

**Toll-Free  
Customer Satisfaction Survey Results  
Should Be Qualified if Used for the  
Government Performance and Results Act**

**September 2000**

**Reference Number: 2000-10-137**

**This report has cleared the Treasury Inspector General for Tax Administration disclosure review process and information determined to be restricted from public release has been redacted from this document.**



DEPARTMENT OF THE TREASURY  
WASHINGTON, D.C. 20220

INSPECTOR GENERAL  
for TAX  
ADMINISTRATION

September 20, 2000

MEMORANDUM FOR COMMISSIONER ROSSOTTI

FROM: Pamela J. Gardiner  
Deputy Inspector General for Audit

SUBJECT: Final Audit Report – Toll-Free Customer Satisfaction Survey  
Results Should Be Qualified if Used for the Government  
Performance and Results Act

This report presents the results of our review of the Toll-Free Customer Satisfaction Survey Results as they relate to the Government Performance and Results Act of 1993 (GPRA).<sup>1</sup> The overall objective of this review was to evaluate the accuracy, validity, and reliability of the information used by the Internal Revenue Service (IRS) to measure customer satisfaction with the Toll-Free Program. The Toll-Free Program is a significant part of the IRS' activities, providing customers free telephone tax assistance 24 hours a day, 7 days a week.

In summary, we found that the Toll-Free Customer Satisfaction Survey results are not statistically valid and should not be used to satisfy requirements of the GPRA unless they are appropriately qualified. We recommended that the Deputy Chief Financial Officer for Strategic Planning and Budgeting, in conjunction with the Assistant Commissioner (Customer Service); the Chief, Customer Service Field Operations; and the Director, Office of Program Evaluation and Risk Analysis, consider establishing a process to ensure the Toll-Free Customer Satisfaction Survey is administered properly and that the data used to report Survey results are reliable, valid, and verifiable. We also recommended that the Survey selection technique be revised and surveyors' work hours expanded to correspond with site operation hours to ensure all customers' interactions have an opportunity of being selected. In addition, the GPRA reports

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<sup>1</sup> Pub. L. No. 103-62, 107 Stat. 285.

should be appropriately qualified with any limitations of the Survey's design and reliability of its data.

IRS management believes that their management control processes are sufficient and additional controls are not needed to ensure the Survey results are reliable, valid, and verifiable. They also disagree that the current sample selection methodology should be altered. They cannot realistically expand the Survey coverage at this time to correspond with site operation hours. Where appropriate, we have included additional comments in the body of the report to further explain our position on these issues.

IRS management agreed to disclose in the reports the hours included in the Survey coverage and will ensure that all future Toll-Free Customer Satisfaction Survey Reports and other GPRA reports include information on which groups of customers are included in the Survey population. The IRS will also reassess, with new vendors, the Survey program and controls over Survey administration. Management's comments have been incorporated into the report where appropriate, and the full text of their comments is included as an appendix.

Copies of this report are also being sent to the IRS managers who are affected by the report recommendations. Please contact me at (202) 622-6510 if you have questions, or your staff may call Maurice S. Moody, Associate Inspector General for Audit (Headquarters Operations and Exempt Organizations Programs), at (202) 622-8500.

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## **Executive Summary**

The audit was performed as part of the Treasury Inspector General for Tax Administration's overall strategy to assess the reliability of the Internal Revenue Service's (IRS) customer (taxpayer) satisfaction performance measures as they relate to the Government Performance and Results Act of 1993 (GPRA).<sup>1</sup> The GPRA is intended to improve agency performance and provide objective information to congressional and executive branch decision-makers to assist them in appropriating and allocating federal funds. The law requires federal agencies to prepare multi-year strategic plans, annual performance plans, and performance reports on prior year accomplishments.

The IRS established balanced performance measures to support achievement of its strategic goals: provide quality service to each taxpayer, serve all taxpayers, and be productive through a quality work environment. Achievement of these goals is measured through customer satisfaction, employee satisfaction, and business results. Taxpayers who receive specific kinds of services from the IRS might be asked to rate the service. These survey results are being summarized by a vendor and used by the IRS to evaluate the overall satisfaction with IRS service.

The IRS originally designed the surveys as part of its balanced performance management system and did not anticipate using the surveys for GPRA reporting purposes. Subsequently, the IRS used the survey results to fulfill the GPRA reporting requirements. The intent of the GPRA is that the Congress will use the performance measurement results to help evaluate IRS budget appropriations. Therefore, it is essential that the IRS accurately measure its success in meeting the performance goals.

This review evaluated the accuracy, validity, and reliability of the information used by the IRS to measure customer satisfaction with the Toll-Free Program. The Toll-Free Program is a significant part of the IRS' activities, providing customers free telephone tax assistance 24 hours a day, 7 days a week. Toll-Free telephone lines provide various types of customer service such as ordering forms, reporting fraud, answering tax-related questions, providing special assistance for long-standing tax problems, etc.

## **Results**

The present results of the Toll-Free Customer Satisfaction Survey should not be used to satisfy all requirements of the GPRA, unless appropriately qualified. The original purpose of the Toll-Free Customer Satisfaction Survey was not for GPRA reporting but

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<sup>1</sup> Pub. L. No. 103-62, 107 Stat. 285.

