



# Comparing Internet and Telephone Research

Deft Research, May 2007



# Introduction

Deft Research recently conducted a research project uniquely featuring parallel data collection using Internet surveys and telephone interviews. Using the Internet, researchers can obtain information from a large number of respondents quickly and inexpensively, however we don't know whether Internet research contains biases and whether whatever biases are found are predictable from one project to the next. We are not aware of another project that used both telephone and Internet in side by side research about senior citizen health insurance. This is a unique chance for comparison.

The Internet was used as a means to encourage participation by offering an alternative to telephone interviews. We did not use the Internet because we needed to save money.

## The Project

The research was commissioned for private use by a client. For this comparison our client will remain unidentified.

The management questions that needed support centered on what should be done differently to attract a higher percent of retirees and aging-in seniors to a voluntary enrollment health plan provided by an employer.

The sampling design called for a sample of 365 persons aged 63 and 64, representing age-ins, and a sample of 365 aged

65 through 67 representing persons whose first decision about Medicare was recent. The design called for 177 responses from each group to be obtained from the Internet survey and 188 from telephone interviews. Using prior experience as a guide, we estimated that 15% of those invited would actually participate in the Internet survey.

The sampling frame was a complete list of retirees for which we had both addresses and phone numbers. Telephone and Internet samples were randomly selected from our sampling frame. To encourage participation, the client mailed announcement letters to persons selected to be part of the telephone sample, and invitation letters to those selected to be part of the Internet sample; the invitations included a web address and password for the respondents to use.

We obtained fewer Internet responses than we anticipated – 197 compared to 354 expected. The gap was filled by doing more telephone interviews than planned. The budget was not significantly affected by these changes. The final results were 197 Internet completes, 546 telephone completes, 743 completes in all.

Telephone interviews average 16.1 minutes in length. Internet surveys were not timed.

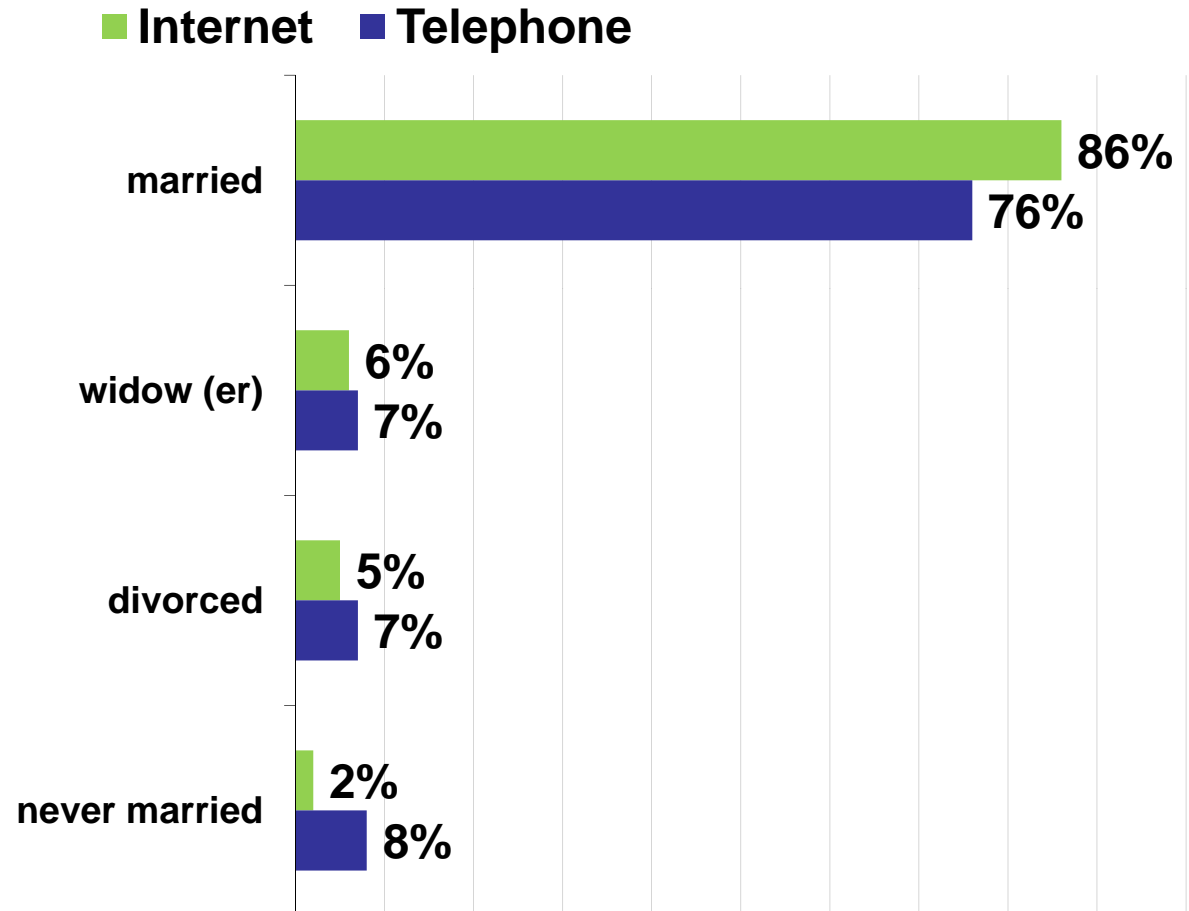


# Marital Status

Internet, n = 197; Telephone, n = 546

Statistically significant result,  $p < 0.05$

More Internet respondents are married. More telephone respondents were not married.

