

2014 Taxpayer Choice Model (TCM): Designing Digital Communication Products To Reduce Phone and Mail Inventory

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Introduction

Over the past decade, the proportion of American adults using the Internet has grown from 66 percent in 2005 to 87 percent in 2015.¹ Among Internet users, a majority (82 percent) have gone online in the past year to look for information or complete a transaction on a Government Website.² The Internal Revenue Service (IRS) Strategic Plan FY 2014–2017 cites the proliferation of Internet-based interactions as one of the major trends impacting the IRS currently and in the future. It states, “the growth of the Internet over the past decade has changed consumer expectations as they become increasingly more accustomed to using the Web for anything from ordering phone service to conducting transactions with financial institutions using traditional online and mobile devices. More and more customers show a preference for Internet-based service before trying other service channels such as phones, paper, or in-person.”³

As the population of Internet users grows and technology develops to provide more ways for individuals to get online, customer service channel offerings expand and IRS seeks to expand its customer service options, as well. While the IRS has made significant progress in digital service offerings (e.g., the Where’s My Refund? interactive tool and the Interactive Tax Assistant), the Strategic Plan acknowledges “there are distinct unmet taxpayer needs that provide opportunities for the IRS to introduce more online self-service options.”⁴ Even while facing severe budgetary constraints, IRS continues to plan and develop improved service channels to ease the burden for taxpayers trying to meet their tax obligations. While awareness of IRS service channels remains high among taxpayers (91 percent), the organization is committed to “expanding (its) portfolio of digital service offerings to meet customer expectations while continuing to keep taxpayer data secure.”^{5,6}

Goal I of the Strategic Plan is to “deliver high quality and timely service to reduce taxpayer burden and encourage voluntary compliance.”⁷ The following two Objectives of that goal emphasize consideration of new technologies to improve IRS’s customer service experiences for all taxpayers:

- Design tailored service approaches with a focus on digital customer service to meet taxpayer needs, preferences, and compliance behaviors in order to facilitate voluntary compliance.
- Provide timely assistance through a seamless, multichannel service environment to encourage taxpayers to meet their tax obligations and accurately resolve their issues.

¹ Pew Research Center, <http://www.pewinternet.org/data-trend/internet-use/latest-stats/>.

² Smith, Aaron. (2010, April 27). “Government Online,” Retrieved from Pew Research Center, <http://pewinternet.org/Reports/2010/Government-Online.aspx>.

³ Internal Revenue Service Strategic Plan FY 2014–2017. Retrieved from <http://www.irs.gov/pub/irs-pdf/p3744.pdf>.

⁴ Ibid.

⁵ “Internal Revenue Service Customer Satisfaction Survey—2014 W&I Taxpayer Experience Survey National Report,” Internal Revenue Service and Pacific Consulting Group, October 2014.

⁶ Internal Revenue Service Strategic Plan FY 2014–2017. Retrieved from <http://www.irs.gov/pub/irs-pdf/p3744.pdf>.

⁷ Ibid.

Strategizing and prioritizing the development of new service channels are difficult since research shows that individuals interact with Government through a mix of online and offline methods. Contacting the Government by phone and through online means are the most preferred channels among those surveyed in a 2010 study by the Pew Research Center.⁸ While the population as a whole prefers to contact Government agencies through the phone (35 percent) and then through online channels (28 percent), Internet users most prefer to contact Government agencies online (37 percent), with 33 percent reporting the phone as their second choice for service channel.⁹ The need for IRS services is great; the IRS 2014 Taxpayer Experience Survey shows that 41 percent of taxpayers have contacted the IRS for tax-related issue(s) in the last 12 months. Among those who contacted the IRS, the most-used service channel is the IRS Website (28 percent), followed by the IRS toll-free line (17 percent).¹⁰ For all but 1 of the 14 service needs, respondents were asked about in the survey, the IRS Website was most often indicated as taxpayers' first step toward resolving the issue (38 percent of those who needed to make a payment and 35 percent of those who needed information about a notice went to the Website first).¹¹ Additionally, there are many taxpayers who reported needing assistance with a tax-related issue in the past 12 months, but chose not to contact the IRS about it (46 percent).¹²

IRS cannot stop offering more costly traditional service channels, such as toll-free phone lines with a live customer service representative or local IRS offices, but it must determine how best to serve taxpayers with its limited resources. Digital communication products enable IRS to serve a greater number of customers at a lower cost, and IRS research indicates that taxpayers are ready for it. Some 56 percent of taxpayers said they would be likely to review their prior-year Federal tax return information online through a secure link on IRS.gov.¹³

A key strategy IRS employs to achieve its goals is the incorporation of taxpayer feedback into all aspects of its operations.¹⁴ The IRS uses multiple channels to obtain taxpayer feedback, including surveys, focus groups, interviews, comment cards and social media. The present research exemplifies the application of taxpayer feedback in IRS's strategic planning. Using conjoint-based models to prioritize potential new services, based on taxpayer preferences over traditional channels, helps the IRS tailor channel development to specific population segments and service needs. Designing and marketing digital communication products for taxpayers are critical components of IRS's strategic plan.

The purpose of this study is to determine how the IRS can best migrate taxpayers to less expensive service channels. To accomplish this overarching objective, findings prioritize potential digital communication products considered for development by IRS's Online Services (OLS) office.

This report begins by documenting the background and evolution of the IRS's conjoint-based research, and then focuses on a review of major findings from the 2014 survey effort and associated analysis resulting from its Taxpayer Choice Model.

Background

The 2014 effort to update the Taxpayer Choice Model (TCM) is the latest iteration of choice-based conjoint research dating back to 2005, when IRS first formed the Taxpayer Assistance Blueprint (TAB) team to address fundamental questions regarding the preferences and tax assistance needs of IRS customers. TAB was a large-scale study that impacted IRS business practices by strengthening its ability to make well-informed decisions about the way services are provided to its primary customers—individual taxpayers. It included a conjoint

⁸ Smith, Aaron. (2010, April 27). "Government Online," Retrieved from Pew Research Center, <http://pewinternet.org/Reports/2010/Government-Online.aspx>.

⁹ Ibid.

¹⁰ "Internal Revenue Service Customer Satisfaction Survey—2014 W&I Taxpayer Experience Survey National Report," Internal Revenue Service and Pacific Consulting Group, October 2014.

¹¹ Ibid.

¹² Ibid.

¹³ Ibid.

¹⁴ Internal Revenue Service Strategic Plan FY 2014–2017. Retrieved from <http://www.irs.gov/pub/irs-pdf/p3744.pdf>.

survey to investigate taxpayers' preference among the various options for contacting the IRS to resolve their tax-related issues.¹⁵

The 2006 conjoint study reviewed traditional service channels, such as Taxpayer Assistance Centers (TACs), toll-free phone line with help from a representative, toll-free phone line with automated menu options, Website browsing, and regular mail. The result of the 2006 conjoint study was the Taxpayer Value Model (TVM), an Excel-based model and predecessor to the TCM with an interface that enabled IRS to run "what if?" scenarios to understand how changes to service channel features affect taxpayer preference and value. Users of the tool are able to manipulate service channel attributes (such as access time, first contact resolution, etc.) to see how hypothetical changes in service impact taxpayers' likelihood of using a given channel for a tax-related task.

Since this service channel preference research was first conducted in 2006, the landscape of service channel offerings evolved and drastically changed. The IRS (more specifically, Wage and Investment Research & Analysis (WIRA)) continued the research, but with changes to reflect new service offerings.

In 2011, WIRA conducted another conjoint study to investigate taxpayers' preferences among options for contacting the IRS to resolve tax-related issues. The data collected in this research effort were used to develop a tool similar to the TVM that enabled IRS to run "what if?" scenarios; it is known as the Taxpayer Choice Model (TCM). The TCM, completed in 2011, helps the IRS understand how service channel changes affect taxpayer preference and value. The TCM was similar to the TVM, but featured newer service needs and service channel options to reflect changing trends in technology and taxpayer preference for digital options for tax-based interactions. In addition to asking respondents about their preferences for more established channels such as toll-free phone lines (with a customer service representative or automated menu prompts) and Website browsing, the survey gathered data about Web-based interactive tools, social media Websites, and smartphone applications.