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to measure the overall trend of taxpayer satisfaction with Toll-Free service. While the Survey may be an effective marketing tool to gauge taxpayers' satisfaction with the services provided by the Toll-Free Program, a higher standard is required when these results are used for GPRA reporting purposes. Internal controls should be in place to ensure the Survey results are reliable and that the data used for GPRA reporting purposes have been verified and validated.<sup>2</sup>

IRS executives have not established management controls to continuously monitor and improve the administration of the Toll-Free Customer Satisfaction Survey and the means to verify and validate the Survey results to measure the level of satisfaction all customers receive from interactions with Toll-Free Program employees. Without reliable information, the IRS cannot provide a basis for comparing program results with the established performance goals and will not achieve the benefits of the GPRA intended by the Congress.

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The current management control process is not adequate to ensure the Toll-Free Customer Satisfaction Survey is administered properly and the results are reliable and can be verified and validated for GPRA purposes. Specifically:

- More accountability is needed for the Toll-Free Customer Satisfaction Survey results. Three different IRS offices share responsibility for all the facets of the Toll-Free Customer Satisfaction Survey, but no one is responsible for ensuring procedures established by one office are properly executed by another office. No office has taken responsibility for ensuring that procedures have been established to verify and validate the Survey results.
- Including customers who telephone the toll-free lines on the weekends and after the surveyors' regular work hours Monday through Friday will increase the reliability of the results. The Toll-Free Customer Satisfaction Survey sample selection methodology excludes specific customers who call on Saturday and Sunday or after surveyors'<sup>3</sup> work hours (i.e., generally after 5:00 p.m.).
- A better random sampling technique would improve the reliability of the Survey results and decrease potential bias. The selection methods used do not ensure that each item in the population has an equal chance of being selected. There is no way of assessing how accurately the sample reflects the characteristics of the entire

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<sup>2</sup> Section 1115(a)(6) of Pub. L. No. 103-62, 107 Stat. 285.

<sup>3</sup> The term "surveyor" is used in this report to identify the IRS employee who actually selected the Survey sample. Customer Service Quality and Program Analyst employees generally perform this activity.

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population (i.e., taxpayers using Toll-Free services). In addition, the instructions for the sample selection are not clear and are not always followed.

We believe that without reliable Survey results, the IRS cannot meet the GPRA requirements of establishing measurable performance goals and reporting of accurate results. Without improvements in the above conditions, the Toll-Free Customer Satisfaction Survey results should be qualified if used to meet the requirements of the GPRA.

### **Summary of Recommendations**

We recommended that the Deputy Chief Financial Officer for Strategic Planning and Budgeting, in conjunction with the Assistant Commissioner (Customer Service); the Chief, Customer Service Field Operations; and the Director, Office of Program Evaluation and Risk Analysis, consider establishing a process to ensure the Toll-Free Customer Satisfaction Survey is administered properly and that the data used to report the Survey results are reliable, valid, and verifiable. We also recommended that the Survey selection technique be revised and surveyors' work hours expanded to correspond with site operation hours to ensure all customers' interactions have an opportunity of being selected. In addition, the GPRA reports should be appropriately qualified with any limitations of the Survey's design and reliability of its data.

Management's Response: IRS management believes that their management control processes are sufficient and additional controls are not needed to ensure the Survey results are reliable, valid, and verifiable. They also disagree that the current sample selection methodology should be altered. And though they cannot realistically expand the Survey coverage at this time to correspond with site operation hours, IRS management agreed to disclose in the reports the hours included in the Survey coverage and the related population of taxpayers whose calls are subject to survey.

IRS management will ensure that all future Toll-Free Customer Satisfaction Survey Reports and other GPRA reports include information on which groups of customers are included in the Survey population. In addition the IRS will reassess, with new vendors, the Survey program and controls over Survey administration.

Management's complete response to the draft report is included as Appendix IV.

Office of Audit Comment: We believe that the control processes established by IRS management have not been effective in verifying and validating the Survey results. On-site reviews would have identified that the surveyors do not always follow the sample selection method and that the selection methods vary among sites.

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In addition, we believe the current sample selection methodology may not produce a sample representative of the entire population and may introduce bias. A basic requirement of any sample is that it should be representative of the entire population from which it was selected.

The IRS' unit of selection is a taxpayer and each taxpayer call is randomly routed to the next available Customer Service Representative (CSR). However, since the IRS does not have the technology to randomly select calls received by a taxpayer, it must select calls received by the CSRs. Because taxpayers are randomly routed to the next available CSR, each taxpayer has an equal opportunity of being selected to participate in the Survey, with the exception of taxpayers who call after hours. However, since all CSRs do not answer the same number of calls, the IRS must also select CSRs in a random manner that is representative of the entire population.

By working down the list of active/eligible CSRs one by one (the skip-interval ( $k$ ) is equal to one), the IRS' systematic selection does not account for the differences in the number of calls answered by each CSR during each sample period. Use of a skip-interval ( $k$ ) that is equal to one does not produce a systematic CSR selection that ensures the number of CSRs in the sample is proportionate to the number of calls answered by each CSR. For example, if CSR "1" answers twice as many calls as CSR "2," then CSR "1" should be selected twice as many times as CSR "2."

Therefore, we believe the IRS should revise the sample selection technique or weight the sample results by CSR to improve the reliability of the Survey results and to decrease potential bias.



