TREASURY INSPECTOR GENERAL FOR TAX ADMINISTRATION

The Knowledge Management Program Will Benefit From Addressing User Concerns and Improving Performance Measures and Controls Over Employee Costs

May 3, 2023

Report Number: 2023-30-024

HIGHLIGHTS: **The Knowledge Management Program Will Benefit From Addressing User Concerns and Improving Performance Measures and Controls Over Employee Costs**

Final Audit Report issued on May 3, 2023   **Report Number 2023-30-024**

Why TIGTA Did This Audit

This audit was initiated to evaluate the IRS's Knowledge Management program and its impact on improving employee performance and taxpayer compliance.

Impact on Tax Administration

In Fiscal Year 2017, the IRS implemented the enterprise-wide Knowledge Management program. Knowledge Management is a strategy that captures, shares, and applies employee knowledge to enhance learning, performance, collaboration, and decision-making. A successful Knowledge Management program allows experienced employees to share knowledge and experience with newer employees in a format that is effective and efficient.

In its Knowledge Management Business Plan, the IRS acknowledged that the loss of knowledge and expertise from retiring IRS employees is a significant top risk facing the agency. The IRS has estimated that 63 percent of its current workforce will resign or be eligible to retire by Fiscal Year 2028.

The Inflation Reduction Act, signed into law in August 2022, increases funding for the IRS by an additional $80 billion over 10 years, of which nearly $46 billion was directed towards enforcement, such as hiring tax examiners, tax compliance officers, special agents, revenue agents, and revenue officers.

What TIGTA Found

TIGTA surveyed around 6,300 IRS employees to gauge the effectiveness of the enterprise-wide Knowledge Management program. Some of those surveyed expressed concerns about locating pertinent information on the Virtual Library website. Also, some of the employees who located the site found the information hard to use and lacking in relevant information. Additionally, employees designated as subject matter experts were sometimes unhelpful due to their limited experience level. Also, not all of the business units use customer satisfaction surveys to identify improvements to Knowledge Management programs.

In addition, Knowledge Management performance measures are incomplete because they focus exclusively on high-level activity measures, such as the number of employees viewing the Virtual Library and the amount of content developed. Measures that would make the Knowledge Management program more effective include tracking subject matter expert response time and the number of accesses that result in the resolution of users' questions.

Lastly, the efficiency of the Knowledge Management program can be improved by monitoring employee costs. For example, from Fiscal Years 2017 to 2021, the four largest business units and the Human Capital Office identified $52 million in employee Knowledge Management costs. As shown below, the Tax Exempt/Government Entities (TE/GE) Division accounted for 65 percent of these identified costs.

Knowledge Management Employee and TE/GE Division Costs for Fiscal Years 2017 to 2021 (in millions)	
Total Knowledge Management Employee Costs	$52
TE/GE Division Knowledge Management Employee Costs	$34
Percentage of Knowledge Management Employee Costs From the TE/GE Division	65%

However, the TE/GE Division had the fewest number of employees compared to the other business units with Knowledge Management and a relatively limited amount of Knowledge Management content. When establishing their Knowledge Management programs, the business units were not required to provide plans, targets, or cost estimates pertaining to their programs; therefore, the other business units did not track all direct or indirect Knowledge Management costs. As a result, the reviewed business units were not consistent when capturing their employee costs pertaining to Knowledge Management.

What TIGTA Recommended

TIGTA made seven recommendations to improve the operation, establish performance measures, and ensure accountability of the IRS Knowledge Management program. The IRS agreed with all seven recommendations and plans to take appropriate corrective actions.

U.S. DEPARTMENT OF THE TREASURY
WASHINGTON, D.C. 20024

May 3, 2023

MEMORANDUM FOR: COMMISSIONER OF INTERNAL REVENUE

FROM:
Heather M. Hill
Deputy Inspector General for Audit

SUBJECT:
Final Audit Report – The Knowledge Management Program Will Benefit From Addressing User Concerns and Improving Performance Measures and Controls Over Employee Costs (Audit #202130026)

This report presents the results of our review to evaluate the Internal Revenue Service's (IRS) Knowledge Management program and its impact on improving performance and taxpayer compliance. This review is part of our Fiscal Year 2023 Annual Audit Plan and addresses the major management and performance challenge of *Increasing Domestic and International Tax Compliance and Enforcement*.

Management's complete response to the draft report is included as Appendix VI. If you have any questions, please contact me or Matthew A. Weir, Assistant Inspector General for Audit (Compliance and Enforcement Operations).

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Background

The Internal Revenue Service (IRS) developed a Knowledge Management program to help prevent the loss of mission-critical skills and knowledge due to attrition, reorganization, or promotional moves. Knowledge Management is a method that captures, shares, and applies employee knowledge to enhance learning, performance, collaboration, and decision-making. A well-designed and properly administered Knowledge Management program should allow employees to work more efficiently and effectively.

In its Knowledge Management Business Plan, the IRS acknowledged that the loss of knowledge and internal expertise from retiring IRS employees is a significant risk facing the IRS. The IRS has estimated that 63 percent (approximately 52,000 of 83,000 employees) of its current workforce will resign or be eligible for retirement by Fiscal Year (FY) 2028. These employees will take with them valuable knowledge of IRS systems, procedures, and information on day-to-day operations. From FYs 2010 to 2020, IRS employee totals decreased significantly. During this period, the IRS's budget decreased approximately $1 billion, or 8 percent, from $12.5 billion in FY 2010 to $11.5 billion in FY 2020, affecting its ability to hire employees to replace those who left. The IRS ended FY 2020 with slightly more than 80,000 employees, a 15 percent decline from just over the 94,000 employees in FY 2010. Also during this time, 34 percent of the IRS's examination and collection staff left the IRS, from nearly 47,000 employees in FY 2010 to slightly less than 31,000 employees in FY 2020. Greater still were the reductions in the number of revenue agents (responsible for conducting face-to-face examinations) and revenue officers (responsible for engaging taxpayers on delinquent tax liabilities).[1]

Figure 1 shows that from FYs 2010 to 2020, the number of revenue agents and revenue officers declined 44 and 51 percent, respectively, creating a significant knowledge and experience gap. Given their role in compliance and enforcement operations, the reduction of revenue agents and revenue officers is a critical issue for the IRS and to tax compliance.

Figure 1: Percentage Change in the Number of Revenue Agents and Revenue Officers Between FYs 2010 and 2020[2]

	FY 2010	FY 2020	Decrease	Percentage Change
Revenue Agents	14,600	8,200	6,400	(44%)
Revenue Officers	5,900	2,900	3,000	(51%)
Totals	**20,500**	**11,100**	**9,400**	**(46%)**

Source: Treasury Inspector General for Tax Administration (TIGTA) analysis of FYs 2010 and 2020 IRS Data Books.

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[1] See Appendix VII for glossary of terms.

[2] Totals in this figure are rounded to the nearest hundred.

In April 2020, the Government Accountability Office (GAO) reported on open recommendations that could significantly improve the IRS's operations.[3] The two recommendations in the "enhance strategic human capital management" area were to systemically identify and recruit the workforce needed for the future and to develop strategies for identifying and closing skill gaps.

In March 2019, the GAO identified skill gaps at the IRS for mission-critical occupations in the areas that have personnel shortages. Based on available resources, the initial skill assessment effort is currently focusing on mission-critical occupations, including information technology specialist, revenue agent, human resource specialist, and appeals officer. The results of this effort will assist in developing enterprise workforce processes, *i.e.*, formulating labor budgets, hiring, and training plans. The importance of this effort is reflected by the projection that up to 63 percent of the IRS's current workforce will retire or resign within the next six years, creating a significant risk of a large knowledge and experience gap.[4]

IRS recent workforce changes and hiring initiatives

Recently, the IRS was able to start addressing some of its employee shortages. In FY 2021, the IRS hired nearly 10,700 employees (new to the IRS), coming from both the public and private sectors as well as from other Federal Government agencies. During FY 2021, the IRS also lost approximately 10,500 employees due to retirements or employees seeking opportunities outside of the agency. As a result, despite hiring nearly 10,700 new employees, the IRS ended FY 2021 with only 200 more employees.

In March 2022, the IRS announced a hiring initiative to onboard 10,000 employees within two years. This initiative was to resolve its backlog of 23.5 million tax returns due partly to the Coronavirus Disease 2019 pandemic. This hiring would increase the IRS's workforce by approximately 13 percent from the total in FY 2020.

The IRS is actively recruiting for 80 distinct positions including but not limited to entry-level clerical workers, advanced software engineers, and tax attorneys. The IRS is also targeting high-skill information technology professionals in efforts to modernize its outdated computer infrastructure. It is expediting its hiring efforts by forgoing the traditional recruiting and interviewing process that is common practice to Federal Government hiring.

The Inflation Reduction Act, signed into law on August 16, 2022, increases funding for IRS operations by nearly $80 billion over 10 years to rebuild its workforce and modernize its information technology system.[5] This law provides the IRS with nearly $46 billion for taxpayer services and enforcement activities, which could be used for hiring more enforcement personnel and providing legal support. With improvements, the IRS's Knowledge Management program could be an important component of the IRS's historic levels of enforcement hiring.

Development of the enterprise-wide Knowledge Management

The Large Business and International (LB&I) Division was the first business unit to develop a Knowledge Management program. In FY 2012, the LB&I Division embarked on an effort to

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[3] GAO, GAO-20-548PR, *Priority Open Recommendations: Internal Revenue Service* (Apr. 23, 2020).

[4] IRS, Publication 5382, *Internal Revenue Service Progress Update Fiscal Year 2019, Putting Taxpayers First* (Dec. 2019).

[5] Public Law No.117-169, Section 10301, August 16, 2022.

move towards a collaborative system for knowledge sharing and started to develop its own Knowledge Management system.

In FY 2015, the Tax Exempt and Government Entities (TE/GE) Division began to implement its strategy for Knowledge Management by launching its pilot Knowledge Management portal and making it accessible to employees. In 2015, the IRS integrated all Knowledge Management efforts under the umbrella of a Knowledge Management and Transfer team within the Human Capital Office (HCO). The HCO Knowledge Management and Transfer team guides business units interested in adopting and implementing Knowledge Management solutions by assisting with the development of the Virtual Library layout and informing them about how knowledge will be organized and accessed. The Knowledge Management and Transfer technology team provides enterprise-wide Knowledge Management site support including site administration and management of high-level site usage metrics.

During FY 2017, the IRS began implementing Knowledge Management as an enterprise-wide initiative with the goal of mitigating knowledge loss by addressing attrition and succession planning through knowledge transfer. The HCO is responsible for providing executive oversight and guidance through collaboration with senior leadership and business unit representatives to set the strategic and operational priorities for the enterprise-wide Knowledge Management.

Prior to the HCO overseeing the program, the individual business units within the IRS housed their own Knowledge Management initiatives with no centralized forum to share best practices or coordinate efforts. The HCO established a contract with a consulting firm to support all IRS business units to centralize the location of the enterprise-wide Knowledge Management. The HCO transferred materials developed previously in the individual business units' virtual libraries to the enterprise-wide Virtual Library.

