, but never reply to the IRS math error notice that has identified the TIN as incorrect. TAS Research sampled 105 cases that had a math error code 605 or 743 and had no refund issued. TAS found that 38 percent of these cases had either received a refund after TAS pulled its original sample or the adjustment was made but the refund was either offset or the balance due was reduced. However, 62 percent of the sample still had no adjustment.

TAS determined that the IRS could have corrected and allowed all of the dependent TINs in 41 percent of the cases that still had no adjustment, if the IRS had examined its own records. It could have corrected at least one of the dependent TINs in another 11 percent of these cases. These sample percentages translate into over 40,000 taxpayers who may not have received refunds they were entitled to.[76] Further, these 40,000 taxpayers lost at least $44 million related to disallowed dependent TINs, or an average of $1,274 per taxpayer.[77] These results indicate that many taxpayers are actually entitled to dependent related exemptions and credits that they never receive.

Taxpayers Who Keep the Same Filing Status from One Year to the Next Would be Good Candidates for Using Internal Research to Resolve Math Errors

Taxpayers whose filing status remained the same from one year to the next would be good candidates for the IRS to use internal research to resolve the math error since it is unlikely that entitlement to the dependency exemption would be in dispute in the subsequent year. The table below shows that the majority, 55–91 percent, of taxpayers who receive an incorrect dependent TIN math error notice keep the same filing status from year to year. For tax year 2009, taxpayers issued incorrect dependent TIN math errors were usually the primary taxpayers in 2008, and most of these taxpayers reported the same filing status.

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[75] TAS analysis of TY 2009 data from CDW IRTF and IMF (Oct. 2011). A sample of about 400 accounts in which the IRS abated its math error assessment showed that the IRS had internal data to resolve 56 percent of code 605 and 743 accounts. The column titled *Incorrect Dependent TINS, with credits other than EITC* reflects math error code 605 accounts; the column titled *Incorrect Dependent TINS with EITC* reflects math error code 743 accounts.

[76] These sample results have a margin of error of plus or minus 12 percent at the 95 percent confidence level.

[77] Taxpayers who were ultimately due a complete reversal for disallowed dependent TINs lost an average $1,274 or median $1,113 per taxpayer.

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TABLE 11, TY 2008 & 2009 Filing Status for Taxpayers Receiving TY 2009 Math Errors Related to Incorrect or Missing Dependent TINs[78]

		Filing Status in TY 2009				
		Single	MFJ	MFS	HoH	Total
Filing Status in TY 2008	Single	**55.4%**	1.6%	0.0%	12.2%	32,983
	MFJ	3.3%	**91.3%**	20.0%	4.8%	122,745
	MFS	1.7%	1.5%	**60.0%**	0.8%	5,217
	HoH	39.6%	5.6%	20.0%	**82.2%**	78,386
	Total	41,368	128,770	3,416	65,777	239,331

Source: Compliance Data Warehouse IRTF and IMF

Taxpayers Were Sent Math Error Notices Because a TIN Was a Few Numbers Off

When looking at the sample of about 400 cases where incorrect TINs had been corrected and allowed by IRS, TAS's analysis suggests that at least 25 percent of the cases reviewed had a problem with the dependent TIN being a few digits off or having numbers transposed. Another ten percent of cases appeared to have surname discrepancy issues, some of which are repeated each year when surnames change due to divorce and remarriage. The IRS has the potential to resolve many of these issues using existing internal data.

CONCLUSION

Dependent TIN math errors continue to be a problem for the IRS and taxpayers and are costly and burdensome to resolve. The data analyzed in this study suggests that an opportunity exists for the IRS to correct many dependent TIN math errors without issuing a math error notice. This would prevent taxpayers who don't reply to math error notices, but are entitled to the credits, from losing the refund generated by such credits. In addition to preventing loss of refunds, such preemptive steps may reduce burden and costs for the taxpayer and IRS alike.

RECOMMENDATIONS

The National Taxpayer Advocate offers these recommendations:

1. The IRS should use internal data to correct dependent TIN errors whenever possible *(i.e.,* data from prior year returns and contacts with IRS similar to that done for primary and secondary TINs).

2. The IRS should study other high-volume math errors to try to determine why the errors are being made and change tax form instructions or processing to mitigate these errors.

