Continued Refinement of the Return Review Program Identity Theft Detection Models Is Needed to Increase Detection

December 11, 2015

Reference Number: 2016-40-008

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CONTINUED REFINEMENT OF THE RETURN REVIEW PROGRAM IDENTITY THEFT DETECTION MODELS IS NEEDED TO INCREASE DETECTION

Highlights

Final Report issued on December 11, 2015

Highlights of Reference Number: 2016-40-008 to the Internal Revenue Service Chief Technology Officer and Commissioner for the Wage and Investment Division.

IMPACT ON TAXPAYERS

Identity theft continues to be a serious and evolving issue which has a significant impact on tax administration. In February 2009, the IRS began development of the Return Review Program (RRP) to replace its current fraud detection system. The IRS conducted a pilot test of the RRP to assess its effectiveness in identifying potential identity theft tax returns during Processing Year 2014, and based on the positive pilot results, expanded the use of the RRP’s identity theft detection for Processing Year 2015.

WHY TIGTA DID THE AUDIT

This audit was initiated as part of our continued coverage of the IRS’s identity theft detection efforts. The overall objective of this review was to assess the effectiveness of the IRS’s RRP efforts to improve identity theft detection and prevention. TIGTA also assessed the IRS’s new process to limit direct deposits to a single bank account in an effort to further combat identity theft.

WHAT TIGTA FOUND

The RRP provides the IRS with the ability to change or adjust selection models throughout the processing year. For example, the RRP provides the capability to change models to identify new or variations of identity theft schemes as they emerge. This capability is not possible with the detection system that the RRP will eventually replace.

The RRP pilot successfully identified tax returns involving identity theft that were not identified by other fraud detection systems. However, TIGTA’s analysis also showed that 54,175 confirmed identity theft tax returns with refunds totaling more than $313 million were identified by other existing fraud detection systems, but were not selected by the RRP. As the IRS continues to develop the RRP, it needs to ensure that the RRP will identify identity theft cases being identified by existing systems as well as other identity theft cases.

In response to TIGTA’s continued identification of large volumes of potentially fraudulent tax returns with tax refunds deposited into the same bank, the IRS implemented a new process to limit the number of deposits (three) to a single bank account. TIGTA’s review of this process identified programming errors that resulted in 5,516 direct deposits totaling almost $13.5 million that were not converted to paper refund checks. The IRS addressed two of the programming errors and plans to correct the remaining error by August 2016.

Also, additional processes are needed for processing checks returned as undeliverable. For example, TIGTA identified 113 tax refunds totaling $354,109 that were returned undeliverable for which the IRS did not reissue a refund check as required after the taxpayer contacted the IRS and made an address change. Finally, TIGTA identified 325 returned undeliverable tax refund checks totaling $309,068 in which the IRS did not identify the refund as being associated with an identity theft tax return and take actions to remove the fraudulent refund from the tax account.

WHAT TIGTA RECOMMENDED

TIGTA recommended that the Commissioner, Wage and Investment Division, ensure that the RRP selects identity theft tax returns identified by other fraud detection systems and develop additional processes to resolve taxpayer accounts when checks are returned as undeliverable or remain uncashed. The IRS agreed with three of the four recommendations and partially agreed with the remaining recommendation.
December 11, 2015

MEMORANDUM FOR CHIEF TECHNOLOGY OFFICER
COMMISSIONER, WAGE AND INVESTMENT DIVISION

FROM: Michael E. McKenney
Deputy Inspector General for Audit


This report presents the results of our review to assess the effectiveness of the Internal Revenue Service’s Return Review Program efforts to improve identity theft detection and prevention. This audit was included in our Fiscal Year 2015 Annual Audit Plan and addresses the major management challenge of Fraudulent Claims and Improper Payments.

Management’s complete response to the draft report is included as Appendix V.

Copies of this report are also being sent to the Internal Revenue Service managers affected by the report recommendations. If you have any questions, please contact me or Russell P. Martin, Assistant Inspector General for Audit (Returns Processing and Account Services).
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Abbreviations

DDb  Dependent Database
EFDS  Electronic Fraud Detection System
IRS  Internal Revenue Service
PY  Processing Year
RRP  Return Review Program
TIGTA  Treasury Inspector General for Tax Administration
TPP  Taxpayer Protection Program
TY  Tax Year
Identity theft continues to be a serious and evolving issue which has a significant impact on tax administration. During Processing Year (PY)\(^1\) 2014, the Internal Revenue Service (IRS) reported it identified 1.8 million fraudulent identity theft tax returns\(^2\) and prevented the issuance of approximately $10.8 billion in refunds. The IRS uses the following systems during tax return processing to identify fraudulent tax returns involving identity theft:

- **Electronic Fraud Detection System (EFDS)** – The EFDS is the system the IRS uses to identify potentially fraudulent paper and electronically filed tax returns. During tax return processing, paper and electronically filed tax returns are analyzed through various EFDS data model formulas. The data models identify suspicious paper and electronically filed tax returns based on specific characteristics of the tax return. An associated score is then computed for each tax return. The higher the score, the greater the likelihood the tax return is fraudulent.

- **Dependent Database (DDb)** – The DDb is a rules-based system\(^3\) that incorporates information from many sources that include the Department of Health and Human Services, Social Security Administration, and the IRS. The IRS implemented identity theft rules within the DDb system in PY 2012. Tax returns are analyzed to identify potentially fraudulent tax returns involving identity theft.

- **Return Review Program (RRP)** – The RRP uses predictive analytics, models, *i.e.*, filters, clustering, a scoring system, business rules, and selection groups to identify suspected identity theft and fraudulent tax returns. In February 2009, the IRS began development of the RRP to replace the EFDS. The IRS determined that numerous inefficiencies and operational challenges render the EFDS too risky to maintain, upgrade, or operate long term. The IRS believes that the RRP provides new and improved capabilities that its fraud detection and prevention into the next generation.

