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Taxpayer Service Channel Preferences

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D uring the summer of 2005, Congress directed the IRS to ascertain taxpayer service needs and preferences and develop a 5-year plan to address, as best as possible, all of them. This effort was labeled the Taxpayer Assistance Blueprint (TAB). One primary objective of the TAB was to investigate taxpayers' preferences for service acquisition among the various options for contacting the IRS. Generally, the service event was divided into two categories, tax-related issues and ways of preparing and filing a tax return. Tax-related issues are those matters which require attention either before or after filing. To most accurately gauge taxpayer preference, the TAB conducted a study specifically designed to capture taxpayer preference for IRS-provided service.

Conjoint Method

The method chosen to determine taxpayer preference was choice-based conjoint analysis. Rather than ask directly which service method taxpayers prefer, this method measures the degree of affinity taxpayers hold for different service channels by determining the weight that attributes exert in service channel decisions. The study is comprised of two sets of tradeoff decisions: 1) tax assistance method by service need, and 2) tax preparation and filing methods. Participants were given a set of service attributes such as wait time or likelihood of first contact resolution for each service channel. Attribute values differed by service channel. As taxpayers made choices from successive arrays of service options, the attribute values changed for different service channels. For example, in the instance of wait time, the time required to wait while seeking assistance through the phones might increase from 15 to 30 minutes in successive choice opportunities. Choice responses made among successive arrays of service options revealed what attributes were important.

If the TAB research had simply asked taxpayers, "Which service channel do you prefer?"—the critical (and probably flawed) assumption is that respondents would respond based on experience with each channel. Instead of relying on the memory and experience of respondents, the conjoint method seeks to control understanding of service channel experience by creating a facsimile of channel usage by defining attributes of the service experience. Explaining what service is like through various channels by assigning values

to common service attributes creates a level playing field for participants to make their service choice decisions. Explaining what a service event would be like by providing attributes with realistic values (e.g., wait time of 30 minutes) compensates for limited understanding of and/or experience with the full range of service options.

The central element of conjoint analysis is the attribute. Breaking down service events into sets of attributes can help reveal what factors of service are most important. By changing attribute values, such as increasing or decreasing wait time, and then analyzing how these changes influenced choices for service, conjoint analysis can provide information about the influence different attributes have on the choices made by service-seeking taxpayers.

For reasons of brevity, this paper will only consider the conclusions and implications of the larger set of service tasks, namely, the choice arrays intended to capture service preference for tax issues not directly related to return preparation. Its goal is to outline some of the benefits and limitations of conjoint research, the challenges of this research method relative to tax research, some of the significant findings related to the TAB, and some future directions for continued analysis using these data and this technique.

What Factors Create Taxpayer Channel Preference?

Before we delve into preference research conducted for the TAB Phase 2 effort, it is useful to understand the frame of analysis developed by Wage and Investment (W&I) Research.[1] The TAB 2 research team identified several factors that influence taxpayers when they choose what channel to use when they contact IRS for service. The type of service sought and the perceived performance of the channel sought will impact preference and behavior. Taxpayer qualities such as attitudes, awareness, access to channels, and previous behavior were also considered to have impact on preference and behavior. For ease of understanding these factors and their proposed relationship, a diagram based on Theory of Planned Behavior (TPB) is supplied (Figure 1).[2] Part of what the diagram illustrates is that different factors, such as awareness and type of service sought, influence one another and interact to ultimately impact preference, intention, and behavior. It is helpful to understand these relationships whenever one is trying to predict,

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[1] The TAB project was a two-phase effort: Phase 1 included preliminary research relative to taxpayer needs, preferences, and behaviors, and Phase 2 built on the themes identified in Phase 1 and included extensive additional research, including taxpayer surveys.

[2] Ajzen, I. (2006), "The Theory of Planned Behavior," *Organizational Behaviour and Human Decision Processes*, 50, pp. 179-211.

explain, or change behavior. It is also useful to understand those elements of planned behavior which are, to the extent possible, controlled by the conjoint method. As Figure 1 illustrates, the conjoint method seeks to establish uniform behavioral beliefs and control beliefs for all participants.

