

Report to Chairman, Committee on Finance, U.S. Senate

April 2013

IRS WEBSITE

Long-Term Strategy Needed to Improve Interactive Services





Highlights of GAO-13-435, a report to the Chairman, Committee on Finance, U.S. Senate

Why GAO Did This Study

U.S. taxpayers visited the IRS's website over 375 million times during 2012. IRS officials noted there are over 110,000 web pages and downloadable documents plus some basic interactive tools, such as calculators, on IRS.gov. In December 2011, GAO reported that taxpayers benefit from the increased web services, and IRS could realize substantial savings by transferring taxpayers away from costly telephone interactions. GAO was asked to review IRS's efforts to offer more interactive services. Among other things, this report describes the interactivity of IRS's online services and assesses its strategy for expanding the interactivity of its website. To address these objectives, GAO reviewed IRS's website to determine the services it provided as of March 2013, compared the IRS Online Strategy to federal guidance such as Howto.gov, and interviewed IRS officials in the Offices of Online Services and Information Technology.

What GAO Recommends

GAO recommends that IRS develop a long-term strategic plan for its web services that includes, among other things, studies of leading practices at a strategic level; a measurable goal for taxpaver satisfaction: business cases for new online services that describe the potential benefits and costs and prioritized projects; and links to investments in security. IRS agreed with two of these recommendations, did not state whether it agreed or disagreed on two others, and partially agreed with developing business cases because it believes other criteria should be considered. GAO believes this recommendation remains valid as discussed in this report.

View GAO-13-435. For more information, contact James R. White at (202) 512-9110 or whitej@gao.gov.

IRS WEBSITE

Long-Term Strategy Needed to Improve Interactive Services

What GAO Found

The Internal Revenue Service's (IRS) existing online services are limited when compared to many other government and private sector organizations. Static web pages make up the majority of www.IRS.gov; however, IRS highlights 18 basic interactive tools from its homepage. IRS does not offer dynamic account access to taxpayers. Other federal and state taxing authorities provide a broader range of online services to their customers, including interactive account access.

Current and Future Online Services on IRS.gov

| Р | Future plans | |
|---|---|--|
| Static web pages | Basic interactive tools | Dynamic account access |
| Forms and publications General information | Non-secure tools: • Volunteer Income Tax Assistance (VITA) site locator • Authorized e-file provider locator | Personalized online individual account access No planned implementation date for these services |
| | Secure tools: • Order a Transcript • Where's my Refund? • Online Payment Agreement | |

Source: GAO analysis of IRS information.

To improve its website, IRS has been simultaneously (1) focusing on multiple short term projects to deliver new basic interactive tools and (2) longer term efforts to invest in foundational infrastructure, such as security.

IRS does not, however, have a long term strategy for enhancing its website that explains how its ongoing and new efforts fit together. No overall cost estimate exists and there are not enough details on goals, deliverables, future online services, and timeframes to be able to assess progress. Several fundamental elements for a website strategy, as described on www.Howto.gov and in other guidance, are missing. Among others actions, IRS is not:

- using leading practices learned to help formulate a long-term strategy;
- setting a measureable taxpayer satisfaction goal to help ensure taxpayers' needs are being met;
- prioritizing the development of new online services based on business cases that outline the benefits and costs; and
- linking investments in security to a long term plan.

While IRS's efforts to date have already benefited taxpayers and hold the promise of additional benefits in the future, a long term strategy could help managers have a common understanding of IRS's plans, and better assist Congress in understanding what it is being asked to fund and holding IRS accountable for progress.

Contents

| Letter | | 1 |
|--------------|--|----|
| | Background | 4 |
| | IRS Provides Limited Interactive Services and Is Tracking More Performance Metrics | 9 |
| | Taxpayers' Rating of IRS's Website Is below Average and Oversight Entities Recommend Enhancements | 15 |
| | IRS Is Following Some but Not All Fundamental Elements for a Website Strategy | 17 |
| | Conclusions | 27 |
| | Recommendations for Executive Action | 28 |
| | Agency Comments and Our Evaluation | 28 |
| Appendix I | Objectives, Scope, and Methodology | 31 |
| Appendix II | IRS's Basic Interactive Tools | 34 |
| Appendix III | IRS's Component Scores for Customer Satisfaction | 36 |
| Appendix IV | Comments from the Department of Treasury | 37 |
| Appendix V | GAO Contact and Staff Acknowledgment | 42 |
| Tables | | |
| | Table 1: Number of Visits and Downloads on IRS.gov Table 2: IRS's Use of Howto.gov's Recommended Performance | 11 |
| | Metrics for Federal Websites, as of March 7, 2013 Table 3: New and Planned Self Service Tools Fiscal Years 2013 and | 12 |
| | 2014 | 21 |
| | Table 4: IRS e-Authentication Procedures and Identity Elements Required | 25 |
| | Table 5: Interactive Tools for Taxpayers Available on IRS.gov as of March, 2013 | 34 |
| | Table 6: IRS's ACSI Scores for Website Elements | 36 |

Figures

| Figure 1: IRS.gov Homepage | 5 |
|---|----|
| Figure 2: Summary of Current and Future Online Services on | |
| IRS.gov | 9 |
| Figure 3: IRS's American Customer Satisfaction Index (ACSI) | |
| Scores 2005 through 2012 Compared to Selected Private | |
| Sectors | 16 |
| | |

Abbreviations

| ACSI AGI | American Customer Satisfaction Index Adjusted Gross Income |
|-------------|---|
| AMT | Alternative Minimum Tax |
| DOB | Date of Birth |
| EIN | Employer Identification Number |
| EITC | Earned Income Tax Credit |
| GPRA | Government Performance and Results Act |
| GPRAMA | GPRA Modernization Act of 2010 |
| IRS | Internal Revenue Service |
| IT | Information Technology |
| NIST | National Institute of Standards and Technology |
| OLS | Office of Online Services |
| OMB | Office of Management and Budget |
| PIN | Personal Identification Number |
| SSN | Social Security Number |
| VITA | Volunteer Income Tax Assistance |

This is a work of the U.S. government and is not subject to copyright protection in the United States. The published product may be reproduced and distributed in its entirety without further permission from GAO. However, because this work may contain copyrighted images or other material, permission from the copyright holder may be necessary if you wish to reproduce this material separately.



United States Government Accountability Office Washington, DC 20548

April 16, 2013

The Honorable Max Baucus Chairman Committee on Finance United States Senate

Dear Mr. Chairman:

U.S. taxpayers visited the Internal Revenue Service's (IRS) website over 375 million times during 2012 to obtain tax-related information, download forms, and check on the status of a refund, among other things.¹ IRS officials noted that there are over 110,000 web pages and downloadable documents available on IRS.gov. Enhancing IRS.gov with additional online services is cited by the Department of Treasury as part of how it intends to achieve its priority goals of improving service to taxpayers and increasing compliance with tax laws.² Taxpayers benefit from online services are available 24 hours a day, and there is no waiting in a queue to speak to a telephone representative. In December 2011, we reported that IRS could realize savings by transferring taxpayers from costly telephone and walk-in services to much cheaper online services.³

While IRS's website is heavily used and provides access to vast amounts of information, concerns have been expressed about the sophistication of the services provided and the extent to which taxpayers' needs are met. Much of the content on IRS's website is read-only. There are some basic tools that allow users to request personalized information, such as the status of refunds, but IRS's website does not give taxpayers interactive personal account access. The IRS Oversight Board, the National Taxpayer Advocate, and the Electronic Tax Administration Advisory Committee have all recently made recommendations that IRS should provide taxpayers with online access to their accounts, including ways to

¹http://www.IRS.gov, accessed March 15, 2013.

²As cited on www.performance.gov, accessed March 26, 2013.

³GAO, 2011 Tax Filing: Processing Gains, but Taxpayer Assistance Could be Enhanced by More Self-Service Tools, GAO-12-176 (Washington, D.C.: Dec. 15, 2011).

resolve compliance problems or other issues.⁴ In 2011, we recommended that IRS complete a strategy that includes an assessment of providing online interactive tools that allow taxpayers to access and update elements of their accounts online.⁵ IRS stated it would consider online access for taxpayers, but as of March 2013, IRS has not yet taken action to fully address the recommendation.

You asked us to review IRS's efforts to offer more interactive services. This report (1) describes the interactivity of IRS's online services and assesses how IRS measures use of the services, (2) describes taxpayers' satisfaction with these services, and (3) assesses IRS's strategy for expanding the interactivity of its website, including how it learns from other organizations, sets goals for taxpayer satisfaction for its website, prioritizes the development of new services, and addresses security risks.

To accomplish our objectives, we reviewed IRS.gov to determine the different types of online services IRS offered as of March 2013, and analyzed the performance metrics IRS uses to monitor taxpayer satisfaction with the website and its interactive tools. We compared IRS's performance metrics to the recommended performance metrics on Howto.gov—a website managed by the General Services Administration to guide federal agencies to provide better customer experiences through their websites.⁶ We reviewed IRS's average American Customer Satisfaction Index (ACSI) scores from 2005 through 2012 as gathered by ForeSee via optional online surveys.⁷ We compared IRS's score to the average scores of other federal agencies and private organizations.⁸ We

⁵GAO-12-176.