The RRP is being developed in phases and, as such, the IRS will continue to use the EFDS, the DDb, and the RRP in the detection of fraudulent tax returns involving identity theft. The IRS does not have an estimated date for full implementation.

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\(^1\) The processing year is the calendar year in which the tax return or document is processed by the IRS.

\(^2\) Identity theft for the purpose of tax fraud occurs when an individual uses another person’s name and Taxpayer Identification Number (generally a Social Security Number) to file a fraudulent tax return to obtain a fraudulent tax refund.

\(^3\) Tax returns are sent through the DDb as they are processed for possible selection and TPP processing based on the application of a set of business rules using information from both internal and external sources.
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Tax returns identified as potential identity theft by the various detection systems are worked by the Taxpayer Protection Program (TPP). The IRS holds the tax returns from processing and sends the taxpayer a notice requesting that the taxpayer confirm their identity with the IRS. When the taxpayer’s identity is verified, the IRS removes the hold on the account, allows the tax return to continue processing, and ultimately issues a tax refund. However, when the taxpayer does not verify their identity, the IRS considers the tax return to be identity theft, removes the tax return from further processing, i.e., the refund is not issued, and places an identity theft indicator on the taxpayer’s account for future reference.

The IRS conducted a pilot test of the RRP during PY 2014

The IRS conducted a pilot test of the RRP scoring and models from April 16, 2014, through November 23, 2014, to assess its effectiveness in identifying potential identity theft tax returns. In an effort to keep workload manageable and minimize the impact on TPP resources, the IRS:

- Selected electronically filed refund tax returns processed through the RRP on Wednesdays of each week. The tax returns selected were ones that filters identified as potential identity theft.
- Limited the number of potential identity theft tax returns selected by the RRP to 2,000 tax returns weekly.\(^4\)

In July 2015, the Treasury Inspector General for Tax Administration (TIGTA) reported that the RRP models did identify additional tax returns as potential identity theft that were not detected by the EFDS and the DDb.\(^5\) For example, during the pilot, the RRP identified 51,946 tax returns as potential identity theft. The IRS confirmed that 41,311\(^6\) of those tax returns were in fact identity theft, of which 10,348 (25 percent) were not detected by either the EFDS or the DDb. The refunds that were prevented for these 10,348 tax returns totaled $43 million. Based on the positive results of this pilot, the IRS expanded the use of the RRP in the detection of identity theft returns for PY 2015.

The IRS uses exclusionary criteria to minimize the impact on legitimate taxpayers whose tax returns are selected as potential identity theft

The IRS developed exclusion criteria within the DDb and the RRP in an effort to minimize the workload of cases forwarded to TPP processing as well as reduce the number of false positive identity theft cases identified by the two systems. A false positive identity theft case refers to a

\(^4\) The IRS applied this limitation as a soft rule. During the pilot, weekly selections ranged between approximately 1,000 and 3,500.

\(^5\) TIGTA, Ref. No. 2015-20-060, The Return Review Program Enhances the Identification of Fraud; However, System Security Needs Improvement (Jul. 2015).

\(^6\) The remaining 10,635 tax returns identified were determined to be either not identity theft or were still being evaluated.
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The DDb contains two types of exclusions:

- Pre-filter exclusions that limit the number of tax returns input into the DDb for analysis. Tax returns that are excluded based on these criteria are not evaluated by the system for identity theft.
- Post-filter exclusions that are applied after tax returns are processed through the DDb and are identified as possible identity theft. In these instances, based on other characteristics of the tax return, the IRS believes the tax returns represent legitimate taxpayers. The IRS excludes these tax returns from selection and allows them to resume processing.

In contrast, the RRP exclusions are applied to specific selection groups. For example, at the start of PY 2015, the IRS used nine selection groups and employed 10 exclusions within the RRP. The RRP scores every tax return for each of the nine selection groups and identifies tax returns as possible identity theft based on the tax return’s score for each selection group. The RRP applies exclusions in various combinations within the nine selection groups. Therefore, a tax return that was excluded in one selection group may still be selected and sent to the TPP based on selection by another selection group.

New systemic process to limit electronically deposited refunds

In response to TIGTA’s continued identification of large volumes of potentially fraudulent tax returns with tax refunds deposited into the same bank, the IRS implemented a new process to limit the number of deposits (three) to a single bank account. Beginning with the 2015 Filing Season, in an effort to further combat undetected identity theft, the IRS implemented new procedures to limit the number of refunds electronically deposited to a single bank account, e.g., a bank savings or checking account, or prepaid, reloadable debit card to three. The IRS automatically converts the request for electronic deposit to a paper check when the limit of refunds to a single bank account or prepaid debit card has been reached. In addition, the IRS issues the taxpayer Notice CP 53D, A Message About Your Request for an Electronic Deposit Refund, informing the taxpayer that they will receive a paper refund check within four weeks if there are no other issues with the tax return. This process is intended to make it more difficult for unscrupulous individuals to receive fraudulent refunds because banks usually require identification when cashing a Department of the Treasury check.

This review was performed at the Information Technology organization Headquarters in Lanham, Maryland, and with information obtained from the Wage and Investment Division Headquarters in Atlanta, Georgia, during the period September 2014 through August 2015. We conducted this performance audit in accordance with generally accepted government auditing standards.

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7 A selection group is the method in which the RRP selects a tax return as potential identity theft. For example, one of the nine selection groups in PY 2015 is """"2""""
standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective. Detailed information on our audit objective, scope, and methodology is presented in Appendix I. Major contributors to the report are listed in Appendix II.
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Results of Review

The Return Review Program Provides Flexibility to Change or Adjust Models Throughout the Processing Year

Our review found that the RRP provides the IRS with the ability to change or adjust selection models throughout the processing year. For example, the RRP provides the capability to change models to identify new or variations of identity theft schemes as they emerge. This capability is not possible with the EFDS. The IRS conducts analysis of confirmed identity theft tax returns and false positives, i.e., legitimate tax returns, to evaluate the need for changes to the RRP models for identity theft detection that are to be put into place for the following filing season. The IRS also refines the revised models to ensure that the models are identifying identity theft tax returns while affecting as few legitimate taxpayers as possible.