The idea behind testing preference with conjoint analysis techniques is that more clear interactions can be observed if a degree of control is exerted over some of these factors. Figure 1 illustrates how, under the abiding and indeterminate influence of habit, taxpayers move toward behavior. The shaded areas are where a conjoint test seeks to exert control over participants. Control over behavioral beliefs—in this case, the perceptions about the effort and nature of the task and about what service through a particular channel might be like—is established by describing what these activities are like. Uniform control beliefs, the conditions which might inflexibly constrain choice, are established by providing universal awareness of, and selecting for participants, the channels under comparison.

Figure 1. Theory of Planned Behavior for Taxpayer Preference[3]
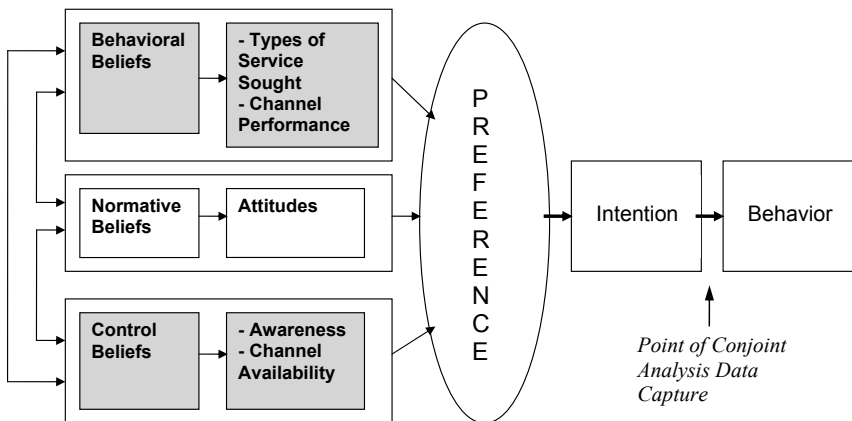
Theory of Planned Behavior –
Human behavior is guided by three kinds of considerations:

 Behavioral Beliefs – beliefs about the likely consequences of the behavior

 Normative Beliefs – beliefs about the normative expectations of others

 Control Beliefs – beliefs about the presence of factors that may facilitate or impede performance of the behavior

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[3] This diagram is based on the Theory of Planned Behavior by Ajzen (1991) and was modified for the current context. This diagram is not a statistical model.

As Figure 1 also illustrates, the conjoint method cannot exert control over the normative beliefs that set a baseline of interpretation for participants. Likewise, the conjoint method cannot exert any control over the influence of habit. Though the ultimate conjoint analysis findings would suggest that normative beliefs and habit were significant inputs into planned behavior, right now, we can only guess the degree of influence exerted by these factors.

Conjoint Study of Taxpayer Service Channel Preference

In this conjoint study, participants considered seven IRS taxpayer service methods maintained by the IRS. These service channels were:

- Interactive assistance using a phone and an IRS Customer Service Representative,

- Self-service using an automated phone menu,

- Conventional correspondence, i.e., mail,

- Internet interaction with an assistor, i.e., e-mail or live chat,

- Self-service using the Internet,

- Interactive, face-to-face service at a Taxpayer Assistance Center (TAC), and

- Self-service at a TAC.

Taxpayers were asked to choose between service channels for specified service tasks. These eight service tasks were selected from operational data to provide full coverage of typical service events accomplished through IRS channels. The service tasks were:

- Getting a form or publication,

- Getting information about a notice received from the IRS,

- Tax return preparation guidance,

- Asking a tax law question,

- Getting refund information,

- Getting prior-year return information,

- Getting information about tax payments, and

- Applying for a taxpayer identification number or employer identi-
  fication number.

Choices involved comparison between channels where each channel
and service task were described as a set of attributes. Specific attributes and
relevant ranges of these services were jointly developed by W&I Research
and Pacific Consulting Group (PCG). Patterns of taxpayer selections among
different conjoined service attributes were analyzed to create a view of how
different groups of taxpayers might choose among TACs, toll-free telephone,
Internet, and regular mail to accomplish eight common service tasks.