IRS enterprise-wide Knowledge Management provides multiple tools geared toward helping employees capture knowledge. These Knowledge Management tools include:

- Virtual Library - A centralized online resource for IRS employees and contractors to locate the knowledge and information needed to perform their jobs. The HCO organizes the content by topic.

- Knowledge Base - A database that collects, organizes, stores, and shares information about a particular subject. They are the concrete topics/subjects within the Virtual Library.

- Communities of Practice - Forums that help to solve everyday work problems; develop and share best practices, guidelines, and procedures; and innovate to create breakthrough ideas, knowledge, and products.

- Self-Help Online Tutorial - Typically a three minute or less "how to" narrated video that provides information on important IRS-related topics and demonstrations.

An efficient and effective enterprise-wide Knowledge Management is important to the IRS. Given the estimated number of exiting workers and the expected amount of new hires who will need training, the IRS will be challenged to achieve its mission of helping American taxpayers understand and meet their tax responsibilities.

Results of Review

The IRS started implementing an enterprise-wide Knowledge Management program in FY 2017. As of May 2022, the IRS Knowledge Management program has grown to 19 total business units, including the LB&I, Small Business/Self-Employed (SB/SE), TE/GE, and Wage and Investment (W&I) Divisions; Appeals; Chief Financial Officer; and the Whistleblower Office.

Our review focused on the LB&I, SB/SE, TE/GE, and W&I Divisions, because they are the four IRS business units with the most employees. We also included the HCO due to its responsibility for the oversight of the Knowledge Management initiative (hereinafter referred to as "reviewed business units" when collectively discussed in this report).

In FY 2017, the IRS began tracking funding to individual business units for their Knowledge Management production efforts. From FYs 2017 to 2021, the reviewed business units spent a total of approximately $62 million on Knowledge Management. Figure 2 shows that these costs were for employee salaries and contract costs.[6]

**Figure 2: Knowledge Management Employee and Contract
Costs for Reviewed Business Units for FYs 2017 to 2021
(in millions)[7]**

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Totals
Employee Costs	$7	$8	$10	$13	$13	$52
Contract Costs	$3	$3	$3	$0.7	-	$9
Totals	**$10**	**$11**	**$14**	**$14**	**$13**	**$62**

Source: IRS HCO.

For FYs 2017 to 2021, the majority of funding went to employee costs, which accounted for 85 percent ($52 million) of the total costs.[8] Contract costs accounted for $9 million, or 15 percent, of the total costs. By November 2021, the reviewed business units developed 97 knowledge bases in the Virtual Library. Eighty-one knowledge bases were available to users while 16 were in the developmental stage.[9] A knowledge base is a database used to store organized information about a particular subject. Each knowledge base is owned and developed by a business unit on a specific subject matter and can be used by IRS employees within any business unit if the knowledge base is active.[10]

For example, the TE/GE Division owns knowledge bases within the Virtual Library that cover topics that include tax exempt bonds, Indian tribal governments, retirement plans, and exempt organizations. TE/GE Division knowledge bases also cover requirements for tax exemption under various aspects of Section 501(c) and other issues impacting these organizations such as

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[6] See Appendix II for employee and contract costs from reviewed business units.

[7] The sum of certain rows and columns do not equal the totals due to rounding.

[8] Percentages are based on the actual numbers while the sum of certain rows and columns in Figure 2 are rounded.

[9] At the time of the report issuance, there were 115 knowledge bases developed by all of the business units participating in the enterprise-wide Knowledge Management, 95 are active, and 20 are in the developmental stage.

[10] Knowledge bases can be collaboratively developed around specific subject matter and any business unit with an interest in the topic can contribute.

unrelated business income tax, *i.e.*, the knowledge bases on 501(c)(3), private foundations, other exempt organizations, and the unrelated business income tax.

The Virtual Library Is Difficult to Navigate, Has Limited Usefulness, and Subject Matter Experts Are Not Always Helpful

To gauge the effectiveness of the enterprise-wide Knowledge Management program, we conducted a survey on how IRS employees use and rate their experiences using the Virtual Library and subject matter experts (SME). In October of 2021, we administered the survey to TE/GE and LB&I Divisions' employees.[11] Included in our survey was an optional, open-ended question to allow employees to share feedback that would improve their experience with the Virtual Library.

Our survey results found that the information on the site is hard to navigate making it difficult for employees to find pertinent information, and when the relevant subject content is found, its usefulness is limited because it is often outdated.

In addition, the Virtual Library may include hyperlinks to external websites with relevant tax law information that are inaccessible because the hyperlinks are broken or not updated. Employees also noted that when needing help with an issue that is specific to a tax case, SMEs were sometimes not helpful because they did not have technical experience to provide assistance with the issue, it was not possible to contact the SME directly, or there was a delay in receiving a response.

We did not survey SB/SE Division employees because the SB/SE Division had conducted two similar surveys of its employees in FYs 2018 and 2019. Employees in our survey expressed similar concerns as those identified in the prior SB/SE Division administered surveys. Later in the report, we discuss SB/SE Division surveys and the corrective actions completed to address its employee concerns and issues.

LB&I and TE/GE Divisions' employee concerns pertaining to Knowledge Management

We administered the survey to around 6,300 IRS employees from the LB&I (4,700 employees) and TE/GE (1,600 employees) Divisions. We designed our survey to evaluate the employees' awareness and use of Knowledge Management resources, determine if the Knowledge Management tools were meeting user needs, and whether the development of knowledge bases was adequate. The response rate from the employees in both business units was above average for an employee survey compared to the average response rate for prior surveys administered at the IRS.[12] We received responses from 48 percent of the TE/GE Division employees (approximately 760 out of 1,600 employees) surveyed and 40 percent of the LB&I Division employees (approximately 1,900 out of 4,700 employees) surveyed.[13]

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[11] See Appendices IV and V for the full results of TIGTA's survey discussed in this finding.

[12] The IRS Research, Applied Analytics, and Statistics function stated that its average response rate for this type of survey is approximately 30 percent.

[13] Knowledge Management tools for the TE/GE Division were transferred to the enterprise-wide Knowledge Management program in FY 2021 prior to our survey.

The employees who responded worked in several different areas of the two business units. More than 85 percent of the responding employees in both Divisions were non-supervisors. The majority of the employees who completed the survey worked in the Examinations function (72 percent for LB&I Division and 60 percent for TE/GE Division), while the remaining worked in other areas of the two Divisions.[14]

The Virtual Library layout is difficult to navigate

The Knowledge Management Virtual Library is the foundation of the Knowledge Management program as it is the online resource where IRS employees can locate the knowledge and information needed to perform their jobs. The HCO organizes the Virtual Library by topic presented in a SharePoint environment using category search functions so users can find answers to questions.

Of the employees for both Divisions who responded to our survey, 90 percent were aware of the enterprise-wide Virtual Library.[15] However, 23 percent of TE/GE Division employees did not know how to access it while 33 percent answered they have never accessed it. Comparatively for the LB&I Division, 14 percent of employees did not know how to access the enterprise-wide Virtual Library and 20 percent answered that they have never accessed it.[16]

While most employees are aware of the Virtual Library, not all are using it and those who do use it are not using it frequently. Our survey results indicated that the majority of the surveyed employees who accessed the Virtual Library searched for information to assist with a specific examination or case determination. For instance, more than 65 percent of the employees within the LB&I Division and 52 percent within the TE/GE Division responded that they use the Virtual Library to assist with working cases.

Of the employees who indicated they have accessed the Virtual Library, 76 percent in the LB&I Division and 59 percent in the TE/GE Division found the Virtual Library helpful with day-to-day job duties.[17] When asked how often employees used the Virtual Library for their day-to-day job duties:

LB&I Division employees who responded to the survey stated that they accessed the Virtual Library:

- 35 percent "never or rarely."
- 36 percent "occasionally."
- 29 percent "regularly."

TE/GE Division employees who responded to the survey stated that they access the Virtual Library:

- 58 percent "never or rarely."
- 28 percent "occasionally."

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[14] See questions three and four in Appendices IV and V for more information on responding employees.

[15] See question five in Appendices IV and V.

[16] See questions six and seven in Appendices IV and V for the responses concerning employee access.

[17] See question nine in Appendices IV and V.

- 13 percent "regularly."

Even if an employee can locate the Virtual Library, this does not mean the employee can easily use it and find needed information. In response to the open-ended question in our survey, employees expressed frustrations with the layout of the Virtual Library. They indicated that the site is cumbersome to use, and information is not organized in such a way that makes it simple and easy for employees to locate what they need. For instance, employees stated that they were overwhelmed by the way the information was organized on the site and do not know where to start to locate the needed information. To find pertinent information required accessing different "shelves/books/chapters" to locate what was needed.

For the SB/SE Division, the materials do not appear to be organized in a manner that would be user friendly to an SB/SE Division revenue agent. The Virtual Library would be more helpful to an SB/SE Division revenue agent if its layout grouped topics by business units and subjects, such as "income deductions" and "credits," so the user would have an efficient road map to find the information they need to complete examinations. However, the Virtual Library is organized by topics specific to other business units, like "Charities and Nonprofits," which is more applicable to the TE/GE Division. This layout is confusing and not user friendly.

In addition, 210 responses from the 639 LB&I Division employees and 68 responses from the 255 TE/GE Division employees who responded to our survey's open-ended question provided responses that would fall into one or more of the following categories: had difficulty navigating the site, spent too much time locating information, or the site is not user friendly and intuitive.[18] With these types of issues, an employee may become frustrated and lose interest in Knowledge Management.

Employees who responded to our survey expressing frustration with the layout of the Virtual Library suggested improving the layout by modifying the landing page. Specifically, adding a menu tree with expandable subsections so the user can more efficiently determine where to navigate. Also, some feedback from employees suggested that they would like to have improvements to the search function and a menu option. Because employees took the time to provide written responses and suggestions for improvement, we believe our survey responses indicate that more employees would like to use the Virtual Library but may be deterred due to the difficulty in finding information.

Reoccurring issues need to be addressed

Issues with the site itself are reoccurring and had been brought to the attention of the IRS before our survey. Concerns brought forth by employees in the two SB/SE Division surveys, conducted by the IRS in FYs 2018 and 2019, include: issues with broken hyperlinks, the website is not user friendly causing more time than necessary to locate pertinent information, and the search function does not provide useful results. The reoccurrence of these issues indicates that the IRS is not addressing these types of user issues timely.

In October 2020, the HCO stated that Knowledge Management directors in the HCO are to ensure that Knowledge Management creates a toolset easy to use so that employees view it as something that makes their job easier, not more difficult. Dealing with broken hyperlinks and a

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[18] See question 18 in Appendices IV and V for the open-ended question.

website that is not user friendly requires more time to locate information, which does not make employees' jobs easier. These types of problems are counterproductive but fixable.

