Who's Calling? The Impact of Caller ID on Telephone Survey Response

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Introduction and Background

The decline in response rates for telephone surveys has been explained by changes in lifestyle, increases of telemarketing calls, and new telephone technologies. More precisely, much of the decline in response rates is attributed to an increasing rate of noncontacts (Curtin, Presser, & Singer, 2005; Steeh, Kirgis, Cannon, & DeWitt, 2001). Telephone technologies such as caller ID, call blocking, privacy managers, answering machines, and voice mail systems has been hypothesized as one of the causes of the rise of noncontacts in the U.S.

Caller ID was established in 1987 and its ownership had a rapid growth in the past decade. In 1992, the number of U.S. households with a subscription to caller ID was only 3 percent; in 1995 this figure stood at 10 percent (Tuckel, 1996). By 2000, 45% of U.S. households had caller ID (Tuckel, 2001). In a different study, with a different data collection technique, (telephone instead of face to face interviews) the American Teleservices Association (2002) estimated a caller ID penetration rate of 39% in 2001 and of 41% in 2002. The Pew Center (2004) estimated the caller ID penetration at 52% in 2003 with a RDD telephone survey. This number is likely to be an underestimate of the real phenomena, due to the data collection mode. More African-Americans than whites (73% vs. 47%) have caller ID, and 29% of the sample admitted to always using it to screen calls.

When Tuckel and O'Neill (1996), compared caller ID and answering machine users to nonusers, they found that the former were more positively disposed towards telephone survey participation. In the second study by Tuckel (2001), the likelihood of answering a phone call when the number is not recognized dropped dramatically. In the 1995 sample, 56% of caller ID subscribers indicated they were either "almost certain" or "very likely" to answer the phone under such circumstances; by the 2000 study, this percentage dropped by 20 points. When asked about participation in telephone surveys, however, caller ID subscribers were only slightly different than non-caller ID subscribers in their attitude towards participation. Moreover, when frequent screeners were compared to infrequent screeners, they did not differ much in terms of refusing to participate to a survey. Similar results were obtained in a study of South Carolina telephone subscribers (Link & Oldenick, 1999), where the authors found that call screening behavior did not appear to hinder survey research efforts significantly. More recently Curtin, Presser and Singer (2005) found no support for their initial hypothesis that respondents used caller ID to avoid callbacks. In fact the trend of missed callback rates by year of the Survey of Consumer Attitudes did not show any systematic tendency.

In the only randomized experiments we found so far (Trussell & Lavrakas, 2005), a very large RDD sample was assigned either to caller ID treatment (Nielsen Ratings) or to the control group (unknown or out of area shown on the caller ID). In the first study, the AAPOR RR1 increased by 1.5% and the COOP1 by 2.5% in the caller ID condition, while the REF1 decreased by 1.7%. In the second study, the increase was of 2.6% for RR1 and of 3.2% for COOP1, while REF1 decreased by 2%.

Caller ID does not work in the same way across the U. S. Depending on the state and the phone provider, the subscriber can either see the number of the caller, or the name and the number of the caller. According to a recent estimate by the Telecommunications Industry Association (personal communication, 2004) more than 95% of subscribers can receive Multiple Data Message Format (MDMF) on the caller ID; that is, subscribers are able to see the name and the number of the caller. However the length of the name is not always the same. Depending on the local telephone service, the length might be truncated to 15 characters.

Hypotheses

The caller ID transmission should work as a sort of "compact invitation letter". In a recent meta-analysis of 20 telephones survey experiments using advance letters, de Leeuw and colleagues (2005) found that response rates increase, on average, from 43.8% to 49.4% and cooperation rate increases, on average, from 50.7% to 58.3%. Advance letters also have an effect on the interviewers: they gain professional confidence from it (Groves & Snoweden, 1987), feel that it helps to allay initial suspicion (Collins, Sykes, Wilson, & Blackshaw, 1988) and takes away the surprise of an unexpected cold call (Dillman, Gallegos, & Frey, 1976).

Following these findings, we had 3 hypotheses:

H. 1 Using the survey research organization's name is a compact form of invitation letter that should underscore the legitimacy of a survey, take away suspicion, communicate the value of a survey and evoke the principles of social exchange and reciprocation.

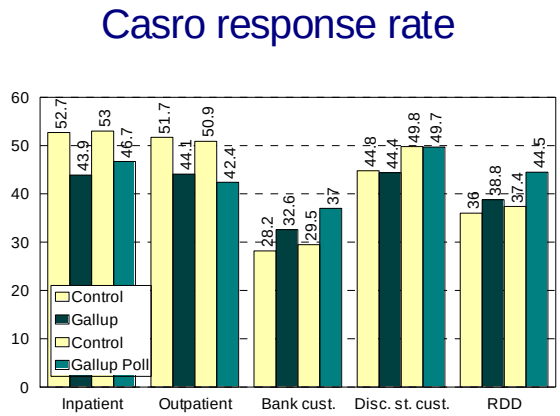
H. 2 Sending the survey research organization's name on caller-ID versus "out of area" should reduce the number of calls to complete a survey.
H. 3 Caller-ID listing should help to overcome "privacy managers" devices that generally block or ask to leave a name on an answering device for a call that does not show a telephone number on the caller-ID.

