



VETERANS EXPERIENCE OFFICE

WHITE HOUSE VETERAN HOTLINE SURVEY METHODOLOGY BRIEF: SAMPLE DESIGN

Introduction

The **White House Hotline** (WHH) is administered by the Dept. of Veterans Affairs (VA). It was launched in June 2017 as part of the President’s agenda for reform at the VA. The hotline staff is comprised mostly of veterans and is available 24 hours a day. It is a direct outlet for Veterans to speak with live agents about their needs and concerns. The call center staff may function in a variety of ways, including responding to inquiries; providing directory assistance; and discussing Veteran benefits and health services. Certain calls are categorized as *complaints*, and steps are undertaken to address these specific cases within days.

The Veteran Experience Office has been commissioned to measure the satisfaction of WHH callers regarding their interaction with call center staff and the ultimate resolution of their complaint (if necessary). VEO proposed to conduct a **brief transactional survey** on persons who recently used the hotline. The survey may be completed online or via an automated telephone design. It will consist of a handful of questions revolving around a human-centered design, focusing on such elements as trust; emotion; effectiveness; and ease with the service. The purpose of this document is to outline the **sample design** and provide a description of the data collection and reporting.

Table 1. Measurement Goals and Survey Mode

Survey Stratum	Preferred Mode of Data Collection	Recruitment Method	Time After Transaction	Recruitment
Initial Call to WH Hotline	Automated Telephone Questionnaire	Post Call or Call-Back	Same Day as Call or within 24 Hours	3 Calls over 24 Hours
Complaint Resolution	Online Survey	Email Recruitment	Within 1 Week after Resolution	2 Emails over 2 Weeks

1. Initial Call to White House Hotline

The WHH management would like to measure each caller’s impression of the WH hotline directly after their conversation with the WHH representative. This will serve as an evaluation of the call reception format and protocol, the depth of the VA knowledge base accessible to staff members, and the personal affability of the call representative while fielding the complaint or other assistance.

It is perceived that the accuracy of veteran feedback regarding the initial telephone conversation is improved when collected immediately following the transaction. As such, the ideal data collection mode would be through a post-phone call survey. Callers would be queried whether they'd like to participate in a survey at the end of their call and would immediately be transferred to an automated set of questions. Alternatively, VEO could call these veterans with the question selection. Call-backs would occur within 24 hours, and would not exceed three contact attempts.

2. **Complaint Resolution**

The other major subpopulation of interest centers on persons that filed a complaint. Over half of all calls to the WHH result in the opening of a complaint case. Each new case undergoes a triage and is facilitated to the appropriate division or office within the VA for further consideration. Every complaint is quickly assessed and appropriate steps are undertaken, no matter if that corresponds to an explanation and/or apology; a modification to VA programs or policy; or some other specific action. Once a remedy to the original complaint is enacted, the resolution is communicated to the veteran. Reporting the satisfaction with the final outcome from their interaction with the White House Hotline constitutes the other major goal of the survey.

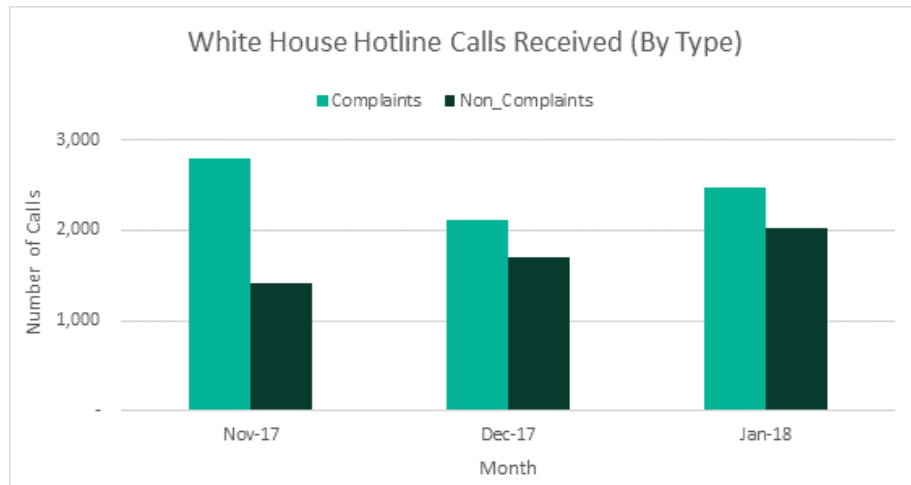
VEO will collect information on complaint resolution on a *weekly* basis. In this instance, veterans are assessing an action or decision taken by an entity within the VA. The cognitive recall for such a decision is thought to be stronger than the recollection of the characterization of the demeanor and helpfulness of an individual call center representative. Unlike that initial dialogue, there is perceived to be less necessity in garnering prompt reaction from the veteran. On the contrary, it may be constructive to allow additional time for veterans to reflect on the actions taken by the VA due to their contact with the WHH. This is especially true for transactional surveys stemming from preexisting negative circumstances. For these reasons, we deem any collection bias emanating from a portion veterans being contacted within a week of being notified of their resolution negligible.

