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Report to the Commissioner, Internal Revenue Service

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TAX ADMINISTRATION

IRS' System Used in Prioritizing Taxpayer Delinquencies Can Be Improved

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The Honorable Shirley Peterson
Commissioner, Internal Revenue Service

Dear Mrs. Peterson:

The Internal Revenue Service (IRS) implemented the Resources and Workload Management System (RWMS) in 1986 to improve the management of its inventory of taxpayer delinquencies and maximize collections. Delinquencies occur when taxpayers file returns without paying all the taxes they owe or when taxpayers do not file the required returns. Using various formulas, RWMS is designed to assign scores to delinquencies that are related to probable collections when returns have been filed or to probable amounts due when nonfilers are involved. Higher scored delinquencies should result in larger collections or amounts due than lower scored delinquencies. IRS tries to direct its collection resources to delinquencies with the highest scores, without regard to whether the delinquencies involve filers who owe tax or nonfilers.

IRS has recently initiated a project to revise current RWMS formulas and develop new ones to improve the relationship between scores and probable collections or amounts owed. Regression analysis will be used to test hundreds of potentially relevant variables.

As part of our response to a request regarding IRS' accounts receivable from the Chairman, Subcommittee on Oversight, House Committee on Ways and Means, we reviewed RWMS. Because of IRS' revision project, we did not evaluate the current formulas. Rather, we examined IRS' latest evaluation of the formulas and reviewed IRS' revision plans. This report provides our observations about ways IRS could improve RWMS and its future evaluations of formulas so that our suggestions can be considered as the revision project is implemented.

Results in Brief

While we believe IRS' approach to revising RWMS is sound, we also believe IRS can further improve RWMS by seeking private industry's experience in collecting receivables to identify the variables to be tested and revise the scores assigned to delinquencies during the collection process as new information is obtained. In addition, we believe IRS should consider changing its basis for scoring nonfilers' delinquencies. While RWMS is designed to maximize collections, nonfiler delinquency scores are based on the probable amounts due, which may be substantially more than probable collections. We also believe that the RWMS formulas should be expanded

beyond actual collection cases to cover the delinquency prevention and identification portion of the revenue officers' workloads to recognize the vital role prevention and identification can play in stemming the growth of the accounts receivable.

We found that IRS' latest evaluation of RWMS formulas contained limited analysis of the relationship between scores and collections or amounts due. IRS studied the relationship between scores and collections or amounts due for only a few broad types of unpaid tax and nonfiler delinquencies. This study showed that scores were generally related to actual collections or amounts due. However, scores and collections or amounts due might not have been related if more discrete, narrowly defined categories had been used. In addition, the evaluation results did not include statistical measures, such as sampling error or confidence level, that are needed to assess the validity and reliability of sample results. For these reasons, we believe that IRS' evaluation was not as useful as it could have been in assessing the RWMS formulas.

A sampling methodology would not be needed to evaluate RWMS formulas if IRS had a means of comparing delinquency scores with actual collections or amounts due for all cases worked. We believe that IRS should routinely include RWMS scores and collection or amount due information on its master file records and collection reports to provide a means for such comparison and thereby allow for continuous evaluation of RWMS scores. If, in the future, IRS wants to supplement such continuous evaluation with periodic analyses of some sample results, the samples should be drawn from more similar groups of delinquencies, and appropriate statistical measures should be calculated and reported.

Background

IRS uses a three-step process to pursue delinquent taxpayers. In the first step, IRS service centers mail delinquent taxpayers a series of computer-generated notices at predetermined intervals and respond to taxpayers' replies. Unresolved delinquencies that meet certain dollar thresholds are transferred to the second step, called the Automated Collection System (ACS). Collection employees at automated call sites use ACS to telephone delinquent taxpayers, receive calls from taxpayers, and retrieve information from the taxpayers' accounts. ACS uses RWMS scores, along with several other factors, in prioritizing work. In the third step, unresolved delinquencies are transferred to revenue officers in the district offices for personal contact with taxpayers if the RWMS scores of the delinquencies meet district offices' minimum score criteria. Delinquencies

scored below the minimum are held in a queue and may subsequently be transferred back to ACS or assigned to revenue officers under certain conditions.

