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An investigation of the consistency of financial advice offered by web-based sources

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Abstract

Individuals increasingly rely on web-based sources for financial advice. But does the advice you get depend on the site you visit? Relying on standardized input data from three different family scenarios, we observe that the variation in advice across web-sites increases with client input complexity. Web advice dispersion also differs in magnitude across financial planning domains such as insurance, investments, retirement, income tax, and estate tax. 'Live advisor' financial solutions, however, are not always more consistent than those available on the web. Human advice varies less with client complexity, but in certain planning domains web advice has lower dispersion. The results suggest that client characteristics and planning domains matter in the development of efficient distribution mechanisms for financial advice.

Keywords: Financial advice; Web-based sources; Advice dispersion

1. Introduction

The world-wide-web has provided individuals with unprecedented access to financial advice. However, much remains to be learned about the advice that individuals receive from web-based sources. Early academic research, such as Grinder (1997), began this learning process by organizing the various web resources by financial function. Subsequently, financial magazine studies such as Rose and Daragahi (1999) have evaluated or ranked financial web-sites. However, virtually all of the magazine studies rely on hard-to-quantify measures such as convenience or user friendliness. Academic research on the economics of the web, like Brown and Goolsbee (2000), has focused on issues such as the relationship between web access and the prices for financial products/services. Other academics, like Rajgopal, Venkatachalam,

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and Kotha (2000) have examined whether stock market performance of web firms relates to the "experience" that their customers have on the firm's site.

While financial magazine articles that rank web-site studies are interesting, they are not very scientific. On the other hand, the academic research on web pricing impacts is rigorous, but it has addressed issues other than those related to consistency of advice. An underlying assumption is that the consistency of the advice available on the web is constant in cross section and relative to that offered by live advisors. Perhaps that assumption is reasonable, but to our knowledge, there has been no research directly on point. This paper fills a gap in the literature by investigating the consistency of financial advice provided by web-based sources.

Does an individual who visits multiple web-sites tend to get the same (or similar) financial advice from each? How does web advice compare to 'live' advice? Understanding these issues is important to both individual consumers and to the financial services industry. Societal and governmental trends point toward the continued privatization of financial decisions and the need for comprehensive personal financial planning. Models for the delivery of planning advice to middle market consumers generally involve both a human and a web component (Marer, 2000; Longo, 1999). Although some consumers may resist using the web for financial dealings, Mantel (2000) finds that consumers will adopt advanced technology when it is in their interest to do so. Reflecting the views of many financial industry observers, Barreto (2000) argues that online advice and guidance tools for consumers will continue to "proliferate rapidly."

Since the web is playing an increasing role in the delivery of financial advice, more needs to be understood about the advice available through that medium. To that end we examine how financial advice varies by consumer. For example, low net worth consumers might get more consistent advice using the web than high net worth consumers do. We also test whether web sources offer more consistent advice on some types of questions. The web might offer very consistent advice on the amount of life insurance that an individual needs, for example. On the other hand, web advice could vary widely across sites if an individual sought to obtain an optimal asset allocation for her investment portfolio.

The rest of this paper is organized as follows: Section 2 introduces the data and methods. Section 3 provides the results and discussion. Section 4 offers a summary and conclusions.

2. Data

2.1. Case and financial issue data

We begin with the development of client financial and personal profiles. The goal is to test scenarios that represent clients with different levels of wealth and financial complexity. Mindful of the potential for bias involved with creating our own scenarios to test, we began a search for independent input scenarios. We are very grateful to Dalton Publications for allowing us to use three of the cases in their textbook, *Cases and Applications*, 2nd Edition (Dalton & Dalton, 1999). Each of the cases has approximately ten pages of detailed facts and financial exhibits. Summary information about the cases appears below.

2.1.1. Brady case

The Brady's are both 37 years old. Mike is a bank vice president who earns $70,000 annually. Carol is a full-time homemaker. The Brady's have two children, ages six and three. Carol is expecting their third child. The Brady's are homeowners (with mortgage) and have a current net worth of approximately $200,000.