In a follow-up study, WIRA worked with a team led by the Compliance function within IRS's Wage and Investment division to understand better taxpayer preference for digital communication options for taxpayers related to compliance tasks, such as those involved in completing a correspondence audit. The 2014 TCM includes service needs with corresponding service channels based on current availability and potential for future development.¹⁶

Objective

The main objective of this research is to determine how three service delivery dimensions—task, service channel, and channel performance—impact service channel selection among taxpayers. This comparative value analysis process evaluates service channel options for use by taxpayers.

Specifically, this project evaluates data for each of the service needs included in this study to accomplish the following objectives:

1. Understand taxpayer preference for current and potential service channels.
2. Determine how service channel changes affect taxpayer preference and taxpayer value.
3. Prioritize potential digital communication products based on how likely taxpayers prefer that service over current service channel options.
4. Identify the best ways to design and market digital communication tools in order to move taxpayers from high-cost service channels to both current and potential digital communication tools.

¹⁵ "Taxpayer Assistance Blueprint (TAB) Conjoint II Study Topline Report," Internal Revenue Service and Pacific Consulting Group, September 2006.

¹⁶ The six service needs included in the model are: Submit Documentation; Check Status of a Case; Sign a Document; Discuss Case Details; Set up a Payment Plan; and Request an Extension to Respond. Service channels varied by service need with the following service channels included for at least one service need: IRS Toll-Free Line, Live Assistant; IRS Toll-Free Line, Automated; IRS.gov Interactive Tool; Fax; Regular Mail; Local IRS Office; Smartphone Application; Automatic Email Communication; Automatic Text Notification; Secure Message; and Secure Online Chat.

Methodology

Conjoint Methodology

Choice-based conjoint analysis is a widely-used quantitative method in market research. It can be used to quantify customers' value of a specific product or service's attributes to determine which delivery scenario they most prefer among a set of choices.

In conjoint research focused on choosing a service channel, the researcher asks the respondents to assume they need to complete a specific task, such as getting information about the status of their refund. This provides respondents with realistic situations to evaluate and ultimately select their preference. Then, respondents see a series of scenarios showing varying requirement and outcome conditions. A requirement might be the taxpayer's provision of a Social Security number, which represents a certain level of burden. An outcome attribute might be the amount of time a task takes to complete (e.g., 5 minutes on the Web versus 30 minutes on the phone).

Respondents usually view between 10 and 30 conjoint scenarios with varying attribute levels and select the one they most prefer when comparing it with the others. Scenarios are designed using experimental design principles of independence and balance of features. By randomly varying the attributes shown to the respondents and observing responses to the scenarios, the researcher can statistically deduce what product or service features are more desired and which attributes have the most impact on choice. These realistic trade-off decisions provide more insight than simply asking respondents what they prefer or how important product and service features are to them.

The output of a choice-based conjoint survey is a set of preferences for each attribute in the study. In conjoint terminology, these preference sets are called part-worth utilities. Part-worth utilities can be used to summarize preferences of taxpayer segments and markets. Customer choices also can be projected by adding the part-worth utility for each individual attribute to calculate the overall preference for a specific service channel.

Since each respondent has a unique set of part-worth utilities, it is difficult and time-consuming for researchers to analyze the data by hand. Therefore, researchers typically create conjoint market simulators to access the data easily and quickly compare products or services. Using the simulator, researchers manipulate multiple attribute levels and even change the products or services considered in the model to create realistic what-if scenarios and see how customer preference changes in response to varied service delivery configurations.

Conjoint Survey Instrument Development

WIRA worked with a cross-functional workgroup to develop all aspects of the survey. The workgroup included the following IRS functions: Compliance, Online Services (OLS), and Business Modernization Office.

The team looked at volume data and the correspondence audit process to finalize the service needs in the survey instrument. Service channels for each service need were chosen based on current offerings, as well as those under consideration for development by Compliance and OLS.

Conjoint Design

WIRA used a fractional factorial design to select the attribute levels for each respondent. Fractional factorial design creates profiles to limit the number of combinations the respondent evaluates while ensuring enough data are available for statistical analysis. This results in a carefully controlled set of "profiles" for the scenarios. Each respondent received five scenarios for each of two service needs (ten scenarios in total).

Service Needs and Service Channels

The service channels for each service need were chosen based on current offerings and service channels Compliance and OLS are considering for development (see Table 1).

TABLE 1. Service Channels Included by Service Need

Service Needs	Service Channels
1. Submit Documentation	1. <i>Toll-Free Phone, Live Assistor</i> 2. <i>Fax</i> 3. <i>IRS Website—Interactive Tool</i> 4. <i>Smartphone Application</i> 5. <i>Regular Mail</i> 6. <i>Secure Message</i> 7. <i>Secure Online Chat</i>
2. Get the Status of a Case/Transaction	1. <i>Toll-Free Phone, Live Assistor</i> 2. <i>Toll-Free Phone, Automated</i> 3. <i>IRS Website – Interactive Tool</i> 4. <i>Smartphone Application</i> 5. <i>Automatic Email Communication</i> 6. <i>Automatic Text Notification</i> 7. <i>Secure Online Chat</i>
3. Sign a Document	1. <i>Toll-Free Phone, Live Assistor</i> 2. <i>Fax</i> 3. <i>IRS Website—Interactive Tool</i> 4. <i>Smartphone Application</i> 5. <i>Regular Mail</i> 6. <i>Secure Message</i> 7. <i>Secure Online Chat</i>
4. Get Information About a Notice You Received/ Discuss Case Details	1. <i>Toll-Free Phone, Live Assistor</i> 2. <i>Regular Mail</i> 3. <i>Secure Message</i> 4. <i>Secure Online Chat</i>
5. Set Up a Payment Plan	1. <i>Toll-Free Phone, Live Assistor</i> 2. <i>IRS Website—Interactive Tool</i> 3. <i>Regular Mail</i> 4. <i>Local IRS Office</i>
6. Request an Extension	1. <i>Toll-Free Phone, Live Assistor</i> 2. <i>Toll-Free Phone, Automated</i> 3. <i>IRS Website—Interactive Tool</i> 4. <i>Regular Mail</i> 5. <i>Smartphone Application</i>

Attributes

The team chose to include the following attributes (also referred to as service channel features) in the survey instrument:

- **Time Required** (how long it takes to receive the service, which includes wait time and service time);
- **Confirmation of Receipt** (whether receive confirmation of the transaction and/or response details);
- **Authentication** (how taxpayers prove that they are who they say they are in order to use the service);
- **Account Required** (whether the taxpayer must create an account in order to use the service); and
- **Account Update Time** (amount of time between service and transaction recorded on the tax account).¹⁷

Survey Participant Recruitment

WIRA administered the survey through a contractor, Fors Marsh Group (FMG). Participants were randomly selected from a panel owned by one of FMG's subcontractors.

¹⁷ The survey instrument included Account Update Time only for the service need "Submit Documentation."

The subcontractor invited potential respondents to participate in a survey on their preferences for help with tax-related service needs. Participants were provided a link/Web address to a secure Website and a unique PIN to access and respond to survey questions. Respondents accessed the Website and answered the preliminary questions pertaining to demographics and their history of interactions with the IRS. These included screening questions aimed at determining whether the respondent qualified for the survey based on pre-determined criteria.

For this study, the screening criteria ensured that each participant:

- was 18 years of age or older;
- filed a tax return for the most recent tax year; and
- was not a current IRS employee.

Survey Administration

The survey was administered in May 2014 and WIRA received the final data from the contractor in July. A total of 2,303 respondents completed the survey with each seeing two scenarios. Sample size for each service need ranged from 766 to 770 respondents.