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### Objective and Scope

This audit is part of the Treasury Inspector General for Tax Administration's (TIGTA) overall strategy to assess the reliability of the Internal Revenue Service's (IRS) customer satisfaction performance measures as they relate to the Government Performance and Results Act of 1993 (GPRA).<sup>1</sup> The IRS is implementing a balanced performance measurement system to balance customer (taxpayer) satisfaction, employee satisfaction, and business results. These quantitative measures will support and reinforce the IRS' achievement of its overall strategic goals. The TIGTA is conducting several reviews to address separate elements of the customer satisfaction measurement system.

*The objective of this review was to evaluate the reliability of the information used by the IRS to meet the GPRA requirements and measure customer satisfaction with the Toll-Free Program services.*

The overall objective of this audit was to evaluate the accuracy, validity, and reliability of the information used by the IRS to measure customer satisfaction with the Toll-Free Program services. We performed this audit from February to June 2000 in accordance with *Government Auditing Standards*. In addition, we relied upon the prior audit work conducted from October 1999 to February 2000 and reported in the TIGTA audit report *Automated Collection System Customer Satisfaction Survey Results Should Be Qualified if Used for the GPRA* (Reference Number 2000-10-078, dated May 2000). Audit work performed in the National Headquarters and the Buffalo call site during that review will be included in this report.

We performed on-site testing in the National Headquarters and the Atlanta Customer Service Center. In addition, we made telephone contacts with surveyors<sup>2</sup> in the Dallas, Fresno, Jacksonville, Nashville, and Pittsburgh Customer Service call sites. These sites were

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<sup>1</sup> Pub. L. No. 103-62, 107 Stat. 285.

<sup>2</sup> The term "surveyor" is used in this report to identify the IRS employee who actually selected the Survey sample. Customer Service Quality and Program Analyst employees generally perform this activity.

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selected based on their 24 hours a day, 7 days a week operations; past audit coverage; multi-lingual capabilities; and proximity to the TIGTA staff. During the audit, we:

- Met with National Headquarters management to discuss how they established the Customer Satisfaction Survey in the Toll-Free Program and how it would be used for the GPRA.
- Interviewed Customer Service managers and employees.
- Observed Toll-Free Program surveyors select telephone calls for the Survey in two call sites (the Atlanta Customer Service Center and the Buffalo call site).
- Identified and analyzed the Toll-Free Program telephone lines and call volume information used to calculate overall Toll-Free Program customer satisfaction.

Our scope of work was limited to evaluating the process the IRS uses to gather the information for measuring customer satisfaction with the Toll-Free Program. Details of our audit objective, scope, and methodology are presented in Appendix I. Major contributors to this report are listed in Appendix II.

### **Background**

*The GPRA requires federal agencies to establish standards for measuring their performance and effectiveness.*

The GPRA requires federal agencies to establish standards for measuring their performance and effectiveness. Federal agencies are required to prepare multi-year strategic plans, annual performance plans, and performance reports on prior year accomplishments.

The overall goal of the GPRA is to improve agency performance and provide objective information to congressional and executive branch decision-makers to assist them in appropriating and allocating federal funds. Therefore, it is essential that the data used for the

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performance measures are reliable and the results are valid and verifiable<sup>3</sup> to ensure proper conclusions are made by both the Congress and the IRS.

The IRS prepared a multi-year strategic plan and annually prepares a performance plan. It also established three strategic goals: provide quality service to each taxpayer, serve all taxpayers, and be productive through a quality work environment. Providing quality service to each taxpayer is a key part of customer satisfaction and includes:

- Making filing easier.
- Providing first quality service to each taxpayer needing help with a return or account.
- Providing prompt, professional, helpful treatment to taxpayers in cases where additional taxes may be due.

*Customers' responses to the customer satisfaction surveys are used to measure the overall trend in satisfaction with IRS service.*

The IRS measures its success in achieving this goal by using a customer satisfaction survey to measure its programs. The IRS contracted with a vendor to conduct 11 customer satisfaction surveys. The vendor designed and prepared the surveys with IRS executives and staff. Customers who receive specific kinds of services might be asked to complete a survey to rate the service they received. The vendor summarizes the responses to measure the overall trend in satisfaction with IRS service.

One of the 11 programs using surveys to measure customer satisfaction is the Toll-Free Program. The Toll-Free Program is a significant part of the IRS' customer service activities. Toll-free telephone lines provide various types of customer service such as ordering forms, reporting fraud, answering tax-related questions, providing special assistance for long-standing tax problems, etc. There are numerous toll-free telephone numbers in the Program. However, only three main toll-free telephone lines are included in the Toll-Free Customer Satisfaction Survey, the lines

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<sup>3</sup> Section 1115(a)(6) of Pub. L. No. 103-62, 107 Stat. 285.

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designated as: (1) Refund Inquiries; (2) General Tax Information, Tax Law, and Procedural Inquiries; and (3) Account Notice Inquiries. These lines provide free telephone tax assistance to customers 24 hours a day, 7 days a week.

Taxpayers who call any of the three main toll-free telephone lines either obtain automated assistance or reach a Customer Service Representative (CSR). Only those taxpayers who reach a CSR are asked to participate in the Survey.

The Customer Service organization is responsible for the Toll-Free Program. IRS telephone reports for Fiscal Year (FY) 1999 show over 53.5 million calls to the IRS' 3 Toll-Free Program telephone lines were answered. CSRs answered over 37.8 million (71 percent) Toll-Free Program calls from customers.