2.1.2. Smith case

Tom Smith is a 47 year-old executive with a closely-held corporation. Tom's salary is $100,000 per year. Sue Smith is 50 years old; she currently works as an administrative assistant earning $24,000 annually. Sue has two children from her first marriage. They are aged 16 and 12. Tom and Sue have a two-year-old daughter. The Smith's are homeowners (with mortgage) and have a current net worth of approximately $550,000.

2.1.3. Remington case

Wallace and Kitty Remington are both age 65. Wallace is a partner in a securities firm. Wallace plans to sell his interest in the firm in the near future and work as a consultant. Kitty is a socially active volunteer. The couple has five children, ranging in age from 18 to 39, and 14 grandchildren. The Remington's have a primary residence and two vacation homes (all with mortgages). Their net worth is approximately $15,000,000.

We then develop six financial questions that cover a wide range of financial advice. The areas roughly correspond to the knowledge comprised under comprehensive personal financial planning. The questions are as follows:

Retirement: How much ***additional*** savings (lump sum) in dollars will each couple need at retirement to fund their retirement goals?

Life Insurance: How much ***additional*** life insurance protection (lump sum) in dollars does the higher wage earner in each family need?

Disability Insurance: How much ***additional*** long-term disability income insurance protection in dollars (per month) does the higher wage earner need?

Investments (*Asset Allocation*)*:* What should each couple's asset allocation be for their investment portfolio? Answer in ***percentage terms that sum to 100*** and limit the options to the major asset classes [U.S. stocks, international stocks, bonds, and cash].

Income Tax: How great is the ***after-tax*** advantage (express disadvantage as a negative number) in dollars ***at retirement*** if the higher wage earner converts his Traditional IRA to a Roth IRA now?

Estate Tax: How much ***federal estate tax*** would be due if the higher wage earner died today?

2.2. Web financial advice sources

We next obtain a sample of web-sites to address each of the questions. Our goal is to simulate a process that a person would use to find web-based financial advice. We begin by selecting an independent search engine evaluator, searchenginewatch.com. We chose searchenginewatch.com based on its established efforts both to evaluate search engines and

educate the public about search engine use. The site lists the top 24 web search engines based on size, reputation, and dependability of results. Among the engines listed there are both crawlers and directories.

Crawlers involve programs that actually dial up to millions of sites a day, scan their information, and log it for reference. An example is WebCrawler.com. Directories are human-compiled lists or indexes of the web. Sites are listed according to the description produced by various individuals. This could be someone working at the search engine, an independent reviewer, or the consensus of mass input. An example is Yahoo.com. Since there are so many sites, and also very many search engines, Metacrawlers have been created. These are basically search engines of search engines. They allow a user to search the results of several search engines simultaneously from one web-site.

Using the list of the 24 best search engines as a guide, we visited 13 different Metacrawlers recommended by searchenginewatch.com to determine which used the largest number of the target search engines. We selected webinfosearch.com, which utilized 23 out of the top 24 search engines. We then began our search by creating a phrase or word group that generally described the search topic because search engines generally search for individual words or phrases, and not complete sentences. For example, the retirement question search phrase was "Retirement Planning Needs Calculator" as opposed to "How much do I need to meet my retirement goals?" After inputting the search phrase, we obtain a list of sites for each question. We were generally successful in finding the site if the initial search led to an expired link.

Appendix A shows the sites identified for each question. Some of the sites in the study are less well known and some very recognizable sites are not included. This was due to the use of an independent search methodology, and the fact that many of the more popular sites contain a myriad of financial planning information, but they do not contain tools and/or calculators that could be used in our study. Much of the information provided on the web offers instruction or opinion but does not produce a definitive answer.

Upon further investigation of the sites themselves, we also learn when a site is redundant or does not address the form of question we asked. The former occurs when the same underlying calculator powers two sites. In this case, we eliminated the second and any subsequent sites from the analysis. The latter situation, not answering the question we asked, was most common (eight instances) in the retirement question. Some sites computed the annual additional savings for retirement, as opposed to the additional lump sum necessary at retirement. If the site did not directly address the question we ask, we dropped it from the analysis.