Participants were recruited from a national panel maintained by
Knowledge Networks, a market research firm. Participants submitted their
responses online or via a television set top box (for those without computer
access). Respondents included 2,196 individual taxpayers. To ensure that
the sample represented all individual taxpayers, TAC and low-income users
were intentionally oversampled to ensure a valid sample for analysis of these
subgroups. The sample included 533 individual taxpayers who visited an
IRS TAC within the past 2 years and 1,015 low-income filers.[4]

In the TAB Phase 2 conjoint study, respondents chose their most pre-
ferred service options from a series of service events and channels. To place
these channel choices into context, the service channel options were defined
using attributes of the service experience. The attributes or "performance
characteristics" were chosen by looking within customer satisfaction survey
open-ended responses. The original list was refined to create a list of four
attributes of primary significance to taxpayers and operational relevance
to the IRS. The attributes chosen were wait time, service time, hours of
availability, and the probability of single contact issue resolution. In this
way, choices were made with the understanding of the potential burden and
benefit of different channels. Consequently, responses reflect how individu-
als compare options and make decisions in real life.

When presented as components of a service channel, attributes were
valued, using ranges developed from operational data and taxpayer focus
groups. For example, wait time was described as 15 minutes for phones,
1 minute for IRS.gov, 30 minutes for a TAC, and 5 days for written corre-
spondence. After participants chose a channel, they were provided the same
channels with new values for some attributes from which to make their
choices. As the participants moved through successive sets of channels, at-
tribute values were varied for successive sets of choices.

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[4] For the purposes of TAB Phase 2, low income was defined broadly to cover the entire EITC-eligible population
(< $36,000 annual household income).

During subsequent iterations, taxpayers selected from the same set of service channels but with varying levels of performance. Successive choices among successive sets of options, each with further changes among performance attributes, reveal the point at which participants change service options because the performance characteristics they value had either deteriorated too much in the channel they first preferred. Or, alternately, choices revealed where a competing attribute had increased enough in another channel to prompt migration to that option. Breaking down service events into realistic attributes permits comparison between separate elements of the overall experience. For instance, if a participant indicates a preference for seeking service over the phone when the wait time is 5 minutes, will he or she still want to use the phone if the wait time deteriorates to 15 minutes? If the participant is willing to use phones with a 5-minute wait but does not prefer phones with a 15-minute wait, we then know that wait time performance is important to that person.

For the TAB 2 conjoint study, categories of performance that taxpayers weighed when making decisions about service were determined by three focus groups conducted across the country. This exploratory research also helped refine the language used to convey service options to taxpayers. Finally, to confirm the understandability of the performance categories developed in the focus groups, and that taxpayers could understand and accomplish the actual test, a trial run was conducted among qualified subjects. After incorporating adjustments uncovered during the trial run, the conjoint survey was administered to 2,196 taxpayers between June 23 and July 5, 2006.

When completing the conjoint study questionnaire, participants completed straightforward survey questions, responded to questions designed to explain the performance categories, and then chose among service options with different performance levels. By varying the performance characteristics in different ways among participants, and testing large numbers of subjects, conjoint analysis defines what performance characteristics most influenced choices among service options. When conducted with enough individuals, this method can also determine distinctions among subsets of the taxpaying population. When analyzed, choices among changing attributes paint a picture of what performance factors influenced preference for different types of people, different service tasks, and different service channels. Analysis of test results establishes how much performance characteristics contribute to the choice behavior.

In the TAB 2 conjoint test, the relative importance of performance characteristics is represented as a portion, or choice share, of 100 possible

points for each service option. Choice share, the portion of choices made attributable to a single characteristic, helps define what preferences taxpayers would express in the current service environment, as well as how taxpayers would behave if performance characteristics were changed. By evaluating what choices are made under current levels of performance, conjoint analysis allowed the TAB to define how different taxpayers prefer to get service. Because we tested how subjects preferred to seek service for a variety of service tasks, conjoint analysis also shows the degree to which the type of service need influences channel choice.