⁶Accessed February 26, 2013, http://www.howto.gov.

⁷IRS uses ForeSee, a company that uses customer experience analytics to continuously measure satisfaction and provide insights to clients to administer the ACSI optional pop up survey to users on IRS.gov.

⁸We compared IRS's average ACSI scores (2005 to 2012) to the average scores of (1) approximately 30 other federal agencies and (2) private organizations with transactions similar to IRS including in the Internet brokerage, Internet retail, and banks sectors. Both the federal agencies and private organizations used ACSI to measure overall customer satisfaction with their websites.

⁴IRS Oversight Board, *Electronic Filing 2011: Annual Report to Congress*, December, 2011; National Taxpayer Advocate *Annual Report to Congress*, December 31, 2012; and Electronic Tax Administration Advisory Committee, *Annual Report to Congress*, June 2012, Publication 3415. These three organizations oversee IRS's operations.

analyzed the September 2012 IRS Online Strategy and updates of the strategy provided March 19, 2013. We reviewed IRS's records of contact with other organizations to determine the steps taken to learn about leading practices when implementing interactive tools, and we compared IRS's website management practices to best practices outlined on Howto.gov. We interviewed Office of Online Service (OLS) officials to determine IRS's plans to set a taxpayer satisfaction goal. We assessed how IRS prioritized new interactive tools for implementation in fiscal year 2013 by comparing the planned time frames listed in the IRS Online Strategy to actual implementation dates of the interactive tools and reviewing OLS's documentation used to determine prioritization, including business cases. We compared the business cases to benefit cost criteria, including the Office of Management and Budget's (OMB) Circular A-94. We obtained and reviewed IRS's security risk assessments for two interactive tools—Send My Transcript to Banks and First Time Homebuyers Credit—and its planned actions to address any risks it identified. We also reviewed IRS's plans to authenticate taxpayer identities for new interactive tools and compared them to the National Institute of Standards and Technology's (NIST) guidance on authentication.9 For all objectives we interviewed relevant IRS officials to collect information on IRS's online services and its plans to implement additional online services in the future. We reviewed documents and interviewed ACSI officials and determined that the ASCI data presented in our report for years 2005 through 2012 were sufficiently reliable for our purposes. (See app. I for more information on our scope and methodology.)

We conducted this performance audit from June 2012 to April 2013 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 objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

⁹NIST is charged with providing guidance and assistance to agencies and defining minimum security requirements, among other things.

| Background | IRS.gov offers users access to a wide range of guidance, forms, and sources for help, as indicated by the screen shot of the home page shown in figure 1. According to the IRS Oversight Board's annual taxpayer attitude survey, 86 percent of taxpayers were likely to use technology-based services, like the IRS website, and this percentage has grown in recent years. ¹⁰ |
|------------|--|
| | recent years. |

¹⁰IRS Oversight Board, *2012 Taxpayer Attitude Survey*, February, 2013.



Figure 1: IRS.gov Homepage

Source: Internal Revenue Service.

Note: IRS.gov homepage as of March 6, 2013.

Based on our review of literature on interactive online services, we identified three categories of such services, which we call (1) static web pages, (2) basic interactive tools, and (3) dynamic account access.

| • | Static web pages: web pages that provide the same information for all |
|---|---|
| | users. These pages are mostly read-only, although users may be able |
| | to use hyperlinks to move to other related content. The pages do not |
| | have the capacity to return any personalized information to the user. |
| | |

- *Basic interactive tools*: more complex web pages that allow users to perform routine tasks online and, in some cases, obtain personalized data. These tools can be non-secure or secure.
 - Non-secure tools: basic interactive tools that do not require users to confirm their identity in order to use the tool. There is also no interaction between the user and the user's tax account at IRS. The tools may allow the taxpayer to input some data and in return get back personal information based on the information provided. A calculator for estimating tax is one example.
 - Secure tools: basic interactive tools that allow users to obtain some information from their account after confirming their identity. While users can request some information about their account, the information is limited and users do not have the ability to make changes to the account. For example, one of IRS's secure tools allows taxpayers to request a copy of a previously filed tax return.
- Dynamic account access: the most complex web pages that provide users with real-time account access and the ability to make account changes after confirming their identity. For example, the Social Security Administration allows users to start or change direct deposit benefit payments.

| The Office of Online | Created in 2011, OLS is charged with developing IRS's overall website |
|----------------------|--|
| Services | strategy and operations and creating new services to increase website |
| | use. Officials developed the IRS Online Strategy, a PowerPoint slide |
| | presentation, to help govern the steps OLS plans to take to develop future |
| | online services. Officials noted that the strategy is a living document that |
| | was meant to evolve as priorities changed. OLS has an operating budget |
| | for the management of its staff, but it does not have a specific funding |

source to develop online services and generally must rely on off-budget cycle funding requests presented to the IRS Technical Investment Review Board.11 Since OLS's establishment, officials have been focused mainly on modernizing IRS.gov, including updating the technical infrastructure that supports the website and also lays the groundwork for the next phase of online services. In addition to technical upgrades, OLS's main goals have been to improve website content and design and to optimize the search capability on the website. OLS officials pursued a limited set of new interactive tools during their first two years to realize short-term improvements for taxpayers. Prior to the establishment of OLS, IRS business units, primarily Wage and Investment, developed online services for the IRS website based on specific needs. Guidance for Websites While there is no single authoritative source or governance board for federal website development and management, several sources of guidance exist. Howto.gov: A website managed by the General Services Administration and designed to be a resource to help improve how agencies communicate and interact with customers and use innovative tools and technologies to improve service. Howto.gov offers best practices, training, and guidance on strategic planning; federal web requirements and policies; applications, data, and web infrastructure tools; web content management, usability, and design; and performance metrics. Digital Government–Building a 21st Century Platform to Better Serve the American People: A directive issued by the President on May 23, 2012, aimed at guiding agencies to deliver better digital services. Its main objectives are to (1) enable the American people to access highquality digital government information and services anywhere, ¹¹The IRS Technical Investment Review Board is a group of executives including the Chief Financial Officer, Chief Technology Officer, Deputy Commissioners, and the Chief of Staff from the Commissioner Office, that decides what investments to fund from off-budget cycle proposals. The Director of OLS told us he expects funding for fiscal year 2014 and

beyond to go through the congressional justification budget process. The Fiscal Year 2014 President's Budget was released on April 10, 2013, and requests \$24.1 million for online

services.

anytime, on any device; (2) ensure that the government adjusts to this new digital world; and (3) spur innovation.

- National Institute of Standards and Technology (NIST): Part of the U.S. Department of Commerce, NIST is charged with providing guidance and assistance to agencies, defining minimum security requirements, identifying methods of assessing the effectiveness of security requirements, and evaluating security policies and technologies from the private sector and national security systems to potentially implement in federal agencies, among others.
- IRS's Internal Revenue Manual: IRS publishes its information security policies and guidance and project assurance standards and procedures in the Internal Revenue Manual.¹²
- OLS's internal guidance: According to the guidance, before new interactive tools are released for taxpayer use, they should go through multiple stages of a product management process including evaluating new product ideas; baselining the current state; identifying a potential set of online solutions; developing business cases and securing funding; and building, piloting, and launching new tools. According to the Director of OLS, the product management process identifies future online opportunities, assesses the value of a product, and develops a business case to justify the need for an interactive tool.

Other guidance is also available to federal agencies to help managers make resource decisions when implementing new programs, including websites. The OMB Circular A-94 provides federal program managers with guidance to help promote efficient resource allocation through well-informed decision making.¹³ It provides guidance for conducting benefit cost and cost-effectiveness analyses, and can serve as a checklist of all the elements to be considered.

¹²The *Internal Revenue Manual* section on Information Technology Security, Policy and Guidance has been aligned with NIST guidance.

¹³OMB Circular A-94, *Memorandum For Heads of the Executive Departments and Establishments on Guidelines and Discount Rates for Benefit Cost Analysis of Federal Programs* (Oct. 29, 1992).

IRS Provides Limited Interactive Services and Is Tracking More Performance Metrics

IRS's Website Does Not Offer Dynamic Account Access IRS's existing online services are limited when compared to many other organizations. According to IRS officials, static web pages make up the majority of content on IRS.gov. IRS offers some basic interactive tools, 18 of which are highlighted from its homepage as of March 2013. (See app. II for a description of the 18 basic interactive tools.) IRS is not currently positioned to offer dynamic account access to taxpayers.¹⁴ Figure 2 provides some examples.



Figure 2: Summary of Current and Future Online Services on IRS.gov

Source: GAO analysis of IRS information.