Weighting

WIRA created weights for each participant based on age, tax return filing method, tax return preparation method, gender, geographic region, and household income. Analysts used Compliance Data Warehouse (CDW) historical tax return filing data to create the weights for age, filing method, and preparation method, and Current Population Survey (CPS) for gender, region, and household income.

Data Analysis

WIRA conducted Hierarchical Bayes analysis using Sawtooth Software to estimate part-worth utilities, and ultimately used this analysis to create the 2014 Taxpayer Choice Model (TCM). Analysts used the 2014 TCM to analyze taxpayer preference employing scenarios developed with OLS.

Limitations

Conjoint analysis is a quantitative research method used to predict future behavior based on specific service channel configurations. This prediction is based only on the services and service channel features included in the study. When designing a conjoint study, researchers carefully consider what service channel features most influence service channel choice and should be included. However, other service channel features not included in the study can affect taxpayer choice. In addition, conjoint analysis assumes perfect awareness and access to all service channels, which does not hold true for all taxpayers. Due to these caveats, conjoint results serve to show the direction and magnitude of a preference shift, not an exact numeric estimate. Results should be used in conjunction with other data when making operational decisions.

As with all quasi-experimental designs, threats to internal and external validity exist. Potential threats to internal validity include local historical effects and testing effects. Local history can also threaten external validity as contexts for decisions can change based on context.

Key Findings

Taxpayer Preference and Value

WIRA studied taxpayer preference and migration to potential service channels by service need. Service channels for each service need were chosen based on current offerings and service channels that Compliance and OLS are considering for future development. WIRA researchers analyzed operational data and worked with IRS subject-matter experts to design the scenarios.

This section of the report explains the findings from scenarios run in the TCM for each of the six service tasks listed in Table 1, and correspondingly is divided into subsections, listed 1 through 6 below. Each service task was given a base case that accurately reflects the current state of IRS service offerings (i.e., available service channels and their corresponding performance attribute levels) and then a test case scenario where researchers simulated the features of future state IRS service channels.

“Future state” scenarios can vary. The tool enables researchers to look at how taxpayer preference for channels shifts due to changes in service channel attributes (such as adjusting the time it takes to complete a given task or changing the amount of information required from a taxpayer to authenticate their identity), as well as the addition or removal of service channel options to complete a given task.

Generally, for each service task covered in this section, the accompanying graphical figure shows two states (Figure 1). The first shows taxpayer preference for current and potential service channels. The second shows taxpayer preference changes under a new hypothetical service delivery configuration.

1. Submit Documentation

In the current state, taxpayers have three options to submit documentation to the IRS for various issues and needs: calling (phone (*Customer Service Representative (CSR)*)), writing (*Regular Mail*), or faxing (*Fax*). The IRS is considering two additional digital options in the future for this task: *Secure Message* and *Secure Online Chat*. Using the TCM to simulate a scenario for the potential new service channels and their attributes, results show that taxpayer preference shifts away from the traditional channels to new, digital options. Taxpayers still have a high preference for contacting the IRS via the phone and speaking to a customer service representative (27 percent); but they are willing to submit documentation through secure digital options (35 percent).

FIGURE 1. Current and Future State Taxpayer Preference for Submit Documentation

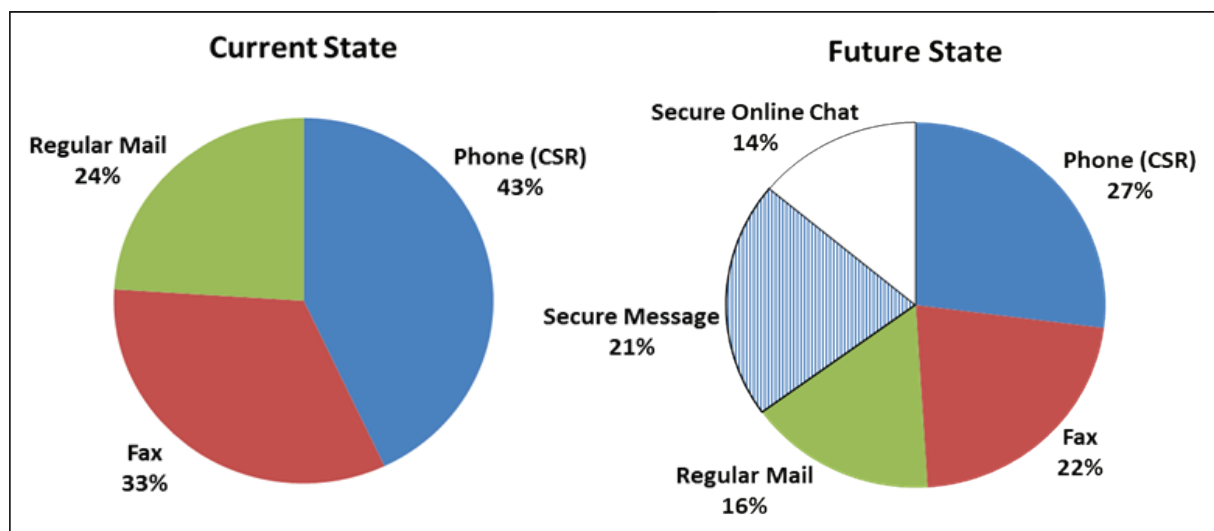
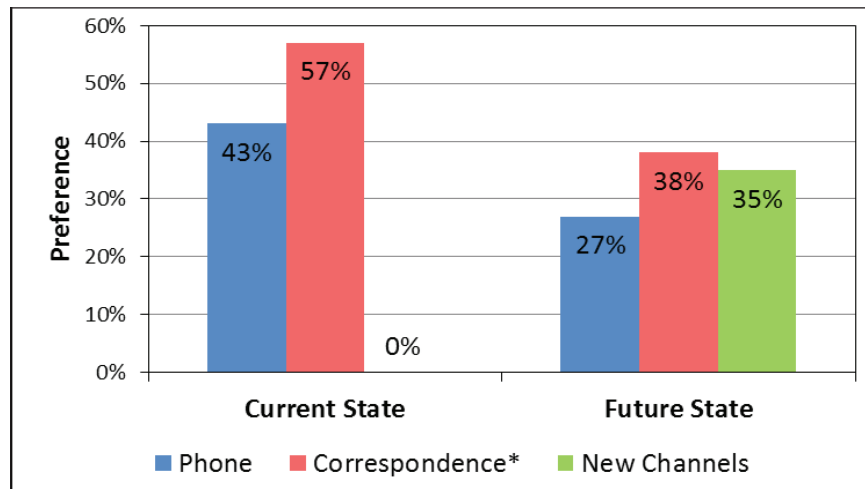


Figure 2 demonstrates potential migration from the phone and correspondence stream to the new channels that IRS may offer in the future. *Secure Message* and *Secure Online Chat* shift 35 percent of the preference for traditional channels, with 16 percent shifting away from *Phone (CSR)* and a 19-percent decrease in the correspondence stream (8 percent *Regular Mail* decrease and 11 percent *Fax* decrease).

FIGURE 2. Taxpayer Migration from Traditional Channels for Submit Documentation



* Information sent via Fax is considered part of the correspondence stream.

2. Get the Status of a Case/Transaction

Taxpayers can get the status of their case in the current state only by calling the IRS.¹⁸ The IRS is considering six potential service channels for the future state. Figure 3 illustrates taxpayer preference in this potential future state. With phone as the only current option, current state preference is considered 100 percent for *Phone* (CSR). TCM results indicate taxpayers have a strong preference to receive updates about the status of their case through *Automatic Text Notification* (27 percent) or through an *Online Tool* (19 percent) available on IRS.gov.