2.3. Live advisor data

For the "live advisor" portion of the study, a sample of graduate students in personal financial planning at a large state university in the Southeastern United States were asked to respond to the same questions as developed above after having been given the identical client data. The students are all members of the capstone (final) class in a CFP™ Board Registered Masters of Science Program, ensuring an even level of preparation.

3. Results

3.1. Web advice

Table 1 provides a summary of the web advice by family scenario. At this stage, there are several observations. The range of advice, defined as the high answer minus the low answer, is quite large in all three family scenarios. For the Brady retirement, the mean estimate of additional funds needed (at retirement) is about $1.4M, while the range is nearly $2.8M. Recommended exposure to U.S. equities for the Brady family investment portfolio averages about 57.6%, but the range is 60%. Advice dispersion tends to increase as we move from the

Table 1
Summary of web results by family scenario

Area (*N*)	Mean	Range (high-low)	Standard deviation
A. Brady			
Retirement $ (23)	1400.6	2797.4	770.0
Life insurance $ (44)	1088.4	2895.9	480.2
Disability insurance $ (9)	2.3	3.3	1.0
Investments: asset allocation % (11)			
US equity	57.6	60.0	18.7
International equity	10.7	23.1	9.3
Bonds	23.0	40.0	10.4
Cash	8.7	21.0	7.9
Roth IRA advantage $ (19)	52.9	65.2	17.7
Estate tax $ (21)	6.4	134.5	29.4
B. Smith			
Retirement $ (23)	1852.9	4996.2	1073.0
Life insurance $ (44)	646.0	1185.3	320.4
Disability insurance $ (9)	0.7	5.8	1.9
Investments: asset allocation % (11)			
US equity	60.4	50.0	16.5
International equity	12.0	29.0	10.6
Bonds	19.1	23.6	7.3
Cash	8.5	30.0	10.1
Roth IRA advantage $ (19)	11.0	19.1	5.0
Estate tax $ (21)	17.7	162.8	45.1
C. Remington			
Investments: asset allocation % (11)			
US equity	32.6	60.0	19.1
International equity	7.4	18.0	6.8
Bonds	33.2	55.0	17.9
Cash	26.8	100.0	30.7
Estate tax $ (21)	3982.3	5389.7	1807.2

This table shows the results from web sources for six different personal financial planning questions. The panels represent the Brady, Smith, and Remington scenarios, respectively. Dollar responses are in thousands, investment allocations are in percentages. *N* is the number of web-sites for each particular question.

Table 2
Dispersion of web results by family input scenario

Area (*N*)	Coefficient of variation (standardized coefficient)		
	Brady	Smith	Remington
Retirement (23)	0.55 (1.00)	0.58 (1.05)	
Life insurance (44)	0.44 (1.00)	0.50 (1.14)	
Disability insurance (9)	0.43 (1.00)	2.71 (6.30)	
Investments: (asset allocation) (11)			
US equity	0.32 (1.19)	0.27 (1.00)	0.58 (2.15)
International equity	0.87 (1.00)	0.88 (1.01)	0.92 (1.06)
Bonds	0.45 (1.18)	0.38 (1.00)	0.54 (1.42)
Cash	0.91 (1.00)	1.18 (1.30)	1.14 (1.25)
Total portfolio	0.64 (1.00)	0.68 (1.06)	0.80 (1.25)
Roth IRA advantage (19)	0.33 (1.00)	0.45 (1.36)	
Estate tax (21)	4.59 (10.20)	2.54 (5.64)	0.45 (1.00)

This table shows the coefficient of variation (CV) for the web results by question for each of the three family scenarios. The standardized coefficient is shown in parenthesis as the value divided by the minimum for each question. The three families have increasing new worth and complexity moving from Brady through Remington. In the investment (asset allocation) question, the total portfolio CV is an equally weighted average of its asset component CVs. *N* is the number of web-sites per question.