¹⁴IRS cannot offer dynamic account access until it can securely authenticate a taxpayer's identity electronically, which is planned for the end of 2013. IRS.gov facilitates electronic filing for taxpayers through two programs, E-file and Free File. Officials consider these programs components of account services; however, they were not included in our review because the services are not hosted on IRS.gov and taxpayers can only send information to IRS.

- Static web pages: Most of IRS's web pages are static. According to IRS officials, there are over 30,000 static web pages on IRS.gov (i.e., general information for taxpayers) and more than 80,000 static files (i.e., downloadable documents such as tax forms) with more content being added daily. These pages only change when the agency updates the information, such as a revised tax form or publication.
- Basic interactive tools: IRS offers a few basic interactive tools, both non-secure and secure. IRS highlights a number of basic interactive tools for taxpayers on its website (see app. II).
 - Non-secure tools: IRS offers several non-secure tools. For example, a taxpayer who would like to determine the potential deduction amount for a state or local sales tax can use the Sales Tax Deduction Calculator and answer a series of questions to determine the deduction estimate. The website also offers a number of calculators to help taxpayers determine either the correct deduction amount or amount of tax owed.
 - Secure tools: IRS offers a few basic secure tools for taxpayers. For example, to receive updates on refund status using the *Where's My Refund?* tool, a taxpayer must provide his or her Social Security number, filing status, and refund amount. In another example, the *Order a Transcript* tool allows taxpayers to request that a copy of a prior year tax return be mailed to the taxpayer's address on file.
- Dynamic account access: IRS is not currently positioned to offer dynamic account access to taxpayers that would allow, for example, a taxpayer to access his or her tax account balance, view recent payments, or correspond digitally with IRS to respond to notices similar to other federal and private sector organizations that provide a broad range of services to their customers.

Other federal agencies, states, and countries provide their taxpayers with dynamic account access features. For example, the Social Security Administration offers users the ability to create a personalized *My Social Security* account. Through their individual accounts, users can get their Social Security statements to review estimates of retirement, disability, and survivors' benefits; earnings records; and estimated Social Security and Medicare taxes paid. Those receiving benefits can also use their dynamic account access to get benefit verification letters; check benefit and payment information and earnings records; change address and phone number; and start or change direct deposit benefit payments.

Medicare allows beneficiaries to access their account through MyMedicare.gov. This secure site allows users to check their eligibility status, enrollment status, and Medicare benefits. Users can also access claims information and receive preventative health information.

In addition, the New York and California state tax agencies provide dynamic account access allowing taxpayers to view tax account balances and recent payments; respond to notices; and change addresses.¹⁵ Finland encourages accurate withholding of taxes from taxpayers' income through an online system called the Tax Card that covers the national tax, municipality tax, social security tax, and church tax.¹⁶ Taxpayers can access the Tax Card through a taxpayer's secured bank system or by a government issued access card. Taxpayers can also update withholding rates and revise government-prepared income tax returns online.

IRS Management Is Tracking More Recommended Website Performance Metrics and Is Considering Others, but Has Not Yet Determined a Final Suite

For years, IRS has tracked and reported on a limited number of website metrics such as those shown in table 1.

| In millions | | | | | | |
|---------------------------|-------|-------|-------|-------|-----------------------------|-------|
| | 2009 | 2010 | 2011 | 2012 | 2009—2012 percent change | |
| Total visits ^a | 299.0 | 307.5 | 322.5 | 375.5 | 25.6% | 16.4% |
| Downloads ^b | 203.8 | 216.8 | 247.5 | 358.7 | 76.0 | 44.9 |

Table 1: Number of Visits and Downloads on IRS.gov

Source: IRS data, based on calendar years.

^aTotal visits is a count of the number of times taxpayers visited IRS.gov.

^bDownloads is a count of the number of taxpayer forms, publications, or instructions that were downloaded to a taxpayer's computer from IRS.gov.

Within the last 3 years, IRS has started to track additional performance metrics. As of early March 2013, OLS management tracked and used 18 of the 24 metrics recommended by Howto.gov. Specifically, OLS fully tracked 15 of the 18 measures and partially tracked 3 measures (i.e., for some web pages). Six of the 24 metrics were not tracked or used by

¹⁵GAO-12-176.

¹⁶GAO, *Tax Administration: Information on Selected Foreign Practices That May Provide Useful Insights*, GAO-11-439, (Washington, D.C.: May 24, 2011).

management (see table 2). Howto.gov calls the measures in table 2 a minimum baseline set of performance and customer satisfaction measures, which allow agency officials to get a holistic view of how well online services and information are delivered and to prioritize improvements.

Table 2: IRS's Use of Howto.gov's Recommended Performance Metrics for Federal Websites, as of March 7, 2013

| | Performance metric | Description | IRS tracking |
|----|---|---|--------------|
| | Website performance | | |
| 1 | Total visits | An interaction by an individual viewing one or more pages on a website | |
| 2 | Total page views | The number of times a page was viewed during the designated time period (e.g., monthly) | • |
| 3 | Unique visitors | One person (or a computer/IP address) who visits a website at least once during a designated time period (e.g., monthly) | 0 |
| 4 | Page views per visit | The number of page views in a reporting period divided by the number of visits in the same reporting period | • |
| 5 | Average visit duration | The length of time in a session (activity on a website during a specific time period) | \bullet |
| 6 | Time on page | The time visitors spend on individual pages | O |
| 7 | Bounce rate | The percentage of visitors who looked at only one page and immediately left the site | O |
| 8 | New vs. returned visitor | The ratio between first-ever site visitors to returning visitors (i.e., a user that visited the site prior to the reporting period) | • |
| 9 | Visits per visitor for a given time frame | The number of times a visitor visited a website during the designated time period (e.g., monthly) | 0 |
| 10 | Total number of on-site search queries | The total number of times the website's search function was used | • |
| | External search metrics | | |
| 11 | Top referring commercial search engines | The search engines (e.g., Google, Bing, Yahoo) that send the most traffic to the site | • |
| 12 | Top referring search terms | The most-used words and phrases people type into commercial search engines to find content | 0 |
| 13 | Top referring search terms with low click through rates | The most common links followed for specific search terms that don't lead to clicks on the website | 0 |
| | Internal/site search | | |
| 14 | Top search terms/phrases | The most-used words and phrases people type into the website's search box | \bullet |
| 15 | Top "no results" queries | Most popular, valid searches that don't return any results on the website's search results page (e.g., because the agency does not have the content on the website, or the content is not findable by the person's search term) | • |
| 16 | Top searches with low click through rates | Most popular search terms that people generally don't act (click) on | 0 |
| 17 | Top changing search terms (movement up/down) | Shows trending topics, what's hot or not | ٠ |

| | Performance metric | Description | IRS tracking |
|----|--|--|--------------|
| | Website performance | | |
| 1 | Total visits | An interaction by an individual viewing one or more pages on a website | \bullet |
| 2 | Total page views | The number of times a page was viewed during the designated time period (e.g., monthly) | • |
| 3 | Unique visitors | One person (or a computer/IP address) who visits a website at least once during a designated time period (e.g., monthly) | 0 |
| 4 | Page views per visit | The number of page views in a reporting period divided by the number of visits in the same reporting period | ٠ |
| 5 | Average visit duration | The length of time in a session (activity on a website during a specific time period) | |
| 6 | Time on page | The time visitors spend on individual pages | lacksquare |
| 7 | Bounce rate | The percentage of visitors who looked at only one page and immediately left the site | \mathbf{O} |
| 18 | Percentage of visitors using site search | Percentage of people who visited the website and used the search box on the site | D |
| 19 | Top clicked URLs for specific queries | Most common results that searchers found most relevant or appealing, for specific search terms | 0 |
| | Speed | | |
| 20 | Page load time | How quickly pages (including the search results page) load on the website | \bullet |
| | Customer satisfaction | | |
| 21 | Overall customer experience | Customer's perception of the experience of his or her visit. | ٠ |
| 22 | Completion rate of intended task | The customer's perceived ability to get the information or service he or she came to accomplish | ٠ |
| 23 | Percent of visitors likely to return | A customer's perceived willingness to choose the service for the same or similar task in the future | ٠ |
| 24 | Percent of visitors likely to recommend | A customer's perceived willingness to recommend the product or service | ٠ |

Source: GAO analysis of IRS data from IRS.gov Site Usage Report (January 2013) and customer satisfaction survey questions. Legend:



Ο

IRS fully tracks this performance metric.

IRS tracks this performance metric and uses it for only some pages.

IRS does not track this performance metric.