The IRS does have a process that allows users to input a "service request" on suggested corrections for the Service-wide Knowledge Management site. Due to the survey results, it does not appear that the IRS is monitoring this information or timely addressing issues presented. The IRS should perform easy fixes to help employees by addressing items such as broken hyperlinks. Other actions as simple as adding all Community of Practice meeting minutes to the Virtual Library would make it a more useful resource to help IRS employees perform their jobs.

The Knowledge Management and Transfer team's FYs 2022 to 2025 Business Plan provides that this team will support the IRS goal to modernize technology infrastructure and develop secure and sustainable solutions to improve tax administration. Because of the complexity of the Internal Revenue Code, including critical deadlines for the IRS to take certain actions, compliance employees need correct and sufficient information readily available to perform their jobs efficiently. Broken hyperlinks and a hard-to-navigate website add avoidable work to time sensitive cases and frustration to employees with large caseloads. The Knowledge Management and Transfer team should continually monitor the live enterprise-wide website for issues and address issues timely.

Knowledge bases may not be useful because development lacks an effective data-driven process

The IRS does not have an effective data-driven process to determine what materials should be developed or improved for Knowledge Management. As stated previously, employees expressed concern when responding to our survey about the usefulness of the content found on the Knowledge Management site. Although the IRS uses several sources of information (such as the LB&I Division's Issue Based Management Information System) to determine what materials are developed, it is not basing development decisions on direct information from the end-users. These employees felt the information was sometimes too general or outdated to be useful. This concern could be a result of not capturing useful data to improve or create new materials within Knowledge Management. It is the responsibility of the business units owning the individual knowledge bases to review and validate the information for relevance, accuracy, completeness and usefulness.

For the survey question asking employees if they found the Virtual Library helpful in their daily duties, 9 percent of the TE/GE Division employees responded "Not Helpful" and 31 percent responded "Do Not Use." Of the LB&I Division employees surveyed, 5 percent responded "Not Helpful" and 20 percent responded "Do Not Use" to this same question.[19] In addition, 73 responses from the 639 LB&I Division employees and 50 responses from the 255 TE/GE Division employees who responded to our open-ended question provided responses that categorized the content as both too basic and general to be useful or that the information is not updated. Employees may not be finding the Virtual Library useful because knowledge base development is not a data-driven process to determine what subject areas are needed.

The TE/GE Division is missing an opportunity to address topics that could be helpful to its revenue agents on emerging tax issues. For instance, the Inflation Reduction Act became effective August 16, 2022. As of October 2022, the Knowledge Management is only addressing

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[19] See question 10 in Appendices IV and V for the responses concerning use in daily duties.

the Inflation Reduction Act in three "books," each separately addressing the following topics: the recent changes to the Excise Tax due to energy-related credits, the limitation on excess business losses of non-corporate taxpayers, and nonbusiness vehicle credits.

In October of 2020, when asked about the development of knowledge bases, the HCO stated that knowledge bases "… are developed based on importance to employees working within the subject area." The feature on the Knowledge Management website that allows employees to propose a new Knowledge Management initiative or idea reflects this statement. While this may be useful, it is not a data-driven measurement of employees' needs. By integrating the suggestion option and data-driven methods when developing materials, the Knowledge Management activities and practices will be able to become deeper integrated into IRS operations. There are several data-mining techniques the IRS could use to better inform the development of knowledge bases, for example using SharePoint sites to mine employee search topics. Since the start of our review, some IRS business units have begun to transition to a data-driven approach. For example, the LB&I Division started using its Issue Based Management Information System to determine what Knowledge Management materials should be developed.

Mining data from employees' searches could help the IRS improve Knowledge Management content

A vital component of a Knowledge Management system is the ability to capture by issue those areas on which employees are seeking a better technical understanding. The Knowledge Management Virtual Library site, which houses the links to all of the different functions, sits on a SharePoint site. Each of the reviewed business units has their own SharePoint sites. SharePoint sites are a secure way for IRS business units to store, organize, and share information. To find information on a SharePoint site, an employee would enter a term to search. SharePoint does provide search usage reports that would enable business units to gain more understanding on what employees are searching. A search usage report could be created that includes graphs and tables providing data feedback on what was searched. The data can be provided from the last seven days, last 31 days, or last 12 months. For example, employees in the TE/GE Division may have the need to learn more about Indian tribal governments with casinos reporting non-resident alien winnings and could be frequently searching the Division's SharePoint site about such topics. By reviewing this information, TE/GE Division management would know to add a knowledge base on this topic.

SharePoint sites are searchable by terms that could be used to assess the different topics the employees are searching for. If numerous employees in a business unit are searching for information on the same issue, it is reasonable to assume that management should establish a knowledge base on that issue or if one already exists, ensure that it is current and comprehensive.

The IRS began tracking the number of hits and unique employees accessing each knowledge base. However, this tracking mechanism does not identify which business unit developed the knowledge base or what business unit the accessing employee works in. For example, this tracking mechanism shows that in March 2022, the examination procedures knowledge bases received more than 52,000 views from nearly 14,000 employees.

It would be more useful if the tracking allowed the counts of the number of LB&I Division employees who reviewed the Division's examination procedures or the number of SB/SE Division

employees accessing the knowledge bases for that Division's examination procedures. More importantly, when an employee is searching for information, the Knowledge Management system could capture information about the issue that the employee needs to research. With this information, IRS management would know which divisions need knowledge bases on which issues. This information is critical to determine which knowledge bases are most useful and need development or maintaining. The IRS should implement tracking that will allow it to obtain detailed data to assist with the development of new materials for the Virtual Library.

The Knowledge Management and Transfer team's FYs 2022 to 2025 Business Plan provides that one of its five Guiding Principles is "Knowledge Management activities and practices should be fully integrated into the day-to-day operations of the organization." Using data provided by employee visits to the Knowledge Management site to develop content will help to fully integrate Knowledge Management activities and practices into IRS operations.

SMEs were sometimes not helpful due to inexperience and availability

Knowledge Management tools and services should provide expert assistance to employees to help resolve various matters that include resolving an examination case technical issue, providing assistance on a determination ruling, or helping an employee develop/upload Knowledge Management content. Management within the LB&I and TE/GE Divisions, along with the HCO's Knowledge Management and Transfer team each established SMEs to provide this service.

SME experience and expertise

Although the requirements to be a SME differ within these three business units, all SMEs are to provide expert guidance when responding to employees seeking help. However, responses to our survey of LB&I and TE/GE Division employees regarding their interactions with SMEs indicated that employees felt SMEs were not always knowledgeable of the subject area or lacked industry experience needed to provide help with specific cases. Some employees expressed concerns that SMEs need more case-specific experience in addition to knowing the Internal Revenue Code. For example, one employee stated they were disappointed to have to explain the issue to the person designated as the expert and at times felt it was pointless contacting an expert because they already knew more than the SME. Another employee expressed concern about SMEs truly being experts considering the lack of years of experience.

The services provided by SMEs vary among IRS business units. These services can range from general to specialized and technical. Generally, there are two types of SMEs: SMEs providing assistance with technical tax issues (hereinafter called technical tax SMEs) and SMEs providing guidance and expertise on knowledge management tools, such as the Virtual Library (hereinafter called Knowledge Management SMEs). LB&I Division technical tax SMEs are to assist LB&I Division compliance employees with their examinations. The LB&I Division uses technical tax SMEs in its practice areas to support the Virtual Library's technical tax content and respond to employee case-related inquiries.

LB&I Division technical tax SMEs also provide training to LB&I Division compliance employees, including sessions on navigating the Virtual Library and knowledge bases. Employees can contact these SMEs through the LB&I Division's Request Tracker tool or if the knowledge base lists the LB&I Division SME's contact information. A vacancy announcement for a practice network employee includes a specialized experience statement, and often these employees are

experts in the field. Also, in the LB&I Division, SMEs may not be experts on all topics when hired, but they use a collaborative process within the practice networks instead of relying on one SME to have all the knowledge.

TIGTA asked HCO management about the requirements to be a Knowledge Management SME who provides technical expertise on the content in the Virtual Library and responds to employee inquiries. HCO management stated that the requirements to be a Knowledge Management SME are general and include completing Knowledge Management training and experience working with the Knowledge Management and Transfer team. Knowledge Management SMEs must be able to demonstrate experience using and navigating the Knowledge Management infrastructure, not technical tax experience. The IRS appoints Knowledge Management SMEs as needed through position announcements or detail opportunities. Knowledge Management SMEs should be selected based on their level of expertise, knowledge, training, and experience with a particular Knowledge Management tool or resource. However, Knowledge Management SMEs are not required to have casework or industry-specific experience or knowledge. As a result, they are often not experts in the field.

The technical tax SMEs should be required to possess a defined level of experience that will help with cases specific to certain areas. Consulting roles in the IRS similar to the technical tax SMEs but not part of Knowledge Management are the Taxpayer Advocate Service (TAS) technical advisors (TA). The TAs act as consultants to TAS employees on complicated tax issues providing them with expert and procedural advice on examination and collection cases and appear to function more effectively than the technical tax SMEs. TAS TAs are experts in examination, collection, and account issues who provide assistance to resolve complex tax issues by using effective research, communication, coordination, and negotiations. The primary goal of the TAs is to consider all alternative options when assisting on a case and to provide the best possible resolutions for taxpayers.

SME availability

Similar to the Service-wide Knowledge Management "Contact An Expert" tool used to request help, TAS case advocates requesting TA help must use an online portal to submit their request. Managers in TAS view and assign referrals to the TAs accordingly. The TAs acknowledge receipt of new referrals by telephone or e-mail and document the referral status in a TAS online case management information system. The TAs communicate assistance to the case advocate through telephone, e-mail, or by videoconferencing. Generally, the TA will provide ongoing assistance on a case until the issue is resolved. Given the complexity of the issues that revenue agents need to address, it is critical that the technical tax SMEs are not only experts but also available for consultation on specific cases.

Employees of both the LB&I and TE/GE Divisions who are using the Knowledge Management SMEs expressed concerns about the difficulty contacting SMEs via telephone and SMEs not following up on issues. To acknowledge the receipt of a referral, the TA in TAS will contact the case advocate by close of business on the following day. To allow the case advocate to keep the taxpayer informed, the TA, when possible, will provide the case advocate with an estimated time for completion of the referral. If the TA is unable to provide an estimated time of completion date, the TA keeps the case advocate informed as to the progress of the referral and sets a next contact date with the case advocate.

More than 80 percent of employees in both business units acknowledge that technical tax SMEs are available for them to contact, but 20 percent of employees within the TE/GE Division and 12 percent within the LB&I Division said they are unable to contact them directly for assistance.[20] To contact a SME, an employee submits a question using the "Contact An Expert" online feature. The SME receives the contact information of the requesting employee and makes initial contact with the employee within five business days. When responding to a request submitted using this feature, in the TE/GE Division, the SME assigned to the request contacts the employee and provides an initial response to include existing guidance, self-help materials, and forum discussions.