FIGURE 3. Future State Taxpayer Preference for Get the Status of a Case

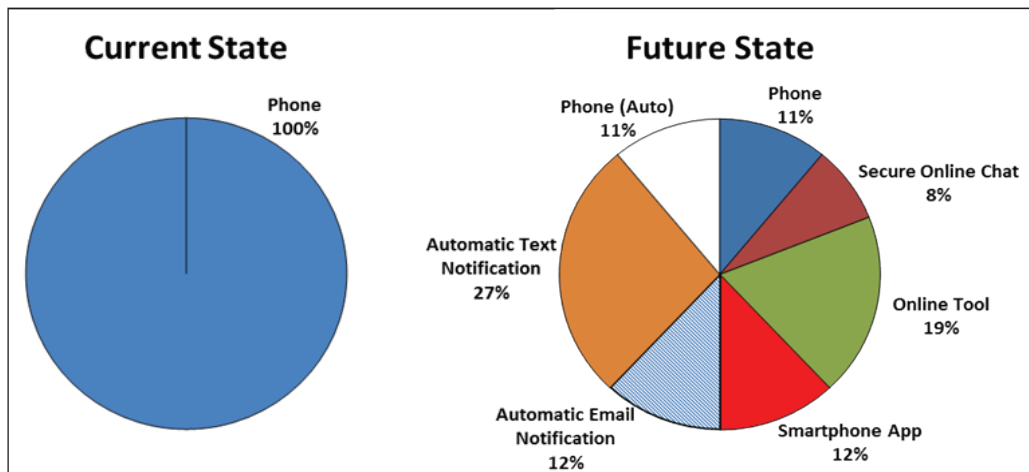
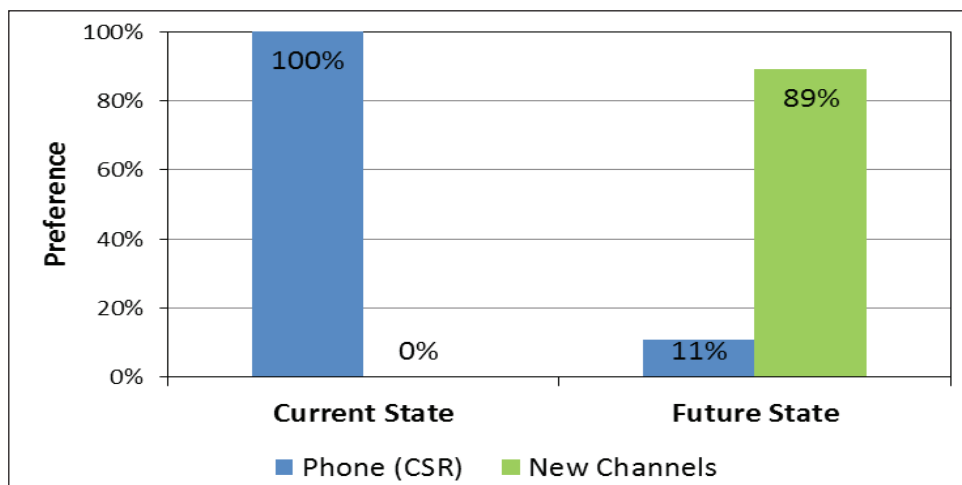


Figure 4 demonstrates the shift away from *Phone* (CSR) due to the addition of the new service channels. Most taxpayers prefer to use a new channel in the future state, with an 89 percent migration away from the phone.

¹⁸ While taxpayers could choose to visit a local IRS office or write a letter to get the status of their case, those channels are not included in the current state of this model due to low volume.

FIGURE 4. Taxpayer Migration from Traditional Channels for Get the Status of a Case

3. Sign a Document

In the current state, taxpayers can write, call or fax the IRS to sign a document.¹⁹ The IRS may offer *Secure Message* and an *Online Tool* in the future for this task. Figure 5 illustrates TCM scenario results showing taxpayer preference in the current state and the potential future state. The TCM shows that while some taxpayers' preference for traditional channels will not change, many have a strong preference for being able to sign a document via online channels, such as a *Secure Message* exchange with the IRS (38 percent) or an *Online Tool* on IRS.gov (18 percent).

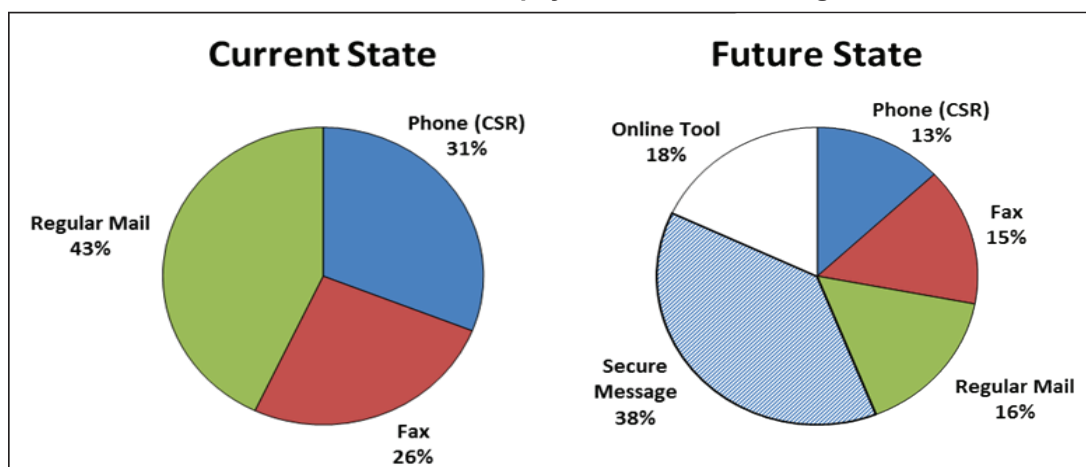
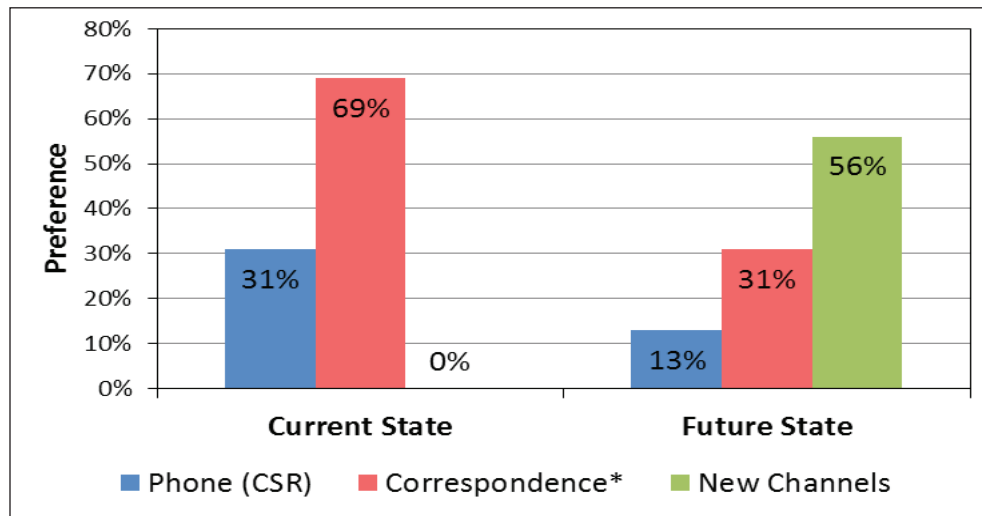
FIGURE 5. Current and Future State Taxpayer Preference for Sign a Document

Figure 6 demonstrates the shift away from phone and correspondence streams due to the addition of the new service channels. Those new channels shift 56 percent of the preference for traditional channels, with an 18-percent shift away from *Phone (CSR)* and 38-percent decrease in the correspondence stream (27 percent *Regular Mail* decrease and 11 percent *Fax* decrease).

¹⁹ If taxpayers call the IRS to sign a document, they are able to resolve their issue using an internal system to fax a document to the customer service representative during their interaction.

FIGURE 6. Taxpayer Migration from Traditional Channels for Sign a Document

* Information sent via Fax is considered part of the correspondence stream.