The IRS is developing a new planning process that will provide support for its efforts to comply with the GPRA. Until this process is completed, the IRS Commissioner designated the Deputy Chief Financial Officer for Strategic Planning and Budgeting as responsible for overseeing and coordinating the implementation of all the GPRA-related activity for the IRS. However, other offices are responsible for conducting the Survey.

### **Results**

For GPRA reporting, the IRS should clearly disclose the limitations of the Survey's design and the reliability of its data if the results are used to report the level of satisfaction customers have with the Toll-Free Program's services.

The original purpose of the Survey was not for GPRA reporting but to measure the overall trend of taxpayer satisfaction with the Toll-Free Program's services. Surveyors and CSRs took steps to administer specific aspects of the Survey. For example:

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- The surveyors identified customer issues and case resolutions and notified CSRs when telephone calls were selected for the Survey.
- The CSRs and surveyors read their scripts asking customers to participate in the Survey and successfully routed telephone calls when customers agreed to take the Survey.
- The surveyors documented the selected telephone calls and faxed that documentation to the vendor.
- The call sites reported to the National Headquarters the number of telephone calls received weekly.

However, the Survey results are being reported to the Congress for GPRA purposes, which requires that the data obtained from the Surveys be reliable, verified, and validated. While the Survey may be an effective marketing tool to gauge taxpayers' satisfaction with the services provided by the Toll-Free Program, a higher standard is required when these results are used for GPRA reporting purposes. A management process of internal controls should be in place to ensure the Survey results are reliable and that the data used for GPRA reporting purposes have been verified and validated.<sup>4</sup>

Without reliable information, the IRS cannot provide a basis for comparing program results with the established performance goals, as intended by the Congress when it established the GPRA.

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IRS executives have not established an adequate management process to ensure the Survey is administered properly and the results are reliable and

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<sup>4</sup> Section 1115(a)(6) of Pub. L. No. 103-62, 107 Stat. 285.

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can be verified and validated for GPRA purposes. As a result, the Survey results for the Toll-Free Program include only the opinions of those taxpayers who interact with IRS employees and only those who call during regular work hours Monday through Friday. In addition, the selection methods used do not ensure that each item in the population has an equal chance of being selected.

Without a reliable survey process and a system of internal controls, there is a significant risk the IRS is not collecting data essential for accurate and reliable Survey results that represent all customers who interact with Toll-Free Program CSRs.

If improvements are not made to the above conditions, the Survey results should be qualified if used to meet the requirements of the GPRA. Without reliable Survey results, the IRS cannot provide a basis for comparing program results with the established performance goals and will not fully achieve the benefits of the GPRA intended by the Congress.

### **More accountability is needed for the Toll-Free Customer Satisfaction Survey results**

*The Office of Program Evaluation and Risk Analysis; the Office of the Assistant Commissioner (Customer Service); and the Office of the Chief, Customer Service Field Operations, do not appear to be accountable for the Survey results.*

Three IRS offices currently provide oversight for the Toll-Free Customer Satisfaction Survey.

- The Office of Program Evaluation and Risk Analysis (OPERA) has direct oversight of the vendor's data collection and interpretation activities.
- The Office of the Assistant Commissioner (Customer Service) sets policy for all offices within Customer Service and is responsible for developing guidelines for the field to follow, including the procedures for selecting the sample.
- The Office of the Chief, Customer Service Field Operations, manages normal Toll-Free Program workloads and is responsible for executing the sample.

The OPERA and the Office of the Assistant Commissioner (Customer Service) held quality

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conferences and provided the Toll-Free Program sites with memoranda, training materials, and guidelines. However, there were no on-site reviews to ensure that surveyors were properly selecting CSRs or that surveyors and CSRs were properly administering the Survey. None of the three offices appears to be accountable for the reliability of the Survey *results*. Nor has any office taken responsibility for ensuring that procedures have been established to verify and validate the Survey results.

OMB Circular No.A-123, Management Accountability and Control, states that management accountability is the expectation that managers are responsible for program performance. As managers develop and execute strategies for implementing agency programs, they should design management structures to help ensure accountability for *results*.

### **Including customers who telephone the toll-free lines on the weekends and after the surveyors' regular work hours Monday through Friday will increase the reliability of the results**

The IRS reported to the Congress in its FY 2000 Congressional Justification (submitted in FY 1999) that it would determine the level of satisfaction Toll-Free Program customers receive from interactions with the Toll-Free Program services. However, the Survey is provided only to those customers who reach a CSR. This represents about 71 percent of the calls made to the 3 main toll-free telephone lines.<sup>5</sup> In addition, not all customers who reached CSRs had the opportunity to participate in the Survey. Customers telephoning the toll-free lines during evening hours and on weekends are usually not included in the Survey process.

Generally, call sites conduct the Survey only during surveyors' regular work hours (i.e., from 7:30 a.m. to

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<sup>5</sup> Since the Survey is given only to customers who reach a CSR, from this point forward, any references to Toll-Free Program customers refer to only those who reached a CSR, not to those who received only automated assistance.

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5:00 p.m. Monday through Friday). However, approximately 20 percent of the calls to CSRs are made after 5:00 p.m. Not including in the Survey process those taxpayers who call the IRS in the evening hours and weekends could distort the sample results because the types of customers and issues may differ between daytime and evening or weekdays and weekends.