We asked if employees have ever contacted a Knowledge Management SME, 34 percent of those in the TE/GE Division and 13 percent in the LB&I Division responded they have not.[21] When asked how often employees contacted a Knowledge Management SME, 45 percent of employees within the TE/GE Division and 65 percent within the LB&I Division responded less than 25 times within the last 12 months.[22] For those employees who contacted a Knowledge Management SME, 46 percent of LB&I Division employees and 30 percent of TE/GE Division employees found them to be very helpful.[23]

Surveyed employees also expressed frustrations with responses from SMEs. Reoccurring written responses to the open-ended question in our survey were that SMEs were unavailable to provide useful help, the user could not directly contact the SME, and SME response time varied. For example, one response stated that some SMEs respond with only basic information even if you asked to confer with them. Further, 46 responses from the 639 LB&I Division employees and 36 of 255 TE/GE Division employees responded to our open-ended survey question with responses that categorized their experience with SMEs as: unavailable or cannot contact directly, not knowledgeable and lack front-line experience to provide help with specific cases, or took a long time responding. TE/GE Division management stated that these observations are the opinions of their employees and do not believe that their opinions describe TE/GE Division SMEs accurately.

Not all business units use customer satisfaction surveys to identify improvements to the Knowledge Management program

Customer satisfaction is a key component of a balanced performance measurement system. In this respect, the HCO should gather information to measure customer satisfaction from those employees who have recently interacted with the Knowledge Management program.[24] The SB/SE Division has conducted surveys of Knowledge Management users. Several issues raised in SB/SE Division surveys were similar to the issues raised by LB&I Division and TE/GE Division employees in our survey. SB/SE Division management took corrective action as a result of their surveys in an effort to improve their Knowledge Management program.

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[20] See question 12 in Appendices IV and V. Also, LB&I Division management made a business decision to adopt a method to contact a SME that does not include the ability to contact a SME directly.

[21] See question 14 in Appendices IV and V.

[22] See question 15 in Appendices IV and V.

[23] See question 16 in Appendices IV and V.

[24] Internal Revenue Manual 1.5.1.3.3(1), *Managing Statistics in a Balanced Measurement System, The IRS Balanced Performance Measurement System* (May 20, 2019).

For example, the SB/SE Division survey recorded overall comments from many Knowledge Management users requesting more specific contact information for SMEs so the users can contact them directly to ask their initial questions and any follow-up questions. In response, the SB/SE Division developed a feedback option on its knowledge bases. Employees can now contact SMEs in a variety of ways, and many business units have points of contact listed on the respective knowledge bases. In most cases, it depends on the topic or program how the SME is contacted by an employee, and in most cases, it is online, *i.e.*, through the knowledge base, or by e-mail, videoconferencing, or telephone.

Additionally, 21 percent of SB/SE Division employees indicated that their job did not relate to any of the knowledge bases. In response, the SB/SE Division developed and launched new knowledge bases (subjects include exam procedures, exam systems, and virtual currency). It also added new topics and more resources to existing knowledge bases (including examination issues related to opportunity zones, abusive transactions, and marijuana businesses), and new tools to help users navigate the Virtual Library, *e.g.*, table of contents, indexes.

Results from the survey also indicated that SB/SE Division employees did not know what exact IRS intranet links are used to gain access to the Virtual Library. In response, the SB/SE Division conducted lunch and learn sessions to ensure that employees are aware of the Virtual Library. The SB/SE Division also developed a Knowledge Management Basic presentation in FY 2021 for new hires to increase awareness for existing employees.

Several SB/SE Division employees appeared to be confused with the term "Knowledge Management," believing that the resources were only for managers, not for all employees. In response, the SB/SE Division developed the SB/SE Knowledge Management Community of Practice, using the title "Knowledge Management, A Resource for All." This Community of Practice meets monthly and features presentations on a variety of Knowledge Management topics.

Lastly, survey feedback indicated SB/SE Division employee frustration with the search functionality in Knowledge Management. In response, the SB/SE Division elevated this issue to the Knowledge Management and Transfer team along with Communications and Liaison for resolution. The Knowledge Management and Transfer team worked with Communications and Liaison to enhance the SharePoint search feature for both of their customers. The Knowledge Management and Transfer team successfully implemented enterprise search solutions for Self-Help Online Tutorial videos and Virtual Library services. The Knowledge Management and Transfer team continues to explore new practices for finding content. In addition, the SB/SE Division Collection function increased the number of Knowledge Management demonstration presentations for IRS managers and front-line employees.

Routinely obtaining and using customer satisfaction surveys or Knowledge Management participant feedback is an important way to ensure that the IRS considers and addresses customer satisfaction issues and needs in maintaining its Knowledge Management program.

The Commissioners, LB&I, SB/SE, and TE/GE Divisions, should:

Recommendation 1: Review and address the issues and concerns included in this report that were raised by employees in our survey.

> **Management's Response:** IRS management agreed with this recommendation. LB&I Division management will review the issues and concerns raised in this report to determine how to best address them. SB/SE Division management will remind employees on ways to access the Virtual Library, how to search for information, and the usefulness of the content. TE/GE Division management will review and address issues included in this report related to accessing the IRS Virtual Library and contacting a TE/GE Knowledge Management Specialist (SME/KM Core Team members).

Recommendation 2: Review Knowledge Management user feedback from traditional surveys or other means to measure the effectiveness of and improve the Knowledge Management program.

> **Management's Response:** IRS management agreed with this recommendation. LB&I Division management will collect and act upon user feedback and will consider whether a traditional questionnaire-based survey will effectively provide actionable feedback to the program. SB/SE Division management will collect feedback from outreach events and act upon user feedback and will assess whether another traditional questionnaire-based survey will effectively provide actionable feedback to the program. TE/GE Division management will build feedback loops to measure and improve their Knowledge Management program.

Recommendation 3: Use data from the Virtual Library, such as SharePoint reports, to assist with developing relevant content for the Virtual Library.

> **Management's Response:** IRS management agreed with this recommendation. LB&I Division management will consider options for creating and employing SharePoint reports that will offer additional insight into the Virtual Library users' needs. SB/SE Division management will assess and validate existing data sources to assist in creating and employing SharePoint reports that will offer additional insight into the Virtual Library users' needs. TE/GE Division management will assess available data from the Virtual Library, such as SharePoint reports, to determine if the data can assist with developing relevant content for the Virtual Library.

Performance Measures Are Incomplete and Do Not Measure the Effectiveness of the Knowledge Management Program

Various statutory and regulatory provisions require the IRS to set performance goals for organizational units and to measure the results achieved by those units. To fulfill these requirements, the IRS has established a balanced performance measurement system composed of three elements: customer satisfaction (via feedback forms, surveys, *etc.*), employee engagement, and business results.[25] Measuring performance also involves regular monitoring

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[25] Treas. Reg. § 801.1(a)(2) (2008).

and reporting of program effectiveness and progression toward achieving established goals and objectives.

The Knowledge Management performance measures that the HCO established focus exclusively on high-level activity measures such as the number of Self-Help Online Tutorial videos, Communities of Practice, and individual accessing (single click) the Virtual Library. The HCO established the Knowledge Management Virtual Library Dashboard to track and report these metrics. The dashboard is updated monthly with the previous month's metrics and single click counts related to the Virtual Library. For example, there are metrics for the number of Self-Help Online Tutorial videos by business unit and a count of the times employees accessed the LB&I Division Virtual Library.

While these are important indicators of the Knowledge Management activity, they are not measuring the effectiveness of Knowledge Management. For example, during the review period of our audit, the IRS did not track the specific knowledge bases users accessed. Further, even though it tracks cumulative number of accesses over time, until recently the IRS did not know how many employees were accessing Knowledge Management (employee engagement). Given some of the responses we received to our survey, the following is a list of examples of performance measures that would make the Knowledge Management program more effective:

- SME response time – When an employee posts a question for a SME or attempts to contact a SME, measure how long it takes before a SME responds. If SMEs are not responding timely to requests, it is crucial to determine the reason why, *e.g.*, they are not checking the platform often enough to be timely. This measure will provide the IRS with information on how engaged Knowledge Management users are throughout the day.

- SME resolution of issues – Monitor the number of SME contacts that lead to the successful resolution of questions to determine the usefulness of SMEs.

- Number of times specific Knowledge Management information links are accessed or "clicked" – Monitor what content is most and least useful, in part by tracking "clicks" on relevant links. Useful information or content is accessed frequently so this indicator can be used to determine what information is the most and least useful to employees.

- Number of Knowledge Management accesses resulting in the resolution of user questions – Monitor the number of accesses that lead to the resolution of questions to determine the usefulness of Knowledge Management information (resolution rate).

- Knowledge base quality – Track the quality of the knowledge bases and remove any outdated content.

Overall, the IRS needs to establish more specific measures enabling it to determine the success and effectiveness of the Knowledge Management program in improving employee skills. Further, by improving its performance measures, the IRS can assess whether the Knowledge Management program is worth the investment to make employees more productive, improve taxpayer compliance, and enable employees to provide the best service to the taxpayer as possible.

Recommendation 4: The Office of Human Resource Strategy, HCO, in collaboration with the business units, should establish performance measures that will assess the effectiveness of the Knowledge Management program.

> **Management's Response:** IRS management agreed with this recommendation. The HCO Knowledge Management & Transfer team will collaborate with LB&I, SB/SE, and TE/GE representatives to assess the existing performance measures to determine if additional measures need to be established to evaluate the effectiveness of the Knowledge Management program.

Oversight and Accountability of Knowledge Management Employee Costs Need Improvement

When establishing their Knowledge Management programs, the business units were not required to provide plans, targets, or cost estimates to the HCO. The HCO still does not require the business units to separately capture and report costs associated with a defined set of Knowledge Management activities. As a result, the reviewed business units are not consistent when capturing and reporting employee costs pertaining to Knowledge Management.

The TE/GE Division identified employee costs for Knowledge Management as nearly $34 million for FYs 2017 to 2021. This included all of its employees who create content, maintain the SharePoint site, respond to questions submitted through "Contact An Expert," *etc*. However, other business units we reviewed may not have identified all their employees performing similar work on Knowledge Management. For example, the LB&I Division identified approximately $3.4 million in Knowledge Management employee costs and reported seven employees working on Knowledge Management. However, activities associated with Knowledge Management are performed by many more than seven employees within the LB&I Division. Specifically, the International Knowledge Base lists 135 available SMEs in 24 different technical areas for the Contact An Expert link. These SMEs, who work in Knowledge Management as a collateral duty, may also create and update the vast collection of technical content stored on the International Knowledge Base; however, the LB&I Division did not capture or report their costs as Knowledge Management employee costs.