4. Discuss Case Details

In the current state, taxpayers can write or call the IRS to discuss case details. The IRS may offer *Secure Message* and *Secure Online Chat* in the future for this task. Figure 7 illustrates taxpayer preference in the current state and this potential future state. While addition of *Secure Message* or *Secure Online Chat* as service channel options would shift taxpayer preference from the traditional channels of *Phone (CSR)* and *Regular Mail*, the shift to digital service options is not as strong as with other service needs considered in the TCM and described in this paper.

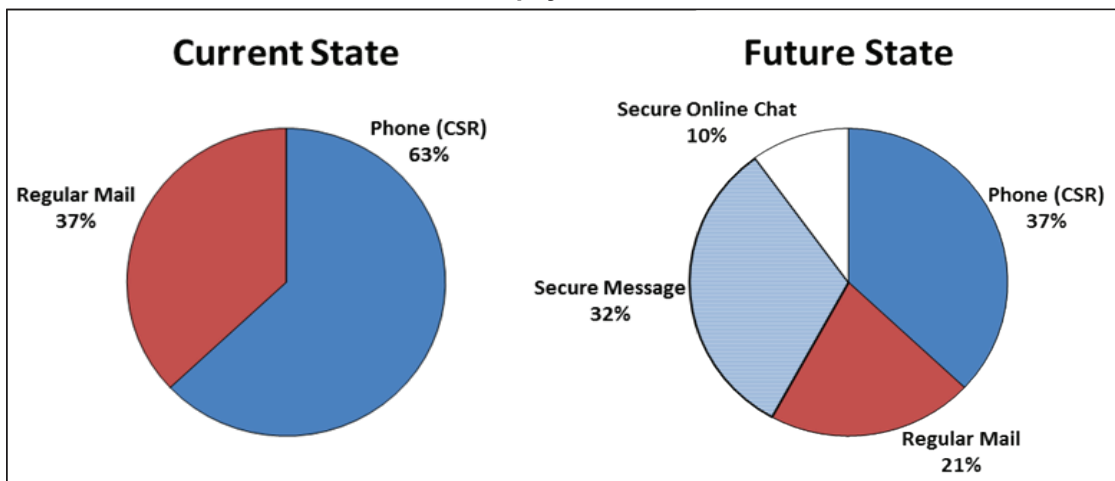
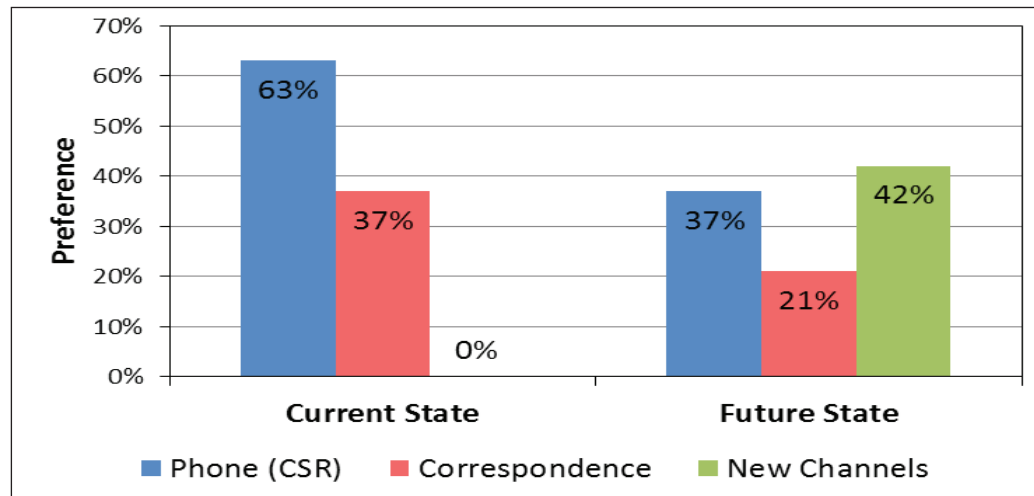
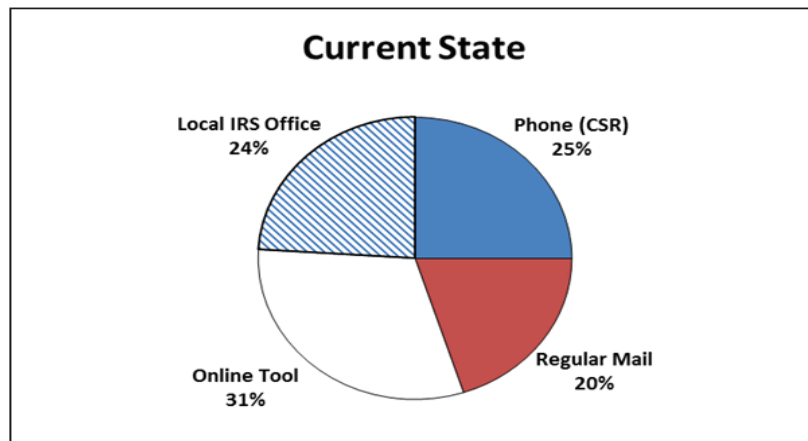
FIGURE 7. Current and Future State Taxpayer Preference for Discuss Case Details

Figure 8 demonstrates the shift away from the phone and mail from the addition of the new service channels. *Secure Message* and *Secure Online Chat* shift 42 percent of the preference for traditional channels, with a 26-percent shift away from *Phone (CSR)* and 16-percent decrease in the correspondence stream via *Regular Mail*.

FIGURE 8. Taxpayer Migration from Traditional Channels for Discuss Case Details

5. Set Up a Payment Plan

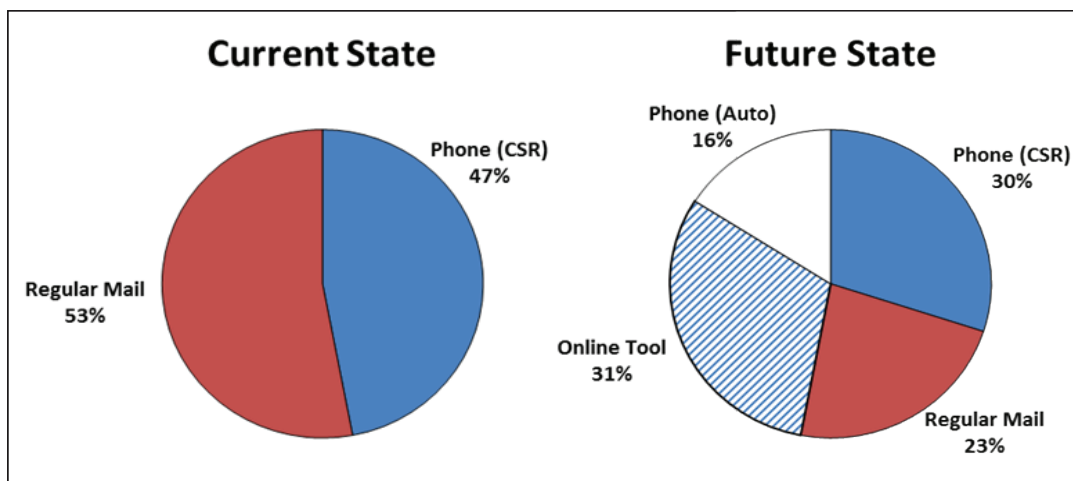
In the current state, taxpayers can write the IRS, call the IRS, go to a local IRS office, or use an online tool to set up a payment plan. IRS subject-matter experts and conjoint team members indicated no current plans for new payment plan offerings. As such, Figure 9 illustrates taxpayer preference in the current state.