**A better random sampling technique would improve the reliability of the Survey results and decrease potential bias**

The basic criterion in selecting a random sample is that every item (e.g., every CSR) must be given an equal opportunity of being selected. Otherwise, bias is introduced, and there is no way of assessing how accurately the sample reflects the characteristics of the population. We discussed the sampling techniques with surveyors at six call sites. Our results follow.

**Instructions in the Internal Revenue Manual (IRM) do not produce a representative sample.**<sup>6</sup>

*The IRM instructions do not create a representative sample.*

CSRs are assigned unique identification (ID) numbers in a non-sequential manner. In the instructions on the selection method illustrated in the January 1, 2000, IRM, CSRs with a wide separation between their ID number and those of other CSRs are more likely to be included in the sample. For the selection of CSRs to be a completely random process, every CSR must have an equal chance of being selected.

Each working day (Monday through Friday), six CSRs are selected at three or four random times throughout the day. The customers who the CSRs are talking to at the time of the selections are asked to participate in the Survey.

To identify the first CSR to monitor for each assigned time, surveyors should select a random number within

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<sup>6</sup> At the time of our testing, surveyors were using IRM instructions dated January 1, 2000. The instructions were revised, and the IRM was updated on May 8, 2000.



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the range of all CSR ID numbers, as well as a direction indicator of either higher (+) or lower (-). For example, assume the random number selected is 3335 with a direction indicator of higher (+). According to the IRM, the surveyor should identify the first eligible CSR whose ID number is 3335 or higher and monitor that CSR's call.

Using the table below as an example and assuming all CSRs are answering telephone calls at the assigned time, the surveyor would select the CSR whose employee number is 3339.

**Customer Service Representative  
Identification Numbers**

3329	3331
3332	3334
3339	3344
3346	3349
3350	3351
3352	3353

This CSR has at least nine chances of being selected as the first CSR selected at any time, no matter who is answering telephone calls:

- Four chances – any time ID numbers 3335 through 3338 are selected with a (+) direction indicator.
- One chance – any time ID number 3339 is selected.
- Four chances – any time ID numbers 3340 through 3343 are selected with a (-) direction indicator.

In contrast, the CSR whose ID number is 3351 has only one chance of being selected when the CSRs whose ID numbers are 3350 and 3352 are also available to answer telephone calls.

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*The revised IRM instructions do not create a representative sample.*

In the instructions on the selection method illustrated in the May 8, 2000, IRM, the surveyors are instructed to randomly select the first CSR during the first round of monitoring and simply proceed down a list of CSRs. All CSRs are monitored once before any CSR is monitored a second time. Similarly, all CSRs should be monitored twice before the third rotation begins, and so on.

The surveyors do not always follow sample selection procedures, and selection methods vary among call sites.

*Surveyors selected customers in a manner that may cause the sample to not represent all Toll-Free Program customers.*

Surveyors do not always understand IRM procedures for sample selection. This results in improper use of the random number tables to select CSRs. We identified the following examples:

- Surveyors selected CSRs by adding or subtracting “10,” based on the direction indicator, to the random start number and then selected the next CSR.
- Surveyors selected CSRs from an alphabetic list, while others selected from a list of CSR ID numbers.
- Surveyors selected CSRs using the same random number for all time periods, while others used a different random number for each time period.
- Surveyors selected CSRs so that most were selected close to an equal number of times.
- Surveyors selected any CSR regardless of the random start number.

The sampling methods used to date increase the risk that results will not be representative of all Toll-Free Program customers. Weighting of sample results is one technique that can be used to improve the efficiency of the Survey results. However, we did not identify this or other techniques being used to correct for sampling deficiencies.

### **Recommendations**

We recommend that the Deputy Chief Financial Officer for Strategic Planning and Budgeting, in conjunction

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with the Assistant Commissioner (Customer Service); the Chief, Customer Service Field Operations; and the Director, OPERA, consider the following:

1. Establishing a management control process to ensure the Survey is administered properly and that the data used to report the Survey results are reliable, valid, and verifiable and meet the GPRA requirements.
2. Revising the Survey sample selection technique to decrease the risk that the results will not be representative of all Toll-Free Program customers.
3. Expanding surveyors' work hours to correspond with site operation hours, to ensure all customers who have interactions with the Toll-Free Program have an opportunity of being selected.
4. Qualifying GPRA reports with any limitations of the Survey's design and reliability of its data. For example, the sampling method used does not produce a representative sample and excludes specific customers (i.e., customers using the automated system or those who call in the evening or on the weekends).

Management's Response: IRS management believes that their management control processes are sufficient and additional controls are not needed to ensure the Survey results are reliable, valid, and verifiable. They also disagree that the current sample selection methodology should be altered. And though they cannot realistically expand the Survey coverage at this time to correspond with site operation hours, IRS management agreed to disclose in reports the hours included in the Survey coverage and the related population of taxpayers whose calls are subject to survey.

IRS management will ensure that all future Toll-Free Customer Satisfaction Survey Reports and other GPRA reports include information on which groups of customers are included in the Survey population. In addition the IRS will reassess, with new vendors, the Survey program and controls over Survey administration.

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Management's complete response to the draft report is included as Appendix IV.

Office of Audit Comment: We believe that the control processes established by IRS management have not been effective in verifying and validating the Survey results. On-site reviews would have identified that the surveyors do not always follow the sample selection method and that the selection methods vary among sites.