The salaries of employees contributing to a program are considered direct costs and should be tracked and monitored.[26] By not tracking direct costs of SMEs working on Knowledge Management as a collateral duty, the LB&I Division did not provide accurate and complete cost information for its Knowledge Management program. Generally, indirect costs, such as information technology, research, and statistical information related costs, should also be tracked and monitored.[27] TIGTA was not provided information on some important direct and indirect costs for Knowledge Management because some of these costs are not tracked. The

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[26] Internal Revenue Manual 1.35.16.2.3.1 (Aug. 24, 2021).

[27] Internal Revenue Manual 1.35.16.2.3.2 (Aug. 24, 2021).

Chief, HCO, should work with the IRS Chief Financial Officer to assess which program costs should be tracked.

While the TE/GE Division incurred the majority of employee costs, it had the fewest knowledge bases and Self-Help Online Tutorial Videos

As stated previously, the HCO did not require the business units to separately track any costs associated with Knowledge Management, and therefore, the IRS was unable to provide a complete accounting of Knowledge Management costs. However, the TE/GE Division appears to have incurred the majority of Knowledge Management employee costs. From FY 2017 to FY 2021, the identified cost of salaries for TE/GE Division employees dedicated to Knowledge Management was $34 million or 65 percent of the $52 million-identified employee costs for all of the reviewed business units. Of the reviewed business units, the TE/GE Division had the fewest number of knowledge bases and Self-Help Online Tutorial videos, yet it incurred the majority of identified Knowledge Management employee costs (the amount of the identified salaries for its employees assigned to Knowledge Management within the Division). By November 2021, the TE/GE Division produced the fewest number of knowledge bases (eight out of 97 or 8 percent) and Self–Help Online Tutorial Videos (zero out of 294 or 0 percent) of the reviewed business units.

In FY 2015, the TE/GE Division began to implement its strategy for Knowledge Management by launching its pilot Knowledge Management portal and making it accessible to employees. Figure 3 shows that since the FY 2017 inception of the enterprise-wide Knowledge Management, the TE/GE Division has assigned the highest number of employees to work on its Knowledge Management program compared to the other reviewed business units.[28]

**Figure 3: TE/GE Division Knowledge Management Employees
Compared to the Reviewed Business Units for FYs 2017 to 2021**

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
TE/GE Division Employees Identified as Knowledge Management	46	50	58	61	62
Total Employees Identified as Knowledge Management in Reviewed Business Units	68	73	85	112	111
Percentage of Identified Knowledge Management Employees in the TE/GE Division	68%	68%	68%	54%	56%

Source: IRS TE/GE Division and the HCO.

From FYs 2017 to 2021, of all of the IRS employees assigned to Knowledge Management, the TE/GE Division had at least 54 percent of the total. Figure 4 shows the amount of TE/GE Division Knowledge Management employee costs compared to the total employee costs for the reviewed business units from FYs 2017 to 2021.[29]

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[28] See Appendix III for all reviewed business units' Knowledge Management employees.

[29] See Appendix II for all reviewed business units' Knowledge Management costs.

**Figure 4: TE/GE Division Knowledge Management Employee Costs
Compared to the Reviewed Business Units for FYs 2017 to 2021
(in millions)[30]**

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Totals/ Percentage
TE/GE Division Knowledge Management Employee Costs	$5	$6	$7	$8	$8	$34
Total Knowledge Management Employee Costs for All Reviewed Business Units	$7	$8	$10	$13	$13	$52
Percentage of TE/GE Division Costs	71%	75%	70%	62%	62%	65%

Source: IRS, TE/GE Division and the HCO.

In FY 2018, the first year it implemented its Virtual Library, TE/GE Division Knowledge Management costs peaked at 75 percent of the total Knowledge Management employee costs for the reviewed business units. The lowest percentage of Knowledge Management employee costs attributed to the TE/GE Division was 62 percent in FYs 2020 and 2021. For FYs 2017 to 2021, the TE/GE Division was responsible for 65 percent of Knowledge Management's employee costs for the reviewed business units. Even when factoring in contract costs of $9 million for reviewed business units in FYs 2017 to 2021, the TE/GE Division accounted for almost 55 percent of the Knowledge Management costs.

We asked TE/GE Division management about the duties of the employees who were assigned to Knowledge Management. They explained that, in general, those employees worked exclusively on Knowledge Management tasks including:

- Coordinated with TE/GE Division's Compliance, Planning, and Classification unit on the development and implementation of compliance strategies and other functional work.

- Interacted with stakeholders.

- Identified emerging issues and strategies.

- Recommended new forms and publications.

Among all of the reviewed business units, the TE/GE Division had the least number of total employees. Given this, it appears disproportional for the TE/GE Division to have the highest number of dedicated Knowledge Management employees (and therefore the highest amount of Knowledge Management employee costs). Figure 5 provides a comparison of TE/GE Division employee totals to the total of employees in the reviewed business units for FYs 2017 to 2021.

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[30] The sum of certain rows and columns do not equal the totals due to rounding.

**Figure 5: TE/GE Division Employee Totals Compared
to the Reviewed Business Units for FYs 2017 to 2021**

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Total TE/GE Division Employees	1,500	1,500	1,500	1,600	1,600
Total Employees for Reviewed Business Units	63,500	61,600	60,400	62,400	62,300
Percentage of TE/GE Division Employees	2%	2%	3%	3%	3%

Source: TIGTA analysis of information provided by the IRS HCO.

Since the IRS implemented enterprise-wide Knowledge Management, the TE/GE Division has never had more than 3 percent of the total employees of the reviewed business units. While having this low percentage of total employees, it averaged 65 percent of the Knowledge Management employee costs of the reviewed business units.

The TE/GE Division spent Knowledge Management resources on high-level employees

A contributing factor to the high cost of TE/GE Division Knowledge Management employee costs is the grade level of these employees. In FY 2021, the TE/GE Division had 62 Knowledge Management employees, and the majority were high grade-level employees such as revenue agents, tax law specialists, and their supervisors. Figure 6 shows the number of TE/GE Division Knowledge Management employees who were General Schedule (GS)-13, GS-14, and in the IRS Payband system, used by the IRS for managers.

**Figure 6: GS-13, GS-14, and IRS Payband Knowledge
Management Employees in the TE/GE Division for FY 2021**

Position Title	GS-13	GS-14	IRS Payband	Totals
Revenue Agent	27	5	0	32
Tax Law Specialist	6	11	0	17
Supervisory Revenue Agent	0	0	5	5
Supervisory Tax Law Specialist	0	0	2	2
Area Manager	0	0	1	1
Technical Specialist	1	0	0	1
Staff Assistant	1	0	0	1
Totals	35	16	8	59

Source: IRS HCO.

Of the 62 Knowledge Management employees in the TE/GE Division, 59 employees (95 percent) were at the upper end of the GS pay scale or in the Payband used for IRS management. When

we specifically asked about these high-level employees, we were told their Knowledge Management responsibilities included:

- Providing technical expertise as guidance teams, on cross business units teams, and on reviewing IRS website content and publications.

- Conducting training events in support of compliance strategy cases, on data-driven case selections in new or emerging areas, and on changes in guidance.

- Addressing questions submitted through the Contact An Expert Online portal.

- Providing support for new hire training through course material development and review as well as providing instructors.

- Providing experts for revisions and reviews of forms, publications, and instructions as well as other published guidance and specialized topics affecting business units such as global high wealth, charter schools, and donor-advised funds.

The TE/GE Division could not provide a breakout of the time these employees spent on the Knowledge Management program or their supporting roles. There should be more accountability over employees' time assigned to Knowledge Management programs so the cost of a Knowledge Management program does not include the cost of time spent working on non-Knowledge Management program activities. The only information available from the IRS suggests that the TE/GE Division has assigned a significant number of higher grade employees to work on its Knowledge Management program.

The TE/GE Division agreed that the HCO should have defined a list of Knowledge Management activities to be tracked and reported as Knowledge Management costs. This would have allowed each business unit to establish controls to ensure that Knowledge Management costs are captured and reported appropriately.

The TE/GE Division produced limited Knowledge Management tools and had fewer employees accessing Knowledge Management

Despite the cost and higher-grade employees, the TE/GE Division's Knowledge Management productivity is low in comparison to the other reviewed business units. Figure 7 provides the Knowledge Management products developed by the reviewed business units.

**Figure 7: Knowledge Management Materials Developed
by the Reviewed Business Units as of November 2021**

Knowledge Management Tools Developed	Reviewed Business Unit					
	SB/SE Division	W&I Division	HCO	LB&I Division	TE/GE Division	Totals
Knowledge Bases	41	23	17	8	8	97
Percentage of Total	42%	24%	18%	8%	8%	
Self-Help Online Tutorials	39	31	198	26	0	294
Percentage of Total	13%	11%	67%	9%	0%	
Community of Practices	16	4	24	15	5	64
Percentage of Total	25%	6%	38%	23%	8%	

Source: Analysis of data from IRS HCO and Knowledge Management and Transfer Executive Dashboard Report.

As of November 2021, the TE/GE Division did not develop any Self-Help Online Tutorial videos and developed only eight (8 percent) knowledge bases, yet never had more than 3 percent of the total employees of the reviewed business units.[31] The TE/GE Division established only five Communities of Practices. However, other reviewed business units developed more knowledge bases, Self-Help Online Tutorials, and Communities of Practice than the TE/GE Division, with far fewer Knowledge Management employees and less costs. For example, the SB/SE Division averaged only six Knowledge Management employees from FYs 2017 to 2021 but produced 41 knowledge bases.[32] The total Knowledge Management employee costs for the SB/SE Division was $3.6 million for FYs 2017 to 2021. The TE/GE Division averaged 55 Knowledge Management employees, costing $34 million for the same fiscal years, but produced only eight knowledge bases.

The TE/GE Division does maintain one of the larger knowledge bases on the Virtual Library. With over 1,500 total items in its repository, the Retirement Plans Knowledge Base on the Virtual Library contains 38 topics with 849 pages of content and 702 supporting resources. However, it accounts for only approximately 3 percent of the books and 6 percent of the total pages in the entire enterprise-wide Virtual Library.

Providing such a large number of Knowledge Management staff to the TE/GE Division suggests an ineffective use of Knowledge Management funding due to lack of oversight and accountability. The TE/GE Division stated that its Knowledge Management employees not only produce materials, but they are available to offer Knowledge Management-related support. However, when reviewing the TE/GE Division employees' use of the Knowledge Management site, it is possible that its employees are not requesting Knowledge Management-related support on a large scale as anticipated.

As part of our survey of TE/GE Division employees, we asked about their use of the Virtual Library. Only 13 percent of the employees responding to our survey stated that they regularly use the Knowledge Management site while:

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[31] From March 2022 to August 2022, the TE/GE Division published six Self-Help Online Tutorial videos.

[32] See Appendix III for all Knowledge Management employees for reviewed business units.

- 58 percent responded that they "never" or "rarely" use it.

- 28 percent "occasionally" use it.