In addition, the IRS established a governance board review process to evaluate and approve changes to the RRP models. The purpose of the governance board review is to ensure that the benefits of changes are weighed against the risks prior to implementation. For example, prior to the start of a filing season, the Information Technology organization works on RRP model development and refinement, and meets with IRS business units, e.g., Wage and Investment Division, to discuss proposed changes, the impact of the change on the RRP system and other IRS stakeholders, and the risk of not implementing the change. The governance board then reviews the proposed change and, if approved, the change request is sent for programming implementation for the filing season.

Suggestions for changes to the RRP models during the filing season are subjected to a similar review process, but must be approved by the Commissioner, Wage and Investment Division. However, a change to a model during the filing season that affects the Information Technology organization may require the Deputy Commissioner for Services and Enforcement’s approval. The IRS explained that a change during the filing season requires executive approval to ensure that the IRS has appropriately weighed the benefits against the risks prior to making any changes to the RRP during such a critical time.

Analysis is conducted to support exclusions used

The IRS maintains documentation to support the exclusions used to eliminate identified tax returns from being selected for TPP processing. For example, the IRS implemented exclusions for **********2**********. These are tax returns that **********2**********

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8 The period from January through mid-April when most individual income tax returns are filed.
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The IRS implemented these exclusions based on a multiple tax year analysis which identified that a low percentage of tax returns with identity theft were bypassing TPP processing. For example, on May 26, 2015, the IRS announced that unauthorized access attempts had been made by criminals using taxpayer-specific data to gain access to tax information through the IRS’s “Get Transcript” application. As a result of these unauthorized accesses, the IRS deactivated the “Get Transcript” application on May 21, 2015.

The tax information that can be accessed on the “Get Transcript” application can include the current and three prior years of tax returns, nine years of tax account information, and wage and income information. The specific information associated with this tax information includes:

- The IRS believes that some of this information may have potentially been gathered to file fraudulent tax returns during the upcoming 2016 Filing Season. The type of data that criminals could obtain through the “Get Transcript” application can provide identity thieves with past tax return data, thereby allowing them to create a tax return that is similar to a legitimately filed prior year’s tax return.

When we discussed our concerns with the IRS, management stated that to address the vulnerability related to other security incidents external to the IRS, the IRS removed some exclusions that apply to five of the nine RRP identity theft selection groups on March 29, 2015. In addition, management stated that the RRP’s primary selection filter did not utilize any exclusions based on identity theft detection models throughPY 2015.

The Return Review Program Is Not Identifying All of the Identity Theft Tax Returns Identified by Other Systems

As previously reported, the RRP pilot successfully identified tax returns involving identity theft that were not identified by the IRS’s other fraud detection systems. However, our analysis also showed that 54,175 confirmed identity theft tax returns with refunds totaling more than $313 million were identified by the DDb, but were not selected by the RRP. As the IRS continues to develop the RRP to one day replace the EFDS and the DDb identity theft detection...
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capabilities, it needs to ensure that the RRP will be capable of identifying those identity theft cases being identified by the EFDS and the DDb as well as other identity theft cases.

When we brought this to the IRS’s attention on March 12, 2015, the IRS explained that the gap in identity theft selections between the systems occurred partially because the IRS did not fully implement all the capabilities of the RRP selection models during PY 2014. The RRP pilot focused on identifying new identity theft schemes rather than how the RRP system would select known fraud schemes. Because the RRP selection models were not fully implemented in PY 2014, the IRS explained that analysis of identity theft selections in PY 2014 would not provide useful information to identify the gaps between the identity theft detection systems.

Instead, in May 2015, the IRS conducted an analysis of tax returns selected by the DDb, the RRP, and the EFDS for identity theft screening through the TPP in PY 2015. As of May 27, 2015, the IRS processed approximately 96 million electronically filed refund tax returns. The IRS’s analysis showed that each system selected tax returns for identity theft screening that were not identified by the other systems. Figure 1 summarizes the electronically filed tax returns selected by the DDb, the RRP, and the EFDS for identity theft screening through the TPP process.

![Figure 1: Identity Theft Selections by System](image)

As Figure 1 shows, the combined use of the RRP and DDb identity theft selections provide the highest degree of confirmed identity theft detection. The IRS indicated that this occurs because the identity theft tax returns detected by both systems are those with the highest degree of **********2**************. The IRS further evaluated the identity theft selections to determine changes required to the RRP to improve its overall performance. The IRS developed a strategy to incorporate 18 of the 27 DDb filters into the RRP modeling for PY 2016. Some DDb filters will be incorporated into the RRP as written, while other DDb filters will be modified to keep the false positive rate at an acceptable level.
Recommendation

Recommendation 1: The Commissioner, Wage and Investment Division, should ensure that identity theft tax returns identified by the DDb and/or the EFDS are selected by the RRP prior to replacing the identity theft detection capabilities of these systems.

Management’s Response: The IRS agreed with this recommendation. The IRS agreed that the retirement of existing systems should not compromise or reduce its ability to detect potentially fraudulent tax returns. The IRS’s plans for bringing the RRP to full functionality and replacing the fraud and identity theft detection functions of the EFDS and the DDb call for improving overall detection performance, not reducing or otherwise compromising it. Consequently, the IRS believes its plan adequately addresses the intent of the recommendation and plans no additional corrective action.

Programming Errors Resulted in Some Direct Deposit Refunds Not Converting to a Paper Check As Required

Our review identified 45,125 tax returns processed through March 5, 2015, that requested a direct deposit to a bank account for which more than three direct deposits were requested. Due to the IRS limit on direct deposits to a single bank account, 18,127 tax refunds were required to be converted to a paper check. The IRS converted 12,680 direct deposit requests to paper refund checks totaling approximately $35.5 million and issued taxpayers a Notice CP 53D informing them that they will receive a paper refund check. Figure 2 summarizes the Tax Year (TY) 2014 tax returns requesting a direct deposit, without a split refund option, through March 5, 2015.