FIGURE 9. Current Taxpayer Preference for Set Up a Payment Plan

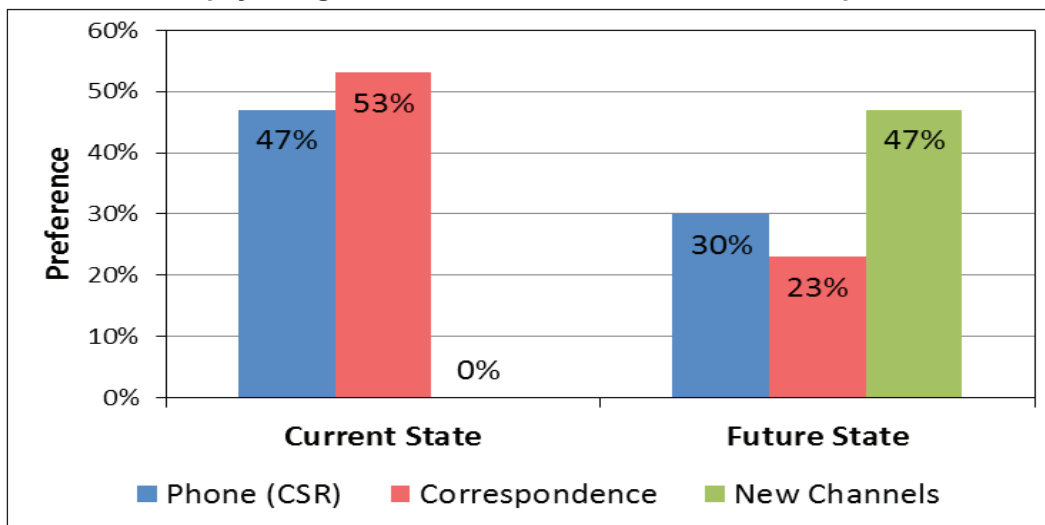
While this report displays only the current taxpayer preference for this service need, the TCM is versatile enough to allow researchers to run scenarios to understand taxpayer preference among various market segments if changes were made to the features of any of the four current service channels. Examples of the demographic analysis of market segments can be found later in this report.

6. Request an Extension

In the current state, taxpayers can write or call the IRS to request an extension to respond. The IRS may offer an *Online Tool* or *Automated Phone Line* in the future for this task. Figure 10 illustrates taxpayer preference in the current state and this potential future state.

FIGURE 10. Current and Future State Taxpayer Preference for Request an Extension

While more than half of taxpayers (53 percent) still prefer traditional channels in the future state, Figure 11 demonstrates the shift away from the phone and mail when offered the new service channels. *Online Tool* and *Automated Phone Line* shift 47 percent of the preference for traditional channels, with a 17-percent shift away from *Phone (CSR)* and a 30-percent decrease in the correspondence stream via *Regular Mail*.

FIGURE 11. Taxpayer Migration from Traditional Channels for Request an Extension

Prioritize Potential Digital Communication Products

WIRA examined taxpayer preference for potential stand-alone offerings by calculating the effect of adding only one new service channel rather than the entire future state as outlined above.

Table 2A provides the percentage of preference shift predicted from adding *one* particular new service for a given service need. “Stand-alone service” is defined as a new service channel aimed at accomplishing a specific task, such as requesting an extension. The TCM does not account for demand for service need; therefore, the table represents only the preference shift for taxpayers. Before prioritizing possible future service channel offerings, IRS would need to consider this preference data in combination with other internal data sources.

Table 2B provides the same information, but in declining order of the magnitude of the preference shift. The new stand-alone services for Get the Status of a Case have the highest preference shift away from the traditional channels. The top six stand-alone services in Table 2B are all for Get the Status of a Case, and *Automatic Text Notification* has the highest preference shift overall.

TABLE 2A. Stand-Alone Service Shift by Task and New Service

Task	Stand-Alone Service Channel	Preference Shift to Service (as stand-alone addition)
Submit Documentation	<i>Secure Message*</i>	31%
	<i>Secure Online Chat</i>	25%
Get the Status of a Case	<i>Automatic Text Notification*</i>	62%
	<i>Toll-Free Line, Automated</i>	59%
	<i>Smartphone App</i>	58%
	<i>Online Chat</i>	50%
	<i>Online Tool</i>	48%
	<i>Automatic Email Notification</i>	48%
Sign a Document	<i>Secure Message*</i>	43%
	<i>Online Tool</i>	33%
Discuss Case Details	<i>Secure Message*</i>	39%
	<i>Secure Online Chat</i>	30%
Request an Extension	<i>Online Tool*</i>	36%
	<i>Smartphone App</i>	23%
	<i>Toll-Free Line, Automated</i>	23%

* These service channels show the highest preference shift as a stand-alone service channel addition for that service need.

TABLE 2B. Stand-Alone Service Shifts by Strength of Preference

Stand-Alone Service Channel	Task	Preference Shift to Service (as stand-alone addition)
<i>Automatic Text Notification*</i>	<i>Get the Status of a Case</i>	62%
<i>Toll-Free Line, Automated</i>	<i>Get the Status of a Case</i>	59%
<i>Smartphone App</i>	<i>Get the Status of a Case</i>	58%
<i>Online Chat</i>	<i>Get the Status of a Case</i>	50%
<i>Online Tool</i>	<i>Get the Status of a Case</i>	48%
<i>Automatic Email Notification</i>	<i>Get the Status of a Case</i>	48%
<i>Secure Message*</i>	<i>Sign a Document</i>	43%
<i>Secure Message*</i>	<i>Discuss Case Details</i>	39%
<i>Online Tool*</i>	<i>Request an Extension</i>	36%
<i>Online Tool</i>	<i>Sign a Document</i>	33%
<i>Secure Message*</i>	<i>Submit Documentation</i>	31%
<i>Secure Online Chat</i>	<i>Discuss Case Details</i>	30%
<i>Secure Online Chat</i>	<i>Submit Documentation</i>	25%
<i>Smartphone App</i>	<i>Request an Extension</i>	23%
<i>Toll-Free Line, Automated</i>	<i>Request an Extension</i>	23%

* These service channels show the highest preference shift as a stand-alone service channel addition for that service need.

Together, Table 3, Table 4, and Table 5 illustrate that *Secure Message* has the highest preference shift for all service needs for which it is being considered as a potential option, even over other digital service channels. The service needs for which *Secure Message* is an option in the TCM are Sign a Document (Table 3), Discuss Case Details (Table 4), and Submit Documentation (Table 5).

TABLE 3. Stand-Alone Channel Ranking for Secure Message (Sign a Document)

Service Channel for Sign a Document	Preference Shift to Channel (as stand-alone addition)
Secure Message	43%
Online Tool	33%

TABLE 4. Stand-Alone Channel Ranking for Secure Message (Discuss Case Details)

Service Channel for Discuss Case Details	Preference Shift to Channel (as stand-alone addition)
Secure Message	39%
Secure Online Chat	30%

TABLE 5. Stand-Alone Channel Ranking for Secure Message (Submit Documentation)

Service Channel for Submit Documentation	Preference Shift to Channel (as stand-alone addition)
Secure Message	31%
Secure Online Chat	25%

Demographic Analysis

The demographic analysis included the following demographic categories:

- Age
- Tax return preparation method
- Previous channel use
- Previous post-filing contact

In general, taxpayers who have used digital communication products outside of IRS interactions are more likely to use those channels with the IRS for all service needs than those who have not.

WIRA identified additional demographic differences for some of the service needs included in the study. However, analysis did not show significant differences between demographic segments for Discuss Case Details and Request an Extension. Demographic analysis for the remaining service needs (Submit Documentation, Get the Status of a Case, and Sign a Document) is included below.²⁰

For the *Submit Documentation* service need, there were some noteworthy shifts from traditional channels among a few market segments compared to the general population. Table 6 and Table 7 show the demographic differences WIRA discovered. Table 6 lists the demographic segments with a higher shift from traditional channels compared to the general population, defined as having at least 40-percent shift away from traditional channels to the new service channels.

²⁰ There is no additional demographic analysis included for *Set Up a Payment Plan* because there are no plans at this time to expand service channel offerings for that service need.