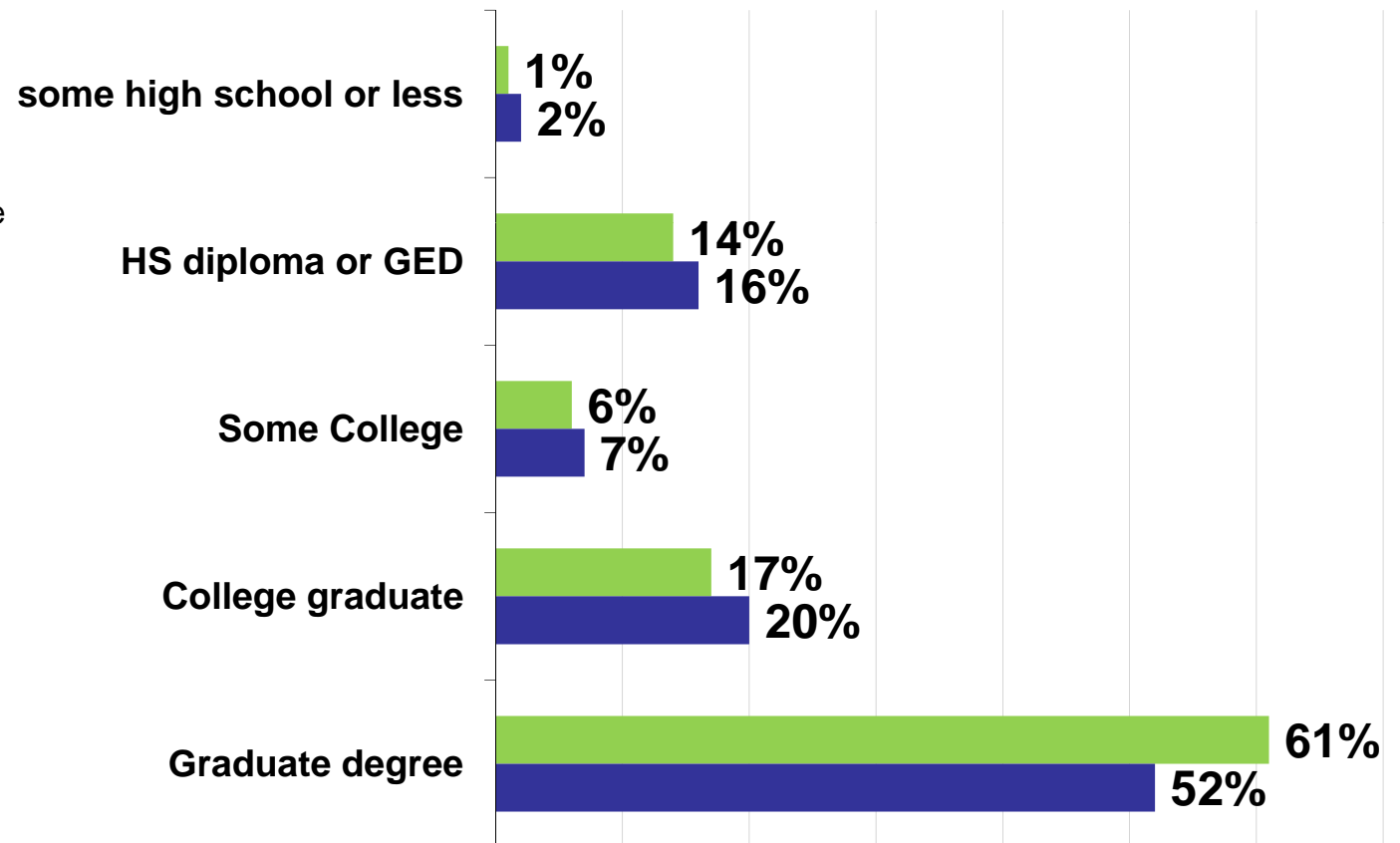




# Educational Achievement

Internet, n = 197; Telephone, n = 546

■ Internet ■ Telephone



An unusually high prevalence of masters degrees characterizes this particular study population.

Differences in educational achievement between Internet and Telephone respondents are not significant.