In addition to increasing the number of website metrics they track, OLS managers told us they are making or considering other changes to measuring performance. OLS managers noted that they changed the program used to collect performance data in August 2012, and the new program provides the capability to obtain a more comprehensive view of

IRS's online performance.¹⁷ They also said that some OLS staff recently started tracking 4 of the remaining 6 metrics in table 2, although the metrics are not monitored by OLS management and they have not determined if all of the existing measures as well as the 4 they are considering will be tracked long-term.¹⁸ Furthermore, OLS management stated that not all the Howto.gov metrics may be relevant, in their entirety, for major federal websites. They said they plan to focus on the metrics that help improve the taxpayer's experience with the website. We agree that learning more about taxpayers' experience with the website is important. However, the documents OLS provided did not discuss how IRS intends to do this, what measures would be included in the complete final set of performance metrics, or when the decisions of what to include would be made. Because IRS's website is highly used and enhancing it with additional online services is a key goal to improve taxpayer service and compliance, it is important to have a full set of performance metrics as a baseline. As noted by Howto.gov, without a baseline set of performance metrics in place, managers will not have a complete picture of the extent to which taxpayers' needs are being met and will lack information useful for making decisions about website improvements.

¹⁷Since August 30, 2012, IRS has used Google Analytics to collect performance metrics data on IRS.gov. Prior to August 30, 2012, IRS used WebTrends 8.7 on Demand to analyze website usage. IRS also tracks performance metrics using surveys. According to IRS, Google Analytics is more comprehensive because it gives IRS the ability to track more measures.

¹⁸The two metrics that IRS has not begun to track as of March 18, 2013 are visits per visitor for a given time frame and top searches with low click through rates.

| Taxpayers' Rating of IRS's Website Is below Average and Oversight Entities Recommend Enhancements | According to one survey, IRS's website has consistently ranked below the average of websites from other federal agencies and many sectors of the private economy including banks, Internet retailers, and Internet brokerage firms in customer satisfaction as shown in figure 3. ¹⁹ IRS uses the American Customer Satisfaction Index (ACSI) to measure taxpayers' satisfaction with IRS.gov. ACSI is an independent national model of customer satisfaction measured by website users who volunteer to complete a survey and answer questions determining elements of satisfaction such as customer expectations, perceived quality, and value. ²⁰ While ACSI survey results are not generalizable to all website users and subject to the limitations of a convenience sample, IRS has scored below the average of other federal government websites since 2008. A score of 80 or above (on its 100 point scale) refers to top performing websites, according to ACSI's model. ²¹ The score for IRS.gov has ranged from an annual average high of 73 in 2007 to an annual average low of 67 in 2012. Judgments about the quality of IRS's website should not be based on ACSI scores alone—other organizations have different missions and users. OLS officials told us that given its new website content and design, they expected their scores to fall in 2012, as taxpayers had to adapt to the new site. ²² Further, officials noted that they also track 10 individual components of the ACSI customer satisfaction scores ranged from 68 to 84 in 2012 with the majority of scores in the 70's (see app. III). |
|--|--|
|--|--|

¹⁹The average customer satisfaction score for other federal agencies websites ranged from 74 to 75 for 2009 to 2012 and select sectors of the private economy ranged from 75 to 81 for the same time period.

²⁰ACSI was developed at the University of Michigan as a multi-equation econometric model to determine the satisfaction of customers. Internet industries include web-based businesses such as Internet retailers and Internet brokerage firms.

²¹While the model has limitations, all of the federal agencies and private organizations surveyed by ACSI are subject to the same limitations.

²²IRS's scores for January and February 2013 have increased to 69 and 70, respectively. IRS officials attribute this increase to the redesigned home page and search functions.





Source: GAO analysis of ACSI data.

Note: These estimates are subject to sampling error, but the precise confidence level is not known. It is also unknown whether these estimates are statistically significant. The overall score represents users' responses to three questions about their overall satisfaction with the web sites being surveyed. The three questions are: "What is your overall satisfaction with this site?"; "How well does this site meet your expectations?"; and "How does this site compare to your idea of an ideal website?"

The reviews of external oversight organizations provide evidence corroborating the message in the ACSI scores for IRS.gov. In the last 2 years, three separate oversight entities have found that IRS's website, and especially the interactive services offered, could be improved. The Electronic Tax Administration Advisory Committee, IRS Oversight Board, and the National Taxpayer Advocate have all recently stated that IRS needs to develop a more modern website and provide more interactive

| | services such as dynamic account access to meet the needs of taxpayers. ²³ |
|---|---|
| IRS Is Following Some but Not All Fundamental Elements for a Website Strategy | Since its inception, OLS has been simultaneously (1) focusing on short term projects to deliver new basic interactive tools (what OLS managers described as "low hanging fruit") and (2) longer term efforts to stand up the organization and invest in foundational infrastructure, such as security. In 2012 and 2013, OLS has delivered seven interactive tools, including <i>First Time Homebuyer Credit, Offer in Compromise Pre- qualifier</i> , and <i>e-Transcripts for Banks</i> . OLS officials said they are planning to deliver four additional tools in 2014. Efforts to stand up the organization have included establishing a governance structure and hiring staff. Foundational infrastructure improvements recently implemented include the redesign of the static website, which improved content, design, and search capabilities. Two foundational infrastructure investments underway are projects to develop more secure internet portals for accessing information and improve IRS's ability to authenticate taxpayers' identities. In 2009, IRS estimated that it would spend \$320 million to upgrade and maintain its website over a 10-year period. |
| | IRS does not have a long-term strategy for its website that explains how all of these ongoing and new efforts over the next several years fit together. IRS has a strategy document (<i>IRS Online Strategy</i>), but it does not contain any overall cost estimates or enough detail on goals, deliverables, future online services, or timeframes so that Congress can hold IRS accountable for making progress over the long-term. The document itself is labeled "draft/pre-decisional," and much of the content is described as illustrative. Information about new services and benefits to taxpayers beyond 2014 is at times referred to as an aspiration or "to be determined." OLS provided us with a large number of documents providing a range of detail about IRS's website improvement efforts. For example, in March 2013, IRS provided us an Excel spreadsheet describing "multi-year themes" for new services it plans to implement through 2015, but it is not consistent with the <i>IRS Online Strategy</i> . |

²³Electronic Tax Administration Advisory Committee, *Annual Report to Congress*, June 2012, Publication 3415; IRS Oversight Board, *Electronic Filing 2011: Annual Report to Congress*, December, 2011; and National Taxpayer Advocate, *Annual Report to Congress*, December 31, 2012.

| | As we have previously reported, the Government Performance Results Act of 1993 (GPRA), as amended by the GPRA Modernization Act of 2010 (GPRAMA) can serve as leading practices for planning at lower levels within federal agencies, such as individual programs or initiatives. ²⁴ Among other things, GPRAMA states that strategic plans should contain the goals and objectives of a program along with measures of performance so that an agency can be held accountable. It also describes what is needed to carry out the strategy including resource needs and milestones over the long term. We recognize that a strategy is necessarily high level and that proposals for out year efforts may not be fully developed. This is especially true for technology-related investments. However, without a strategy that provides an overall picture of what IRS is investing in, it will be difficult for Congress and other decision makers to understand up front what they are funding and what benefits they can expect. Because some of the costs being incurred today are for foundational efforts, it is even more important that a strategy explain the long-term benefits. | |
|--|--|--|
| | To be more specific, IRS is missing important parts of the following four elements that Howto.gov and other guidance describe as key parts of website strategy: | |
| | using leading practices to inform strategic decision making; setting goals for improving customer satisfaction; developing business cases with estimates of benefits and costs and using the information to prioritize new investments; and linking security investments to the rest of the strategy . | |
| IRS Reviews Other Organizations' Interactive Tool Designs, but Has Not Used Leading Practices to Inform Its Strategic Plan | IRS has taken steps to learn about website design, such as layout, page flow, and usability for specific interactive tools. For example, OLS staff attended a presentation given by the New York State Department of Taxation and Finance to learn about the online services account page. OLS officials also reviewed the websites of the California Franchise Tax Board and the Internal Revenue Authority of Singapore, which both utilize secure email technologies. Additionally, IRS has used a private research firm to help explore new options for online tools, such as improving taxpayers' ability to make online payments on IRS.gov. Also, <i>Where's My</i> | |

²⁴Pub L. No. 103-62, 107 Stat. 285 (1993); Pub. L. No. 111-352, 124 Stat. 3866 (Jan. 4, 2011); and GAO, Veteran-Owned Small Businesses: Planning and Data System for VA's Verification Program Needs Improvement, GAO-13-95 (Washington, D.C.: Jan.14, 2013).

Refund? and *Where's My Amended Return?* are IRS tools that were derived from private sector tracking tools (e.g., online tools that track the location of mailed packages). IRS officials told us they are also part of a Government Services Administration community of practice which focuses on website content.

OLS officials did not provide us with analysis showing how they used leading practice reviews to help make long-term strategic decisions about, for example, how much and what type of dynamic account access to offer. In addition, IRS is not using leading practice reviews to help inform prioritization and has had difficulty adhering to timeframes based on its implementation decisions. For example, IRS rated the Online Payment Agreement tool highest of all new tools scheduled for implementation in fiscal year 2012 to fiscal year 2014 based on projected impact and ease of implementation. However, the business case was in draft form as of March 2013, and implementation is now scheduled for fiscal year 2014, whereas other tools with a lower level of priority have been implemented. Federal guidance, such as OMB's Streamlining Service Delivery and Improving Customer Service, states that government managers should learn what is working in the private sector and apply these leading practices to deliver services better, faster, and cheaper, including improvements to interactive tools.²⁵ Howto.gov and OLS's Product Management Process provide similar guidance.