IRS developed RWMS because its collection staff were unable to complete collection efforts for all delinquencies. Before the implementation of RWMS, delinquencies were not prioritized. They were generally worked on a first-in, first-out basis, and revenue officers' workloads were increasing. RWMS was designed to allow IRS to better manage its revenue officer workload and to focus its efforts on delinquencies that would result in the highest probable collections from filers or probable amounts due from nonfilers. A district office can control the number of delinquencies transferred to its revenue officers, and therefore their workloads, by raising or lowering the RWMS cutoff score.

In addition to using RWMS scores to manage its inventory of delinquencies and maximize collections or amounts due, IRS also has begun to use RWMS scores along with other information to (1) formulate revenue and workload data for budget submissions, (2) project workload and generate workplans for each of the automated call sites and district offices, and (3) allocate staff.

Currently, IRS uses 30 formulas to compute RWMS scores. The formula used to score a particular delinquency depends on (1) the type of tax and delinquency amount when a current return has been filed or (2) the type of tax and the tax reported on the last return filed when the taxpayer is currently a nonfiler. For example, three formulas are used to score certain employment tax delinquencies when returns have been filed—one for delinquencies under $501, one for delinquencies in the $501 to $5,000 range, and one for those over $5,000.[1]

Objectives, Scope, and Methodology

Our objectives were to (1) review IRS' plans for revising RWMS and (2) examine IRS' evaluation of the RWMS formulas.

[1]These employment taxes included social security taxes owed by employers, and employees' social security and income taxes withheld for the government by employers.

To accomplish our objectives, we

- reviewed the variables, weights, and formulas used to determine a delinquency's RWMS score;
- analyzed IRS Internal Audit reports on RWMS;
- obtained IRS' evaluations of the RWMS formulas;
- obtained information on the processing of delinquencies and on the procedures and rules governing the operation of RWMS;
- reviewed statistical data on the operation of RWMS;
- determined how other organizations estimate collections from tax and other delinquencies by contacting the federal agencies that have responsibility for collecting most of the U.S. government's nontax delinquencies, a large trade association for debt collectors, private collection agencies, vendors who manufacture software for prioritizing debt collection, and several state tax agencies that are known for having effective tax collection systems; and
- obtained IRS' plan for refining RWMS.

We discussed past RWMS evaluations with IRS' National Office officials and analysts in the Collection Division's Office of Evaluation and Research who are responsible for the development and review of RWMS. We also discussed RWMS with managers and staff in Collection's Office of Operations and with a senior analyst in the National Office's Research Division. In addition, we obtained a field perspective by discussing RWMS with collection analysts in each of IRS' seven regional offices.

We did our work between July and September 1991 in accordance with generally accepted government auditing standards. Responsible IRS officials reviewed a draft of this report, and we have included a summary of their comments on our recommendations.

IRS Plans to Revise RWMS Can Be Improved

IRS has planned a revision of RWMS that will use more current information to make the relationship between scores and probable collections and probable amounts due more precise. Formulas used for scoring delinquencies of taxpayers who filed returns, for example, are now primarily based on the outcomes and characteristics of calendar year 1982 delinquencies. In addition, we and IRS' Internal Audit Division and its Collection staff in field offices have expressed concerns about the relationship between RWMS scores and probable collections or amounts due

for various specific categories of delinquencies. We questioned, in a 1991 report, the scoring of delinquencies involving high-income nonfilers,[2] and Internal Audit questioned the scoring of delinquencies generated when IRS prepared substitute returns for nonfiling taxpayers.[3] Collection field staff raised concerns that the RWMS formulas did not include variables that they believed should have been used, such as the taxpayer's compliance history.

By the end of 1993, IRS plans to have completed a review of the variables used in the RWMS formulas, revised existing formulas, and developed additional ones. IRS plans to use regression analysis to test the effects of hundreds of variables on probable collections or amounts due and to determine which additional variables can improve the relationship between scores and probable collections or amounts due.