Statistics compiled by the HCO support these survey responses. The Knowledge Management Virtual Library counts the use of the site by employee and assigned business unit. In FY 2018, the first year the HCO began tracking TE/GE Division activity on the Virtual Library, TE/GE Division employee total views or cumulative clicks on knowledge bases totaled 267 for the nearly 1,500 TE/GE Division employees for that fiscal year. When compared to approximately 431,000 SB/SE Division employee total views or cumulative clicks on knowledge bases in FY 2018 for around 19,000 employees, this amount is low. Further, when compared to the reviewed business units, the TE/GE Division does not have the majority of employees accessing the Service-wide Knowledge Management site.

Of the five reviewed business units, for FY 2021, TE/GE Division employees were fifth in the percentage of Lifetime Unique Views of knowledge bases. Regardless of the number of times an employee views a certain knowledge base, the Knowledge Management Virtual Library counts those as one view (Lifetime Unique Views). In the count of Lifetime Unique Views, TE/GE Division employees accounted for 1 percent while the SB/SE and LB&I Divisions and HCO employees accounted for 52, 24, and 11 percent, respectively.

In the count of Lifetime Combined Views, for FY 2021, TE/GE Division employees accounted for only 2 percent of reviewed business unit employees. SB/SE and LB&I Divisions and HCO employees accounted for 55, 30, and 11 percent, respectively. In our survey of TE/GE Division employees, 33 percent responded that they do not use the Virtual Library in their day-to-day duties.

Given that the TE/GE Division has fewer employees than the other reviewed business units, it is likely a contributing factor to the small percentage of TE/GE Division employee views and use of the Knowledge Management. This also brings into question why the TE/GE Division has so many more Knowledge Management-related personnel than the other divisions. The SB/SE and LB&I Divisions have a much higher percentage of employees using the Knowledge Management site. When reviewing the use by employee count, there also appears to be more employee interest in Knowledge Management tools in the SB/SE and LB&I Divisions.

The TE/GE Division was not required to submit plans outlining the costs it planned to incur on Knowledge Management tied to the production of Knowledge Management tools. When asked if plans were required from the business units, the HCO stated that only the contract vendors were required to submit such plans. Vendors submitted information pertaining to the objectives, scope of work, description of tasks, and desired outcomes.

When asked about the oversight conducted on business units' provided Knowledge Management funding, HCO management stated that they provided no oversight on spending. HCO management stated that the business units had to adhere only to the Knowledge Management process and procedures for using each service Knowledge Management and Transfer team provides.

Recommendation 5: In consultation with the Chief Financial Officer, the Chief, HCO, should establish a list of direct and indirect Knowledge Management costs, including the costs

associated with SMEs whose Knowledge Management work is a collateral duty, to be tracked by Division Commissioners.

> **Management's Response:** IRS management agreed with this recommendation. The HCO Knowledge Management and Transfer team has established Organization Function Program codes that can be used to track the direct time spent on the Knowledge Management program by HCO Knowledge Management and Transfer team and other business units. The HCO will follow up with the LB&I, SB/SE, and TE/GE Divisions to ensure that the use of the codes is clearly defined for tracking purposes.

Recommendation 6: The Commissioners, LB&I, SB/SE, and TE/GE Divisions, in consultation with the Chief, HCO, should establish controls to ensure that appropriate direct and indirect Knowledge Management costs are tracked and monitored.

> **Management's Response:** IRS management agreed with this recommendation. The HCO will collaborate with the LB&I, SB/SE, and TE/GE Divisions to explore and make recommendations about a monitoring process in which all business units with Knowledge Management programs will track and report direct costs to the HCO for enterprise-wide consolidation, and make recommendations for the HCO and the business units' executives' review.

Recommendation 7: The Commissioner, TE/GE Division, should assess the high costs of its Knowledge Management program and take actions to ensure that resources (costs) align with TE/GE Division needs of its Knowledge Management program.

> **Management's Response:** IRS management agreed with this recommendation. The TE/GE Division will assess the costs of its Knowledge Management program and take action, as appropriate, to align resources (costs) with employee needs of its Knowledge Management program.

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Appendix I

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Detailed Objective, Scope, and Methodology

The overall objective of this audit is to evaluate the IRS's Knowledge Management program and its impact on improving performance and taxpayer compliance. To accomplish our objective, we:

- Assessed the implementation of the enterprise-wide Knowledge Management focus by the reviewed business units.

- Determined the Knowledge Management costs associated with and assessed the Knowledge Management production of each reviewed business unit. We obtained information on the Knowledge Management employees and overall employees assigned to the reviewed business units for FYs 2017 to 2021. We identified the number of knowledge bases that were active or in the developmental stages.

- Determined the organizational structure for the enterprise-wide Knowledge Management. We assessed the roles and responsibilities of the HCO in respect to the implementation of the enterprise-wide Knowledge Management focus.

- Determined if the controls over Knowledge Management funding are efficient and effective. We assessed the HCO's process for awarding funding and monitoring the Knowledge Management production of the reviewed business units.

- Determined concerns that employees had with the enterprise-wide Knowledge Management site and SMEs. We administered a survey to employees of the LB&I and TE/GE Divisions on the enterprise-wide Knowledge Management site.

- Determined the process or methodology for identifying, prioritizing, and developing an issue into a knowledge base.

Performance of This Review

This review was performed with information obtained from discussions with personnel in the HCO at the IRS National Headquarters in Washington, D.C., and the LB&I, SB/SE, and TE/GE Divisions during the period February 2021 through May 2022. We conducted this performance audit in accordance with generally accepted government auditing 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.

Major contributors to the report were Matthew A. Weir, Assistant Inspector General for Audit (Compliance and Enforcement Operations); Christina Dreyer, Director; Timothy Greiner, Director; Eugenia Smoak, Audit Manager; Meaghan Tocco, Acting Audit Manager; and Michele Strong, Lead Auditor.

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: controls over Knowledge Management funding and Knowledge Management production. We evaluated these controls by analyzing the allocation of Knowledge Management funding provided to and the count of Knowledge Management products produced by the reviewed business units.

Appendix II

Knowledge Management Employee and Contract Costs
for Reviewed Business Units for Fiscal Years 2017 to 2021
(in millions)[1]

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Totals
HCO:						
Employee Costs	$1.2	$1.2	$1.6	$3.7	$3.2	$10.9
Contract Costs	$1.5	$1.9	$3.3	None	None	$6.7
Total						**$17.6**
LB&I Division:						
Employee Costs	$0.22	$0.65	$0.81	$0.87	$0.89	$3.4
Contract Costs	$1.1	None	None	None	None	$1.1
Total						**$4.5**
SB/SE Division:						
Employee Costs	$0.55	$0.65	$0.61	$0.64	$1.10	$3.6
Contract Costs	None	$0.70	$0.07	$0.35	None	$1.1
Total						**$4.7**
TE/GE Division:						
Employee Costs	$5.3	$5.9	$7.0	$7.7	$7.8	$33.8
Contract Costs	None	None	None	None	None	$0.0
Total						**$33.8**
W&I Division:						
Employee Costs	None	None	None	$0.3	$0.4	$0.7
Contract Costs	None	None	None	$0.3	None	$0.3
Total	None	None	None	None	None	**$1.0**
All Reviewed Business Units:						
Employee Costs	$7.3	$8.4	$10.1	$13.2	$13.4	$52.4
Contract Costs	$2.6	$2.6	$3.4	$0.7	None	$9.2
Totals	**$9.9**	**$11.0**	**$13.5**	**$13.9**	**$13.4**	**$61.6**

Source: IRS TE/GE Division and the HCO.

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[1] Amounts are rounded to the closest ten or hundred thousand; therefore, the sum of certain rows and columns do not equal the totals due to rounding.

Total Employees and Knowledge Management Employees for Reviewed Business Units for Fiscal Years 2017 to 2021

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
HCO:					
Total Employees	1,700	1,700	2,000	2,000	2,000
Knowledge Management Employees	10	10	15	36	29
LB&I Division:					
Total Employees	5,100	4,800	4,500	4,500	4,600
Knowledge Management Employees	7	7	7	7	6
SB/SE Division:					
Total Employees	20,600	19,400	20,100	20,200	20,100
Knowledge Management Employees	5	6	5	5	9
TE/GE Division:					
Total Employees	1,500	1,500	1,500	1,600	1,600
Knowledge Management Employees	46	50	58	61	62
W&I Division:					
Total Employees	34,600	34,200	32,300	34,100	34,000
Knowledge Management Employees	None	None	None	3	5
All Reviewed Business Units:					
Total Employees	63,500	61,600	60,400	62,400	62,300
Knowledge Management Employees	68	73	85	112	111

Source: IRS TE/GE Division and the HCO.

Appendix IV

Results of TIGTA's Survey of Large Business and International Division Employees

1.) What Business Unit do you work in?
1961 respondents answered this question out of a total of 1963

Answer	# Responses	% Who Answered	% of Total
Large Business and International	1937	98.78%	98.68%
Other	24	1.22%	1.22%

2.) If you selected other, please state the Business Unit that you work in.
78 respondents answered this question out of a total of 1963

3.) Please select the purpose of the area in which you work.
1960 respondents answered this question out of a total of 1963

Answer	# Responses	% Who Answered	% of Total
Examination	1409	71.89%	71.78%
Headquarters	120	6.12%	6.11%
Operations Support	116	5.92%	5.91%
Subject Matter Practice Area	189	9.64%	9.63%
Other	126	6.43%	6.42%

4.) Do you have any IRS employees who report directly to you?
1962 respondents answered this question out of a total of 1963

Answer	# Responses	% Who Answered	% of Total
Yes	287	14.63%	14.62%
No	1675	85.37%	85.33%

5.) Are you aware of the IRS's Virtual Library?
1961 respondents answered this question out of a total of 1963

Answer	# Responses	% Who Answered	% of Total
Yes	1832	93.42%	93.33%
No	129	6.58%	6.57%

6.) Do you know how to access the IRS's Virtual Library?
1960 respondents answered this question out of a total of 1963

Answer	# Responses	% Who Answered	% of Total
Yes	1695	86.48%	86.35%
No	265	13.52%	13.50%

7.) Have you ever accessed the IRS's Virtual Library?
1957 respondents answered this question out of a total of 1963

Answer	# Responses	% Who Answered	% of Total
Yes	1570	80.22%	79.98%
No	387	19.78%	19.71%

8.) If yes, what were you looking for?
1939 respondents answered this question out of a total of 1963

Answer	# Responses	% Who Answered	% of Total
Information to assist me with a specific examination or determination case	1275	65.76%	64.95%
Information not related to an examination or determination case	251	12.94%	12.79%
Not Applicable	413	21.30%	21.04%

9.) How often do you use the IRS's Virtual Library to help you perform your day-to-day job duties? Please use the following scale:
1959 respondents answered this question out of a total of 1963

Answer	# Responses	% Who Answered	% of Total
Never	380	19.40%	19.36%

Rarely	306	15.62%	15.59%
Occasionally	696	35.53%	35.46%
Regularly	577	29.45%	29.39%

10.) How helpful is the IRS's Virtual Library with your day-to-day job duties? Please use the following scale:

1961 respondents answered this question out of a total of 1963

Answer	# Responses	% Who Answered	% of Total
Not helpful	93	4.74%	4.74%
Slightly helpful	273	13.92%	13.91%
Moderately helpful	524	26.72%	26.69%
Very helpful	684	34.88%	34.84%
Do not use	387	19.73%	19.71%

11.) Which of the following LB&I knowledge bases are relevant to your job? Please select all that apply.