TAB Phase 2 Conjoint Results

Table 1 shows the distribution of choice shares for all taxpayers with current, or base case, performance levels. The base case reflects that set of values for attributes that best reflect operational reality. As indicated by the bolded choice shares in the table, regardless of task, taxpayers mainly choose the telephone to initiate contact with the IRS. A notable exception to the preference for telephone is taxpayers' strong affinity for using the Internet to get forms and publications.

Analyses of subsets of the taxpaying population show varying levels of affinity for the service options tested. As shown in Table 2, the Millennial generation (taxpayers under 29 years of age) shows a strong preference for getting forms and publications, getting help with return preparation, and getting information about payments online. Additionally, where levels of preference are similar, more opportunity exists to move taxpayer choice between service channels. To illustrate this point, choice shares within 10 points of other choice shares are underlined in the table. Similar choice shares suggest the possibility of "migrating" younger taxpayers who would use TACs to respond to notices or to get refund information to the telephone service channel. Similarly, young taxpayers interested in getting a prior year return or making a payment might be easily migrated to the IRS Web site for these service needs.

Generation X taxpayers, those between age 30 and 40, show even greater potential for movement between service channels. As shown in Table 3, taxpayers age 30 to 40 who seek assistance for return preparation guidance, tax law questions, refund information, and prior-year returns are likely candidates for migration.

Table 1. Base Case Choice Share Distributions for all Taxpayers[5]

All Taxpayers	Service Channels						
Service Task	TAC Interactive	TAC Self-assist	Phone Interactive	Phone Self-assist	Web Interactive	Web Self-assist	Correspondence
Getting a form or pub	11	6	21	13	7	**41**	1
Getting information about a notice received from the IRS	21	N/A	**55**	N/A	22	N/A	2
Getting tax return preparation guidance	17	N/A	**31**	12	9	**31**	0
Answering tax law questions	20	N/A	**39**	8	9	24	0
Getting refund information	15	N/A	**39**	23	19	12	2
Getting prior-year return information	15	N/A	**39**	11	11	21	3
Getting information about payments	16	N/A	**41**	13	9	20	1
Applying for a Taxpayer ID or an Employer ID Number	15	N/A	**43**	N/A	21	20	2

[5] Pacific Consulting Group, "Choice Shares for Special Segments," September 9 , 2006.

Table 2. Base Case Choice Share Distributions for Taxpayers of the "Millennial" Generation[6]

Millennial (Under 29 years of age) Service Task	Service Channels							Total Choice Shares
	TAC Interactive	TAC Self-assist	Phone Interactive	Phone Self-assist	Web Interactive	Web Self-assist	Correspondence	
Getting a form or pub	3	13	5	12	8	**58**	0	100
Getting information about a notice received from the IRS	28	N/A	**33**	N/A	2	N/A	2	100
Getting tax return preparation guidance	8	N/A	22	14	9	**47**	0	100
Answering tax law questions	15	N/A	**37**	10	9	29	0	100
Getting refund information	26	N/A	**31**	22	11	6	4	100
Getting prior-year return information	11	N/A	**32**	9	23	22	2	100
Getting information about payments	14	N/A	29	14	6	**37**	0	100
Applying for a Taxpayer ID or an Employer ID Number	13	N/A	**42**	N/A	17	29	0	100

[6] Pacific Consulting Group, "Choice Shares for Special Segments," September 9, 2006.

Table 3. Base Case Choice Share Distributions for Taxpayers of "Generation X"[7]

Generation X (30–40 years of age) Service Task	Service Channels							
	TAC Interactive	TAC Self-assist	Phone Interactive	Phone Self-assist	Web Interactive	Web Self-assist	Correspondence	Total Choice Shares
Getting a form or pub	6	3	19	11	8	**53**	0	100
Getting information about a notice received from the IRS	10	N/A	**60**	N/A	30	N/A	1	100
Getting tax return preparation guidance	11	N/A	21	23	14	**32**	0	100
Answering tax law questions	19	N/A	**33**	10	10	28	0	100
Getting refund information	11	N/A	28	**31**	11	18	2	100
Getting prior-year return information	7	N/A	**30**	17	13	27	6	100
Getting information about payments	7	N/A	**40**	17	8	28	0	100
Applying for a Taxpayer ID or an Employer ID Number	9	N/A	**45**	N/A	31	16	0	100

[7] Pacific Consulting Group, "Choice Shares for Special Segments," September 9, 2006.