IRS already anticipates a number of new formulas. For example, IRS expects to develop separate formulas for delinquencies (1) generated when IRS prepares substitute returns for nonfiling taxpayers and (2) involving high-income nonfilers. IRS also plans to develop formulas that take into account differences in the effects of variables on delinquencies having different dollar values. For example, IRS currently uses only one formula for scoring employment tax delinquencies over $5,000. IRS anticipates developing several formulas for various ranges of employment tax delinquencies over $5,000.

While we agree that IRS' comprehensive revision effort should improve RWMS, we noted opportunities for additional improvements that IRS should consider. First, IRS has not solicited input from private industry. Second, the RWMS scores for delinquencies involving nonfilers may not result in collection maximization because they are designed to relate to amounts due and not to actual collections. Third, RWMS scores are not assigned to all components of revenue officers' workloads. Finally, IRS' evaluations of the relationship between scores and actual collections or amounts due are based on broad, instead of specific, categories of delinquencies, and evaluation results do not include measures of sampling error or confidence level needed to adequately assess validity and reliability of results.

[2]Tax Administration: IRS Does Not Investigate Most High-Income Nonfilers (GAO/GGD-91-36, Mar. 13, 1991).

[3]Section 6020 of the Internal Revenue Code authorizes IRS to estimate taxes and file returns on behalf of taxpayers who do not voluntarily file their own returns.

Additional Input Needed

While IRS has developed a list of hundreds of variables that will be tested during its RWMS revision efforts, it has not sought the experience of private industry in identifying potentially relevant variables. Several manufacturers of software that prioritizes delinquent debts and a private collection agency told us that they use variables such as valid addresses or phone numbers in assessing the collectibility of accounts. Another company uses zip code collection histories as predictors of collectibility. IRS did not consider these factors when determining the variables to be tested. RWMS formulas do not consider whether IRS has valid addresses nor does RWMS revise the scores of open delinquencies when taxpayer phone numbers are found to be invalid. Information about private sector experience could provide IRS with additional variables that may significantly impact expected collections.

In addition to assisting IRS in identifying variables to test, private sector companies could provide IRS with useful information from their collection experience. For example, they could tell IRS about the usefulness and viability of updating scores during the collection process. Private sector companies told us that a change in the initial determination of address or phone number validity, for example, could significantly change the assessment of the potential collectibility of a delinquent account. Neither IRS' current procedures nor its RWMS revision plans provide for changing scores for specific delinquencies when new information is obtained.

Changes Needed in Scoring Nonfiler Delinquencies

IRS currently assigns scores to nonfiler delinquencies that relate to amounts due because, in addition to wanting to achieve its primary goal of maximizing collections, IRS also wants to make priority those nonfiler delinquencies that should result in the largest amounts due. However, we believe IRS' current practice may prevent it from achieving its primary goal, because a significant portion of the amount due may not be collected. Scoring nonfiler delinquencies on the basis of amounts due could therefore assign them higher priority than the probable collections from them would justify. As a result, nonfiler delinquencies with lower probable collections could be worked, or pursued, before or instead of other delinquencies with higher probable collections. To the extent this occurs, prioritizing the collection workload on the basis of amounts due may not lead to collection maximization.

We recognize that pursuing nonfiler delinquencies has long-term compliance implications that should be considered along with short-term collection maximization. For example, IRS believes that once it identifies nonfilers and secures returns from them, nonfilers are more likely to file

future returns than if IRS had not pursued them. However, we believe RWMS scores for delinquencies involving nonfilers should relate to probable collections rather than probable amounts due. IRS could score nonfiler delinquencies on the basis of probable collections and give consideration to compliance implications by either (1) adding a compliance factor to the formulas to increase the scores for nonfiler delinquencies or (2) prioritizing nonfiler delinquencies separately from delinquencies involving filers and then working an appropriate mix of both.