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9 We limited our review to the first six processing cycles of the filing season to allow time for negotiation of the tax refund check and for the determination as to whether the tax return was fraudulent. We also limited our review to tax returns without a Form 8888, Allocation of Refund (including Savings Bond Purchases), attached.
10 We identified 126 taxpayer accounts for which a CP 53D notice was not issued because a freeze condition was present on the account at time of settlement.
11 Taxpayers can attach a Form 8888 to their tax return to split their refund between up to three accounts.
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Figure 2: TY 2014 Tax Returns Requesting a Direct Deposit (Without a Split Refund Option)

<table>
<thead>
<tr>
<th>Description</th>
<th>Tax Returns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of tax returns requesting a direct deposit (without a split refund</td>
<td>48,375,408</td>
</tr>
<tr>
<td>option).</td>
<td></td>
</tr>
<tr>
<td>Number of tax returns that had a bank account used more than three times</td>
<td>45,125</td>
</tr>
<tr>
<td>for a requested direct deposit.</td>
<td></td>
</tr>
<tr>
<td>Number of direct deposits converted to the issuance of paper refund check</td>
<td>12,680</td>
</tr>
<tr>
<td>because bank account used for more than three direct deposits.</td>
<td></td>
</tr>
</tbody>
</table>

Source: TIGTA’s analysis of TY 2014 tax returns processed through March 5, 2015.

However, we identified 5,447 requested direct deposits totaling more than $13.4 million that were not converted to a paper refund check as required. We alerted IRS management of our concerns on February 13, 2015. The IRS indicated that the refunds were not converted to paper checks because of a programming error that incorrectly counted electronic deposit requests and because approximately 2.2 million tax returns were not loaded into the DDb due to an oversight. The IRS stated that it had corrected both issues as of March 6, 2015.

Our analysis of 8,274 tax returns processed between April 3, 2015, and April 9, 2015, that requested direct deposit to a bank account used more than three times confirmed that the IRS corrected the issues we identified. However, we did identify an additional 69 tax returns requesting direct deposits totaling more than $31,151 that did not convert to paper checks as required. When we brought this to the IRS’s attention on May 5, 2015, the IRS stated that the direct deposits did not convert to a paper tax check because *****************
******************************************************************************
******2**********. As a result, the transaction code13 that converts the direct deposit to a check could not post to the taxpayer’s account. IRS management stated that they plan to implement computer programming changes to correct this issue by August 2016.

TIGTA recently issued a report14 addressing the IRS’s process for converting direct deposit requests to paper checks related to the use of the split refund option. That audit identified the same concerns over the conversion of direct deposits to paper checks and recommended that the IRS should ensure that the programming change is implemented prior to the 2016 Filing Season (which begins January 2016) to prevent more than three direct deposits to a single account. As such, we have not included specific recommendations to address the programming error we identified in this report.

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12 The IRS database that stores various types of taxpayer account information. This database includes individual, business, and employee plans and exempt organizations data.
13 A three-digit code used to identify actions being taken to a taxpayer’s account.
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Management's Response: The IRS stated in its response to the draft report that the outcome measure of almost $13.5 million in potential revenue protected related to the 5,516 direct deposits that were not converted to paper refund checks due to programming errors is overstated. The IRS noted that its data analysis completed in August 2015 revealed that 1,522 of the 5,516 requested direct deposits not converted to a paper refund check were returned to the IRS by banks.

Office of Audit Comment: While we agree that some direct deposits were returned by the banks, our outcome measure is based on the refunds that were not protected because the IRS’s process of converting the direct deposit requests to paper checks did not work as intended.

Additional Processes Are Needed for Processing Checks Returned As Undeliverable and Uncashed Checks

Although the majority of the paper checks were cashed, we found instances in which some taxpayers’ refunds were not reissued as required, and that additional processes are needed for processing checks that were returned as undeliverable or that remain uncashed. We analyzed the 12,680 direct deposit requests that were converted to a paper check. Figure 3 summarizes the status of checks issued as a result of the electronic deposit limit.

**Figure 3: Status of Checks Issued Due to the Direct Deposit Limit**

<table>
<thead>
<tr>
<th>Check Status</th>
<th>Number of Checks</th>
<th>Total Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check Cashed</td>
<td>11,446</td>
<td>$32,697,059</td>
</tr>
<tr>
<td>Check Returned Undeliverable</td>
<td>574</td>
<td>$1,117,682</td>
</tr>
<tr>
<td>Check Returned&lt;sup&gt;15&lt;/sup&gt;</td>
<td>91</td>
<td>$579,455</td>
</tr>
<tr>
<td>Check Uncashed</td>
<td>470</td>
<td>$709,425</td>
</tr>
<tr>
<td>Taxpayer Reported Check Not Received</td>
<td>99</td>
<td>$387,416</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>12,680</strong></td>
<td><strong>$35,491,037</strong></td>
</tr>
</tbody>
</table>

Source: TIGTA’s analysis of the Master File as of March 5, 2015, and a file provided by the Bureau of the Fiscal Service containing the status of tax refund checks issued as of May 15, 2015.

<sup>15</sup> A taxpayer may return a tax refund check directly to a local IRS office or to the Regional Financial Center.
**Taxpayers were not reissued refunds after verifying their identity and change of address**

Our review identified 113 tax refunds totaling $354,109 of the 574 checks that were returned undeliverable for which the IRS did not reissue a refund check as required after the taxpayer contacted the IRS and made an address change. The IRS requires taxpayers to verify their identity and once their identity is established, the taxpayer has the opportunity to change their address for reissuance of the returned undeliverable check.

When we raised this concern to IRS management, they responded that the issue resulted from a programming error which was incorrectly freezing the refund from being reissued to the taxpayer once the address change was made. The IRS explained that the programming error has been corrected and that it is in the process of identifying the affected taxpayers to ensure that their refunds are reissued.