Baby Boomers, those taxpayers between 41 and 60, indicated declining propensity toward movement to different service channels. Table 4 illustrates that only for getting tax preparation assistance and getting answers to tax law questions did Baby Boomers indicate enough affinity for an alternate channel to possibly be moved from the telephone.

Table 5 shows that Seniors, taxpayers over age 61, demonstrate even lower likelihood of migrating between service channels, with fairly high levels of affinity for using the telephone to address all service tasks.

Other populations of interest identified by TAB for specific analysis are similarly disinclined to try other channels. In Tables 6 and 7, low-income and disabled taxpayers show high levels of preference for the telephone. It seems likely that hesitance to try new channels may coincide with limited experience with or access to information technology like computers and the Internet. In the instance of low-income taxpayers, the financial burden of computer access may limit use of the Internet. For disabled taxpayers, the functional inconvenience of some adaptive technologies may diminish the speed and convenience of Internet use and thereby make other communication alternatives more attractive.

The Relative Importance of TAB Phase 2 Conjoint Attributes

Another way to interpret responses from a conjoint survey is to define which attribute exerts the greatest influence over taxpayer service choice. With the levels of service at their base case levels for all tasks—the levels which reflect most closely the normal operating environment, for all service tasks tested, the most influential attribute is first contact resolution. As Table 8 shows, the other attributes, e.g., access time, servicing time, and hours of availability, are not nearly as important. For all service tasks, first contact resolution captured just over half of the possible influence exerted in decisions. This means that the likelihood of resolving an issue during the first attempt is, by far, the most important characteristic influencing choice of service. The channel possessing the highest level of first contact resolution was most often chosen over other channels, even when the other service attributes for that channel involved more taxpayer burden.

Several conclusions can be drawn from the influence of first contact resolution in the service channel decision process. First, taxpayers clearly are willing to sacrifice time and assume scheduling difficulties to get an issue resolved. Second, the emphasis on first contact resolution shows that it is the attribute which can be enhanced to increase taxpayer satisfaction and increase the likelihood of migrating taxpayers among service channels.

Table 4. Base Case Choice Share Distributions for Taxpayers of the "Baby Boomer" Generation[8]

Baby Boomers (41–60 years of age) Service Task	Service Channels								Total Choice Shares
	TAC Interactive	TAC Self-assist	Phone Interactive	Phone Self-assist	Web Interactive	Web Self-assist	Correspondence		
Getting a form or pub	16	4	25	14	5	32	3		100
Getting information about a notice received from the IRS	17	N/A	62	N/A	20	N/A	2		100
Getting tax return preparation guidance	15	N/A	38	8	10	28	1		100
Answering tax law questions	22	N/A	35	7	10	26	0		100
Getting refund information	12	N/A	39	25	8	15	0		100
Getting prior-year return information	13	N/A	39	16	6	26	1		100
Getting information about payments	16	N/A	39	14	14	14	2		100
Applying for a Taxpayer ID or an Employer ID Number	15	N/A	41	N/A	20	21	2		100

Table 5. Base Case Choice Share Distributions for "Senior" Taxpayers[9]

Seniors (61 years old and older) Service Task	Service Channels							
	TAC Interactive	TAC Self-assist	Phone Interactive	Phone Self-assist	Web Interactive	Web Self-assist	Correspondence	Total Choice Shares
Getting a form or pub	16	5	**34**	12	10	23	0	100
Getting information about a notice received from the IRS	33	N/A	**59**	N/A	4	N/A	3	100
Getting tax return preparation guidance	35	N/A	**38**	5	5	15	1	100
Answering tax law questions	23	N/A	**59**	5	6	7	0	100
Getting refund information	16	N/A	**61**	9	9	4	2	100
Getting prior-year return information	28	N/A	**54**	3	7	4	4	100
Getting information about payments	27	N/A	**58**	5	5	4	1	100
Applying for a Taxpayer ID or an Employer ID Number	26	N/A	**49**	N/A	9	9	6	100

[9] Pacific Consulting Group, "Choice Shares for Special Segments," September 9, 2006.