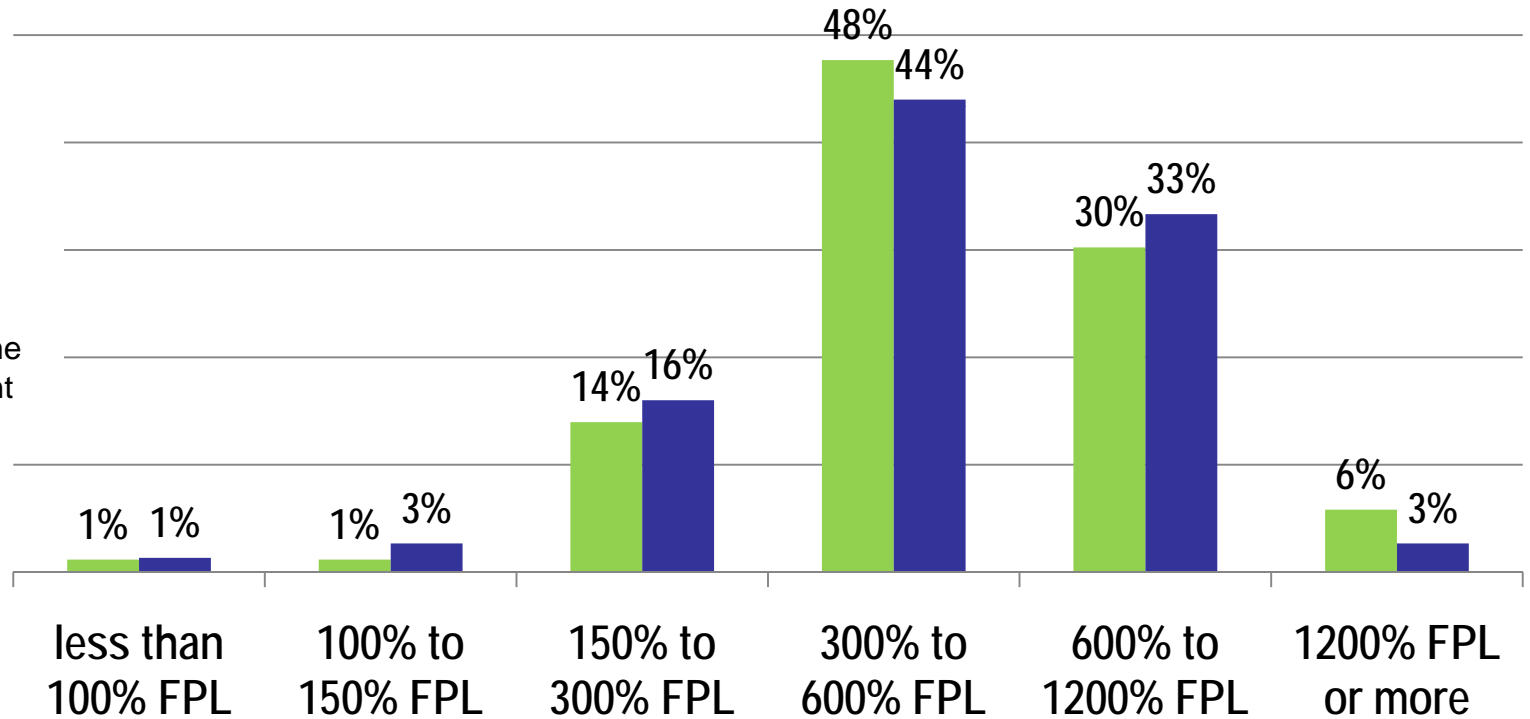
# Household Income

Internet, n = 197; Telephone, n = 546

■ Internet ■ Telephone

FPL = Federal Poverty Level = approximately \$13,000 for a married couple.