1962 respondents answered this question out of a total of 1963

Choice	Number	Percent
Partnerships	991	50.5
S Corporations	870	44.3
Industry	875	44.6
International	1035	52.8
Exam Procedures	1385	70.6
Penalties	1038	52.9
Exam Programs	885	45.1
Financial Institutions and Products	434	22.1
Cooperatives, RICs, REITs, and REMICs	247	12.6
Corporate, Business Issues & Credits	1065	54.3
None of the above	181	9.2

12.) Are Knowledge Management subject matter experts available for you to contact?

1961 respondents answered this question out of a total of 1963

Answer	# Responses	% Who Answered	% of Total
Yes	1685	85.93%	85.84%
No	276	14.07%	14.06%

13.) Are you able to directly contact those subject matter experts for consultation on your examination or determination case, or other activity needing assistance?

1956 respondents answered this question out of a total of 1963

Answer	# Responses	% Who Answered	% of Total
Yes	1289	65.90%	65.66%
No	240	12.27%	12.23%
Not Applicable	427	21.83%	21.75%

14.) Have you ever contacted those subject matter experts for assistance with an examination or determination case, or other activity needing assistance?

1957 respondents answered this question out of a total of 1963

Answer	# Responses	% Who Answered	% of Total
Yes	1362	69.60%	69.38%
No	263	13.44%	13.40%
Not Applicable	332	16.96%	16.91%

15.) On approximately how many occasions in the past twelve months have you contacted those subject matter experts?

1961 respondents answered this question out of a total of 1963

Answer	# Responses	% Who Answered	% of Total
1-25 times	1277	65.12%	65.05%
26-50 times	55	2.80%	2.80%
51-100 times	17	0.87%	0.87%
Over 100 times	12	0.61%	0.61%
Not Applicable	600	30.60%	30.57%

16.) How helpful was the assistance from the subject matter experts? Please use the following scale:

1962 respondents answered this question out of a total of 1963

Answer	# Responses	% Who Answered	% of Total
Not at all helpful	33	1.68%	1.68%
Slightly helpful	131	6.68%	6.67%
Moderately helpful	325	16.56%	16.56%
Very helpful	908	46.28%	46.26%
Not Applicable	565	28.80%	28.78%

17.) How helpful is your Business Unit's Knowledge Management program with performing your job? Please use the following scale:

1959 respondents answered this question out of a total of 1963

Answer	# Responses	% Who Answered	% of Total
Not at all helpful	212	10.82%	10.80%
Slightly helpful	380	19.40%	19.36%
Moderately helpful	615	31.39%	31.33%
Very helpful	752	38.39%	38.31%

18.) Optional: Please share any feedback to improve your experience with the IRS's Virtual Library?

639 respondents answered this question out of a total of 1963

Results of TIGTA's Survey of Tax Exempt and Government Entities Division Employees

1.) What Business Unit do you work in?
754 respondents answered this question out of a total of 755

Answer	# Responses	% Who Answered	% of Total
Tax Exempt and Government Entities	745	98.81%	98.68%
Other	9	1.19%	1.19%

2.) If you selected other, please state the Business Unit that you work in.
40 respondents answered this question out of a total of 755

3.) Please select the purpose of the area in which you work.
755 respondents answered this question out of a total of 755

Answer	# Responses	% Who Answered	% of Total
Examination	453	60.00%	60.00%
Headquarters	71	9.40%	9.40%
Operations Support	60	7.95%	7.95%
Subject Matter Practice Area	27	3.58%	3.58%
Other	144	19.07%	19.07%

4.) Do you have any IRS employees who report directly to you?
755 respondents answered this question out of a total of 755

Answer	# Responses	% Who Answered	% of Total
Yes	90	11.92%	11.92%
No	665	88.08%	88.08%

5.) Are you aware of the IRS's Virtual Library?
754 respondents answered this question out of a total of 755

Answer	# Responses	% Who Answered	% of Total
Yes	678	89.92%	89.80%
No	76	10.08%	10.07%

6.) Do you know how to access the IRS's Virtual Library?
753 respondents answered this question out of a total of 755

Answer	# Responses	% Who Answered	% of Total
Yes	583	77.42%	77.22%
No	170	22.58%	22.52%

7.) Have you ever accessed the IRS's Virtual Library?
752 respondents answered this question out of a total of 755

Answer	# Responses	% Who Answered	% of Total
Yes	506	67.29%	67.02%
No	246	32.71%	32.58%

8.) If yes, what were you looking for?
743 respondents answered this question out of a total of 755

Answer	# Responses	% Who Answered	% of Total
Information to assist me with a specific examination or determination case	386	51.95%	51.13%
Information not related to an examination or determination case	92	12.38%	12.19%
Not Applicable	265	35.67%	35.10%

9.) How often do you use the IRS's Virtual Library to help you perform your day-to-day job duties? Please use the following scale:
753 respondents answered this question out of a total of 755

Answer	# Responses	% Who Answered	% of Total
Never	245	32.54%	32.45%

Rarely	194	25.76%	25.70%
Occasionally	215	28.55%	28.48%
Regularly	99	13.15%	13.11%

10.) How helpful is the IRS's Virtual Library with your day-to-day job duties? Please use the following scale:

755 respondents answered this question out of a total of 755

Answer	# Responses	% Who Answered	% of Total
Not helpful	70	9.27%	9.27%
Slightly helpful	142	18.81%	18.81%
Moderately helpful	169	22.38%	22.38%
Very helpful	137	18.15%	18.15%
Do not use	237	31.39%	31.39%

11.) Which of the following TEGE knowledge bases (K-Nets) are relevant to your job? Please select all that apply.

754 respondents answered this question out of a total of 755

Choice	Number	Percent
Unrelated Business Income Tax	315	41.8
Private Foundations	245	32.5
Employment Taxes	276	36.6
Trusts	227	30.1
Tax Exempt Bonds	58	7.7
Other Exempt Organizations	0	0.0
Retirement Plans	281	37.3
IRC 501 (C) (3) Organizations	0	0.0
Indian Tribal Governments	48	6.4
None of the above	110	14.6

12.)   Are Knowledge Management subject matter experts available for you to contact?

752 respondents answered this question out of a total of 755

Answer	# Responses	% Who Answered	% of Total
Yes	616	81.91%	81.59%
No	136	18.09%	18.01%

13.) Are you able to directly contact those subject matter experts for consultation on your examination or determination case, or other activity needing assistance?

754 respondents answered this question out of a total of 755

Answer	# Responses	% Who Answered	% of Total
Yes	422	55.97%	55.89%
No	148	19.63%	19.60%
Not Applicable	184	24.40%	24.37%

14.) Have you ever contacted those subject matter experts for assistance with an examination or determination case, or other activity needing assistance?

755 respondents answered this question out of a total of 755

Answer	# Responses	% Who Answered	% of Total
Yes	356	47.15%	47.15%
No	256	33.91%	33.91%
Not Applicable	143	18.94%	18.94%

15.) On approximately how many occasions in the past twelve months have you contacted those subject matter experts?

755 respondents answered this question out of a total of 755

Answer	# Responses	% Who Answered	% of Total

1-25 times	343	45.43%	45.43%
26-50 times	14	1.85%	1.85%
51-100 times	5	0.66%	0.66%
Over 100 times	5	0.66%	0.66%
Not Applicable	388	51.39%	51.39%

16.) How helpful was the assistance from the subject matter experts? Please use the following scale:
755 respondents answered this question out of a total of 755

Answer	# Responses	% Who Answered	% of Total
Not at all helpful	36	4.77%	4.77%
Slightly helpful	38	5.03%	5.03%
Moderately helpful	91	12.05%	12.05%
Very helpful	229	30.33%	30.33%
Not Applicable	361	47.81%	47.81%

17.) How helpful is your Business Unit's Knowledge Management program with performing your job? Please use the following scale:
751 respondents answered this question out of a total of 755

Answer	# Responses	% Who Answered	% of Total
Not at all helpful	140	18.64%	18.54%
Slightly helpful	198	26.36%	26.23%
Moderately helpful	211	28.10%	27.95%
Very helpful	202	26.90%	26.75%

18.) Optional: Please share any feedback to improve your experience with the IRS's Virtual Library?
255 respondents answered this question out of a total of 755

Appendix VI

Management's Response to the Draft Report

DEPARTMENT OF THE TREASURY
INTERNAL REVENUE SERVICE
WASHINGTON, DC 20224

HUMAN CAPITAL OFFICE

April 14, 2023

MEMORANDUM FOR HEATHER M. HILL
DEPUTY INSPECTOR GENERAL FOR AUDIT

FROM: David M. Aten
                   IRS Acting Human Capital Officer   x3ppb   Digitally signed by x3ppb
                                                                Date: 2023.04.14 07:55:12
                                                                -04'00'

SUBJECT: Draft Audit Report – The Knowledge Management Program Will
                   Benefit from Addressing User Concerns and Improving
                   Performance Measures and Controls Over Employee Costs
                   (Audit # 202130026)

Thank you for the opportunity to review and comment on the subject draft report, which evaluated the effectiveness of the IRS Knowledge Management (KM) program and its impact on improving employee performance and taxpayer compliance.

We appreciate and agree with the report's acknowledgement of the importance of the IRS's KM program. As noted throughout the report, IRS has made program and policy changes in response to employee feedback to increase usage of the KM program. We were pleased to see that in your survey of Large Business and International (LB&I) and Tax Exempt and Government Entities (TE/GE) employees over 87% of respondents indicated the business unit KM program was helpful with performing their job.

The IRS KM program serves an integral role to our operations through training support and delivery, technical support to employees, collaboration across business units, and technical support to the public through items published on IRS.gov. It ensures an integrated approach to identify, capture, and share knowledge across multiple channels, including Virtual Libraries, formal instruction, workshops, and subject matter experts that work directly answering technical questions on casework.

Continuing to listen to employees and improve KM is an important component of effectively managing the significant organizational and operational transformation that is underway as part of the implementing the Inflation Reduction Act. IRS is committed to continue taking steps to strengthen the KM Program, and better capture, share, and apply employee knowledge to enhance learning, performance, decision-making, and collaboration. In addition, the IRS takes seriously its fiduciary responsibilities to taxpayers and the need to regularly and comprehensively assess program costs.

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While IRS agrees with the report recommendations, we have concerns with several of the findings and found important context missing in several sections. This includes:

- By failing to acknowledge the full and unique scope of KM program activity within TE/GE, the report makes an "apples to oranges" comparison between the TE/GE KM program and other IRS business units. This distorts the comparison of costs and personnel for KM among IRS Business Units.