Table 6. Base Case Choice Share Distributions for Low-Income Taxpayers[10]

Low Income (Less than 36K) Service Need	Service Channels								Total Choice Shares
	TAC Interactive	TAC Self-assist	Phone Interactive	Phone Self-assist	Web Interactive	Web Self-assist	Correspondence		
Getting a form or pub	18	8	**26**	15	8	24	2		100
Getting information about a notice received from the IRS	22	N/A	**64**	N/A	12	N/A	2		100
Getting tax return preparation guidance	26	N/A	**29**	15	11	19	1		100
Answering tax law questions	20	N/A	**41**	8	7	23	0		100
Getting refund information	19	N/A	**35**	22	9	12	4		100
Getting prior-year return information	17	N/A	**45**	7	9	19	2		100
Getting information about payments	22	N/A	**49**	9	7	13	1		100
Applying for a Taxpayer ID or an Employer ID Number	26	N/A	**39**	N/A	16	16	4		100

[10] Pacific Consulting Group, "Choice Shares for Special Segments," September 9, 2006.

Table 7. Base Case Choice Share Distributions for Taxpayers with Disabilities[11]

Disabled (Self-Reported) Service Need	Service Channels							Total Choice Shares
	TAC Interactive	TAC Self-assist	Phone Interactive	Phone Self-assist	Web Interactive	Web Self-assist	Correspondence	
Getting a form or pub	16	16	30	13	7	18	0	100
Getting information about a notice received from the IRS	26	N/A	44	N/A	26	N/A	4	100
Getting tax return preparation guidance	27	N/A	41	6	8	18	0	100
Answering tax law questions	26	N/A	43	15	8	8	0	100
Getting refund information	25	N/A	48	13	1	14	0	100
Getting prior-year return information	13	N/A	45	25	8	8	2	100
Getting information about payments	32	N/A	52	6	8	2	0	100
Applying for a Taxpayer ID or an Employer ID Number	21	N/A	38	N/A	13	27	2	100

[11] Pacific Consulting Group, "Choice Shares for Special Segments," September 9, 2006.

Table 8. Index of Importance for Attributes of the Service Event[12]

Index of importance for service need and attribute	Access time	Servicing time	Hours of availability	Percent first contact resolution
Getting a form or pub	21%	13%	15%	52%
Getting information about a notice received from the IRS	20%	17%	13%	50%
Getting tax return preparation guidance	17%	19%	12%	52%
Answering tax law questions	18%	17%	14%	52%
Getting refund information	19%	18%	11%	52%
Getting prior-year return information	18%	14%	12%	55%
Getting information about payments	19%	18%	12%	51%
Applying for a Taxpayer ID or an Employer ID Number	20%	15%	14%	51%

Though conjoint analysis can show preference distribution and suggest likely candidates for migration efforts, there are some drawbacks. First, conjoint analysis cannot tell us how people actually behave, only what they want. Therefore, it does not tell us what is currently happening in the service environment in terms of products or service delivery mechanisms. Put another way, people do not always act in the ways that maximize their own preferences. Second, conjoint is only valid for service channels, tasks, and performance levels tested. It cannot tell us how preference distribution will actually change if new products or services are introduced. Third, there are three main reasons why conjoint analysis reveals preferences but not actual behaviors:

- Lack of awareness: Some, and in some instances most, of the customers are not aware of all the available alternatives or the existing attribute levels of alternatives they have not used. By educating taxpayers about the choices they are making, conjoint creates an artificial level of service.

- Lack of access: Some portion of taxpayers simply do not have access to all the available service.

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[12] Pacific Consulting Group, "Choice Shares for Special Segments," September 9, 2006.

- Lack of willingness to change: Habit can be a very powerful force, driving many customers to stick with an alternative even after realizing they would prefer a different alternative.

It is useful to note that all three inhibitors of actual behavior—awareness, access, and habit—can be influenced by communications and other marketing strategies (e.g., monetary and nonmonetary incentives and disincentives) in ways that will move actual behaviors in the marketplace closer to the preferences revealed by conjoint analysis.