In addition, the current sample selection methodology may not produce a sample representative of the entire population and may introduce bias. A basic requirement of any sample is that it should be representative of the entire population from which it was selected.

The IRS' unit of selection is a taxpayer and each taxpayer call is randomly routed to the next available CSR. However, since the IRS does not have the technology to randomly select calls received by a taxpayer, it must select calls received by the CSRs. Because taxpayers are randomly routed to the next available CSR, each taxpayer has an equal opportunity of being selected to participate in the Survey, with the exception of taxpayers who call after hours. However, since all CSRs do not answer the same number of calls, the IRS must also select CSRs in a random manner that is representative of the entire population.

By working down the list of active/eligible CSRs one by one (the skip-interval (k) is equal to one), the IRS systematic selection does not account for the differences in the number of calls answered by each CSR during each sample period. Use of a skip-interval (k) that is equal to one does not produce a systematic CSR selection that ensures the number of CSRs in the sample is proportionate to the number of calls answered by each CSR. For example, if CSR "1" answers twice as many calls as CSR "2," then CSR "1" should be selected twice as many times as CSR "2."

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Therefore, we believe the IRS should revise the sample selection technique or weight the sample results by CSR to improve the reliability of the Survey results and to decrease potential bias.

## **Conclusion**

Presently, the Toll-Free Customer Satisfaction Survey results are not valid for establishing a statistical basis for comparing program results with established performance goals as required by the GPRA. There are limitations with the Survey process that result in an increased risk that the data are not reliable to report measures for the GPRA. Until the IRS revises the Survey selection method, the IRS should clearly disclose the limitations of the Survey's data and the reliability of the results.

## Toll-Free Customer Satisfaction Survey Results Should Be Qualified if Used for the GPRA

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### Appendix I

#### Detailed Objective, Scope, and Methodology

The overall objective of this review was to evaluate the accuracy, validity, and reliability of the information used to measure customer satisfaction with the Toll-Free Program services. We performed the following work:

- I. Determined how the Toll-Free Customer Satisfaction Survey results will be reported and used in the future to satisfy the Government Performance and Results Act of 1993 (GPRA)<sup>1</sup> requirements by reviewing current reports and performance plans and interviewing appropriate Internal Revenue Service (IRS) officials.
- II. Determined if all customers who interact with the Toll-Free Program services have been included in the Survey process by interviewing appropriate IRS personnel and obtaining various Toll-Free Program reports.
  - A. Determined what toll-free telephone numbers (known as product lines) are included in the Toll-Free Program services and identified the product lines provided to the vendor.
  - B. Determined if the Surveys are conducted at all call sites and during the call sites' days and hours of operation.
- III. Determined how customers are selected to be included in the Survey by conducting tests in the Atlanta Customer Service Center. In addition, we made telephone contacts with Survey personnel in the Dallas, Fresno, Jacksonville, Nashville, and Pittsburgh Customer Service call sites.
  - A. Determined what guidelines and instructions have been provided and what training or instructions the surveyors received.
  - B. Determined how the surveyors select the customers who participate in the Survey.
  - C. Determined what product lines are selected for the Survey and compared these to the product line used to provide call volumes to the vendor.
  - D. Determined the surveyors' tours of duty and compared these to the sites' days and hours of operation.
- IV. Determined what managerial oversight has been provided to ensure the guidelines have been enforced to produce a sample with the least amount of bias.

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<sup>1</sup> Pub. L. No. 103-62, 107 Stat. 285.

**Toll-Free Customer Satisfaction Survey Results  
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**Appendix II**

**Major Contributors to This Report**

Maurice S. Moody, Associate Inspector General for Audit (Headquarters Operations and Exempt Organizations Programs)

Stanley C. Rinehart, Director

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Cindy Wright, Auditor

**Toll-Free Customer Satisfaction Survey Results  
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**Appendix III**

**Report Distribution List**

Deputy Commissioner Operations C:DO  
Assistant to the Deputy Commissioner Operations C:DO  
Chief Financial Officer C:CFO  
Chief Operations Officer OP  
Director, National Headquarters Management and Finance M  
Assistant Commissioner (Customer Service) OP:C  
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Deputy Chief Financial Officer for Strategic Planning and Budgeting CFO:SPB  
Director, Office of Program Evaluation and Risk Analysis M:O  
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    Assistant Commissioner (Customer Service) OP:C  
    Deputy Chief Financial Officer for Strategic Planning and Budgeting CFO:SPB  
    Director, Office of Program Evaluation and Risk Analysis M:O



**Toll-Free Customer Satisfaction Survey Results  
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Appendix IV

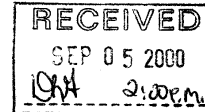
**Management's Response to the Draft Report**



COMMISSIONER

DEPARTMENT OF THE TREASURY  
INTERNAL REVENUE SERVICE  
WASHINGTON, D.C. 20224

September 5, 2000



MEMORANDUM FOR TREASURY INSPECTOR GENERAL FOR TAX  
ADMINISTRATION

FROM: *for* Charles O. Rossotti *Bohulenzel*  
Commissioner of Internal Revenue

SUBJECT: Draft Report - "Toll-Free Customer Satisfaction Survey Results  
Should Be Qualified if Used for the GPRA" (Audit #200010018)

Thank you for the opportunity to respond to your draft report entitled "Toll-Free Customer Satisfaction Survey Results Should Be Qualified if Used for the Government Performance and Results Act (GPRA)." In general, while we appreciate the time and effort put into the review of this program, we must disagree with the three main conclusions and recommendations of this report.