TABLE 6. Demographic Segments with At Least a 40 Percent Preference Shift from Traditional Channels (compared to general population) for *Submit Documentation*

Demographic Segment	Percentage Preference Shift
36-45 years old	40%
Self-prepared return using tax software/Free File	40%
Used secure message system previously	47%
Used online chat previously	40%
General population	35%

Table 7 lists the four demographic segments with at least 25-percent shift to *Secure Message*, specifically. (*Secure Message* was the channel with the greatest potential as a stand-alone new service, as shown in Table 2B.) Three of the four segments are the same ones listed in Table 6, indicating that at least 25 percent of the high preference shift from traditional channels for those segments was due to a shift to *Secure Message*.

TABLE 7. Demographic Segments with At Least a 25 Percent Preference Shift to *Secure Message* (compared to general population) for *Submit Documentation*

Demographic Segment	Percentage Preference Shift
18-24 years old	27%
Self-prepared return using tax software/Free File	25%
Used secure message system previously	26%
Used online chat previously	26%
General population	21%

For Get the Status of a Case, the overall shift away from Phone (CSR) (the only option currently available to taxpayers for this task) is similar for all demographic groups; 89 percent of all taxpayers and a range of 81-92 percent of taxpayers among each of the various demographic segments included in the TCM prefer another service channel offering. The demographic segments with the highest shift to *Automatic Text Notification* (the channel with the greatest potential shift as a stand-alone new service) are those with post-filing contact (41 percent preference shift), 18-24 years old (36 percent preference shift), and 36-45 years old (34 percent preference shift).

For Sign a Document, taxpayers aged 18-24 years old and 66-75 years old had the highest preference shift to an *Online Tool* (23 percent of each demographic segment prefer an *Online Tool*). Those who had used on-line chat previously and taxpayers aged 36-45 years old had the highest preference shift to *Secure Message* (48 percent of each demographic segment prefer *Secure Message*).

Attribute Importance

Attribute importance is defined as how much difference each service channel feature makes in the total preference for a product or service. It shows the “power” of each attribute in changing service channel preference/choice. When calculations show the service channel attribute has the largest impact on a service channel choice, ultimately, a portion of a taxpayers’ choice cannot be changed by adjusting service channel features. However, adjusting service channel attributes in the following ways can have an impact on taxpayers’ choice of service channel:

- increasing or decreasing the time it takes to complete a task,
- enabling the service channel to provide the channel user a confirmation of receipt for the task,

- changing the amount and sensitivity of information required for authentication, and
- requiring individuals to create an account in order to use a service channel.²¹

Attribute importance results for the 2014 TCM service needs are included below.²²

Figure 12 illustrates attribute importance for Get the Status of a Case and Request an Extension; results show that they have the same service channel feature order of importance. Service channel has the largest impact on service channel choice, which means a portion of a taxpayer's choice cannot be changed by adjusting service channel features. The service channel features have the following order of importance (listed in highest-to-lowest order): ID Proofing, Confirmation of Receipt, Account Required, and Time Required.

FIGURE 12. Attribute Importance for Get Status of a Case and Request an Extension

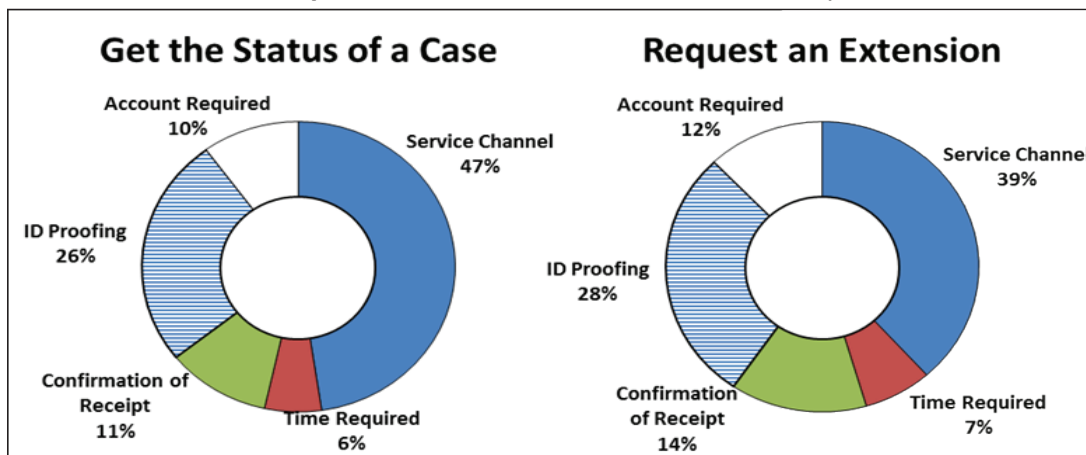
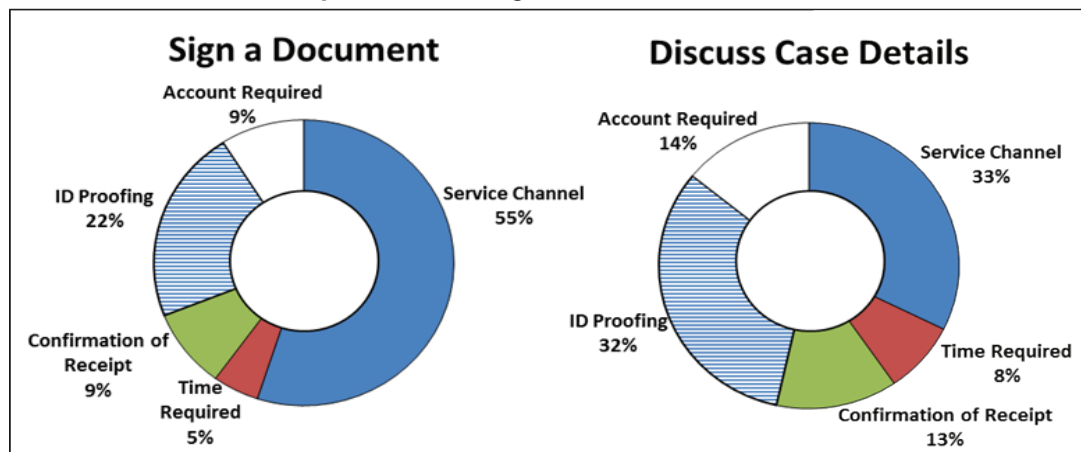


Figure 13 illustrates attribute importance for Sign a Document and Discuss Case Details as they have the same service channel feature order of importance. Service channel has the largest impact on service channel choice for both service needs, with service channel accounting for 55 percent of a person's choice for Sign a Document and 32 percent for Discuss Case Details. The service channel features have the following order of importance (listed in highest-to-lowest order): ID Proofing, Account Required, Confirmation of Receipt, and Time Required.

FIGURE 13. Attribute Importance for Sign a Document and Discuss Case Details

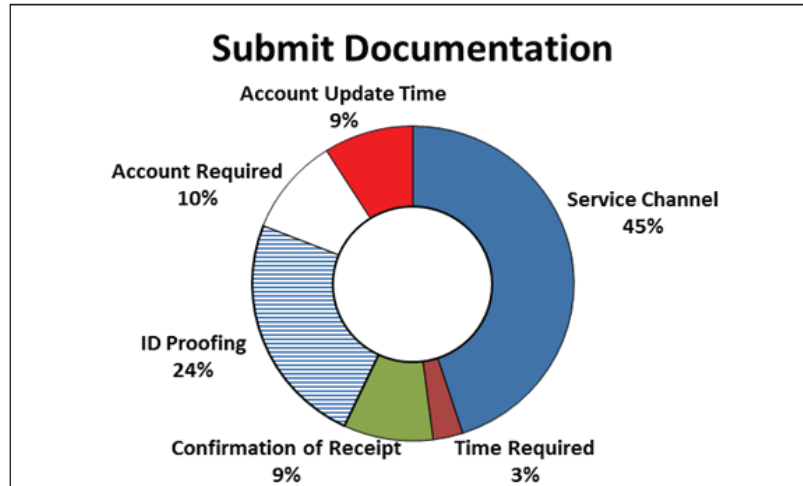


²¹ For the service need *Submit Documentation*, WIRA also looked at the amount of time between the time of service and the transaction being recorded on an individual's tax account.