Differences in household income are not significant



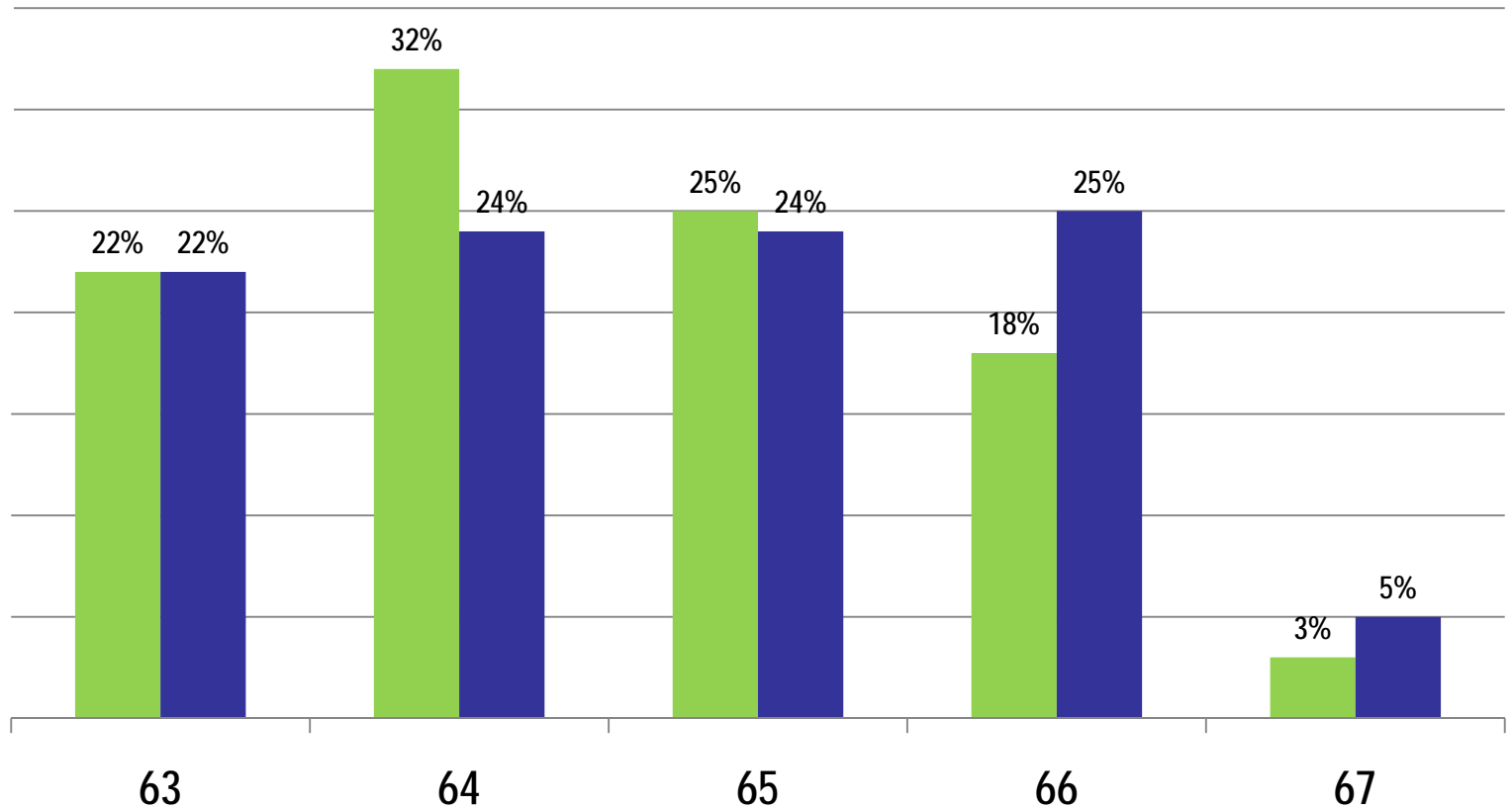


# Age

Internet, n = 197; Telephone, n = 546

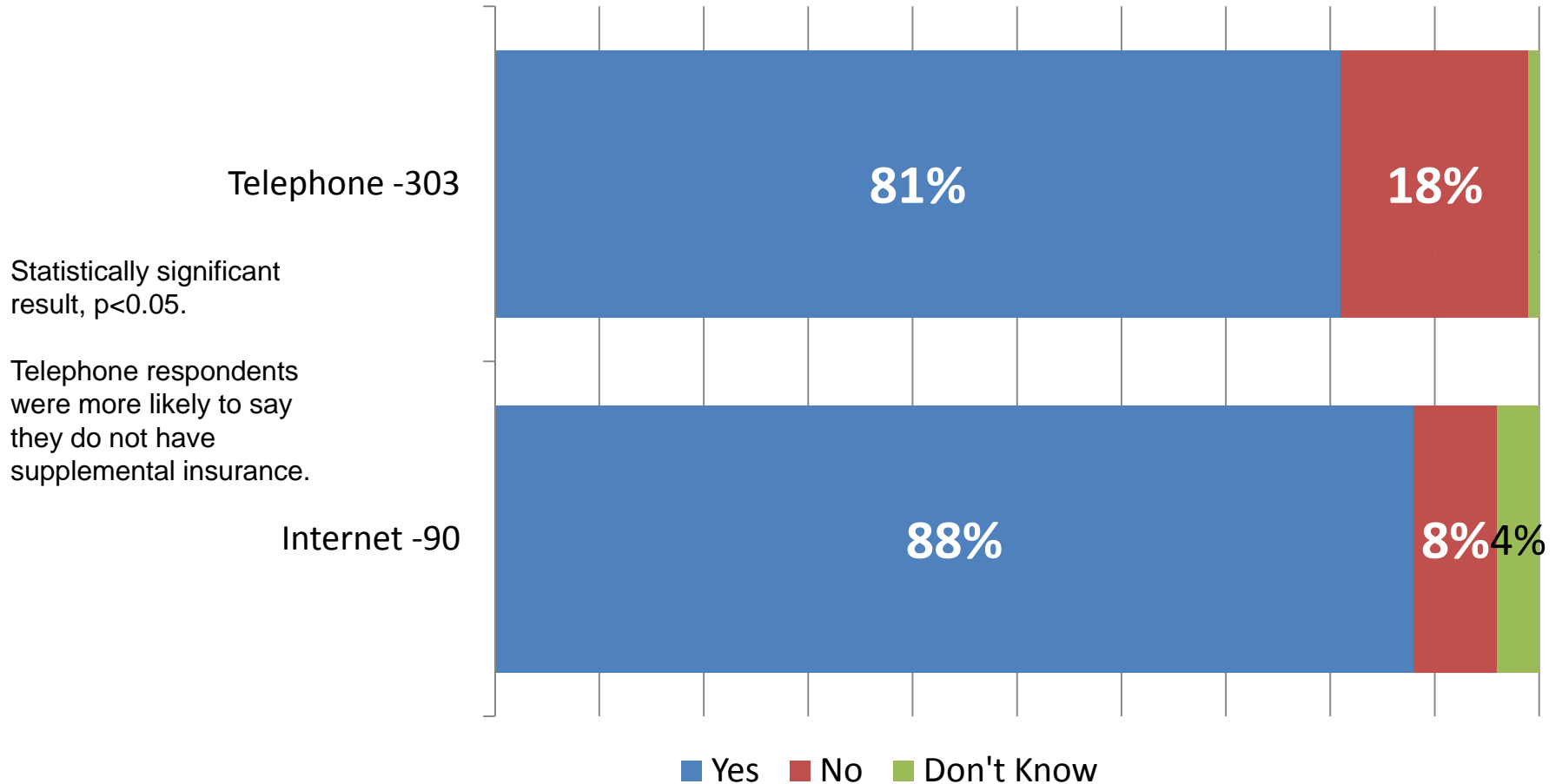
■ Internet ■ Telephone

Although it appears that Internet respondents were more likely to be younger, the differences presented here are not statistically significant.