**Tax returns and associated accounts were not identified as identity theft when refund checks were returned undelivered**

Our review identified 325 (70 percent) of 46116 returned undeliverable tax refunds checks totaling $309,068 in which the IRS did not identify the refund as being associated with an identity theft tax return and take actions to remove the fraudulent refund from the tax account. Each of these refunds was returned to the IRS as undeliverable, and more than 30 calendar days (ranging from 42 to 99 calendar days) had passed since the check was received and the taxpayer had taken no action to claim the refund check. The remaining 136 tax refund checks returned undeliverable included tax refund checks reissued as required following an address change or the IRS either correctly identified the refund as being associated with an identity theft or 30 calendar days had not yet elapsed since the tax refund check was returned to the IRS.

Internal IRS guidelines require tax examiners to monitor the taxpayer’s account to determine whether the taxpayer updated their address or provided a reasonable explanation of why the refund was returned undeliverable. If after 30 calendar days the taxpayer has not satisfactorily resolved the issue and the refund has not been reissued, the IRS will treat the refund as being associated with an identity theft tax return and reverse the fraudulent tax return’s data entries from the taxpayer’s account and place an identity theft indicator on the taxpayer’s account.

When we brought this to IRS management’s attention on July 10, 2015, the IRS responded that it had not started this process nor has a start date for this process been established. The IRS explained that it wanted to ensure that it waited a sufficient amount of time to prevent any unnecessary burden to the taxpayer.

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16 These 461 refund checks were included in the 574 returned as undeliverable.
Tax returns and associated accounts were not identified as identity theft when refund checks remained uncashed

We identified 470 paper refund checks totaling $709,425 that remained uncashed as of May 15, 2015, despite the refunds being issued some 42 to 101 calendar days prior. Further analysis of the uncashed checks showed that 196 were sent to an address for which more than one paper refund check was issued after the direct deposit was converted to a paper check.

The IRS has not updated its procedures to address the handling of those checks issued as a result of the electronic deposit limit that remain uncashed. The Bureau of the Fiscal Service cancels checks that remain uncashed 14 months after the month of issuance\(^{17}\) and returns credits for cancelled checks to the IRS 15 months after the month of issuance. Subsequently, the IRS reverses the refund on the tax account, but leaves the credit on the taxpayer’s account which is frozen from refunding. The credit resulting from the cancelled check will remain on the taxpayer’s account representing a loss of funds to the Government. In addition, unlike the process for working undelivered refund checks, the fraudulent tax return data entries will not be reversed from the taxpayer’s account nor will the IRS place an identity theft indicator on the taxpayer’s account.

When we brought this to IRS management’s attention on July 10, 2015, the IRS responded that it did not have an explanation as to why procedures were only changed for checks returned undeliverable.

Recommendations

The Commissioner, Wage and Investment Division, should:

Recommendation 2: Ensure that tax refund checks are reissued to all taxpayers, including the 113 we identified during our review, who subsequently changed their address in response to an undelivered paper refund check.

Management’s Response: The IRS agreed with this recommendation. The IRS stated that as of October 2015, appropriate steps have been taken to resolve these accounts. IRS management also indicated that updated monitoring procedures were implemented to address the timing issues of the additional refund freeze to ensure that refunds are reissued correctly when taxpayers contact the IRS to verify their identity and update the account address.

Recommendation 3: Ensure that tax examiners reverse the fraudulent tax return data entries from the taxpayer’s account and place an identity theft indicator on the taxpayer’s account for an

\(^{17}\) Competitive Equality Banking Act (CEBA) of 1987 (P.L. 100-86, 101 STAT. 552).
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undelivered check when the taxpayer has not satisfactorily resolved the issue after 30 calendar days.

Management’s Response: The IRS agreed with this recommendation. The IRS recognizes the importance of promptly addressing those accounts for which identity theft is suspected. Tax examiners are instructed to allow 30 days for taxpayers to contact the IRS to resolve the undelivered refund. Procedures also require that accounts with unresolved returned refunds, suspected of being identity theft fraud, be marked for identity theft and reversed. The IRS requested programming changes that will permit batch processing of these accounts and shorten the time frame in which they are resolved; however, the implementation of such programming changes is subject to budgetary constraints, limited resources, and competing priorities. Consequently, the IRS could not provide an implementation date, and the corrective action will be placed on hold in its internal management control system.

However, management disagreed with our outcome measure. The IRS stated that our outcome measure of $309,068 in potential revenue protected is overstated. The IRS noted that its data analysis completed in August 2015 revealed that 70 of the 325 accounts cited did have an identity theft indicator placed on the account.

Office of Audit Comment: Review of the 70 accounts found that 61 did not have the required undeliverable tax refund check process identity theft indicator. For the remaining nine, the indicators were added subsequent to the completion of our analysis.

Recommendation 4: Develop processes and procedures to place an identity theft indicator and remove the fraudulent tax return data for those taxpayer accounts for which a paper refund check is cancelled because it remains uncashed after 14 months.

Management’s Response: The IRS partially agreed with this recommendation. The IRS stated that with the 2015 Filing Season being the first year that limits were placed on the number of electronic deposits to the same account, any of those payments that were converted to paper checks and not cashed within 14 months will not be cancelled before 2016. By December 2016, the IRS will analyze the volume of converted refund payments that are ultimately cancelled and will determine appropriate next steps in how those accounts should be treated.

Office of Audit Comment: While the time for the check cancellation has not yet passed and the volume of converted refund payments that are ultimately cancelled is unknown, we continue to believe that appropriate next steps are to treat the taxpayer accounts as identity theft, which includes reversing the fraudulent tax return data entries and placing an identity theft indicator on the taxpayer’s account.
Appendix I

**Detailed Objective, Scope, and Methodology**

The overall objective of this review was to assess the effectiveness of the IRS’s RRP efforts to improve identity theft detection and prevention. To accomplish this objective, we:

I. Determined whether the RRP has improved the IRS’s efforts to detect and prevent identity theft tax returns from obtaining a fraudulent tax refund.
   