²² There is no attribute importance information included for *Set Up a Payment Plan* because there are no plans at this time to change service channel features for that service need.

Figure 14 illustrates attribute importance for Submit Documentation. Service channel has the largest impact on service channel choice, with 45 percent. Submit Documentation has a fifth service channel feature included, Account Update Time.

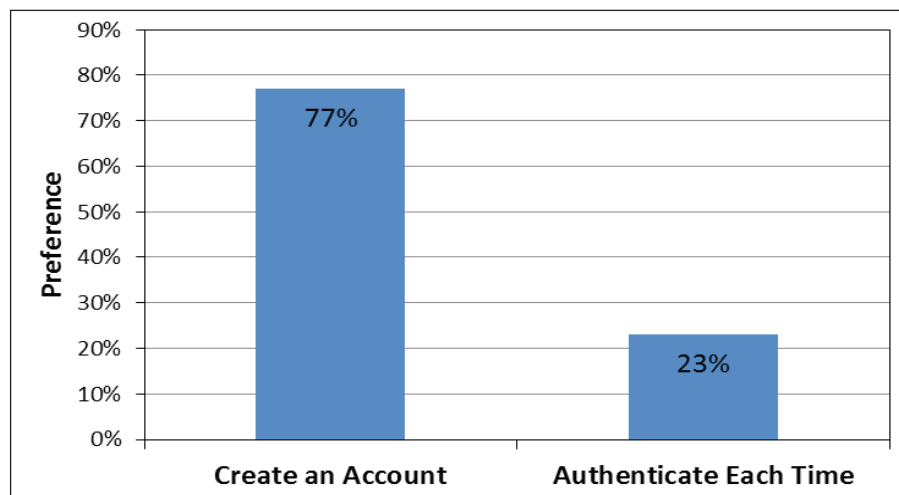
FIGURE 14. Attribute Importance for Submit Documentation



Authentication

Respondents were asked directly whether they would prefer to create an account or authenticate their identity each time they needed to use an IRS service. Figure 15 shows that the majority of respondents (77 percent) indicate that they would prefer to create an account that allows them to sign in using a username and password for subsequent service needs.

FIGURE 15. Authentication Preference Percentage



Conclusions

WIRA draws the following conclusions related to new product creation, product features, and marketing new products. These conclusions and recommendations are based on TCM results and other WIRA research. Other information, such as development costs and technological barriers, must be considered along with these recommendations.

New Product Creation

Creating alternative service channels for getting the status of a case or transaction could potentially reduce taxpayer calls to the IRS. Currently all contacts must go through the phone and CSR, but TCM results show that many taxpayers prefer to contact IRS a different way for that task. Creating even one additional service channel could reduce the high volume of contacts for this task by shifting taxpayers to the new channel. W&I Reporting and Compliance Annual Satisfaction Survey results support developing alternative channels for updating taxpayers on the status of their case (FY12 and FY13 reports).

Secure messaging has the potential to shift preference from traditional channels. The TCM shows a high preference shift to secure message as a stand-alone tool for all service needs where secure message is an option.

The IRS should investigate creating an online tool for requesting an extension to respond to a notice. Online tool shifts the most preference away from phone and mail for this task.

Product Features

Providing taxpayers with a confirmation of receipt for digital communication products affords greater resolution for taxpayers while they wait for their account to be updated or to receive a response. Both the 2007 and 2011 conjoint studies WIRA conducted indicate that resolution and degree of progress towards resolution affect taxpayer channel choice and are important to taxpayers. It also could potentially reduce contacts related to getting the status of a case by providing a generic timeline.

Creating digital self-service options for taxpayers via an online account could potentially reduce phone and mail traffic to the IRS. Most respondents reported a preference for creating an account that allows them to authenticate in less time for subsequent service needs.

Marketing New Products

Based on the demographic analysis, WIRA recommends partnering with tax return preparation software companies and Free File sites to increase awareness of new digital communication products. In addition, the IRS should consider using outgoing correspondence (i.e., notices) and/or their inserts to increase awareness of automatic text notification of status changes.

Appendix

Service Channel and Service Need Descriptions Provided to Survey Respondents

Toll-Free Phone Line

One method of help is the IRS Toll-Free phone line, which offers an automated self-help menu and access to live phone assistants.

IRS Website

Next, let's talk about the IRS Website that can be reached at www.irs.gov. You must have Internet access to use the IRS Website. Once at the Website, you can browse through different pages to find information about filing taxes or use interactive tools. Interactive tools are electronic tools that help you perform tasks on irs.gov, such as calculating withholding amounts, determining your filing status, or finding out the status of your refund.

Smartphone

The IRS has begun offering applications for smartphones. A smartphone is a device that a person can use to make telephone calls, but also adds in features that you might find on a personal digital assistant or a computer. Examples of smartphones include the iPhone and Android smartphones (i.e., HTC Evo, Motorola Droid X, Samsung Galaxy, etc.).

Individuals can download applications for smartphones that allow them to complete tasks or get information. An example of a current smartphone application offered by the IRS is IRS2Go. IRS2Go lets taxpayers check on the status of their tax refund and obtain other helpful tax information.

Regular Mail

The IRS also provides service through regular mail. Taxpayers can use the regular mail to ask tax questions and send payments. Once the IRS receives mail from a taxpayer, it typically takes between 30 and 90 days for the taxpayer to receive a response.

Fax

Taxpayers can transfer documents to the IRS via fax. For example, taxpayers can fax receipts or signed documents to the IRS.

Secure Message

The IRS may offer e-mail communication to taxpayers through a secure portal similar to secure message systems used by some health insurance companies, credit card companies, banks, and loan institutions. In this type of communication, people can log onto the company's Website and communicate with the company by sending and receiving messages. In some instances, customers may attach digital documents to the message.

For most tasks, it would take between 30 and 90 days for the taxpayer to receive a response back from the IRS.

Automatic Notification

The IRS may offer automatic e-mail or text notifications for account status updates similar to account notifications provided by some banks and credit card companies to inform customers of low balances, payments processed, or payments due.

For the automatic e-mail notifications, taxpayers would sign up for the service and then get emails whenever a change to their account occurs, such as a payment posting to their account.

For the automatic text notifications, taxpayers would sign up for the service online and then get texts whenever a change to their account occurs, such as a payment posting to their account.

Local IRS Office

The IRS runs local IRS offices in many cities throughout the country. Locations vary with most people living about 30 minutes from an IRS office. At these offices, you can walk in and get a number of services related to paying your taxes. You can get forms, get questions answered, make a payment, or set up a payment plan. IRS service representatives are available to help you in person, if necessary.

Secure Online Chat

The IRS may offer secure online chat through the irs.gov Website where taxpayers can communicate with a live assistor through the Internet by typing messages to one another in real time. Some insurance companies, banks, and other companies have this feature on their Webpage for individuals who cannot find answers to their questions through browsing the Web.

Service Need Descriptions from Survey Instrument

People need help with many issues related to taxes. For each of the service needs listed, indicate if you have ever needed help to complete the task.

- (1) Submit documentation to the IRS to verify items listed on your tax return. For example, document the itemized deductions you listed on your Schedule A, provide receipts for your medical expenses, or provide receipts for charitable donations.
- (2) Get the status of your case. For example, find out if the IRS received a payment or documentation you sent.
- (3) Sign a document. For example, sign a document to show you agree with the proposed changes to your tax return.
- (4) Ask for additional time to respond to a notice you received from the IRS.
- (5) Get more information about a notice you received from the IRS. For example, get more information about what documents the IRS needs you to send or why the documents are needed.
- (6) Make a payment or set up a payment plan.