Specifically, we believe that our management control processes are sufficient and additional controls are not needed. Both the Office of Program Evaluation and Risk Analysis (OPERA) and the Assistant Commissioner, Customer Service (CS) have provided effective program oversight and ample guidance to field IRS employees and contractors on the Customer Satisfaction Survey administration process.

We also disagree with the conclusion that the current sample selection methodology should be altered to increase representativeness. Our response below to the assessment of cause of this finding details our conclusion that the principles of random sampling theory validate our approach.

Lastly, we do not believe that there is sufficient evidence to support the conclusion that the survey is statistically biased by the exclusion of after-hours callers. This is a design element of the survey that was instituted for cost management. We believe that any impact due to lack of coverage during these non-surveyed hours is minimal.

We are currently negotiating a new contract for the customer satisfaction survey program. The contract will include the administration of our 11 transaction surveys, like our Toll-Free survey, as well as an assessment of our survey program approach to identify ways to measure customer satisfaction from a strategic perspective. This assessment may result in changes to the administration of our current transaction surveys.

Our comments on the specific recommendations in your report are as follows:

## **Toll-Free Customer Satisfaction Survey Results Should Be Qualified if Used for the Government Performance and Results Act**

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### **IDENTITY OF RECOMMENDATION 1**

The Deputy Chief Financial Officer for Strategic Planning and Budgeting, in conjunction with the Assistant Commissioner (Customer Service); the Chief, Customer Service Field Operations (CSFO); and the Director, OPERA should consider establishing a management control process to ensure the survey is administered properly and that the data used to report the Survey results are reliable, valid, and verifiable and meet the GPRA requirements.

### **ASSESSMENT OF CAUSE**

Treasury Inspector General for Tax Administration (TIGTA) believes that Internal Revenue Service Executives have not established an adequate management process to ensure the survey is administered properly and the results are reliable and can be verified and validated for GPRA purposes. We believe that the customer satisfaction survey processes we have developed and implemented provide adequate internal controls and procedures to ensure management oversight over the survey process and the results this process generates. The Office of Program Evaluation and Risk Analysis (OPERA) and the Assistant Commissioner, Customer Service (CS) have provided guidance to Toll-Free sites on the Customer Satisfaction Survey administration process. Through memos, training material, quality conferences, and the Internal Revenue Manual (IRM) 21.10.1.9, Toll Free sites have received the following specific information: why the surveys were being developed; when the survey process would begin; and exactly how to select potential survey respondents, transfer those callers to the survey itself, and document the actions taken.

OPERA has direct oversight of the contractor's data collection and interpretation activities. Statistics of Income (SOI) worked with Pacific Consulting Group (PCG) to design the sample and CS is responsible for sample implementation. The CS Quality Analysis Section and the SOI Statistical Support Team recently revised and simplified the IRM guidelines for the local Quality Review staffs to follow in selecting the Customer Satisfaction Survey sample, though these improvements were not explicitly mentioned in the report. CS local quality review staffs are responsible for executing the sample. We believe that this shared responsibility for all the facets of the Toll-Free Customer Satisfaction Survey is the most efficient way to manage all the remote processes necessary for survey implementation and is sufficient as defined under Office of Management and Budget (OMB) Circular # A-123.

### **CORRECTIVE ACTION**

We believe that the controls currently in place are adequate for managing our survey program; even so, we will be reassessing our survey program through our new vendors, which will include our controls over survey administration.

## Toll-Free Customer Satisfaction Survey Results Should Be Qualified if Used for the Government Performance and Results Act

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**IMPLEMENTATION DATE**

N/A

**RESPONSIBLE OFFICIAL**

N/A

**CORRECTIVE ACTION MONITORING PLAN**

N/A

**IDENTITY OF RECOMMENDATION 2**

The Deputy Chief Financial Officer for Strategic Planning and Budgeting, in conjunction with the Assistant Commissioner (Customer Service); the Chief, Customer Service Field Operations; and the Director, OPERA should revise the Customer Satisfaction Survey sample selection technique to decrease the risk that the results will not be representative of all Toll-Free Program customers.

**ASSESSMENT OF CAUSE**

We believe that this recommendation, along with the findings in the TIGTA report that support it, does not recognize the principles of systematic random sampling theory that we used in developing our Toll-Free survey sampling plan. The SOI Statistical Support Team designed the current sampling methodology for the CS Toll Free Surveys. The TIGTA report states that "the basic criterion in selecting a random sample is that every item (e.g., every CSR) must be given an equal opportunity of being selected". This statement is true in that every item needs to have an equal opportunity of being selected. However, the unit of selection is a taxpayer and not the Customer Service Representative (CSR). Each taxpayer is randomly routed to the next available CSR. This random assignment of taxpayers to CSRs guarantees that each item (with the exception of taxpayers who call after hours) has an equal opportunity of being selected to participate in the CS Satisfaction Survey.

While the items being selected for the sample are taxpayers, the systematic selection of CSRs is also random. The May 8, 2000 revision of IRM 21.10.1.9 provides instructions for the random selection of the first CSR whose customer will be offered the Customer Service Satisfaction Survey. After the selection of the first CSR, the IRM instructs the surveyor to proceed down the list of active/eligible CSRs to identify the next taxpayer to be offered the survey. Working through the list of CSRs in a systematic manner still provides a random selection. However, it is a systematic random sample rather than a simple random sample. In a systematic random sample, every "Kth" item is selected from a list. In this case, K is equal to one. The technique of systematic random sampling is widely used and statistically sound.