OLS officials told us that because IRS is so far behind on the web services it offers on IRS.gov, they have enough ideas for website improvements and do not always need to look to other organizations for a list of improvements. OLS officials further stated that as an organization, IRS is unique and that the lessons learned from other organizations cannot always be directly applied to online services for IRS.gov. In addition, officials told us that staff responsible for developing the interactive tools may have prior private industry experience. Therefore, IRS relied on staff knowledge.

²⁵See OMB M-11-24, Implementing Executive Order 13571 on Streamlining Service Delivery and Improving Customer Service (June 13, 2011); 25 Point Implementation Plan to Reform Federal Information Technology Management by the U.S. Chief Information Officer (Dec. 9, 2010); and Executive Order 13571, Streamlining Service Delivery and Improving Customer Service (April 27, 2011).

| | However, learning from other organizations about their strategy for providing online services could help IRS improve its own services. Looking at other organizations' experiences, including those of state and foreign tax agencies, and lessons learned could help IRS prioritize future projects by identifying which tools are providing users, including other taxpayers, with the most benefit. |
|--|--|
| IRS Does Not Have a Long- Term Measurable Goal for Taxpayer Satisfaction with Its Website | IRS does not have a long-term numerical or other measureable goal including a related timeframe to increase its below average taxpayer satisfaction with its website. A key attribute of a successful performance metric is to have a measurable target with a numerical goal. ²⁶ Numerical or measurable targets facilitate future assessments of whether overall goals and objectives were achieved because comparisons can be easily made between projected performance and actual results. OLS officials stated that their long-term goal is "to increase satisfaction over a period of time." They stated the time period is not specific because they want to look at trends that pertain to the redesigned IRS.gov before making meaningful long-term goals. ²⁷ We understand that examining trends can be helpful in determining meaningful long-term goals; however, it is difficult to measure progress without establishing a period of time for which to measure such progress. Without a numerical goal or other measurable target and a related timeframe for achieving the goal, IRS will have difficulty determining whether its long-term taxpayer satisfaction plan is successful. |
| Business Cases for New Interactive Tools Are Missing Useful Information and Are Not Being Used to Set Priorities | The September 2012 <i>IRS Online Strategy</i> outlined eight new interactive tools to implement in fiscal year 2013. (See table 3.) Subsequent to the issuance of this strategy, IRS modified the implementation date of four of these tools to fiscal year 2014. In a more recent document, IRS shows most of these tools as being implemented in multiple phases over the |
| | ²⁶ In our prior work, we developed nine key attributes of successful performance measures |

²⁶In our prior work, we developed nine key attributes of successful performance measures by reviewing, among other things, key legislation and performance management literature. GAO, *Tax Administration: IRS Needs to Further Refine Its Tax Filing Season Performance Measures,* GAO-03-143 (Washington, D.C.: Nov. 22, 2002). A numerical goal does not have to be a number, but could be qualitative, such as "above average."

²⁷IRS has set numerical taxpayer satisfaction goals for other areas of strategic importance, such as achieving an ASCI score of 72 for individual income tax filers' experience with paper and electronic filing in fiscal year 2013.

next 2 years. However, the documentation is not clear as to how many phases will be needed for each tool until it is complete.

Table 3: New and Planned Self Service Tools Fiscal Years 2013 and 2014

| Online interactive tool | Description |
|--|--|
| Implementation in fiscal year 2013 | |
| Where's My Refund (2013) | Improves taxpayers ability to check refund status across the filing process |
| Taxpayer Protection Unit with Out of Wallet Authentication | Enables online authentication of taxpayers who have been identified as potential fraud victims |
| Offer in Compromise Pre-qualifier | Assists taxpayers in determining eligibility for offers in compromise |
| Where's My Amended Return | Allows taxpayers the ability to check the status of 1040-X Amended returns |
| Projected implementation in fiscal year 2014 | |
| Automated Clearing House Debit | Allows taxpayers to electronically debit fund from bank accounts |
| e-Transcripts View and Print | Enables taxpayers to view and print their tax transcript online |
| Online Payment Agreement Enhancements | Improves the usability of existing online installment agreement tool |
| Direct Authorization of Power of Attorney | Allows individuals with power of attorney to request transcripts |

Source: IRS Online Strategy (September 2012).

Note: The Fiscal Year 2014 President's Budget for IRS, which was released on April 10, 2013, requests funding for *e-Transcripts View and Print*, *Online Payment Agreement Enhancements*, and *Direct Authorization of Power of Attorney*.

IRS provided us with business cases for some of its new interactive tools, but these cases lacked enough information about benefits and costs to be useful for setting priorities—either across potential investments IRS-wide (both web related and non-web related) or across potential interactive tool investments.²⁸ Benefits were often described on a per taxpayer basis without any indication of how many taxpayers might be expected to use a tool. In some cases descriptions about potential benefits were inconsistent across documents. For example, for the *Automated Clearing House Debit* tool, one document states that the tool will provide a free payment option for taxpayers, but benefits such as this are not listed in another document. Another document describing the features of the *e-Transcripts View and Print* tool states taxpayers will be able to export data to Excel, but this is not mentioned in the business case. Costs were also not listed consistently. In some cases costs were provided for one year, in others for multiple years. Some estimates covered only

²⁸The depth and rigor of a benefit cost analysis should depend on the magnitude of the project and where the agency is in the planning process.

developmental costs; others covered operating costs as well. In no case was there any link to overall costs for website modernization, including to the \$320 million dollars mentioned above for upgrading website infrastructure. Consequently, it is not clear what the overall costs including infrastructure and tool development will be. Furthermore, it was not clear from the business cases if the costs were for the first or later phases. Because of these inconsistencies and other issues about the benefits and costs, we are not listing in this report any of the estimates we found in the IRS documentation.

IRS is not prioritizing which interactive tools it will develop based on benefits and costs. There are two reasons for this. First, as just mentioned, basic information about benefits and costs is not provided or is inconsistent. Second, IRS established priorities before developing the full set of business cases. For example, IRS originally planned to implement all of the tools in table 3 in 2013, but by mid-March officials had provided us with business cases for moving forward with only four of the tools. According to the Director of OLS, the eight new interactive tools listed in the September 2012 *IRS Online Strategy* were a "wish list" for fiscal year 2013, and not all of them had been approved for development at the time the strategy was developed.²⁹

The *IRS Online Strategy* shows OLS prioritizes the implementation of new interactive tools based on projected impact (improving taxpayer service; reducing use of other high costs services such as telephone; and increasing collection revenue) and ease of implementation (technical, organizational, dependence on other IRS projects, and risks). However, it is unclear whether IRS followed this prioritization methodology. For example, the *Online Payment Agreement* tool was rated the highest priority of all new tools scheduled for implementation in fiscal years 2012 to 2014 based on projected impact and ease of implementation. However, the business case was in draft form as of March 2013, and implementation is now scheduled for fiscal year 2014. OLS officials stated that they must work with multiple IRS divisions and management to prioritize new information technology (IT) demands, while balancing

²⁹As of the end of February 2013, IRS revised its time frames to only implement in fiscal year 2013 the four interactive tools for which business cases existed. As of mid-March IRS provided three additional draft business cases for the projects to be implemented in fiscal year 2014. IRS officials are in the process of developing the business case for the last tool.

among investing in new systems, maintaining existing systems, and operating a large technology infrastructure. However, situations where multiple proposed investment projects have to compete with each other for limited funds are exactly when using business cases to rank projects can be useful.³⁰

OMB's Circular A-94 provides guidance to agencies on how to develop benefit and cost data. This guidance suggests that analyses be used to support decisions to initiate, renew, or expand programs or projects which would result in measureable benefits or costs. Without business cases that explicitly outline the benefit cost analysis for proposed interactive tools, it will be difficult for IRS to know which additional services would benefit taxpayers the most and the costs of those services.³¹ Our previous work has shown that results of benefit cost analyses help agencies decide which new projects to start in a manner that maximizes the benefits derived from agency resources.³²

IRS's Current Security Capabilities Limit Its Ability to Increase Interactive Web Services, and Investments in Security Upgrades Are Not Clearly Linked to a Long-Term Plan

IRS's Security Risk Assessment Process Is Not Consistently Followed When Implementing Interactive Tools New online services go through IRS processes to assess security before being released for taxpayer use. While IRS has upgraded its capabilities to authenticate taxpayers' identities, it is missing some of the capabilities needed to ensure the security of either new, basic interactive tools, or dynamic account access. While investments in security upgrades are underway, they are not linked to long-term plans that describe security needs.