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[78] Compliance Data Warehouse, IRTF (Oct. 2011). MFJ = married filing joint, MFS = married filing separate, HoH = head of household.

APPENDIX

TABLE 12, The 20 Most Frequently Committed Math Errors, 2007–2011 (through November 5, 2011)

	2007		2008		2009		2010		2011	
	Math Error Notice Code	Total as of 12/23/07	Math Error Notice Code	Total as of 12/28/08	Math Error Notice Code	Total as of 12/27/09	Math Error Notice Code	Total as of 12/24/10	Math Error Notice Code	Total as of 11/5/11
1	605	364,431	605	342,617	624	6,233,453	661	4,778,917	661	2,672,203
2	209	280,694	209	298,095	621	3,688,716	667	770,394	667	382,070
3	211	262,630	211	262,228	209	299,244	665	445,460	665	267,431
4	299	246,730	131	240,933	605	287,270	100	402,338	131	261,685
5	604	221,256	299	223,241	211	230,938	624	373,404	209	258,795
6	131	220,137	285	220,042	131	230,605	209	332,253	605	239,851
7	200	218,371	604	176,719	285	212,134	664	298,566	211	184,258
8	285	217,164	192	120,817	299	196,248	621	285,824	285	183,489
9	252	117,232	208	113,465	604	191,325	605	284,397	268	174,796
10	192	114,243	252	109,741	192	178,647	211	257,428	299	154,863
11	251	111,967	293	108,595	200	149,920	131	253,349	604	148,346
12	101	109,823	251	106,866	252	109,003	285	198,702	624	138,552
13	743	98,977	743	101,913	208	101,206	299	194,184	192	116,773
14	208	97,857	200	96,125	101	94,761	192	161,456	621	106,063
15	141	83,255	101	95,731	251	89,377	604	154,958	101	88,398
16	293	80,579	141	89,108	141	88,628	200	121,153	141	87,160
17	268	76,740	268	78,551	743	83,108	141	121,055	100	86,881
18	100	76,034	100	75,155	194	69,977	208	104,850	194	83,035
19	297	73,664	653	68,628	268	69,612	101	85,444	208	82,326
20	653	67,383	194	64,541	293	66,120	743	84,724	252	76,539

Math Errors Committed on Individual Tax Returns: A Review of Math Errors Issued for Claimed Dependents

TABLE 13, Brief Description of the Most Frequently Committed Math Errors (Shown in Table 12), 2007–2011 (through November 5, 2011)

TPNC	General Description
100	Free-style explanation of miscellaneous errors
101	We [IRS] changed the filing status and recomputed the tax accordingly.
131	We changed the amount of taxable social security benefits.
141	We changed the amount of total income on your return.
192	We changed the standard deduction because you are age 65 or blind.
194	We changed the amount claimed as the standard deduction.
200	We changed the total exemption amount on your return.
208	We changed the taxable income because of a subtraction error.
209	We changed the amount of tax on your return because it was incorrect.
211	We changed the amount of tax on your return using the Schedule D rate.
251	We disallowed a child tax credit because the child exceeded the age limit.
252	We changed the amount claimed as child tax credit.
268	We changed the amount of self-employment tax due to an error.
285	We changed the amount claimed as Earned Income Credit (EIC).
293	We disallowed the EIC claimed since you were not age 25 to 64.
297	We changed the amount claimed as total payments due to an error.
299	We changed the refund or the amount you owed because of an error.
604	We disallowed one or more exemptions due to a missing dependent TIN. This change may also affect related tax credits.
605	We disallowed one or more exemptions due to an incorrect TIN or name. This change may also affect related tax credits.
621	We changed the amount of the recovery rebate credit you claimed.
624	We computed your recovery rebate credit for you.
653	We disallowed the EIC because you did not submit Form 8862.
661	We computed the Making Work Pay Credit for you.
664	We changed the amount you claimed as Making Work Pay Credit.
665	We changed the amount you claimed as Making Work Pay Credit.
667	We changed the amount you claimed as Making Work Pay Credit.
743	We disallowed EITC claimed on your return due to an incorrect or missing dependent TIN or name.

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TABLE 14, Math Error Code Fill-Ins

The table below contains math error explanations that may print on a notice based on the Taxpayer Notice Code (TPNC) assigned to the account.