# Do you have Medigap or a health plan?





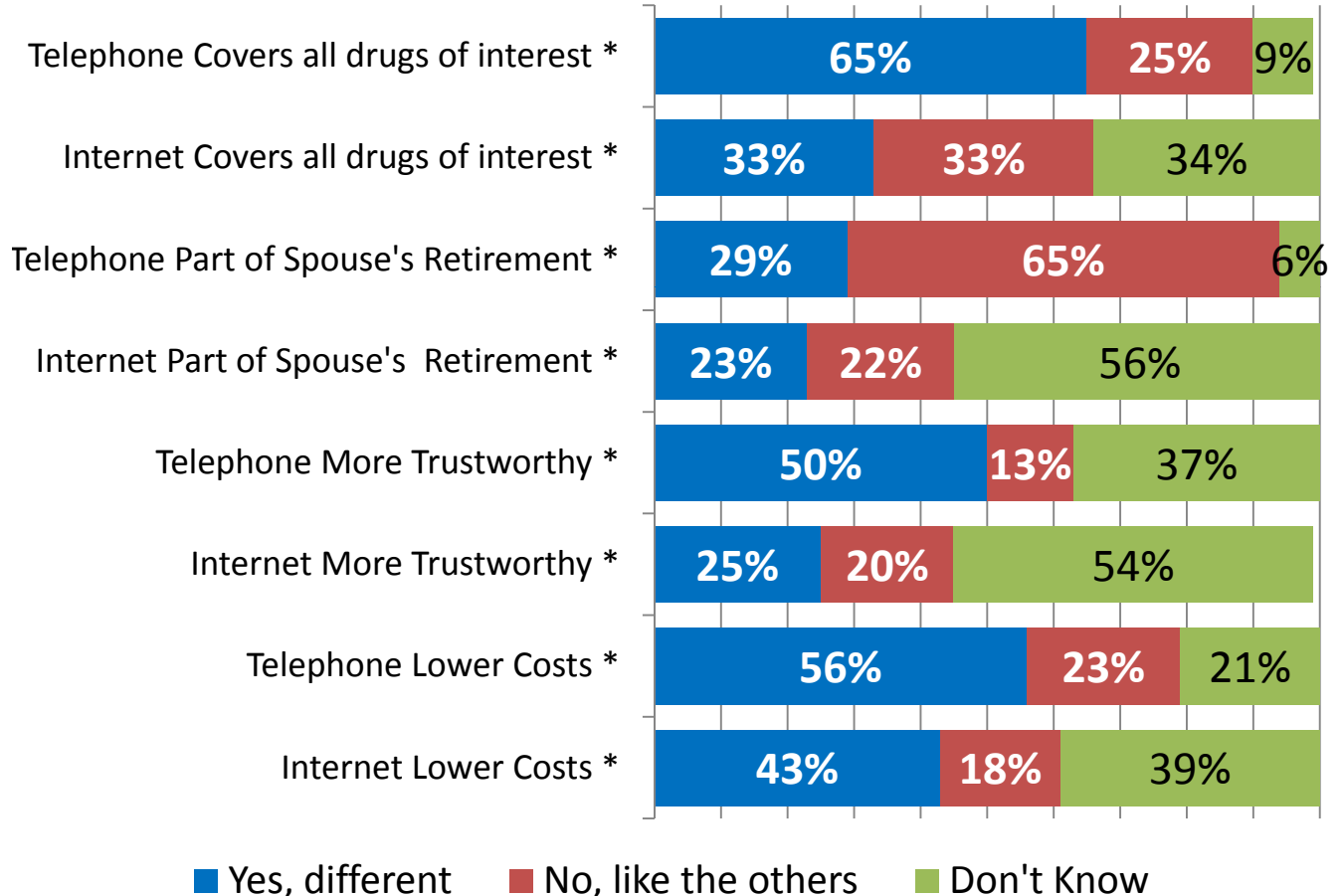
# What makes your plan different from others?

Internet, n = 197; Telephone, n = 546

Four dimensions of market differentiation are presented -- drug coverage, spouse coverage, trustworthiness, and lower costs.

For each dimension telephone respondents were more likely to say they thought the attribute distinguished their health plan from others. Internet respondents were more likely to say they didn't know.

The next graphs below show that despite the lower frequency of Internet "yes's", the rank order of market differentiators is very similar. For example, 4 of 5 differentiators appear in the top 5 for both Internet and telephone.



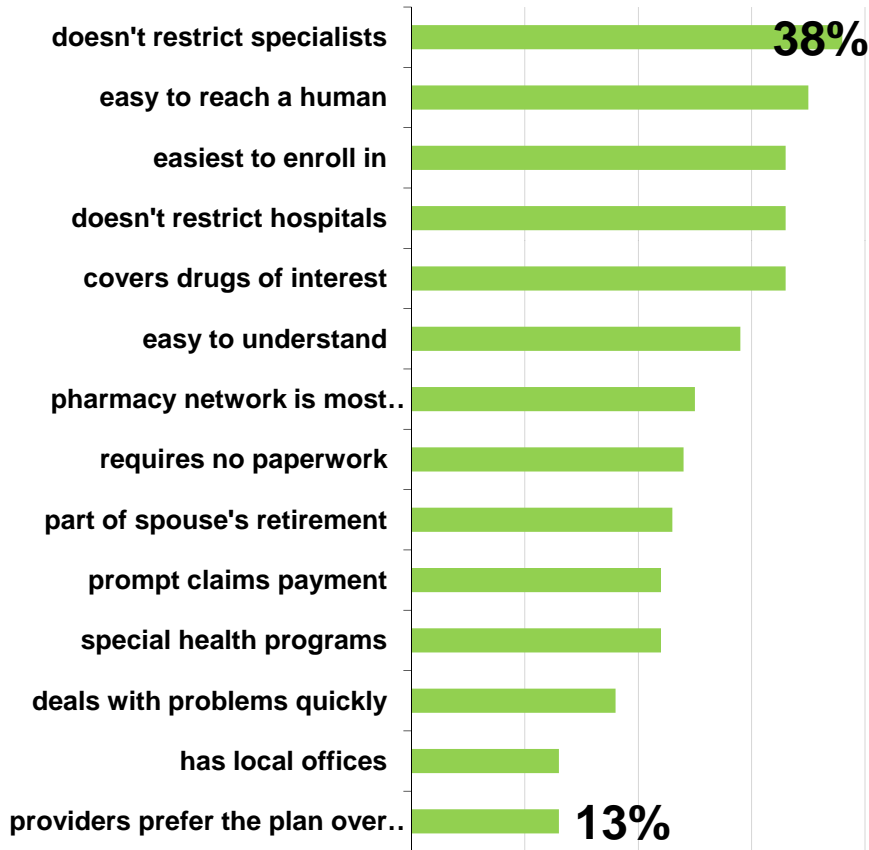
\* Statistically significant result,  $p < 0.05$