IRS has processes in place to identify and assess information security risks for its new interactive tools in accordance with NIST guidance. However, for the two interactive tools we reviewed, the implementation was inconsistent. IRS uses a detailed methodology for conducting information security risk assessments, which consider internal and

³²GAO, *Tax Gap: IRS Could Significantly Increase Revenues by Better Targeting Enforcement Resources*, GAO-13-151 (Washington, D.C.: Dec. 5, 2012).

³⁰GAO, *IRS Guidance on Economic Analysis in Investment Business Cases*, GAO-02-234R (Washington, D.C.: May 9, 2002).

³¹The depth and rigor of a benefit cost analysis should depend on the magnitude of the project and where the agency is in the planning process.

external threats to the confidentiality and integrity of the tools and data.³³ The methodology also requires IRS to develop a mitigation plan to reduce or eliminate the risks identified.

IRS followed its methodology for conducting the risk assessment for the *Send My Transcripts to Banks* tool, which allows taxpayers to request a transcript be sent to their bank for income verification when applying for a mortgage. The risk assessment included key elements such as threat and vulnerability identification. The risks were also documented in a mitigation plan, which included the resources required to address the risk and the timeframe for completion.

IRS did not follow its risk assessment methodology for First Time Homebuyer Credit tool, which allows taxpayers to determine if they have a repayment requirement and a remaining balance on the credit. The risk assessment documentation included some key elements, such as identification of risks to the tool and recommendations to mitigate those risks. However, all five identified risks were not included in the mitigation plan. After we informed IRS of this error, the Director of Applications Development Customer Service Domain acknowledged that the identified risks were not included and immediately took steps to address four of the five. IRS plans to address the other risk by June 2013. IRS did not indicate why this oversight occurred, but the fact that it did occur raises questions about the reliability of the risk assessment process for its other six interactive tools. Reviewing mitigation plans for other interactive tools to help ensure that all risks are included could provide IRS with reasonable assurance that it is addressing those risks, and that its processes are reliable.

³³Threat and vulnerability identification is the process of identifying (1) threats (both internal and external) to the confidentiality, integrity, and availability of systems and data supporting critical operations and assets and (2) vulnerabilities (i.e., flaws or weaknesses) that could be exploited by such threats.

IRS Has Taken Some Steps to Upgrade Its Capability to Authenticate Taxpayers' Identities, but Additional Steps Are Required to Provide Dynamic Account Access As of March 2013, IRS does not have the capability to authenticate a taxpayer's identity with the level of security required for dynamic account access. e-Authentication is the process of establishing confidence in the taxpayer's identity electronically over the Internet for the purpose of electronic government and commerce. NIST provides e-Authentication standards.³⁴ IRS plans to verify taxpayers' identities by confirming various elements of their identity with either IRS or third party databases (see table 4).

| Level of authentication based on NIST guidance ^a | e-Authentication procedure | Identity elements required | Source of confirmation data | |
|--|--|---|--|--|
| Level 1 | Credential not required | User name and password not required. | N/A | |
| | Single factor identity validation | User name and password required, and taxpayer must be able to provide taxpayer's name, Social Security Number, date of birth, address, and filing status. | IRS databases | |
| Level 2 | Knowledge based authentication (out of wallet) | User name and password required, and taxpayer must answer some personal knowledge based questions, such as previous known address, name of mortgage lender, or prior telephone number. | IRS databases Third party information (e.g. credit bureaus) | |
| | Financial/ utility information validation | User name and password required, and taxpayer | IRS databases | |
| | | must confirm a financial or utility account number. | Third party information (e.g. financial institutions or utility companies) | |
| Level 3 | Multi-factor identity validation | User name and password required, and taxpayer is | IRS databases | |
| | | mailed a one-time password though U.S. Postal Service which is needed to complete registration process. | Third party information (e.g. financial institutions or utility companies) | |
| Level 4 | In person | Taxpayer must be authenticated in person. | N/A | |

Table 4: IRS e-Authentication Procedures and Identity Elements Required

Source: GAO analysis of IRS information.

Note: N/A means not applicable.

^aNIST Special Publication 800-63-1.

³⁴NIST Special Publication 800-63-1 provides technical guidance to agencies to allow an individual to remotely authenticate his or her identity to a federal information technology system.

In August 2012, IRS implemented the first stage of a Level 2 authentication procedure—single factor identity validation.³⁵ By the end of 2013, IRS IT officials expect to rollout the remaining stages of the Level 2 authentication plus Level 3. Level 3 would provide IRS with the highest level of confidence that the taxpayer is in fact the person attempting authentication, without the need for in-person verification. According to IRS officials, at Level 3 the security processes would be in place to allow for the possibility of dynamic account access for taxpayers.

The *IRS Online Strategy* does not describe how security issues, including how investing in security upgrades, such as the e-Authentication procedures, will fit into an overall plan for improving the interactivity of IRS's website. IRS's investment in security upgrades have been a multiyear effort and required resources from several offices to meet federal requirements. For example, in 2010, IRS started upgrading security because it had outdated technology, and federal guidance required secure access to account information.³⁶ Officials in the IRS offices of Privacy, Cybersecurity, Online Services, and others had to coordinate many aspects of the security upgrades, including determining what information would be used to confirm taxpayers' identities. IT officials stated that more interactive tools will use the e-Authentication procedure in the future and that officials plan to transfer older interactive tools to the new procedures as well.³⁷

Upgrading IRS's systems is an important and required step to ensure IRS provides a secure environment for taxpayers to interact with IRS, and to ultimately offer dynamic account access. GPRA Modernization Act of 2010 and OMB Circular A-94 guidance suggests that agencies should include information on benefits and costs of security investments in their strategic plans to ensure IRS managers have the most relevant available

IRS Investments in Upgrading Security and Developing Authentication Capabilities Are Not Linked to a Long-Term Plan

³⁵According to IT officials, the *Send My Transcript to Banks* tool, which allows taxpayers to send a copy of their transcript to a bank of vendor of a financial institution, is the only interactive tool using the Level 2 authentication. Static web pages are considered to have Level 1 authentication.

³⁶According to NIST Special Publication 800-63 and OMB Circular 04-04, federal agencies are required to develop security features that allow people to access information based on the level of risk associated with information being accessed.

³⁷Some of the future interactive tools that would require e-authentication include the *Online Payment Agreement* and *Automated Clearing House Debit* tools.

information on which to base critical investment decisions.³⁸ OLS officials did not state why security investments were not included in the *IRS Online Strategy*. However, linking security investments to the strategic plan helps to align activities, core processes, and resources to support the mission.

IRS provides online services to millions of taxpayers and is engaged in a Conclusions multi-year effort to improve its website. Since 2011 when OLS was created, it has focused on improving IRS's static web pages, realizing short-term gains by developing new basic interactive tools, and building an infrastructure foundation for future improvements. These efforts have already benefited taxpayers and hold the promise of additional benefits in the future. However, IRS does not have a long-term strategy for enhancing its website. While IRS has a large amount of documentation for its ongoing website improvement efforts, we could not piece together a clear understanding of the intended benefits to be provided to website users, when those benefits would be realized, how IRS would accomplish its goals, or what it would cost. A strategy is necessarily at a high level without many details, but ensuring it contains enough information could help managers throughout IRS have a common understanding of the strategy, better assist Congress in understanding what it is being asked to fund and holding IRS accountable for progress over time. We identified several areas where improvements could help develop a long-term strategic plan. One area is measuring performance, where IRS has not finalized a full suite of metrics. Another area is learning from other organizations, and IRS has not made use of them to inform strategic decision making. IRS also has not set a measureable goal for improving taxpayer satisfaction, nor consistently developed business cases based on benefit and costs or used business cases to set priorities. Finally, IRS has not ensured that all risks are mitigated and security investments are linked to a long-term plan. Improvements in all of these areas would help IRS develop a strategic plan that would provide the information that

³⁸GPRA Modernization Act of 2010, Pub. L. No. 111-352, 124 Stat. 3866 (Jan. 4, 2011), OMB Circular A-94, and GAO-02-234R.

| | managers and Congress need for improving website services to taxpayers. | | | |
|---|---|--|--|--|
| Recommendations for Executive Action | The Acting Commissioner of the Internal Revenue Service should direct appropriate officials to develop a long-term strategy to improve web services provided to taxpayers, in accordance with Howto.gov and other federal guidance outlined in our report. To accomplish this, we further recommend that IRS take the following six actions. | | | |
| | Decide on a complete suite of performance metrics, as soon as practical. | | | |
| | Study leading practices of other organizations to understand how web improvement strategies were developed and new services prioritized. | | | |
| | • Establish a numerical or other measureable goal to improve taxpayer satisfaction and a timeframe for achieving it. | | | |
| | Develop business cases for all new online services, describing the potential benefits and costs of the project, and use them to prioritize future projects. | | | |
| | • Review risk mitigations plans for interactive tools to ensure all risks are addressed. If risks are not addressed, IRS should take corrective action and identify the root cause to help prevent similar occurrences in future mitigation plans. | | | |
| | Link investments in security to the long-term plan. | | | |
| Agency Comments and Our Evaluation | We provided a draft of this report to the Acting Commissioner of the IRS. In written comments, which are reprinted in app. IV, the Acting Commissioner agreed with four of the seven recommendations, did not state agreement or disagreement with two, and partially agreed with one. IRS also provided technical comments on our draft report, which we incorporated as appropriate. | | | |
| | Specifically, IRS stated that it agreed with deciding on a complete suite of performance metrics, studying leading practices of other organizations to understand how web improvement strategies were developed and new services priorities, reviewing risk mitigation plans for interactive tools to ensure all risks are addressed, and linking investments in security to the long-term plan. | | | |

IRS did not state whether it agreed with the recommendation to develop a long-term strategy in accordance with federal guidance. Rather, IRS stated it has a long-term strategy to improve online services and would make improvements to the plan as appropriate. Thus, it is not clear to what extent IRS's actions will fully address the intent of this recommendation. As we note throughout the report, we were unable to identify a number of fundamental elements for a website strategy, as described on www.Howto.gov in the documentation IRS provided us. Thus, we continue to believe that a strategy should be developed that includes these elements. Without a strategy that clearly outlines the elements described in this report and provides an overall picture of what IRS is investing in, it will be difficult for Congress and other decision makers to understand up front what they are funding and what benefits they can expect.