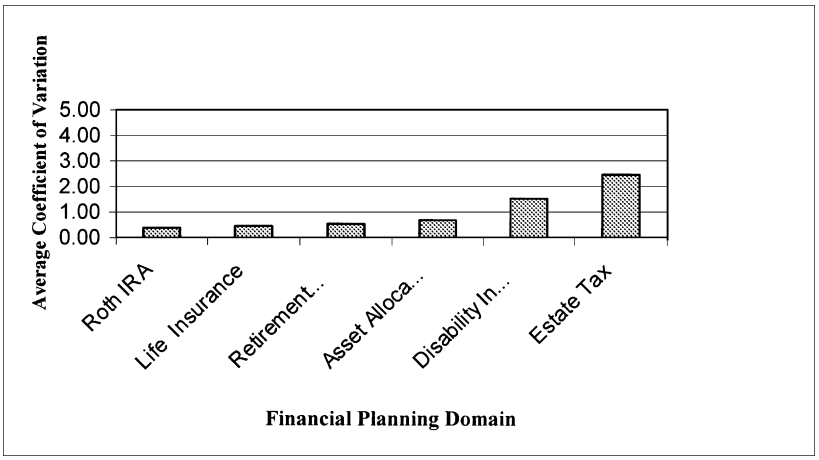
Brady to the other family scenarios. For example, the range on the Smith retirement question is nearly $5M.

Table 2 displays the coefficient of variation (CV) for each of the financial planning questions. The CV deflates the standard deviation by the mean in order to allow a comparison of variation when responses have different mean values. Below each CV on the table is the standardized CV. We compute the standardized CV by dividing by the smallest CV for that question. Standardized CV thus has a minimum value of one. The results generally show that the smallest standardized CV is in the Brady case. Brady is the case where the couple has the lowest net worth and simplest financial scenario. For a given question, moving from Brady to Smith to Remington usually results in higher CVs. Most standardized CVs are roughly 10–20% higher across cases. In the case of life insurance, for example, the Smith CV is 14% higher than the Brady CV.

This result supports the assertion that the web handles simpler situations better than complex ones. Advice is more of a commodity when a situation is less complex. But the interesting feature of Table 2 is that it permits an evaluation of how greatly dispersion varies across input scenarios. In many cases, the standardized CV for Smith is only slightly different from that of Brady. The Smith's are a couple with over a half-million dollars in net worth. One inference from this result is that web advice consistency does not deteriorate rapidly over the range from $200K to $550K net worth.

Having made this inference, however, two points are worthy of mention. We use CV as a measure of consistency, and this measure might not capture the ''seriousness'' of the variation the way a utility-based metric would. Variance is more important to lower net worth customers. CV does deflate variance by mean, however, it is a scaled measure.

Table 3
Ranking of advice by financial planning domain



This table shows by area the average of the coefficient of variation for each of the questions asked. The average is taken over the family scenarios.

Second, our segmentation of customers is based solely on net worth, which is measurable, but an imperfect proxy for client complexity. Also we cannot capture other interesting segmentation possibilities among clients, such as pyschographic. Millionaires who are highly cost conscious, for example, might like to rely on the web extensively for financial advice.

The estate tax results appear to be an anomaly in Table 2. In this case, the Brady results have the highest CV. There is significant disagreement among the web computational sources regarding whether any estate tax would be due at the death of either Mike Brady or Tom Smith. Several estate tax calculators provide a zero estimate for tax due, but some do not consider the unlimited marital deduction, which may explain this result. Unlike the Remington case, where the mean estate tax estimate is about $3.98M, the average estimates in Brady and Smith are $6.4 thousand, and $17.7 thousand, respectively. The resulting CVs in these cases are quite large.

Table 3 illustrates the average CV by area, giving each family scenario result equal weight. This result provides an assessment of the dispersion of advice by area. The table shows that the web offers the most consistent advice on the Roth IRA conversion and life insurance estimate questions. On the other hand, disability insurance estimates and estate tax computations exhibit the highest average CVs.

