

Using New Technologies to Survey Memphis Residents: Identifying and Responding to Local Concerns

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Gathering data on public opinion has long been recognized as essential for efficient government. While elections allow citizens to send a crude and periodic signal of their priorities and preferences, leaders have long recognized the importance of regular opinion polls to delve deeper into citizens' concerns. The information collected in polls can inform leaders about the existence of problems, the issues citizens would like to see addressed, and the types of solutions citizens would favor or oppose. While national and state officials have the benefit of numerous national and state opinion polls, city officials have traditionally been more limited in their ability to utilize opinion polling. Telephone polls are prohibitively expensive for local governments and local media organizations, and it is also increasingly difficult to gather representative samples via telephone given changes in communications technology. While some local papers may conduct polls, they typically only do so during election campaigns; however, the need for opinion data is not limited to election years. And while many cities have introduced innovative communication services that are not seen at higher levels of government, such as 3-11 and SeeClickFix, such services only allow citizens to pro-actively report specific problems. An opinion poll, in contrast, reaches out to citizens and asks them their views, both positive and negative, on a range of issues.

New technologies for survey sampling hold the potential to overcome barriers to city polling. I propose to use these new technologies to survey Memphis residents about their concerns in two opinion surveys, in December 2016 and June 2017. The results of these surveys will be of immediate use to city leaders, as they will contain information about residents' concerns and attitudes toward local issues. In the longer term, these surveys will serve as a model of how Memphis officials, as well officials in other cities, can regularly survey their constituents at low cost.

Surveying City Residents via the Facebook Ads Platform

The Facebook Ads platform allows users to purchase advertisements, consisting of a short amount of text and a small image, for display to specific audiences defined by geographic location, age, and other factors. When users click on the ad, they can be re-directed to an online survey hosted on an external site, such as the Qualtrics platform.² Facebook use is extensive both nationally and locally. As of January 2015, *Adweek* reports a total of 152 million US-based users, or a little less than half of the total population (Adweek 2016). Currently, Facebook estimates that 490,000 Memphians are reachable via Facebook, or about 75% of the 2015 population.³

Pilot results show the potential of this platform. In 2015, I conducted two surveys of city residents recruited via Facebook. One of these surveys was conducted in Memphis, and one was conducted

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² See <http://www.qualtrics.com>.

³ This estimate is obtained by visiting the Facebook ad platform and creating an advertisement targeted to users who report living within zero miles of the city, thus excluding non-residents and residents of the broader metro area. However, it is also possible to reach such users if desirable. Additionally, ads can be restricted to smaller geographic areas, down to the zip code level.

	Memphis Survey	Nashville Survey
Dates	September–October 2015	May–June 2015
Incentive	None	\$100 gift card raffle
Sample size	278	670
Total cost	\$1,367	\$2,989
Cost per respondent	\$5	\$4
Sample characteristics (Census figures)		
Median age	54 (45)	48 (45)
Percent female	56 (53)	52 (52)
Percent white	72 (29)	83 (61)
Percent homeowner	76 (50)	73 (54)
Percent with college degree	66 (25)	81 (36)

Table 1: Details on pilot surveys in Memphis and Nashville.

in Nashville. The details of these studies are summarized in Table 1. The Memphis survey cost \$1,367 and yielded a sample size of 278 residents, or \$5 per respondent. The Nashville survey cost \$2,989 and yielded 670 respondents, or \$4 per respondent.⁴ These costs are dramatically lower than a traditional telephone survey. In 2000, for example, the city of Memphis reportedly spent \$15,500 for a survey of 651 Memphians (Fontenay 2000). Adjusted for inflation, that is about \$21,000 in today’s dollars, or about \$32 per response – six times as high as a comparable sample recruited over Facebook.

Table 1 also includes demographic information on these samples, with population figures from the Census shown in parentheses for comparison. Despite Facebook’s greater use among youth, the median age of these samples was actually slightly higher than the population. Gender was about evenly balanced, but the samples were more educated and less racially diverse than their populations. While representativeness is therefore a concern, the problem is not unique to online surveys given declining telephone response rates. Moreover, the same method for correcting imbalances in telephone surveys can be employed here.⁵

Proposed City Surveys and Budget

In the 1990s and 2000s, the City of Memphis conducted an annual telephone survey known as the Memphis Poll. Among other questions, citizens were asked to rate the performance of various city services and departments (Fontenay 2002), as well as to rank the most important priorities facing

⁴In Nashville, respondents were incentivized to participate with a raffle prize of a \$100 Amazon.com gift card awarded to a randomly chosen respondent. Both surveys asked about opinions toward political candidates in mayoral elections, and included few questions about government services or priorities.

⁵According to the Pew Research Center, a highly cited and respected polling house, contact rates for telephone surveys – the number of households for which contact was made, divided by the number of households called – declined from 90% in 1997 to 62% in 2012. The response rate – the number of completed interviews, divided by the number of households called – declined from 36% to just 9% over the same period (Pew Research Center 2012). Truly representative samples are no longer obtainable via telephone, and phone samples must be adjusted for their non-representativeness (Cohn 2016). The same methods of adjustment – namely, reweighting responses by known population figures, such that the non-white citizens who do respond will be assigned a higher weight in the calculation of overall city opinion estimates – can easily be used in this context.

the city (Fontenay 2001). The results of these surveys were used by city leaders to inform policy priorities and solutions, as well as to evaluate government performance (e.g., Herenton 2007). I propose to design and field two surveys similar to the Memphis Poll, once in December 2016 and once in June 2017. I aim to recruit about 600 responses per survey. This figure is similar to the number of responses in past incarnations of the Memphis Poll, and is feasible based on the existing Facebook surveys I have conducted. Notably, based on the existing surveys I have run, it should be possible to recruit twice as many respondents in a single year, compared to the 2000 Memphis poll, for less than half of the cost of the 2000 survey (Fontenay 2000).

Questions on these surveys will be written to capture the same broad areas as the Memphis Poll: citizens' priorities, ratings of services and government performance, and opinions on policy options. Ideally, the questions will be modeled directly off of past survey questionnaires provided by the city. This will allow for comparison with the past Memphis Poll data. Regardless of the specific questions asked, the survey instrument will ideally be developed in consultation with city officials to maximize the usefulness of the data.

I request a total of \$10,000 to fund this project. Based on my existing surveys, I estimate a cost-per-respondent of \$5. With two surveys of 600 respondents each, this comes to a total of \$6,000 for recruitment costs. The remaining \$4,000 will cover a summer stipend to support my work in designing and administering the survey, as well as analyzing and presenting the results.

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