   A. Reviewed the Internal Revenue Manual and Identity Theft Job Aid to identify the transaction codes, action codes, and other Master File\(^1\) tax account information associated with tax returns identified as identity theft by the RRP.
   
   B. Discussed with RRP Project Maintenance Office, Wage and Investment Division, and Information Technology organization management the process used to prevent the issuance of tax refunds for individual tax returns identified by the RRP for identity theft.
   
   C. Determined that the results of the RRP PY 2014 identity theft pilot are accurate.
      
      1. Obtained the IRS’s results of the RRP PY 2014 identity theft pilot.
      
      2. Obtained an extract from the IRS of the 51,946 tax returns identified by the RRP as potential identity theft during the identity theft pilot in PY 2014. In addition, we obtained the outcome of each of the identified cases from the RRP.
      
      3. Compared the IRS RRP identity theft pilot results with the extract of tax returns selected by the RRP and determined whether the IRS correctly reported on the results of the RRP pilot program.
   
   D. Determined that 54,175 confirmed identity theft tax returns were identified by the DDb, but not identified by the RRP during the PY 2014 identity theft pilot.
      
      1. Obtained an extract from the IRS of all tax returns processed through the RRP scoring models during the PY 2014 identity theft pilot.
      
      2. Obtained and validated an extract from the IRS of all tax returns selected through the RRP scoring models as potential identity theft during the PY 2014 identity theft pilot.

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\(^1\) The IRS database that stores various types of taxpayer account information. This database includes individual, business, and employee plans and exempt organizations data.
3. Obtained and validated an extract from the IRS of all tax returns identified as potential identity theft by the DDb identity theft filters for PY 2014.

4. Identified the tax returns selected by the DDb as potential identity theft but not identified by the RRP and assessed the impact on tax administration. We identified those tax returns not selected by the RRP as potential identity theft by removing the selected RRP cases from the total population ran through the RRP. We then used the DDb extract to determine whether the tax returns not selected as potential identity theft were identified as confirmed identity theft by the DDb.

5. Discussed with IRS management the approach that is being used to absorb the DDb filters into the RRP.

II. Determined whether the IRS has appropriate justification for exclusionary conditions that disqualify certain tax returns from being identified as potential identity theft.

A. Obtained the exclusions for the RRP and DDb identity theft filters for PYs 2014 and 2015.

B. Obtained and evaluated the documentation for PY 2014 exclusions which included

III. Assessed the effectiveness of the IRS’s efforts to limit the number of refunds directly deposited to the same bank account or debit card based on financial institution routing number and account number.

A. Evaluated how the IRS has limited the number of tax refunds directly deposited to the same bank account or debit card by converting the direct deposit to a paper check after the third direct deposit to the same account.

1. Identified the methodology for identifying tax returns and issuing a paper check for a tax refund in lieu of a direct deposit after the third direct deposit to the same account.

2. Obtained supporting documentation that substantiates that the programming changes were implemented.

3. Determined whether any bank accounts were excluded from the new process to limit direct deposits.

B. Interviewed IRS management and determined how the process to limit the number of refunds directly deposited to the same bank account or debit card works, which includes the process for handling undelivered or uncashed checks during PY 2015.
Continued Refinement of the Return Review Program Identity Theft Detection Models Is Needed to Increase Detection

C. Determined whether the programming is correctly identifying the issuance of refunds to the same bank account or debit card that exceeds the threshold and converting the refund to a paper check.

1. Obtained and validated extracts of all TY 2014 individual tax returns processed between January 23, 2015, and March 5, 2015, that requested a direct deposit to a bank account or debit card, excluding those tax returns requesting a split refund, i.e., Form 8888, Allocation of Refund (Including Savings Bond Purchases).

2. Identified the number of times a bank account (routing number/account number) was included on TY 2014 individual tax returns.

3. Identified 45,125 TY 2014 individual tax returns that contained an account having exceeded the threshold for the number of times a refund can be deposited to the same account.

4. Obtained and validated an Individual Master File extract as of May 28, 2015, containing transactions associated with the 45,125 tax returns identified as TY 2014 tax returns requesting a refund directly deposited to an account with three or more prior direct deposits that were processed between January 23, 2015, and March 5, 2015, and determined whether tax refunds were converted to paper checks, notices were issued, and identity theft indicators were placed on taxpayer accounts.

D. Obtained reports from the IRS that detailed the 2015 Filing Season results of its efforts to limit the number of refunds directly deposited in the same bank account and prevent the issuance of refunds as debit cards.

Data validation methodology

During this review, we relied on data extracted for TY 2014 Form 1040, U.S. Individual Income Tax Return, data from the IRS’s Individual Returns Transaction File for PY 2015, taxpayer tax account transactions from the Individual Master File for TY 2014, and taxpayer entity account transactions through May 28, 2015. We also relied on data extracted from the Treasury Check Information System to obtain the tax refund check status as of May 15, 2015, which was provided by the Bureau of the Fiscal Service. We relied on IRS-provided data from the RRP and DDb systems for PY 2014. To assess the reliability of computer-processed data, programmers within Strategic Data Services validated the data extract files, while we ensured that each data extract contained the specific data elements we requested and that the data elements were

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2 Contains data transcribed from initial input of the original individual tax returns during tax return processing.
3 The IRS database that maintains transactions or records of individual tax accounts.
4 The Treasury Check Information System was developed by the Bureau of the Fiscal Service to record and reconcile issuance and payment of United States Department of the Treasury checks.
accurate. In addition, we selected random samples of each extract and verified that the data in the extracts were the same as the data captured in the IRS’s Integrated Data Retrieval System.\textsuperscript{5}

To assess the reliability of the data received from the IRS on the RRP and the DDb, we compared the data to the IRS’s Master File transaction codes and selected random samples of each extract to verify against the IRS’s Integrated Data Retrieval System. To assess the reliability of the Bureau of the Fiscal Service’s data, we did not have access to source data but reviewed individual fields to ensure that information was consistently formatted. Based on the results of our testing, we believe that the data used in our review were reliable.

