## **Methodological Notes**

Differences between the results of Mass attendance questions from CARA's Knowledge Networks polls and telephone polls are strongly related to the effects of an interviewer.<sup>33</sup> CARA's surveys with Knowledge Networks consistently show lower levels of Mass attendance than what is exhibited typically in CARA's telephone polls. Survey researchers have long understood that the personal interaction between interviewer and respondent can create overreports of certain activities (such as voting or giving to charity) that are considered socially desirable. Responses to questions regarding attendance at religious services are known to be biased toward estimates higher than actual attendance as measured by head counts.<sup>34</sup> Below we show varying estimates of Catholic weekly attendance using telephone polls and other methods such as head counts and time diaries.

Recent Published Estimates of the Percentage of U.S. Catholics Attending Mass Weekly

Telephone Polls
Barna Research Group (2006): 55%
Gallup (2004): 45%
Pew Forum on Religion & Public Life (2007): 41%
CARA (2005): 35%
D'Antonio et al. (2007) 34%

Average= 42%

Other Methods (sampled counts & time diaries)
Chaves and Hadaway (1993): 28%
Hadaway and Marler (2005): 25%
Hadaway et al. (1998): 24%
Presser and Stinson (U.S. adults,1998): 26%

Average=26%

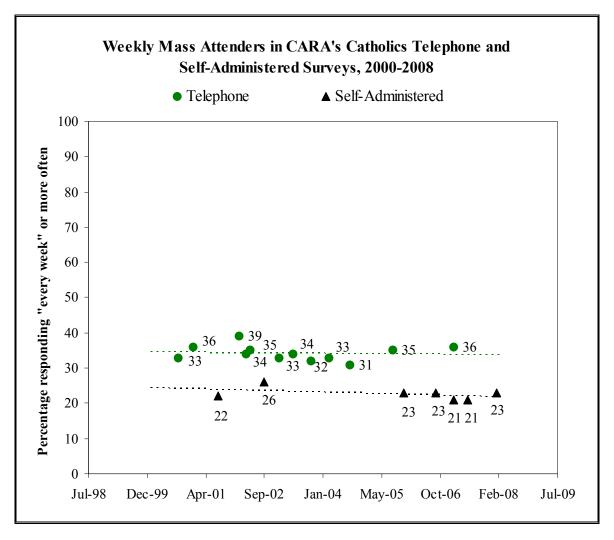
The Knowledge Networks survey uses methods that do not require a human interviewer—respondents are answering questions as they appear on-screen (either through a

<sup>33</sup> Differences are not limited to Mass attendance and generally are observable for any socially desirable activity from financial giving and frequency of prayer and confession.

<sup>34</sup> Mark Chaves and James C. Cavendish. 1994. "More Evidence on U.S. Catholic Church Attendance." *Journal for the Scientific Study of Religion*. 33: pp. 376-381.

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computer or television). Self-administered surveys, such as this, are known to reduce over-reports for questions that have socially desirable response sets (encompassing attitudes people believe they "should" have or behaviors they feel they "should" do), producing results that more closely reflect actual behavior than estimates derived from telephone polls. The estimated percentage of Catholics attending Mass every week using the responses to the Knowledge Networks surveys are more consistent with what is found in estimates of the attendance of Catholics derived from other methods, such as sample-based head counts and time diary studies. As the figure below shows, results from 12 CARA telephone surveys and seven CARA-Knowledge networks surveys (including the survey for this study), produce no statistically significant changes in weekly Mass attendance between 2000 and 2008 by either method of polling. The survey of polling.



<sup>&</sup>lt;sup>35</sup> Stanley Presser and Linda Stinson. 1998. "Data Collection Mode and Social Desirability Bias in Self-Reported Religious Attendance." *American Sociological Review*. 63: pp. 137-145.

<sup>&</sup>lt;sup>36</sup> C. Kirk Hadaway and Penny Long Marler. 2005. "How Many Americans Attend Worship Each Week? An Alternative Approach to Measurement." *Journal for the Scientific Study of Religion*. 44: pp. 307-322.

<sup>&</sup>lt;sup>37</sup> All variations are within the sampling margin of error. The difference between the two methods of polling is consistently about 8 to 14 percentage points for those who say they attend weekly or more often.

In this report, we have attempted to make results from prior CARA telephone polls more comparable to results from the present Knowledge Networks survey through statistical weighting. Weighting in survey research is a general process by which researchers adjust results to place greater or lesser emphasis on the answers of various respondents. We use reported Mass attendance as the basis for determining how to weight answers. Mass attendance questions are asked in all CARA's polls. Additionally, frequency of Mass attendance is a very good (though certainly not perfect) indicator of Catholics' general level of commitment to their faith. It is strongly correlated with most other religious practices and with many religious beliefs.

As a baseline, we chose a Knowledge Networks poll with Mass attendance results in the middle of the range (*i.e.*, 23 percent of respondents reporting weekly attendance). We then weighted results from older CARA telephone polls to produce an equivalent level of attendance. This means that comparison results from these older telephone polls, used in this report, have more statistical emphasis placed on answers of respondents who attend Mass infrequently and less statistical emphasis is placed on answers of those who attend more frequently.<sup>38</sup> The overall level of attendance in the older telephone polls is deflated by this weighting, and this causes a corresponding deflation in answers on other questions where responses are correlated with attendance. This process works reasonably well in bringing telephone poll results for most religious behaviors in line with Knowledge Networks results.<sup>39</sup> This method allows for the removal of much of the effects of social desirability response biases that are present in data collected through telephone (or in-person) interviews. This weighting produces estimates and comparisons that are known to be more reflective of the observed behaviors of Catholics in these earlier CARA polls.

The CARA Mass attendance question, in telephone and Knowledge Networks polls is identical, asking respondents about their general level of attendance (from which we estimate the percentage of those who attend Mass *every week*), whereas some other surveys, such as those conducted by Gallup, ask about religious service attendance in *any given week* (*e.g.*, the last seven days). In the table on the following page, we convert the responses from the CARA question and estimate the percentage of Catholics that attend Mass in *any given week*. This is estimated to be 31.4 percent.

By chance one might expect about 2 percent of those who say they "rarely or never" attend Mass to have attended Mass in any given seven-day period (odds of 1 in 52). If one takes the 32 percent of Catholics responding in this manner and multiplies it by 2 percent, one can estimate that 0.6 percent of Catholic Mass attendance in any given week is made up of those who say they "rarely or never" attend Mass. This same calculation can be done for each category of responses that indicate less than weekly attendance.

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<sup>&</sup>lt;sup>38</sup> This type of weighting is *not* needed nor used for the results of the Knowledge Networks poll produced for this study.

<sup>&</sup>lt;sup>39</sup> However, levels of praying the rosary remain lower in the current poll than in telephone polls, even with weighting.

## "Converting" the CARA Question to Gallup Format: Aside from weddings and funerals, about how often do you attend Mass?

			Total estimated
	Percentage	Odds of attending	percentage attending in
	responding as such	any given week	any given week
Rarely or never	32.0%	1 in 52 or less	0.6%
A few times a year	24.1	1 in 17	1.4
Once or twice a month	10.1	1 in 12 or less	0.8
Almost every week	10.4	1 in 2	5.2
Every week	20.0	1 in 1	20.0
More than once a week	3.3	1 in 1	3.3

**Total: 31.4%** 

Note: totals can add to  $\pm 0.1$  due to rounding error.