IRS also did not state whether it agreed with the recommendation to establish a numerical or other measureable goal to improve taxpayer satisfaction and a timeframe for achieving it. IRS stated it recognized the need for setting specific goals for taxpayer satisfaction, but that a high satisfaction score by itself is not necessarily as meaningful as other measures, such as reviewing satisfaction scores with responses to open ended questions. IRS reported it will consider defining a set of measurable goals that demonstrates taxpayer satisfaction. As discussed in this report, we acknowledge that reviewing other measures of satisfaction and examining trends in the data have merit, but without setting a numerical or other measureable goal IRS will have difficulty determining whether its long-term taxpayer satisfaction plan is successful.

IRS stated that it partially agreed with the recommendation to develop business cases for all new online services. Specifically, IRS stated that it will continue to develop business cases, including potential benefits and costs, for all new online services and use them to help prioritize future projects. However, IRS stated that it will also need to consider additional criteria, such as risk, time-to-market (i.e., how quickly projects can be developed), and the ability for stakeholder organizations to incorporate the project into existing systems or processes. As noted in the report, these additional criteria are part of the same criteria IRS reported already using to set priorities for implementing new tools. However, as we also note in the report, it was unclear whether IRS used this prioritization methodology and the benefit and cost information in the business cases lacked enough information to be useful for setting priorities. Thus, it is unclear whether IRS's actions will fully meet the intent of the recommendation. We plan to send copies to the Chairmen and Ranking Members of other Senate and House committees and subcommittees that have appropriation, authorization, and oversight responsibilities for IRS. We will also send copies to the Acting Commissioner of Internal Revenue, the Secretary of the Treasury, the Chairman of the IRS Oversight Board, and the Deputy Director for Management of the Office of Management and Budget. In addition, the report will be available at no charge on the GAO website at http://www.gao.gov.

If you or your staff have any questions about this report, please contact me at (202) 512-9110 or whitej@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix V.

Sincerely yours,

Janus R Mitte

James R. White Director, Tax Issues Strategic Issues

Appendix I: Objectives, Scope, and Methodology

We were asked to review the interactivity of the Internal Revenue Service's (IRS) website. This report (1) describes the interactivity of IRS's online services and assesses how IRS measures use of the services, (2) describes taxpayers' satisfaction with these services, and (3) assesses IRS's strategy for expanding the interactivity of its website, including how it learns from other organizations, sets goals for taxpayer satisfaction for its website, prioritizes the development of new services, and addresses security risks.

To describe the interactivity of IRS's online services and assess how IRS measures use of the services, we:

- reviewed IRS.gov to compile a list of all interactive tools available to individual taxpayers as of March 2013. We also interviewed Office of Online Services (OLS) officials and reviewed supplemental documentation they provided on their tools to complete our list. For each tool, we obtained information on its purpose, information requirements for use, and determined whether it was a secure or nonsecure interactive tool.
- reviewed two federal websites that had dynamic account access available to users, Social Security Administration's and Medicare's websites. We also cited examples used in prior reports on the tax agencies of New York, California, and Finland's websites that also provide dynamic account access to users.
- reviewed IRS's performance metrics for the website and compared them against criteria established by Howto.gov, a leading source for guidance and best practices for government websites. We also interviewed officials to determine their plans to track additional performance measures as recommended by Howto.gov

To describe taxpayer satisfaction with IRS's online services, we:

 reviewed IRS's American Customer Satisfaction Index (ACSI) scores as gathered by ForeSee via optional online surveys and compared IRS's average annual scores from 2005 to 2012 to the average scores of (1) approximately 30 other federal agencies and (2) private organizations with transactions similar to IRS including in the Internet brokerage, Internet retail, and banks sectors.¹ Both the federal agencies and private organizations used ACSI to measure overall customer satisfaction with their websites.

To assess IRS's strategy for expanding the interactivity of its website, including how it learns from other organizations, sets goals for taxpayer satisfaction for its website, prioritizes the development of new services, and addresses security risks, we:

- analyzed the September 2012 *IRS Online Strategy* and updates to the strategy provided March 19, 2013 and compared them to federal guidance.
- identified and reviewed documentation on outreach OLS conducted with other organizations to learn about leading practices when implementing interactive tools, such as attending a presentation from the New York State Department of Taxation and Finance. We compared the steps IRS takes to conduct outreach to OLS's product management process and other federal guidance, such as Executive Order 13571: Streamlining Service Delivery and Improving Customer Service, OMB M-11-24: Implementing Executive Order 13571 on Streamlining Service Delivery and Improving Customer Service, and Howto.gov, to determine if there are any deficiencies.
- interviewed OLS officials to determine what goals IRS plans to set for customer satisfaction on IRS.gov and how officials planned to achieve those goals.
- assessed how IRS prioritized new interactive tools for implementation, by comparing the time frames listed in the *IRS Online Strategy* to actual implementation dates of the interactive tools. We reviewed business cases for new tools scheduled to be implemented in fiscal year 2013, outlined in the September 2012 *IRS Online Strategy*. We asked for business cases for all new tools that were shown to be implemented in fiscal year 2013. We reviewed the business cases for the interactive tools, *Where's My Refund? (2013)*, *Taxpayer Protection Unit with Out of Wallet Authentication*, *Offer in Compromise Pre-qualifer*, and *Where's My Amended Return*? We compared the

¹IRS uses ForeSee, a company that uses customer experience analytics to continuously measure satisfaction and provide insights to clients to administer the ACSI optional pop up survey to users on IRS.gov.

business cases to benefit cost criteria, including OMB's Circular A-94: *Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs*. We interviewed OLS officials about the prioritization process and the listed time frames for implementation of new interactive tools.

- reviewed IRS's security risk assessments for two interactive tools and IRS's risk mitigation plans used to overcome security challenges it identified in the security risk assessments. We selected the *First Time Homebuyer Credit* and *Send My Transcripts to Banks* tools, because they were the most recently implemented interactive tools for fiscal year 2012.
- reviewed IRS's recently implemented and planned e-Authentication procedures and compared them to National Institute of Standards and Technology (NIST) *Electronic Authentication Guideline*, Special Publication 800-63-1 and OMB's *E-Authentication Guidance for Federal Agencies* (OMB M-04-04).

For all objectives we interviewed relevant IRS officials to collect information on IRS's online services and its plans to implement additional online services in the future. We reviewed documents and interviewed ACSI officials to determine that the ACSI data presented in our report for years 2005 to 2012 were sufficiently reliable for our purposes. We conducted our work primarily at IRS's National Office where relevant IRS staffs are located.

We conducted this performance audit from June 2012 to April 2013 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 objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix II: IRS's Basic Interactive Tools

As of March 2013, IRS's website highlighted the following 18 basic interactive tools from its homepage. Table 5 describes the interactive tools, if the tool was secure or not, and the types of personal information required to use the tool.