When a math error can be tied to a line on the return, a literal specific to that line and tax form prints. When the word 'Default' appears in the Tax Form column below, it indicates language used either for prior year returns or for current year returns when the error is not line-specific. 'NA' appearing in the 'Content' column indicates that the math error explanation is not applicable to that tax form.

Code	Tax Form	Literal Content
604	Default	Each dependent listed on your tax return must have a valid Social Security Number (SSN) or Individual Taxpayer Identification Number (ITIN). For one or more of your dependents the SSN or ITIN was missing.
		As a result, we didn't allow one or more of your exemptions. This change may affect your taxable income, tax, or any of the following credits: ▪ Credit for Child & Dependent Care Expenses ▪ Education Credits ▪ Child Tax Credit ▪ Additional Child Tax Credit
		If you, your spouse, or any of your dependents do not qualify for an SSN, you may obtain an Individual Taxpayer Identification Number (ITIN) issued by the Internal Revenue Service by filing Form W-7, Application for IRS Individual Taxpayer Identification Number. This number will allow you to file your return and to claim an exemption but you will be ineligible to claim the Earned Income Credit. You may call 1-800-829-3676 to get Form W-7 or download it from our website at www.irs.gov.
605	Default	Each dependent listed on your tax return must have a valid Social Security Number (SSN) or Individual Taxpayer Identification Number (ITIN). For one or more of your dependents the last name doesn't match our records or the records provided by the Social Security Administration.
		As a result, we didn't allow one or more of your exemptions. This change may affect your taxable income, tax, or any of the following credits: ▪ Credit for Child & Dependent Care Expenses ▪ Education Credits ▪ Child Tax Credit ▪ Additional Child Tax Credit
		If you, your spouse, or any of your dependents do not qualify for an SSN, you may obtain an Individual Taxpayer Identification Number (ITIN) issued by the Internal Revenue Service by filing Form W-7, Application for IRS Individual Taxpayer Identification Number. This number will allow you to file your return and to claim an exemption but you will be ineligible to claim the Earned Income Credit. You may call 1-800-829-3676 to get Form W-7 or download it from our website at www.irs.gov.

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Code	Tax Form	Literal Content
743	1040	We didn't allow part or all of the amount claimed as Earned Income Credit (EIC) on Line 66a of your Form 1040. For one or more of the children listed on your Schedule EIC, Earned Income Credit: ■ The Social Security Number is missing or ■ The last name doesn't match our records or the records of the Social Security Administration. If you, your spouse, or any of your dependents do not qualify for an SSN, you may obtain an Individual Taxpayer Identification Number (ITIN) issued by the Internal Revenue Service by filing Form W-7, Application for IRS Individual Taxpayer Identification Number. This number will allow you to file your return and to claim an exemption but you will be ineligible to claim the Earned Income Credit. You may call 1-800-829-3676 to get Form W-7 or download it from our website at www.irs.gov.
	1040A	We didn't allow part or all of the amount claimed as Earned Income Credit (EIC) on Line 40a of your Form 1040A. For one or more of the children listed on your Schedule EIC, Earned Income Credit: ■ The Social Security Number is missing or ■ The last name doesn't match our records or the records of the Social Security Administration. If you, your spouse, or any of your dependents do not qualify for an SSN, you may obtain an Individual Taxpayer Identification Number (ITIN) issued by the Internal Revenue Service by filing Form W-7, Application for IRS Individual Taxpayer Identification Number. This number will allow you to file your return and to claim an exemption but you will be ineligible to claim the Earned Income Credit. You may call 1-800-829-3676 to get Form W-7 or download it from our website at www.irs.gov.
	1040EZ	NA
	Default	We didn't allow part or all of the amount claimed as Earned Income Credit (EIC) on page 2 of your tax return. For one or more of the children listed on your Schedule EIC, Earned Income Credit: ■ The Social Security Number is missing or ■ The last name doesn't match our records or the records of the Social Security Administration. If you, your spouse, or any of your dependents do not qualify for an SSN, you may obtain an Individual Taxpayer Identification Number (ITIN) issued by the Internal Revenue Service by filing Form W-7, Application for IRS Individual Taxpayer Identification Number. This number will allow you to file your return and to claim an exemption but you will be ineligible to claim the Earned Income Credit. You may call 1-800-829-3676 to get Form W-7 or download it from our website at www.irs.gov.