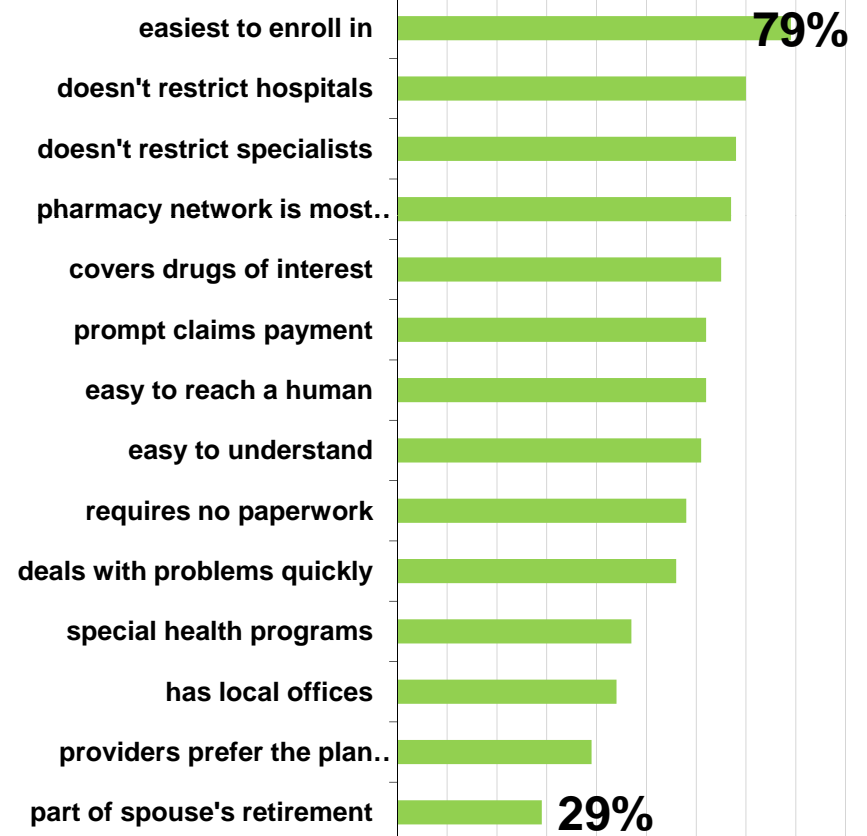
# Plan Differentiation Rank Order Comparisons

showing % saying, "Yes, this makes my plan different"

## Internet



## Telephone





# Loyalty to health plan

Internet, n = 197; Telephone, n = 546

## RESEARCH QUESTION

“On a scale from 0 to 10, with 0 being very unlikely, and 10 being very likely, how likely is it that you would recommend your health insurer to your friends or colleagues?”

0-6 = Detractor  
7-8 = Passively Satisfied  
9-10 = Promoter

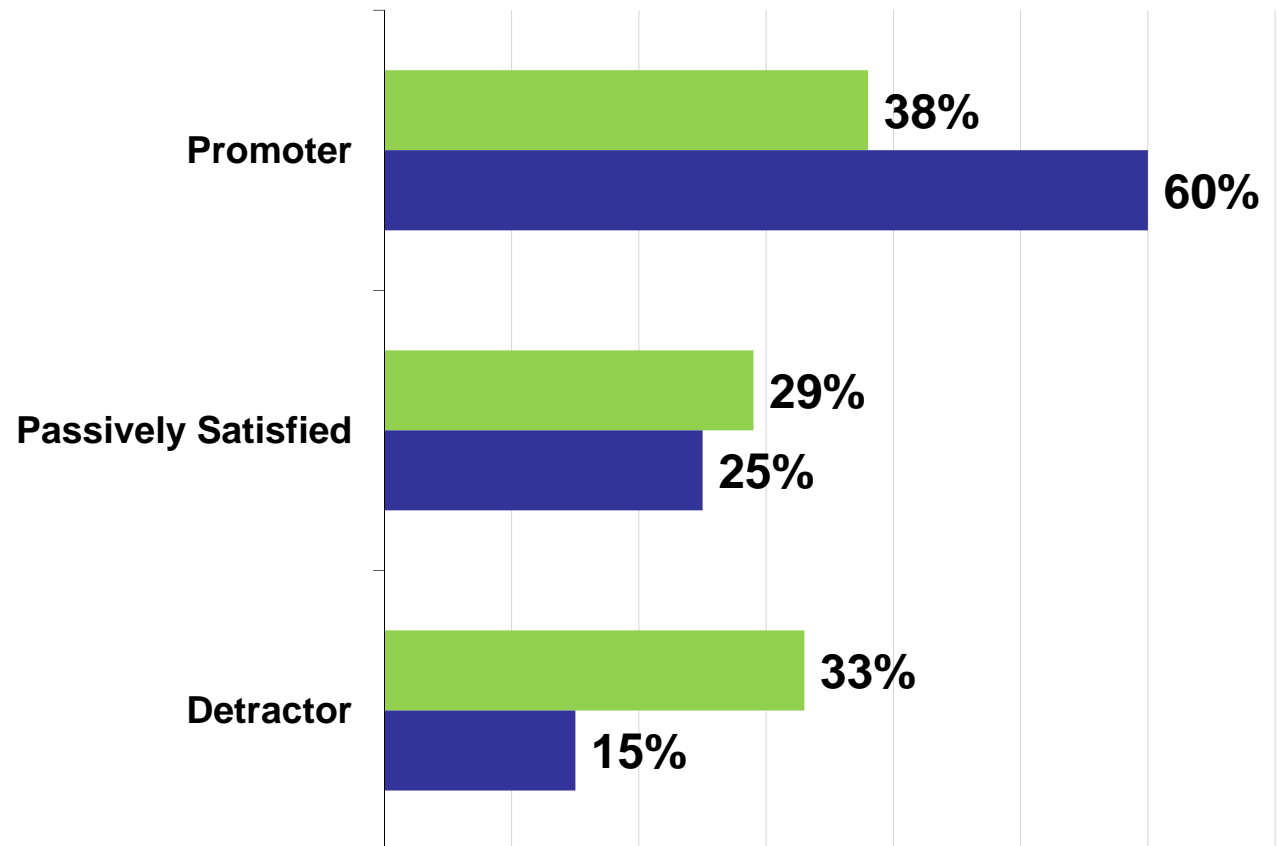
•Statistically significant result,  $p < 0.05$ .