Table 5: Interactive Tools for Taxpayers Available on IRS.gov as of March, 2013

| | Name of tool | Description | Secure tool (Y/N) | Personal information required |
|----|---|--|-------------------------|---|
| 1 | Order A Transcript | Allows taxpayers to order a transcript to be sent to their address on record (the taxpayer will not be able to view the transcript online). | Y | Social Security number (SSN), date of birth (DOB), address, ZIP code |
| 2 | Where's My Refund? | Allows taxpayers to check the status of their refund. | Y | SSN, filing status, refund amount |
| 3 | Online Payment Agreement | Allows taxpayers or their authorized representatives to apply for installment agreements if taxes are unable to be paid in full. | Y | SSN, DOB, personal identification number (PIN) or adjusted gross income, bank address, employer address, estimated repayment amount, and time |
| 4 | Electronic Filing PIN Request | Allows taxpayers to request an electronic filing PIN to verify their identity to e-file tax returns and other electronic tax documents. | Y | SSN, name, DOB, filing status, address on prior year tax return |
| 5 | First Time Homebuyer Credit Account Look-up | Allows taxpayers to get information such as the total amount of the credit or repayment amount. | Y | SSN, DOB, address, ZIP code |
| 6 | Send My Transcript to Banks ^a | Allows taxpayers to order a transcript to be sent to their bank or vendor (the taxpayer will not be able to view the transcript online). | Y | SSN, tax year, bank information |
| 7 | Where's My Amended Return? | Tracks the status of a taxpayer's amended return after it was filed with the IRS. | Y | SSN, DOB, and ZIP code |
| 8 | IRS Withholding Calculator | Helps taxpayers determine whether they should submit a new Form W-4 to their employer to avoid having too much or too little tax withheld from their pay. | Ν | Filing status, credits, income and withholding, adjustments, deductions |
| 9 | Authorized e-File Provider (For Individuals) | Allows taxpayers to search for nearby authorized e-file providers to electronically file their tax return. | Ν | ZIP code |
| 10 | Volunteer Income Tax Assistance (VITA) Site Locator | Allows taxpayers who generally make \$50,000 or less to find free assistance in preparing their own tax returns. It also includes Association of American Retired Persons Tax Aide locator. | N | ZIP code |
| 11 | Taxpayer Assistance Center Locator | Allows taxpayers to find a walk-in Taxpayer Assistance Center to get help with questions that cannot be handled by phone. | Ν | ZIP code |
| 12 | Earned Income Tax Credit (EITC) Assistant | Helps taxpayers determine whether they are eligible for the EITC and estimate the amount of the credit through a series of questions (Spanish version available). | Ν | General information to determine eligibility |
| 13 | Alternative Minimum Tax (AMT) Assistant | Helps taxpayers determine whether they are subject to the AMT through a series of questions. | N | General information to determine eligibility from past Form 1040 |

| | Name of tool | Description | Secure tool (Y/N) | Personal information required |
|----|---|--|-------------------------|--|
| 14 | Sales Tax Deduction Calculator | Helps taxpayers determine the amount of optional state and local sales tax they can claim on Schedule A of Form 1040. | Ν | Answers to general questions to determine deduction estimate based on income and residency |
| 15 | Exempt Organizations Select Check | Allows taxpayers to find an exempt organization and determine the amount of their contributions that are tax deductible as well as other information on an organization's federal tax status and filings. | N | Database search based on organization's employer identification number (EIN), name, and address |
| 16 | Interactive Tax Assistant | Provides taxpayers with a resource for tax law and provides responses to tax law questions. Categories covered are credits, deductions, general filing questions, and income. | N | Answers to general questions to provide personalized answers |
| 17 | Tax Trails | Provides taxpayers with answers to many common tax questions, such as deductions and exemptions, tax credits, taxable income, and other topics. | N | General and some personalized information to provide answers to questionnaires |
| 18 | Subscription Services (IRS E-mail Services) | Allows taxpayers to sign up for one or more of IRS's subscription e-mail services to receive tax-related news. | Ν | Email address |

Source: GAO analysis of IRS.gov.

Note: This table primarily focuses on tools provided for individual taxpayer uses, but other taxpayers, such as businesses or exempt organizations, could use some of these interactive tools as well.

^aOLS started a pilot program for the Send My Transcript to Banks tool at the end of 2012, but as of March 2013 it has not been rolled out to the public.

Appendix III: IRS's Component Scores for Customer Satisfaction

IRS tracks additional customer service performance metrics using the American Customer Satisfaction Index (ACSI). According to Office of Online Services officials, the component scores for customer satisfaction are considered valuable since they provide more insights to customers' experiences.

| Table 6: IRS's ACSI Scores for Website Elements | | | | | | | | |
|---|------|------|------|------|------|------|------|------|
| Elements of Customer Satisfaction | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
| Search | | | | | | | | |
| The relevance, organization, and quality of search results available on the site. (Although this element is not applicable universally, it is often extremely impactful for sites where it is relevant.) | 69 | 72 | 73 | 73 | 71 | 69 | 69 | 68 |
| Functionality | | | | | | | | |
| The usefulness, convenience, and variety of online features and tools available on the website. | 73 | 76 | 77 | 74 | 75 | 75 | 76 | 74 |
| Online transparency | | | | | | | | |
| How thoroughly, quickly, and accessibly the website discloses information about what the agency is doing. | N/A | N/A | N/A | N/A | N/A | N/A | 75 | 73 |
| Navigation | | | | | | | | |
| The organization of the site and options for navigation. | 67 | 71 | 72 | 72 | 71 | 69 | 69 | 68 |
| Look and feel | | | | | | | | |
| The visual appeal of the site and its consistency throughout the site. | 73 | 76 | 77 | 77 | 77 | 75 | 76 | 76 |
| Content | | | | | | | | |
| The accuracy, quality and relevancy of news, information and content on the website. | 78 | 80 | 81 | 78 | 80 | 79 | 80 | 77 |
| Site performance | | | | | | | | |
| The speed, consistency, and reliability of loading pages on the website. | 80 | 82 | 83 | 82 | 83 | 83 | 84 | 82 |
| Primary resource | | | | | | | | |
| Likelihood to use website as primary resource for tax information? | 74 | 77 | 78 | 76 | 78 | 77 | 77 | 75 |
| Recommend | | | | | | | | |
| Likelihood to recommend website to someone else? | 78 | 81 | 82 | 80 | 81 | 81 | 80 | 77 |
| Return Likelihood to return to the website? | 82 | 85 | 86 | 83 | 86 | 86 | 86 | 84 |

Source: IRS data from ForeSee's ACSI survey results.

Note: ACSI survey results are subject to the limitations of a convenience sampling methodology. We did not independently verify IRS's scores. Individual components scores do not necessarily sum to the final score because only three questions are used to determine the overall customer satisfaction score. The three questions are "What is your overall satisfaction with this site?"; "How well does this site meet your expectations?"; and "How does this site compare to your idea of an ideal website?"

N/A: Data are not available for those years.

Appendix IV: Comments from the Department of Treasury





3 Our responses to your recommendations are enclosed. If you have any questions, please contact Rajive Mathur, Director, Office of Online Services, at 202-927-0145. Sincerely, Steven T. Miller Acting Commissioner Enclosure





Appendix V: GAO Contact and Staff Acknowledgment

| GAO Contact: | James R. White, (202) 512-9110, or Whitej@gao.gov |
|---------------------------|--|
| Staff Acknowledgments: | In addition to the contact named above, Libby Mixon, Assistant Director; Amy Bowser, Emily Gruenwald, Nicole Jarvis, Jeffrey Knott, Ed Nannenhorn, Cynthia Saunders, and Robyn Trotter made key contributions to this report. |

| GAO's Mission | The Government Accountability Office, the audit, evaluation, and investigative arm of Congress, exists to support Congress in meeting its constitutional responsibilities and to help improve the performance and accountability of the federal government for the American people. GAO examines the use of public funds; evaluates federal programs and policies; and provides analyses, recommendations, and other assistance to help Congress make informed oversight, policy, and funding decisions. GAO's commitment to good government is reflected in its core values of accountability, integrity, and reliability. |
|---|---|
| Obtaining Copies of GAO Reports and Testimony | The fastest and easiest way to obtain copies of GAO documents at no cost is through GAO's website (http://www.gao.gov). Each weekday afternoon, GAO posts on its website newly released reports, testimony, and correspondence. To have GAO e-mail you a list of newly posted products, go to http://www.gao.gov and select "E-mail Updates." |
| Order by Phone | The price of each GAO publication reflects GAO's actual cost of production and distribution and depends on the number of pages in the publication and whether the publication is printed in color or black and white. Pricing and ordering information is posted on GAO's website, http://www.gao.gov/ordering.htm. |
| | Place orders by calling (202) 512-6000, toll free (866) 801-7077, or TDD (202) 512-2537. |
| | Orders may be paid for using American Express, Discover Card, MasterCard, Visa, check, or money order. Call for additional information. |
| Connect with GAO | Connect with GAO on Facebook, Flickr, Twitter, and YouTube. Subscribe to our RSS Feeds or E-mail Updates. Listen to our Podcasts. Visit GAO on the web at www.gao.gov. |
| To Report Fraud, | Contact: |
| Waste, and Abuse in Federal Programs | Website: http://www.gao.gov/fraudnet/fraudnet.htm E-mail: fraudnet@gao.gov Automated answering system: (800) 424-5454 or (202) 512-7470 |
| Congressional Relations | Katherine Siggerud, Managing Director, siggerudk@gao.gov, (202) 512- 4400, U.S. Government Accountability Office, 441 G Street NW, Room 7125, Washington, DC 20548 |
| Public Affairs | Chuck Young, Managing Director, youngc1@gao.gov, (202) 512-4800 U.S. Government Accountability Office, 441 G Street NW, Room 7149 Washington, DC 20548 |