  In addition to managing their knowledge base, the TE/GE KM program also, to address a prior TIGTA recommendation (See TIGTA Report 201310053), includes technical capabilities to track all requests for technical support within TE/GE and ensure they are responded to timely. This report focuses almost exclusively on knowledge base work, failing to include the other technical and substantive work done within the TE/GE and enterprise-wide IRS KM program. Therefore, TE/GE costs cannot be compared accurately to other Business Units that follow different conventions for tracking costs outside of knowledge base administration and content maintenance.

- The report relies heavily on a small number of negative survey responses to draw non-representative conclusions about the effectiveness of the KM program. Overall, 87% of respondents reported that their Business Unit's KM program was helpful with performing their job (Question 17), with 92% of respondent saying they were aware of the IRS Virtual Library (Question 5). More than three-quarters reported using the Virtual Library to help perform their day-to-day duties (Question 9); of those who did use it over 92% found it helpful (Question 10). Roughly two-thirds reported having contacted a subject matter expert in the last twelve months (Question 15); of those who did, 96% reported the assistance was helpful (Question 16).

  The report also emphasizes a small number of negative responses to the open-ended Question 18, which asked, "Please share any feedback to improve your experience with the IRS's Virtual Library." IRS appreciates and takes seriously the specific feedback from employee and will use the anecdotal information collected as we continue to improve the KM program. However, these individual open-ended responses are not representative of the overall results, which polled around 6,300 employees, as almost two-thirds of survey takers did not respond to this leading question and offered no negative feedback. For example, while "some" of the employees who used the Virtual Library "found the information hard to use and lacking in relevant information" and provided suggestions for improving it, the report does not note that 39% of respondents said that the Virtual Library was very helpful compared to 8% who said it was not helpful.

- The report concludes that Subject Matter Experts (SMEs) lack experience and expertise based on the feedback of a few survey respondents. In fact, Large

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Business and International (LB&I) technical tax SMEs support compliance efforts by providing expert guidance on complex examination issues to employees throughout the IRS. Hiring for technical tax SME positions is highly selective and new SMEs receive training and are mentored by their experienced colleagues.

We appreciate the opportunity to review and comment on the draft report. Attached is our response to your recommendation(s). If you have any questions, please contact Wilma P. Robinson, Chief Learning Officer, HCO, at 202-317-3531.

Attachment

The Knowledge Management Program Will Benefit From Addressing User Concerns and Improving Performance Measures and Controls Over Employee Costs

4

Attachment

Recommendation 1
The Commissioners, LB&I Division, SB/SE Division, and TE/GE Division should review and address the issues and concerns included in this report that were raised by employees in our survey.

CORRECTIVE ACTION
LB&I strives to continuously improve its Knowledge Management Program by reviewing and addressing employees' issues and concerns. We will review the issues and concerns raised in this report to determine how to best address them.

SB/SE will review, and address issues included in this report on where content is located in the Virtual Library by continuing to address user feedback. The Program Management Office will issue a SB/SE Headline News article to remind employees on ways to access the Virtual Library, how to search for information, and the usefulness of the content.

TE/GE will review, and address issues included in this report related to accessing the IRS Virtual Library and Contacting a TE/GE Knowledge Management Specialist (SME/KM Core Team members).

IMPLEMENTATION DATE
April 15, 2024 (LB&I)
November 15, 2023 (SB/SE)
April 15, 2024 (TE/GE)

RESPONSIBLE OFFICIAL
Director, Large Business and International Division, Technology & Program Solutions
Director, Business Development Office, SB/SE Operations Support
Director, Exempt Organizations, Rulings & Agreements, TE/GE

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

Recommendation 2
The Commissioners, LB&I Division, SB/SE Division, and TE/GE Division should review Knowledge Management user feedback from traditional surveys or other means to measure and improve the Knowledge Management Program.

The Knowledge Management Program Will Benefit From Addressing User Concerns and Improving Performance Measures and Controls Over Employee Costs

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CORRECTIVE ACTION
LB&I will continue to take actions to collect and act upon user feedback and will consider whether a traditional questionnaire-based survey will effectively provide actionable feedback to the program.

SB/SE Knowledge Management conducted formal surveys in Fiscal Year (FY) 2018 and FY19 and made some improvements to the KM program based on user feedback. Subsequently, SB/SE switched to hosting more frequent outreach events to monitor program effectiveness and obtain user feedback. SB/SE will continue to collect feedback from outreach events and act upon user feedback and will assess whether another traditional questionnaire-based survey will effectively provide actionable feedback to the program.

TE/GE will build feedback loops to measure and improve the Knowledge Management program.

IMPLEMENTATION DATE
April 15, 2024 (LB&I)
April 15, 2024 (SB/SE)
April 15, 2024 (TE/GE)

RESPONSIBLE OFFICIAL
Director, Large Business and International Division, Technology & Program Solutions
Director, Business Development Office, SB/SE Operations Support
Director, Exempt Organizations, Rulings & Agreements, TE/GE

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

Recommendation 3
The Commissioners, LB&I Division, SB/SE Division, and TE/GE Division should utilize data from the Virtual Library, such as SharePoint reports to assist with developing relevant content for the Virtual Library.

CORRECTIVE ACTION
LB&I currently utilizes data to guide the development of relevant content for the Virtual Library. LB&I will consider options for creating and employing SharePoint reports that will offer additional insight into the Virtual Library users' needs.

SB/SE will assess and validate existing data sources to assist in creating and employing SharePoint reports that will offer additional insight into the Virtual Library users' needs.

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TE/GE will assess available data from the Virtual Library, such as SharePoint reports, to determine if the data can assist with developing relevant content for the Virtual Library.

IMPLEMENTATION DATE
April 15, 2024 (LB&I)
March 15, 2024 (SB/SE)
April 15, 2024 (TE/GE)

RESPONSIBLE OFFICIAL
Director, Large Business and International Division, Technology & Program Solutions
Director, Business Development Office, SB/SE Operations Support
Director, Exempt Organizations, Rulings & Agreements, TE/GE

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

Recommendation 4
The Office of Human Resource Strategy, HCO, in collaboration with the operating divisions, should establish performance measures that will assess the effectiveness of the Knowledge Management program.

CORRECTIVE ACTION
In collaboration with SB/SE, LB&I, and TE/GE representatives, HCO Knowledge Management & Transfer will assess the existing performance measures, which include customer service satisfaction and program growth metrics, to determine if additional measures need to be established to evaluate the effectiveness of the Knowledge Management program.

IMPLEMENTATION DATE
October 15, 2024

RESPONSIBLE OFFICIAL
Chief Learning Officer, HCO

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

RECOMMENDATION 5
In consultation with the Chief Financial Officer, the Chief, HCO should establish a list of direct and indirect Knowledge Management costs, including the costs associated with SMEs whose Knowledge Management work is a collateral duty, to be tracked by Division Commissioners.

The Knowledge Management Program Will Benefit From Addressing User Concerns and Improving Performance Measures and Controls Over Employee Costs

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CORRECTIVE ACTION
HCO Knowledge Management & Transfer has established Organization Function Program (OFP) codes that can be used to track the direct time spent on the Knowledge Management program by HCO Knowledge Management & Transfer (800-51520) and other BUs (800-51521). HCO will follow up with SB/SE, LB&I, and TE/GE to ensure that the use of the codes is clearly defined for tracking purposes.

IMPLEMENTATION DATE
October 15, 2023

RESPONSIBLE OFFICIAL
Chief Learning Officer, HCO

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

Recommendation 6
HCO will collaborate with SB/SE, LB&I, and TE/GE to explore and make recommendations about a monitoring process in which all Business Units with KM programs will track and report their direct costs to HCO for enterprise-wide consolidation and make recommendations for the HCO and BU executives' review.

CORRECTIVE ACTION
HCO will collaborate with SB/SE, LB&I, and TE/GE to explore existing processes and make recommendations for enhanced monitoring in which all Business Units with KM programs will track and report their direct costs to HCO for enterprise-wide consolidation and make recommendations for the HCO and BU executives' review.

IMPLEMENTATION DATE
October 15, 2024

RESPONSIBLE OFFICIAL
Chief Learning Officer, HCO

CORRECTIVE ACTION MONITORING PLAN
IRS will monitor this corrective action as part of or internal management system of controls.

Recommendation 7
The Commissioner, TE/GE Division, should assess the high costs of its Knowledge Management program and take actions to ensure resources (cost) align with TE/GE Division needs of its Knowledge Management program.

The Knowledge Management Program Will Benefit From Addressing User Concerns and Improving Performance Measures and Controls Over Employee Costs

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CORRECTIVE ACTION
TE/GE will assess the costs of its Knowledge Management program and take action, as appropriate, to align resources (costs) with employee needs of its Knowledge Management program.

IMPLEMENTATION DATE
April 15, 2024

RESPONSIBLE OFFICIAL
Director, Exempt Organizations, Rulings & Agreements, TE/GE

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

Appendix VII

Glossary of Terms

Term	Definition
Book	A "book" in the Virtual Library contains information on a major subtopic that makes up an overarching knowledge base topic.
General Schedule	A rate of basic pay for professional, technical, administrative, and clerical professionals working for the Federal Government.
Internal Revenue Manual	The primary, official source of IRS instructions to staff related to the organization, administration, and operation of the IRS.
Internal Revenue Service Payband	A pay and classification system covering a portion of the IRS workforce.
Lifetime Unique Views	The number of individual employees who visit knowledge bases. This is one count per employee to visit a knowledge base.
Revenue Agent	An employee in the Examination function who conduct face-to-face examinations of more complex tax returns, such as businesses, partnerships, corporations, and specialty taxes.
Revenue Officer	An employee in the Field Collection function who attempts to contact taxpayers and resolve collection matters that have not been resolved through notices sent by the IRS campuses.
Subject Matter Expert	An expert who provides support on a specific tax-related subject.
Taxpayer Advocate Service	An independent organization within the IRS that helps taxpayers resolve problems with the IRS and recommends changes to prevent problems.
Technical Advisor	An advisor who performs case reviews and provides timely, case specific guidance on procedural and legal issues to assist TAS case advocates.

Appendix VIII

Abbreviations

FY	Fiscal Year
GAO	Government Accountability Office
GS	General Schedule
HCO	Human Capital Office
IRS	Internal Revenue Service
LB&I	Large Business and International
SB/SE	Small Business/Self-Employed
SME	Subject Matter Expert
TA	Technical Advisor
TAS	Taxpayer Advocate Service
TE/GE	Tax Exempt and Government Entities
TIGTA	Treasury Inspector General for Tax Administration
W&I	Wage and Investment

**To report fraud, waste, or abuse,
call our toll-free hotline at:**

(800) 366-4484

By Web:

www.treasury.gov/tigta/

Or Write:

Treasury Inspector General for Tax Administration

P.O. Box 23291

Washington, D.C. 20026

Information you provide is confidential, and you may remain anonymous.