3.2. Independent sites

The percentage of redundant sites (those that are powered by the same underlying calculator) varies across financial planning domain. In some areas, such as the disability

insurance and the Roth conversion estimate, redundancy is quite high. The same calculator, for example, powers about 60% of the disability sites we located, and nearly 50% of the Roth conversion sites. Redundancy in the asset allocation and retirement sites was much lower, less than 10%. We found no redundancy at all in the life insurance or estate tax sites.

Redundancy occurs for several reasons. On the Roth conversion, for example, *Calcbuilder* constructed the calculator used in 12 out of the 31 sites. At the bottom of each calculator, *Calcbuilder* places a tag line, where they take credit for creating the calculator. Also, site visitors can notice that the address line starts out www.calcbuilder.com when the link is selected. For example, if a person selects the link to the Roth calculator on the Kiplinger sites, she will be taken to the *Calcbuilder* site (as opposed to another page on the Kiplinger site).

Calcbuilder sells calculators in order to make a profit. Sites that purchase the calculator get to place their name at the top of the *Calcbuilder*-created site in order to personalize it, but the actual calculators provide identical answers across sites. Since the various sites are paying for the calculator, they usually do not mention that their calculator is actually not on their site.

For disability insurance, 13 out of 25 sites were redundant in that they were merely links to the identical site (www.life-line.org). In contrast to the *Calcbuilder* situation, most of the sites stated up-front that they were merely providing a link to a disability insurance calculator at another site. Even if this was not stated, once the calculator link was selected it returned to the familiar web page at life-line.com.

A few sites were redundant in that they were located at www.member.cunamutual.com. This is a site from a mutual association of about 200 credit unions around the country. Since many credit unions are small and individually cannot afford a powerful web presence, they have banded together. The central site provides several tools that can be incorporated into the relatively simple web-sites used by its members. For example, a site for a small credit union may be a simple single page. On that site, the credit union has a link that states something like ‘‘click here to determine your disability insurance needs.’’ When the link is clicked, the user is taken to the Disability Insurance calculator located on the association’s web page.

3.3. Web versus live advice

Table 4 provides a summary of the advice provided by the live advisors. Notions that live advisors provide extraordinary precision can be quickly dispelled. The range of advice is quite large. To examine how web and live advice compare, we perform two analyses. First, we compute how web versus live advice dispersion is related to family scenario. In the Brady case, the average ratio of CV (web) to CV (live advisor) is less than one (about 82%). However, in the Smith case, this ratio climbs to about 112%.

Increasing variation in web advice relative to live advice is linked to greater client complexity (Brady to Smith). As the situation becomes more complex, advice becomes less of a commodity and less consistency across web sources is observed. However, the ratios in

Table 4
Summary of live advisor results by family scenario

Area	Mean	Range (high-low)	Standard deviation
A. Brady			
Retirement $	1262.3	2247.4	706.0
Life insurance $	838.1	1196.4	375.6
Disability insurance $	1.8	2.7	1.1
Investments: asset allocation %			
US equity	65.5	30.0	9.3
International equity	13.0	20.0	5.9
Bonds	12.5	25.0	8.2
Cash	8.0	10.0	3.5
Roth IRA advantage $	36.0	129.1	45.1
Estate tax $	0.0	0.0	0.0
B. Smith			
Retirement $	1564.1	2445.1	932.3
Life insurance $	768.1	1700.0	487.2
Disability insurance $	1.2	5.0	1.9
Investments: asset allocation %			
US equity	57.5	30.0	10.1
International equity	13.0	20.0	5.9
Bonds	19.5	35.0	10.4
Cash	9.0	15.0	4.6
Roth IRA advantage $	11.2	28.0	12.1
Estate tax $	27.4	273.9	86.6
C. Remington			
Investments: asset allocation %			
US equity	40.0	35.0	11.8
International equity	9.5	15.0	4.4
Bonds	35.0	30.0	11.1
Cash	15.5	30.0	8.3
Estate tax $	2115.7	7856.4	2563.2