*"Systematic sampling consists of selecting every Kth sampling unit of the population after the first sampling unit is selected at random from the first K*

## Toll-Free Customer Satisfaction Survey Results Should Be Qualified if Used for the Government Performance and Results Act

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*sampling units. With systematic sampling each sampling unit in the population has a 1/K probability of being included in the sample; hence the sample mean is an unbiased estimate of the population mean." (Nachimas and Nachimas, 1981, Research Methods in the Social Sciences, pp 433-434)*

### **CORRECTIVE ACTION**

We believe our current sample design, as revised in March, adheres to valid sampling principles; therefore, we do not plan to change our Toll-Free sampling methodology at this time. However, our new customer satisfaction survey program vendors will be asked to assess our current survey program, which may result in suggestions for improving our survey sampling methodology.

### **IMPLEMENTATION DATE**

N/A

### **RESPONSIBLE OFFICIAL**

N/A

### **CORRECTIVE ACTION MONITORING PLAN**

N/A

### **IDENTITY OF RECOMMENDATION 3**

The Deputy Chief Financial Officer for Strategic Planning and Budgeting, in conjunction with the Assistant Commissioner (Customer Service); the Chief, Customer Service Field Operations; and the Director, OPERA should consider expanding surveyors' work hours to correspond with site operation hours. This will ensure all customers who have interactions with the Toll-Free Program have an opportunity of being selected.

### **ASSESSMENT OF CAUSE**

The Quality Review staff is not available during all hours that the call site provides telephone service to callers. Evening calls are sampled in some of the call sites. We receive relatively few calls in the evenings and do not believe the taxpayers or the questions they ask vary significantly from those we receive, quality review, and survey during our core hours. While we agree in principle with this recommendation, during this time of organizational restructuring, it is not practical to expand the hours we are able to provide the survey. However, we will work with our survey vendors to look for better ways of gathering information from our customers to improve services.

### **CORRECTIVE ACTION**

While we cannot realistically expand our survey coverage at this time, we will disclose in our customer satisfaction survey reports the hours included in our survey coverage and the related population of taxpayers whose calls are subject to survey. The April – June set of Toll-Free reports will be the first where this change can be implemented.

**Toll-Free Customer Satisfaction Survey Results  
Should Be Qualified if Used for the Government Performance and Results Act**

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**IMPLEMENTATION DATE**

Proposed: November 1, 2000

**RESPONSIBLE OFFICIALS**

Executive Office of Organizational Performance  
Director, Wage and Investment Customer Account Services  
Director, SB/SE Strategy, Research and Performance Management

**CORRECTIVE ACTION MONITORING PLAN**

The OPERA staff, who oversee the contract with the survey vendor, and the Wage and Investment Customer Account Services and Small Business/Self Employed Strategy Research and Performance Management staffs, who review the content of the quarterly survey reports, will monitor this change.

**IDENTITY OF RECOMMENDATION 4**

The Deputy Chief Financial Officer for Strategic Planning and Budgeting, in conjunction with the Assistant Commissioner (Customer Service); the Chief, Customer Service Field Operations; and the Director, OPERA should consider qualifying GPRA reports with any limitations of the survey's design and reliability of its data.

**ASSESSMENT OF CAUSE**

The current Toll-Free Customer Satisfaction Survey reports information on the types of callers included in the survey population. The survey lists such things as the incoming telephone line number dialed (1040, 8815, and 4262), the type of interaction (refund call, notice call, tax law question, etc.), and the type of caller (individual, business or tax professional). However, the reports do not designate the hours the survey is administered and the types of callers who are not included in the survey population, e.g., callers who use only automated services such as Telephone Routing Interactive System.

**CORRECTIVE ACTION**

Consistent with our corrective action on Recommendation 3 above, we will ensure that all future Toll-Free Customer Satisfaction Survey Reports and other GPRA Reports, like the Annual Performance Report, include information on which groups of customers are included in the survey population. The April – June set of Toll-Free survey reports will be the first where this change can be implemented, and they will be reflected in our FY 2000 Annual Performance Report as well.

**IMPLEMENTATION DATE**

Proposed: November 1, 2000

**RESPONSIBLE OFFICIALS**

Executive Office of Organizational Performance  
Director, Wage and Investment Customer Account Services

**Toll-Free Customer Satisfaction Survey Results  
Should Be Qualified if Used for the Government Performance and Results Act**

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Director, SB/SE Strategy, Research and Performance Management

**CORRECTIVE ACTION MONITORING PLAN**

The OPERA staff, who oversees the contract with the survey vendor, and the Wage and Investment Customer Account Services and Small Business/Self Employed Strategy Research and Performance Management staffs, who review the content of the quarterly survey reports, will monitor this change.

NOTE: The Responsible Offices and Corrective Action Monitoring Plan reflect those who will be responsible for these actions after the standup of the modernized IRS which is expected to be completed by September 30, 2000. However, for the most part, the same staffs will remain responsible for survey program administration.

If you have any questions about our response, please contact me at (202) 622-9511 or your staff may contact Robert C. Wilkerson, Assistant Commissioner (Customer Service) at (202) 622-5044.