**Internal controls methodology**

Internal controls relate to management’s plans, methods, and procedures used to meet their mission, goals, and objectives. Internal controls include the processes and procedures for planning, organizing, directing, and controlling program operations. They include the systems for measuring, reporting, and monitoring program performance. We determined that the following internal controls were relevant to our audit objective: RRP procedures used to select tax returns for identity theft treatment and Internal Revenue Manual procedures on identifying multiple tax refunds sent to the same bank account. We accomplished this by reviewing Internal Revenue Manuals, interviewing management, and reviewing program reports.

\textsuperscript{5} IRS computer system capable of retrieving or updating stored information. It works in conjunction with a taxpayer’s account records.
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to Increase Detection

Appendix II

Major Contributors to This Report

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Appendix III

Report Distribution List

Commissioner
Office of the Commissioner – Attn: Chief of Staff
Deputy Commissioner for Operations Support
Deputy Commissioner for Services and Enforcement
Deputy Chief Information Officer for Operations
Deputy Commissioner, Wage and Investment Division
Associate Chief Information Officer, Applications Development
Director, Business Modernization Office, Wage and Investment Division
Director, Business Performance Solution, Wage and Investment Division
Director, Customer Account Services, Wage and Investment Division
Director, Return Integrity and Compliance Services, Wage and Investment Division
Director, Submission Processing, Wage and Investment Division
Director, Office of Audit Coordination
Outcome Measures

This appendix presents detailed information on the measurable impact that our recommended corrective actions will have on tax administration. These benefits will be incorporated into our Semiannual Report to Congress.

**Type and Value of Outcome Measure:**

- Revenue Protection – Potential; $13,473,966 from 5,516 requested direct deposits not converted to a paper refund check as required (see page 8).

**Methodology Used to Measure the Reported Benefit:**

We reviewed 45,125 tax returns processed between January 23, 2015, and March 5, 2015, that included a direct deposit to a bank account for which more than three direct deposits were requested. For PY 2015, the IRS limited the number of refunds electronically deposited to a single bank account to three in an effort to further combat undetected identity theft. However, we identified 5,447 requested direct deposits totaling $13,442,815 that were not converted to the issuance of paper refund checks as required. In addition, we reviewed another 8,274 tax returns processed between April 3, 2015 and April 9, 2015, and identified 69 additional requested direct deposits totaling more than $31,151 that still did not convert to paper checks as required.

**Type and Value of Outcome Measure:**

- Taxpayer Rights and Entitlements – Potential; $354,109 from 113 tax refund checks returned undeliverable that were not reissued after the taxpayer provided a change of address (see page 10).

**Methodology Used to Measure the Reported Benefit:**

We reviewed 45,125 tax returns processed between January 23, 2015, and March 5, 2015, that included a direct deposit to a bank account for which more than three direct deposits were requested. For PY 2015, the IRS limited the number of refunds electronically deposited to a single bank account to three in an effort to further combat undetected identity theft. Of the 12,680 direct deposit requests that the IRS converted to paper refund checks, 574 paper refund checks were returned undeliverable. Of those, we identified 113 tax refunds returned undeliverable totaling $354,109 in which an address change was processed, but the refund was not reissued as required.
Type and Value of Outcome Measure:

- Revenue Protection – Potential; $309,068 from 325 tax refund checks returned undeliverable that had not been treated as identity theft (see page 10).

Methodology Used to Measure the Reported Benefit:

We reviewed 45,125 tax returns processed between January 23, 2015, and March 5, 2015, that included a direct deposit to a bank account for which more than three direct deposits were requested. For PY 2015, the IRS limited the number of refunds electronically deposited to a single bank account to three in an effort to further combat undetected identity theft. Of the 12,680 direct deposit requests that the IRS converted to paper refund checks, 574 paper refund checks were returned undeliverable. Of those, we identified 325 paper refund checks totaling $309,068 in which the IRS did not input a transaction code to place an identity theft indicator on the taxpayer accounts when the taxpayer had not satisfactorily resolved the issue within 30 calendar days (ranging from 42 to 99 calendar days).
Continued Refinement of the Return Review Program Identity Theft Detection Models Is Needed to Increase Detection

Appendix V

Management's Response to the Draft Report

MEMORANDUM FOR MICHAEL E. MCKENNEY
DEPUTY INSPECTOR GENERAL FOR AUDIT

FROM: Debra Holland
Commissioner, Wage and Investment Division


Thank you for the opportunity to review and comment on the subject draft report. We appreciate your acknowledgment that the Return Review Program (RRP) provides the IRS the capability to change our models to identify new or variations of identity theft (IDT) schemes as they emerge throughout the processing year. As noted, this functionality is not available in legacy systems, such as the Electronic Fraud Detection System.

The RRP pilot was conducted in 2014 as a once-a-week selection to determine the effectiveness of our models in identifying potential IDT tax returns. The pilot was deemed successful in coverage and accuracy, and subsequently rolled out to daily selections during the 2015 Filing Season. To illustrate the ultimate success of the program during the 2015 Filing Season, the RRP had a higher IDT detection rate in its first year of full-scale production than any other legacy IDT detection system at the IRS with the lowest false detection rate.