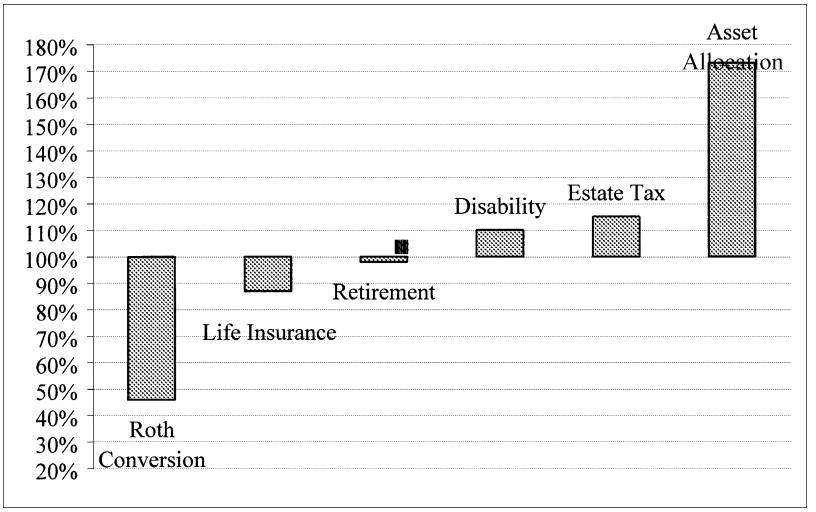
This table shows the results from ten live advisor responses for six different personal financial planning questions. The panels represent the Brady, Smith, and Remington scenarios, respectively. Dollar responses are in thousands and investment allocations are in percentages.

both Brady and Smith are both close to one, suggesting that web advice is a reasonable proxy for live advice over this range of client.

Table 5 shows how web and live advice dispersion compares across domains. Web advice is relatively more consistent in the Roth IRA conversion and life insurance need questions. Asset allocation, disability insurance, and estate tax estimation favor live advisors. Retirement needs estimation is about equal in variation between live and web advice.

With the comparison between web and live advice now complete, it is interesting to discuss why there is variance in financial advice. For the web, user ‘‘error’’ could be a

Table 5
Comparison of web vs. live advice dispersion by financial planning area



This table shows the ratio by financial planning area of the coefficient of variation (CV). The ratio is CV (web advice) divided by CV (liver advice). The ratios give equal weight across family scenarios in their construction to each of the CVs for the financial domain questions in insurance (life and disability), Roth IRA, retirement, asset allocation, and estate tax (excluding the Brady case).

reason. Complicated navigational demands or technical analysis systems on financial websites can overwhelm users. This issue is discussed in the ABA Banking Journal (Anonymous, 2000).

Our study controls for entry issues quite carefully, yet, the variation in web advice remains. One reason is that web-based algorithms rely on different assumptions and methods to achieve answers. Some of these algorithmic differences across sites would matter to most educated observers. For example, consider an estate-tax calculator that does not ask if the subject is currently married. Other differences might be less objective—some retirement calculator sites consider postretirement inflation, while others do not.

For live advice, one reason for potential variance is clear. Human beings make mistakes. On the live advisor side of this study, student participants faced a survey-type instrument. Student participants could have been confused about the questions and unable to probe the ''live client'' for more information. Several students remarked that it was difficult to get a feel for the client from written information alone. Or, students could have lacked motivation to thoroughly prepare the answers.

Human financial advisors also have their ''own ideas.'' Part of what distinguishes live advisors from machines is that they give the client something unique. Asset allocation advice comes to mind as an area where advisors might likely deviate from the standard gospel (for example, ''100 minus your age'' in equities). Interestingly, the relatively tight variation in the asset allocation responses of the live advisors in this study might be due to their status as graduating masters students. They have all recently had several finance courses that have reinforced the ''gospel'' of asset allocation.

Live advisors might also exhibit variation in advice because of efforts to promote certain products or services. In our survey study, perhaps this bias would be low relative to actual practice. The variation in live advice in this study could be biased downward to the extent that a promotion mentality pervades financial advice "in the real world."