Hypothetical Cases Using TAB Phase 2 Conjoint Study

Choice share distributions under the base case show preference for service in the current service environment, under current service performance levels. In addition to showing current taxpayer affinity for service channels, conjoint analysis can show how changes in performance levels impact preference distribution. It is useful to point out that, although changed preference can shift service use between channels, it does not mean that behavior will change. Rather, running conjoint analysis with performance levels changed from the current state will show how much more (or less) taxpayers will want different service channels if performance characteristics change. These operational performance changes will only be reflected in the taxpayer service behaviors if barriers to behavioral change (i.e., access, awareness, and habit mentioned above) are mitigated.

Despite some limitations, the conjoint method offers a strong predictive capacity. After data are collected, the choice share data for each individual participant can be used to test hypothetical constructs in the service environment. For example, we can use the data to predict the influence of changing the values for first contact resolution on taxpayers' service channel preferences. By substituting values from within the range of possible choices for first contact resolution and running these new values against the impression of preference behaviors created for each participant, we can figure out how taxpayers with full information would behave.

TAB 2 conjoint data were used to compare two hypothetical scenarios against the base case. All three scenarios consider all but one service task—tax return preparation guidance. Table 9 presents the performance attributes for the service channels included in the scenarios, with the grey cells highlighting the changed attribute values for the hypothetical scenarios. Under the "Hyp. A" scenario, all base case values are maintained except for first contact resolution at TACs. Under the "Hyp. B" scenario, all base case values are maintained except for first contact resolution using the Internet.

**Table 9. Performance Attributes for Comparison of Three Scenarios[13]**

Attributes	TAC, Assisted		Toll-Free, Assisted	Toll-Free, Automated	Web site, Assisted		Web site, Self-assist		Mail
Access Time	20		5	5	3		15		N/A
Servicing Time	15		5	5	10		5		30 days
Hours of Availability	Business Hours		Business and Evenings	24/7	Business and Evenings		24/7		N/A
Percent First Contact Resolution	95	*Hyp. A* 65	85	85	85	*Hyp. B* 95	85	*Hyp. B* 95	75

Figure 2 shows the changes in choice share distribution resulting from changes in current service performance levels to the hypothetical sets of performance levels. Under the Hyp. A example, when the probability of resolution at a TAC declines from 95 percent to 65 percent, taxpayer preference moves to alternate service channels. The second hypothetical scenario, Hyp. B, also suggests likely changes in the service environment. If all of the base case values remain constant, except for an increase in first contact resolution for self-assisted and interactive Web site service, there are substantial shifts in the service channels taxpayers prefer. Note that, for any single change, either reducing resolution at the TACs or increasing resolution through the Web site, all of taxpayer preferences shift.

The choice share distributions presented in Figure 2 only show how people would behave if they were given universal knowledge of service attributes and if they had access to service options that may not currently exist. Though these factors are often considered limitations, in the context of tax administrations, such constraints also offer opportunity. Each change in choice share suggests an opportunity to test, either through operational adjustments, trial programs, or in an experimental setting, methods of better meeting taxpayer service preferences.

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[13] Pacific Consulting Group, "Taxpayer Assistance Blueprint, Conjoint II Briefing," September 2006, pp.18, 20, 23.