Telephone respondents are more likely to be “Promoters”; they are more likely to say the likelihood of recommending their health plan to another is a “9” or a “10”.

Internet responders are more likely to be “Detractors”. For this study, the percent of “Detractors” is higher than for other Internet studies we have done.

■ Internet - n = 79

■ Telephone - n = 229



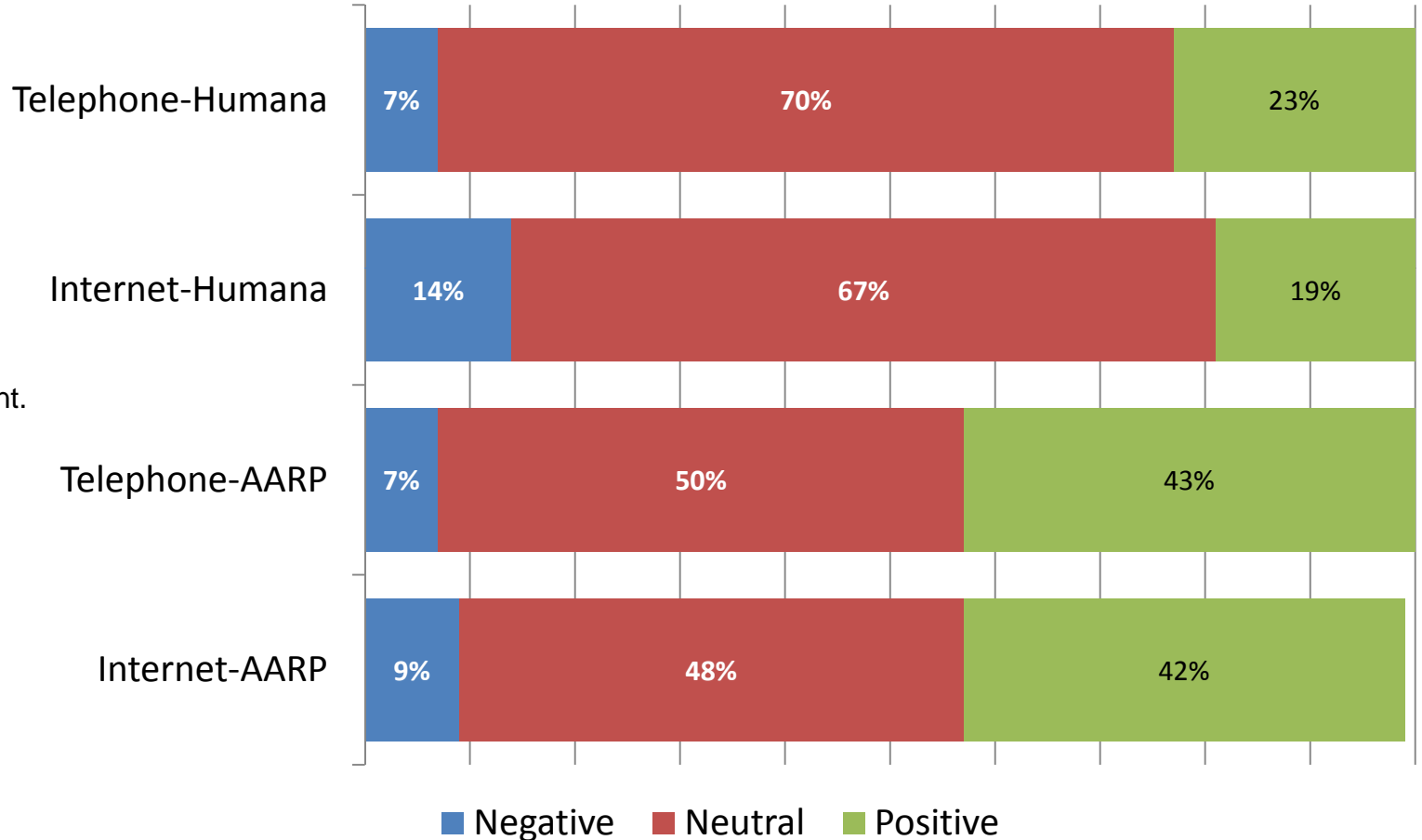


# Competitor Impressions

“what are you personal impressions of health plans operating in your area”

AARP n = 539, Humana n = 307

Differences are not statistically significant.