Study Design

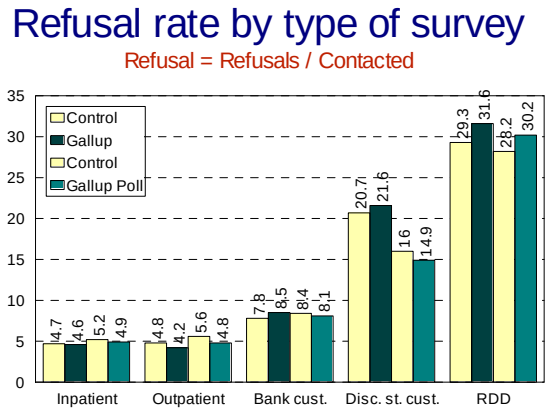
The Gallup Organization arranged a caller-ID study in spring of 2003 to test the three hypotheses. Six call centers were involved in the study and five major tracking studies were used to compare results. Four of them were list sample customer satisfaction surveys. The first one was an impatient study, the second an outpatient study, the third a bank customer study and the fourth one a discount store study. The last survey was an RDD survey. The interviewing team remained stable across the entire experiment fieldwork. The interviewers were aware of the experimental condition and instructed to answer possible questions regarding the caller-ID message. Based on the previous studies cited above we estimated a 52-55% called-ID penetration rate during the study period.

In the *Control condition* no caller ID information was sent. The field period was February 8th – March 7th and call centers 1 to 6 were used. In the *Experimental condition A* with caller ID "Gallup", call centers: 1, 2, and 3 where used. In the *Experimental condition B* with caller-ID "Gallup Poll", call centers: 4, 5, and 6 were used. The field period for the experimental conditions was March 8th – April 4th.

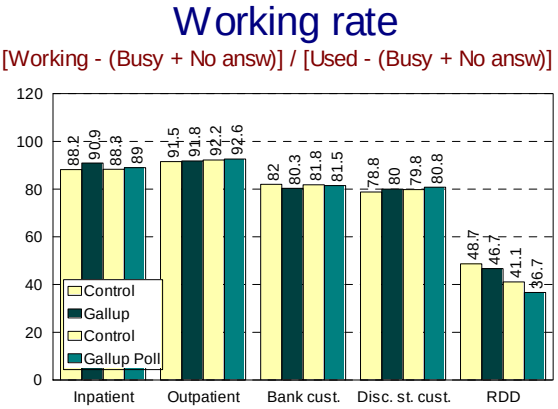
Results



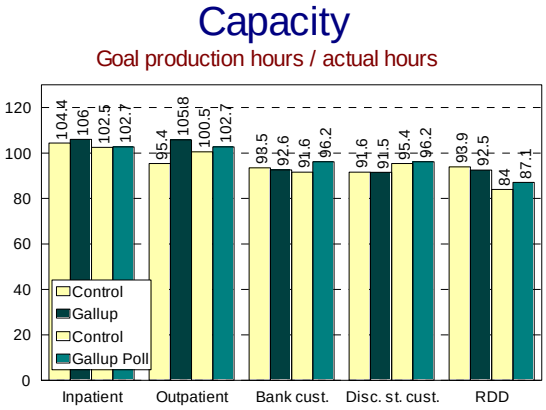
The caller ID seems to help the response rate for the RDD survey, with "Gallup Poll" (+ 7.1%) doing better than "Gallup" (+ 2.8%). For the customer satisfaction surveys we have mixed results. In the impatient/outpatient study the caller ID appears to hurt the response rate, while the opposite case appears to be the case for the bank and discount store customer satisfaction studies. One possible explanation is that patients, either entering or after being discharged from the hospital, are less receptive to participate with surveys in general.



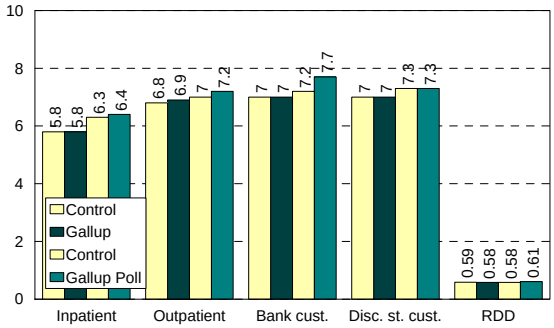
The refusal rate here is very close to the computation of AAPOR REF3. The general trend is an increase of refusals in the caller ID condition. Our results are in opposite directions of Trussell and Lavrakas (2005), where they found a slight decline in refusals rate in the caller ID condition.



The working rate trend for list samples is going in the expected direction (increase when using the caller ID), though in the RDD it is not improving the rate.



For the capacity there is always an improvement, both for the "Gallup" and the "Gallup Poll" caller ID. "Gallup Poll" appears to perform better.



The trend for the number of interviews completed per hour is similar to the capacity: the caller-ID helps to get more completes in a given hour.

Conclusions

Caller ID is a "branding" instrument that can help survey research for well-known survey companies like Gallup. "Gallup Poll" seems to work better than "Gallup" in almost all of the ratios we computed. We found major differences between list samples (customers) and RDD samples where a respondent has to be selected within the household. Caller ID has the beneficial effect to lower the number of calls to "close a case". For a company like Gallup that is making millions of dials per year, the impact of the caller-ID is substantial and means savings in telephone bills and in interviewing time. Caller ID may also have increased the confidence of the interviewers, thus improving the response rate and completes per hour.

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