3.4. Implications for consumers

The findings have several consumer implications. The first is that the advice on the web is not monolithic. It has variance, and that variation differs across client complexity and type of question. However, live advice has variance too. The consistency of the advice that live advisors provide is less sensitive to client complexity, but more variant in some financial planning domains.

On the whole, web advice stands up quite well in terms of consistency for middle market consumers. In the Brady case, for example, the average CV in web advice across domains is actually lower (82%) than that of the live advisors. The ratio climbs in the Smith case, but at 112% it is still not very different from unity. The results suggest that the web can be a useful tool to obtain advice, as well as education, for a wide range of consumers. Consumers must be, however, mindful of the appearance of independence across web-sites. In certain domains, a single web calculator dominates.

3.5. Implications for the financial planning industry

This paper's results can contribute to the ongoing discussion about the design of a financial planning delivery capability that integrates web and live advice. A very brief search of the professional literature reveals numerous efforts by financial service providers to build this type of capability. Two examples include Jacobius (2000), who discusses the joint effort by Mellon and Mpower; and Trombly (2000), who examines the venture between Etrade and Ernst & Young.

This paper examines two key dimensions that have design impact. The first is client net worth. The results suggest that the web can do a very reasonable job providing advice to middle market clients such as the Brady's, who have a net worth of around $200K. Since having clients with lower levels of net worth (lower levels of investment assets) generally means that a planner must have more clients, the ability to use web-based scale is critical to a profitable operation. Our results lend support to using the web as part of the delivery mechanism for financial advice to the middle market. Consistent with Jovin (1999), the web offers live planners a complementary advice tool, as well as the ability to educate and communicate with clients.

Bowen (1999) portrays the web as more of a threat to live planners. Taken in that light, our results show that, even for clients such as the Smith's (net worth over $500,000), the ratio of variation in web to live advice is very close. If live advisors are not adding quality relative to the web, their business could be threatened. The Remington findings, however, reinforce that the high net worth client will typically be served best by customized advice. As Prince and File (2000) argue, these "private wealth" clients have idiosyncratic issues that

demand individual attention. In these cases, the web should be more of a communication tool than an actual advice source.

Regarding financial planning domains, Table 5 shows that, relative to live advice, the web does the best job on Roth conversion and life insurance need questions. Based on these results, either the tax or insurance area might be a good candidate for web interface with clients. Interestingly, King (2000) discusses how Fidelity has recently launched its own insurance quoting site. Retirement planning variation is nearly equal across family scenarios, suggesting that retirement calculators may offer a reasonable web interface, for middle market clients in particular. Disability estimates are also close in variation.

Live advisors tend to be more consistent with estate tax estimates. However, transfer tax exemption increases could move estate tax issues away from the middle market. In the ''private wealth management'' situations, like the Remington's, where estate taxes will remain a significant issue, live advice clearly continues to be warranted.

Portfolio allocation is perhaps the most interesting of the domain area findings. A first impression of the issue may be that the web would do a consistent job with this task. Live advisors may tend to have particular types of investment bias that the web would not have. The findings, however, suggest the opposite. Live advice on portfolio allocation is much more consistent than that available on the web. The implication is that live advisors should pay more attention to this facet of advice for their clients, even at the middle market level.

4. Conclusion

Our goal in undertaking this research is to provide an assessment of the consistency of financial advice being offered by web-base sources. Relying on standardized inputs from several client profiles, we observe that web advice increases in dispersion as client inputs become more complex. Live advice is less sensitive to client complexity. Across financial planning domains, several additional patterns emerge. Web advice is more consistent on questions related to life insurance needs, and tax benefits (from a Roth conversion) than live advice. Live advice has lower dispersion on estate tax and asset allocation questions.

Our research should benefit the individual by systemically examining the web as an outlet for financial advice. By objectively assessing the strengths and weaknesses of web advice relative to ''live'' advice, this research offers consumers of financial goods and services insight into search strategies. In sum, our findings suggest that for middle market consumers, the web is a reasonable outlet for financial advice.