The draft report notes that the RRP missed potential IDT selections during its test pilot in 2014; however, as already noted, it must be emphasized that the system was operating under a one-day-a-week selection frequency. This presented an overall operational constraint on the number of potential IDT tax returns selected each week and not all filters were being used in the initial pilot. The goal of the pilot was not to select all IDT returns or to replace the analytics in other existing fraud detection systems, but rather to demonstrate how well the RRP analytics performed in identifying new IDT fraud while maintaining a relatively low false detection rate.
Continued Refinement of the Return Review Program Identity Theft Detection Models Is Needed to Increase Detection

In an effort to combat increased fraud and IDT, new IRS procedures implemented in January 2015 limited the number of refunds electronically deposited into a single financial account or pre-paid debit card to three. The direct deposit limit prevented fraudsters or unscrupulous individuals from easily obtaining multiple refunds. The fourth and subsequent refunds automatically converted to paper checks and were mailed to the taxpayer’s address of record. Taxpayers received a notice informing them that the account exceeded the direct deposit limits and they would receive a paper refund check in approximately four weeks if there were no other issues on the return. Although programming issues allowed a small number of refunds that should have been converted to paper checks to be issued electronically, we note that two of the three causes were addressed in March 2015, with the third cause expected to be addressed by programming changes in 2016.

We disagree with two of the three outcome measures cited in the report. We believe the amount for the 5,516 requested direct deposits not converted to a paper refund check as required is overstated. Our data analysis in August 2015 confirmed that 1,522 of these refunds were not deposited into the taxpayer account because they were returned to the IRS by banks, which substantially lowers the refund amount. For the 325 tax refund checks returned undeliverable that had not been treated as IDT, data analysis completed in August 2015 revealed that 70 of the 325 accounts cited did have an identity IDT indicator placed on the account.

Attached are our comments to your recommendations. If you have any questions, please contact me, or a member of your staff may contact Darius Taylor, Acting Business Modernization Office Executive, Business Modernization Office, Wage and Investment Division, at (240) 613-5758.

Attachment
Continued Refinement of the Return Review Program Identity Theft Detection Models Is Needed to Increase Detection

Recommendation

RECOMMENDATION 1
The Commissioner, Wage and Investment Division, should ensure that identity theft tax returns identified by the DDb and/or the EFDS are selected by the RRP prior to replacing the identity theft detection capabilities of these systems.

CORRECTIVE ACTION
We agree that the retirement of existing systems should not compromise or reduce our ability to detect potentially fraudulent tax returns. Because identity theft (IDT) is constantly evolving, the future state of our detection systems may not be a true duplication of the current state. Our plans for bringing the Return Review Program to full functionality and replacing the fraud and IDT detection functions of the Electronic Fraud Detection System and the Dependent Database call for improving overall detection performance, not reducing or otherwise compromising it. Consequently, we believe our plan adequately addresses the intent of the recommendation and we plan no additional corrective action.

IMPLEMENTATION DATE
Implemented

RESPONSIBLE OFFICIAL
Director, Return Integrity and Compliance Services, Wage and Investment Division
Director, Business Performance Solutions, Business Modernization Office, Wage and Investment Division

CORRECTIVE ACTION MONITORING PLAN
N/A

Recommendations

The Commissioner, Wage and Investment Division, should:

RECOMMENDATION 2
Ensure that tax refund checks are reissued to all taxpayers, including the 113 we identified during our review, who subsequently changed their address in response to an undelivered paper refund check.

CORRECTIVE ACTION
We agree with this recommendation, and as of October 2015, appropriate steps have been taken to resolve these accounts. The updated monitoring procedures have also been implemented to address the timing issues of the additional refund freeze to ensure refunds are reissued correctly when taxpayers contact the IRS to verify their identity and update the account address.
Continued Refinement of the Return Review Program Identity Theft Detection Models Is Needed to Increase Detection

IMPLEMENTATION DATE
Implemented

RESPONSIBLE OFFICIAL
Director, Return Integrity and Compliance Services, Wage and Investment Division

CORRECTIVE ACTION MONITORING PLAN
N/A

RECOMMENDATION
Ensure that tax examiners reverse the fraudulent tax return data entries from the taxpayer’s account and place an identity theft indicator on the taxpayer’s account for an undelivered check when the taxpayer has not satisfactorily resolved the issue after 30 calendar days.

CORRECTIVE ACTION
The IRS already has controls in place that will freeze those accounts where refund checks are returned as undeliverable. We recognize the importance of promptly addressing those accounts where IDT is suspected; however, because a refund that has been converted to a paper check and subsequently returned as undeliverable is not conclusive proof of IDT fraud, our Tax Examiners are instructed to allow 30 days for taxpayers to contact the IRS to resolve the undelivered refund. Procedures also require that accounts with unresolved returned refunds, suspected of being IDT fraud, be marked for IDT and reversed.

Due to limited resources and with the subject refunds already being held by an account freeze, the resolution of these accounts is a subordinate priority to other, more urgent IDT-related work. We have requested programming changes that will permit batch processing of these accounts and shorten the time frame in which they are resolved; however, the implementation of such programming changes are subject to budgetary constraints, limited resources, and competing priorities. Consequently, and due solely to those constraints, we cannot provide an implementation date at this time. As such, this corrective action will be placed on hold in our internal management control system.

IMPLEMENTATION DATE
N/A

RESPONSIBLE OFFICIAL
N/A

CORRECTIVE ACTION MONITORING PLAN
N/A
RECOMMENDATION 4
Develop processes and procedures to place an identity theft indicator and remove the fraudulent tax return data for those taxpayer accounts where a paper refund check is cancelled because it remains uncashed after 14 months.

CORRECTIVE ACTION
The IRS partially agrees with this recommendation. Processes and procedures are in place for addressing and resolving refund cancellations caused by refund checks not being cashed within fourteen months of issuance. With the 2015 Filing Season being the first year limits were placed on the number of electronic deposits to the same account, any of those payments that were converted to paper checks and are not cashed within fourteen months will not be cancelled before 2016. By December 2016, the IRS will analyze the volume of converted refund payments that are ultimately cancelled and will determine appropriate next steps in how those accounts should be treated.

IMPLEMENTATION DATE
December 15, 2016

RESPONSIBLE OFFICIAL
Director, Return Integrity and Compliance Services, Wage and Investment Division

CORRECTIVE ACTION MONITORING PLAN
We will monitor this corrective action as part of our internal management control system.