Expansion of RWMS May Be Needed

In August 1991, we reported on IRS' programs for preventing, identifying, and collecting employment tax delinquencies.[4] We noted that IRS has not done enough to prevent these delinquencies, even though prevention may be more cost effective than collections in stemming the growth of the accounts receivable inventory. Revenue officers are responsible for implementing several of the prevention and identification programs in addition to collecting taxpayers' delinquencies. However, RWMS scores are not assigned to prevention and identification components of revenue officers' workloads.

Since over two-thirds of all federal tax revenue is collected through employment taxes, employment tax delinquency prevention and identification is critical. As we reported, some employment tax prevention and identification programs might be more effective if more staff resources were applied to them. The Federal Tax Deposit (FTD) Alert Program is an example. It is one of IRS' two primary employment tax delinquency prevention programs. Employers are generally required to pay employment taxes periodically through the FTD system. The FTD Alert Program was designed to identify and prevent potential employment tax delinquencies by employers who appear to have failed to make required deposits. When a potential delinquent employer fails to respond to an IRS computer-generated notice alerting the employer that a deposit has not been made, a revenue officer is expected to promptly contact the taxpayer in an attempt to prevent a delinquency from occurring. According to an IRS National Office official, alerts should be high priority, but district offices have discretion in prioritizing their workloads. Whether a district office processes an alert, according to the official, generally depends on the availability of staff at the district office.

[4]Tax Administration: Efforts to Prevent, Identify, and Collect Employment Tax Delinquencies (GAO/GGD-91-94, Aug. 28, 1991).

IRS could help reduce the growth of the accounts receivable inventory by expanding RWMS to cover the prevention and identification components of revenue officers' workloads. Programs for preventing and identifying employment tax delinquencies are as essential as programs for collecting delinquencies, but they may not have as high a priority in district offices as they should. RWMS would, therefore, be a more effective workload management tool if it were also used to appropriately prioritize the employment tax prevention and identification components of revenue officers' workloads. To accomplish this, IRS would have to develop formulas that produce RWMS scores for the prevention and identification work that relate to ultimate collections.

Better Evaluations of Formulas Needed in the Future

IRS' latest evaluation of RWMS formulas showed that scores were generally related to actual collections or amounts due. However, the evaluation results were based on outcomes for categories of delinquencies that may have been too broad and contained delinquencies that may have been too dissimilar for IRS to identify instances in which RWMS scores did not relate to collections or amounts due for specific categories of delinquencies. For example, inappropriate scoring of high-income nonfiler delinquencies would not have been detected because these delinquencies would have been subsumed under the broader category of individual nonfilers. Further, the evaluation results did not include a measurement of sampling error and confidence level, which is needed to adequately assess the validity and reliability of the results.

IRS' evaluation used random samples from the collection research file of each of three filer and three nonfiler delinquency categories.[5] IRS divided the sample delinquencies into various subgroups on the basis of RWMS scores and determined average scores and collections or amounts due for each subgroup. IRS concluded that the RWMS formulas were satisfactory because, within each category, average collections or amounts due generally increased as average scores increased. Examples of the results for two of the delinquency categories are shown in the following tables.

[5]The categories were individual return filers, business income tax return filers, employment tax return filers, individual nonfilers, business income tax nonfilers, and employment tax nonfilers.

Table 1: Individual Nonfiler Delinquencies

Delinquency subgroup	Average RWMS score	Average amount due
10	2,888	$2,785
9	1,523	1,603
8	1,156	1,226
7	889	1,301
6	701	1,177
5	611	796
4	550	489
3	516	700
2	492	624
1	471	533

Table 2: Employment Tax Return Filer Delinquencies

Delinquency subgroup	Average RWMS score	Average collections
25	73,390	$42,247
24	18,458	14,986
23	11,902	9,615
22	8,677	6,842
21	6,771	5,712
20	5,522	4,479
19	4,639	3,927
18	3,823	3,330
17	3,134	2,537
16	2,601	2,038
15	2,155	1,724
14	1,789	1,484
13	1,500	1,378
12	1,272	1,104
11	1,080	947
10	908	822
9	760	855
8	641	626
7	538	500
6	433	431
5	335	376
4	252	348
3	177	224
2	112	170
1	26	104

These tables show that collections or amounts due generally increased as scores increased. However, as shown, the differences in average collections or amounts due for some adjoining subgroups are small. Consequently, it is possible that in some instances no statistically significant difference existed between successive subgroups.