The research also has implications for financial service providers that are interested in designing the linkages between their web and live advisor resources. As such, the research will impact the design of the personal financial planning function (and hence the financial services industry). Our results suggest that web resources can do an efficient job in some areas, such as insurance and income tax. Other areas, such as estate tax and asset allocation, should continue to have a significant amount of live advisor input.

Appendix A

List of web-sites by question

Retirement			
fincalc.com/afretin.htm	transamerica.com	farmersinsurance.com	home.wingspanbank.com
fidelity.com	schwab.com	kiplinger.com	dionmoneymanagement.com
nefin.com	nbfunds.com	dcihome.com	banksite.com
americanfunds.com	nasd.com	onmoney.com	retirement.russell.com
mostchoice.com	newyorklife.com	usnews.com	founders.com
columbiafunds.com	estrong.com	waddell.com	cigna.com
olac.com	putnaminv.com	womensfinance.com	americanexpress.com
johnhancock.com	troweprice.com	valic.com	oppenheimerfunds.com
erekafunds.com			
Life insurance			
finaid.com	quoteadvantage.com	cnalife.com	tiaa-creff.org
bygpub.com	genam.com	quotekey.com	amterm.com
accuterm.com	freelifequote.com	insweb.com	economylifeinsurance.com
allquotesinsurance.com	lstquote.com	quotenavigator.com	accquote.com
cwinsurance.com	newyorklife.com	life-line.org	moneycentral.msn.com
metlife.com	garden-state.com	intelliquote.com	lifenet.com
kwot.net	insurehoppe.com	life-insurance-term-insurance.com	
justaquote.com	sunlife-usa.com	hutchinsoncreditunion.com	
ter-life-insurance-4u.com	termonly.com	termlifepros.com	reliaquote.com
pgafinancial.com	ntktermlifeinsurance.com	budgetlife.com	byfsco.com
nams.com	iquote.com	spectruminsurancegroup.com	
phillyquotes.com	proterm.totalsw.com	westernreserve.com	
Disability insurance			
life-line-org	northwesternmutual.com	nefn.com	macatawaagency.com
smartmoney.com	4bestquotes.com tcu.edu	gaudreaugroup.com	moneyadvisor.com
cyberconnect.com	moneycafe.com	moneyclub.com	venezia-insure.com
hfgroup.com	firstcommunity.com	planplus.com	andrewsfcu.org
ss-cu.-org	sunfcu.org	fpa.net	smith-fought.com
stockzoo.com	4disabilityinsurancequotes.com	member.cunamutual.com	financialserv.com
Investments: asset allocation			
wingspanbank.com	johnhancock.com	valic.com	finportfolio.com
fidelity.com	schwab.com	gefn.com	smartmoney.com
moneycentral.msn.com	estrong.com	oakwoodcapital.com	transamerica.com
Income tax: Roth conversion			
vanguard.com	algerfunds.com	firstamericanbank.com	calcbuilder.com
austin360.com	roth.upi-net.com	fidelity.com	calvertgroup.com
gocarolinas.com	wzzk1047.com	realpittsburgh.com	ocnow.com
news-journal.com	gjsentinel.com	nbfunds.com	sandiegoinsider.com
smartmoney.com	msco-cpa.com	estrong.com	ccbonline.com
statefarm.com	prudential.com	wellsfargo.com	kiplinger.com
cnnfn.com	quicken.com	moneycentral.com	schwab.com
mutuals.com	4anything.com	mony.com	
Estate tax			
banksite.com	thehartford.com	tamu.edu	willsandprobate.com
lifenet.com	rowbotham.com	statefarm.com	estateweb.com
fidelity.com	transamerica.com	agedwards.com	sunlife-usa.com
smartmoney.com	estateplanning.com	riddleandbrazil.com	capitalplaninc.com
marcweissman.com	florida-probate.com	newyorklife.com	mikecollins.com
florida-trust			

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