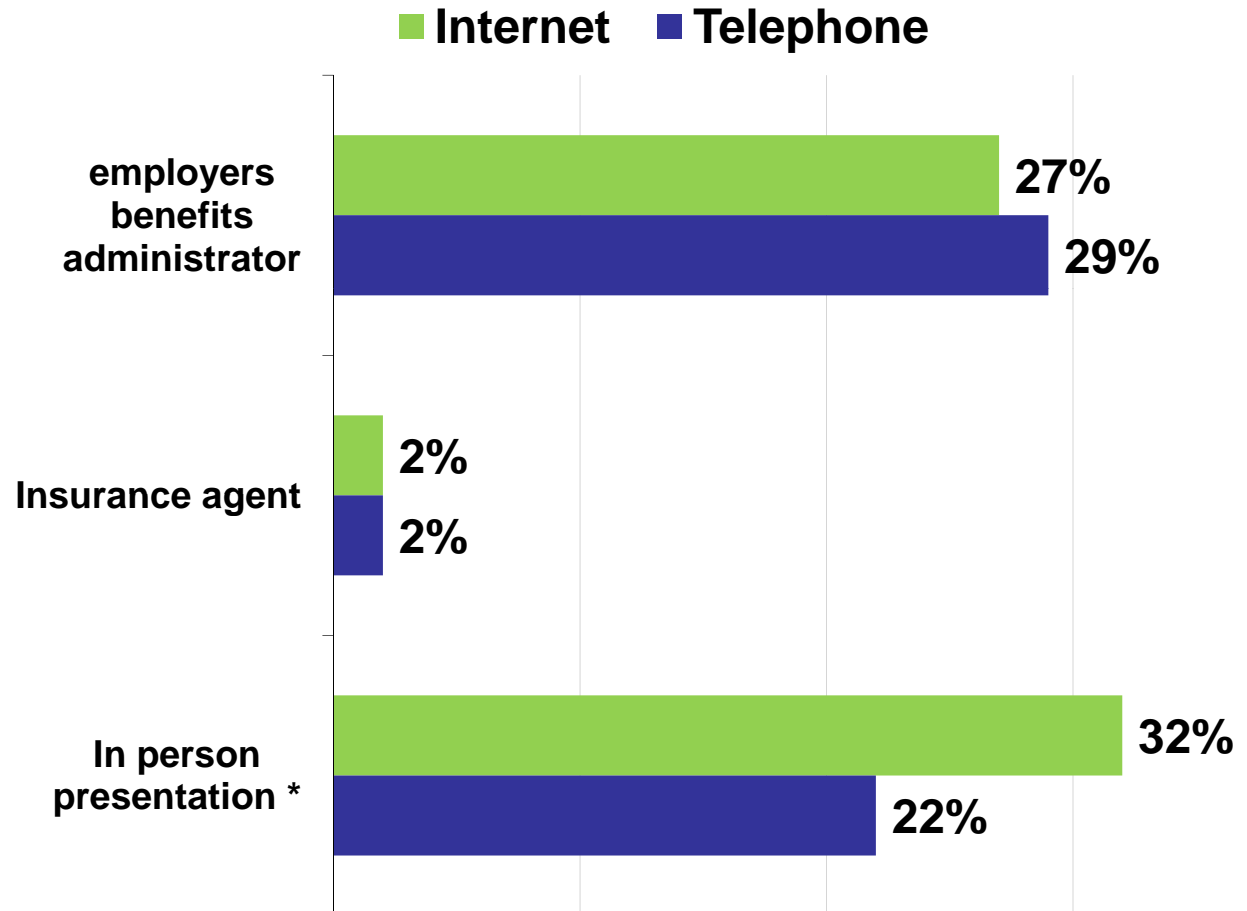


# Who helped you make your last decision about medical insurance?

Internet, n = 197; Telephone, n = 546

•Statistically significant result,  $p < 0.05$ .

Internet respondents are more likely to report that they attended an in-person presentation.





# Statistical Comparisons

Category of Question	Correlation *	Average Difference	Comment on differences between Internet and Telephone Responses
ALL Questions	0.949	9.1%	
Impression of Competitors	0.971	3.7%	High correlation and small differences when rating competitors on an 11 point scale (-5 to +5)
Views on supplemental insurance	-0.629	15.2%	Internet respondents more likely to say they can't afford supplemental and more likely to say they don't know.
Perception of market differentiation	0.405	29.7%	The correlation indicates that the methods will produce similar shapes and rank orders in these questions. The difference reflects the tendency of telephone respondents to answer more positively.
Indication of Loyalty	0.850	8.3%	The distribution of responses along their range is similar but the values differ. (11 point scale, 0 to 10)
Who helped make the decisions?	0.980	3.1%	The methods performed the same on these questions.
How did you enroll?	0.878	9.7%	The distribution of responses along their range is similar but the values differ.

\* A high correlation nearing 1.00 indicates that Internet and Telephone responses have an more identically shaped distribution of values along a range of response options. A negative correlation means that where Internet responses are high, Telephone responses are low , and vice versa.



# Conclusions

Telephone and Internet methods produced different results for some questions and nearly identical results for others. Overall, the methods produce similar distributions along a range of response options, but the values differ on average by 9 percent.

The methods were similar on questions having to do with actual past events such as whether someone helped with a decision and method of enrollment. They were also similar on questions with scaled response options (11 point scales).

In some cases, the response values provided by Internet and Telephone respondents are different even though the “shape” of the response distribution was the same. In these cases, we would say the two methods produce “parallel” results.

The methods are most different when questions involve perception or sensitive information. Telephone respondents were more likely to provide a positive response to questions about perceived market differences. Internet respondents were more likely to indicate they couldn’t afford insurance.

**Method Note:** for this study, telephone respondents were not given the “Don’t Know” response option, but could answer that way if they thought of it on their own. Internet respondents could see all response options including “Don’t Know” laid out before them. We think this is a partial reason for the tendency of telephone respondents to give more positive answers.

These results can be used by Deft Researchers and others when constructing future questionnaires.