Figure 2. Choice Share Distributions Under Three Different Attribute Performance Scenarios[14]
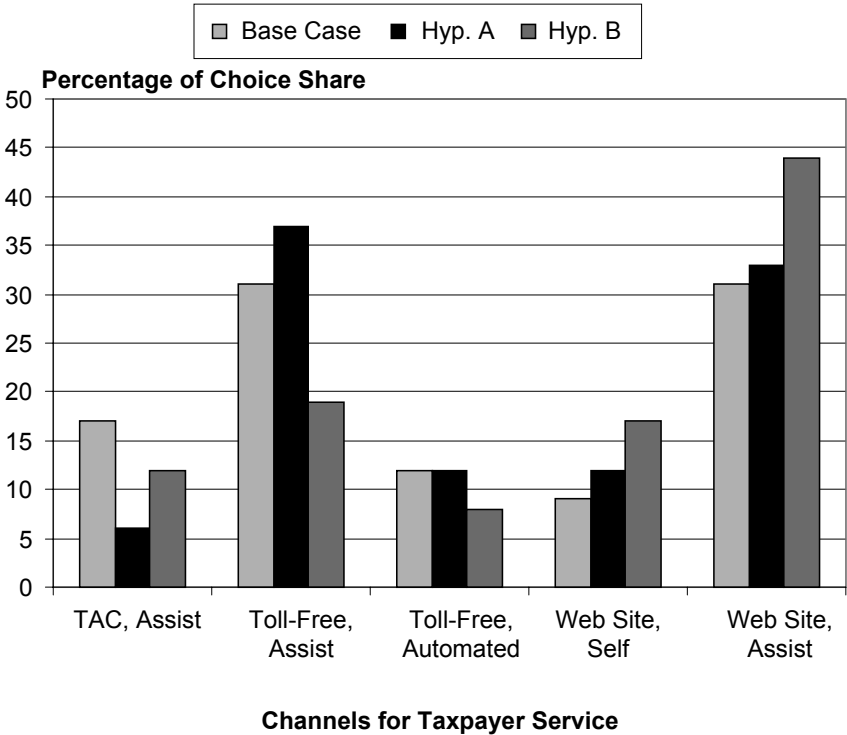
A Few Conclusions from TAB Phase 2 Conjoint

First, the results of the conjoint work conducted for the TAB support the decision to segment the taxpaying population into generations. The decision to use generations to understand service channels is substantiated by the concept of technological momentum. Technological momentum is a theory that relates the influence of widely held cultural experiences and expectations to technological innovation and adoption.[15] This concept, maintained by historians and sociologists of technology, suggests that technologies enjoy substantial inertia within cultures, even as they may become functionally outdated. In this instance, the relevant technologies are the communication methods that facilitate taxpayer service.

[14] Pacific Consulting Group, "Taxpayer Assistance Blueprint, Conjoint II Briefing," September 2006, pp.18, 20, 23.

[15] Hughes,Thomas (1994), "Technological Momentum," *Does Technology Drive History*, Merritt Roe Smith and Leo Marx, editors, MIT Press.

The TAB Phase 2 conjoint data suggest that older communication technologies remain popular because this technology framed behavior for many years, long before the emergence of competing communication systems. Clearly, the context of experience with communication technology strongly influences choice for service channel use.

Persistent affinity for the telephone, even above other forms of human interaction such as "live chat" mediated through the Internet, suggests that telephones will remain relevant for many users. Context, and the residual importance of context on groups, are the basis for generational theory. Clearly, those generations with substantial experience using telephone technology are more comfortable communicating in this medium. The manner with which affinity for telephone use increases with age suggests that experience with a telephone helps determine preference and that this preference is less likely to be shifted.

Second, the grip of existing technological practice on generations suggests that new ways of communication—new service channels—might best be grown into. Rather than attempt to convert the unwilling, the IRS might do well to try and develop new ways of serving taxpayers that focus on younger demographics.

Third, the conjoint results indicate that taxpayers value certainty above convenience. The heavy emphasis on first contact resolution suggests that taxpayers are less interested in fully grasping the complexities of their tax circumstance than in completing their transactions. Whereas shopping for consumer electronics might entail mastery of a vast array of complex technical concepts, taxpayers may be disinterested in similar mastery of their portions of the tax code. Quick, low-risk completion of the tax task seems to be the primary objective for most taxpayers.

Finally, creating any change in service channel use by applying the predictive capacities of the conjoint method hinges on effective communication. Conjoint method can predict how taxpayer affinity for service may change relative to changes in the service environment. However, taxpayers must be made aware of the changes to elements of the service experience before they can be expected to change behaviors. In the same way that the conjoint method creates understanding of the service experience before asking taxpayers to choose, real operational changes must be accompanied by information campaigns before changes in choice behavior can be expected. If the attributes most valued by taxpayers are enhanced, and taxpayer decisions can include knowledge of these changed attributes, then behavior can be expected to match preferences for service developed by the conjoint study.