We believe that instead of relying solely on a sampling methodology to evaluate its formulas periodically, IRS should use its information systems to evaluate the formulas. RWMS scores should be included on master file records and collection reports that track delinquency dispositions. This would allow IRS' collection managers in headquarters and the field to determine, continually, how well RWMS scores relate to collections or amounts due by comparing scores with actual dispositions for specific delinquencies and various delinquency categories. IRS evaluations based on samples could then be limited to any portions of its workload not covered by collection reports.

Conclusions

As RWMS plays an increasingly important role in managing collection activities, it is essential that the formulas produce scores that relate to probable collections. The current revision effort should improve this relationship. The use of regression analysis to test potentially relevant variables and the expected addition of new formulas are sound improvements. However, we believe IRS can further improve RWMS by soliciting input from private sector companies to ensure that all relevant variables and collection prioritization practices are being explored.

In addition, we believe that the scoring of nonfiler delinquencies could be improved by basing scores on probable collections rather than expected amounts due because all amounts due may not be collected. We also believe that the compliance implications of pursuing nonfiler delinquencies need to be considered. This could be done by adding a compliance factor to the formulas for nonfiler delinquencies or treating nonfilers separately in prioritizing delinquencies.

Further, we believe that assigning RWMS scores to the employment tax delinquency prevention and identification components of revenue officers' workloads could enhance overall workload management. This would ensure that these components receive the amount of attention they deserve given their potential contribution to IRS' ability to collect tax revenue.

Finally, evaluations of formulas are needed to ensure that scores relate to probable collections for all categories of delinquencies. IRS' latest evaluation did not provide the specificity that would allow such determinations. Including RWMS scores in collection information systems would provide a means for IRS to avoid the problems we have noted with its past random sample evaluation and would allow collection headquarters and field staff to continually evaluate the formulas.

Recommendations

We recommend that you direct the Assistant Commissioner (Collection) to (1) seek the experience of private industry in identifying variables and prioritization practices affecting collections that IRS should consider, (2) consider scoring nonfiler delinquencies on the basis of probable collections rather than expected amounts due, (3) consider expanding RWMS to cover the employment tax delinquency prevention and identification components of revenue officers' workloads, and (4) include RWMS scores on master file records and collection reports that track delinquency dispositions to provide the means for continual evaluations of formulas and avoid the limitations of evaluations based on sample results.

Agency Comments

IRS officials reviewed a draft of this report and provided oral comments. They agreed with our recommendations for improving RWMS and IRS' future evaluations of RWMS formulas. These officials informed us that additional computer capacity to be provided in the future under IRS' Tax System Modernization effort will enable IRS to (1) expand the number of variables used in scoring delinquencies, (2) score employment tax delinquency prevention and identification programs, and (3) use collection reports to continually evaluate the formulas. They also said that IRS' systems currently have the information necesssary to develop formulas for scoring nonfiler delinquencies on the basis of probable collections rather than expected amounts due. Since this revision may lower the scores of nonfiler delinquencies, thereby reducing the probability that they will be fully pursued, the officials stated that IRS may need to increase the priority of nonfiler delinquencies (relative to higher scored delinquencies involving filers) to ensure that IRS continues to address employment tax compliance problems.

As head of a federal agency, you are required by 31 U.S.C. 720 to submit a written statement on actions taken on these recommendations to the Senate Committee on Governmental Affairs and the House Committee on Government Operations not later than 60 days after the date of this letter and to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of this letter.

Copies of this report are also being sent to the Chairman, Subcommittee on Oversight, House Committee on Ways and Means; the Secretary of the Treasury; and other interested parties.

The major contributors to this report are listed in the appendix. Please contact me on (202) 275-6407 if you or your staff have any questions concerning the report.

Sincerely yours,

Jennie S. Stathis
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