Persons receiving their complaint resolution will receive an email invitation to join the survey within a week of receipt. They will have two weeks to complete the online survey, with a reminder email after 7 days if it has not yet been completed. Persons are asked to provide their email address by call center staff during the initial call when they provide a description of their complaint. However, some persons choose not to share their email address information while other veterans may not have an email address. VEO will monitor the email rate within case population and will consider automated telephone surveys for those veterans that do not provide an email address.

Target Population and Sample Size Determination

The target population of the WHH survey is all persons who ever placed a call. Secondary contact is made for persons who received a complaint resolution. The time between the initial call and the actual resolution will fluctuate, but complaints are usually closed within days. It should be noted that every veteran who has a complaint resolution will also have had to have called the hotline at some earlier date. As such, these are not mutually exclusive groups and do not fit within the proper definition

of survey strata. Careful consideration of this matter will be taken into account so that undue burden is not placed on possible respondents.



Nevertheless, we would like to make very precise overall measurements of certain population parameters (see question list). The reliability standard within the survey industry corresponds to a 95% confidence level and a 3% margin of error (Lohr 1999). Chart 1, listed above, depicts the number of calls received by the hotline staff for a three month period between Nov. 2017 and Jan. 2018. The average monthly total calls and average number of complaints is listed in Table 2. We have made the conservative assumption that cases are opened and closed at the same rate during the month (a portion of cases may remain unclosed and become overdue). The standard sample size determination formula indicates the number of responses from veterans required to attain the stated level of precision.

Table 2. Target Population Figures

Survey Stratum	Target Population	Approximate Monthly Population	Precision Sample: 95% CL, 3% MOE	Precision Sample: 95% CL, 4% MOE	Expected Yield at 100% Sampling Rate
Initial Call to WH Hotline	Veterans calling the WHH in the past day	4,200	850	526	840
Complaint Resolution	Veterans w/ closed cases in the past week	2,500	750	500	500

It is good survey practice to only contact as many persons as necessary to obtain a *reliable* estimate of the population parameters. This minimizes the burden placed on the population. For a population of 100,000 persons, it is only necessary to collect about 1,100 responses to get a reliable overall estimate. However, when dealing with smaller populations, the number of required responses does not decrease proportionally. For a monthly population of 2,500, the sample size needed for reliable overall estimates is still a sizable 750.

Based on other surveys implemented by VEO on the veteran population – both via phone and email – the expected survey response rate is placed at 20%. Under this assumption, sending invitations to every possible veteran would yield a reliable sample (95% CI, 3% MOE) for ALL CALLERS at 850, but only a reliable sample at 4% MOE for RESOLUTIONS. Therefore, it is necessary to sample all available veterans for this effort to produce quality results for both populations. This obviates the need for any stratification or formal probability sampling.

Reporting and Quality Control

The sample sizes reported above adhere to monthly reporting. However, it is inadvisable to only recruit once a month, as elapsed time may severely reduce the cognitive recall of participants. Therefore, data collection is enacted on a daily or weekly basis, depending on the survey type.

All responses from a particular calendar month will be pooled together and reported as a single cohesive unit. The default reporting period in the user interface will pertain to monthly estimates, as this will have the most reliable estimates, with more frequent data points than quarterly reporting. At the monthly level, subpopulation estimates will still be viable (e.g. satisfaction with regard to individual agents, or responses based on time of call). For these reasons, monthly reporting is the recommended time unit of analysis.

Many investigators are also interested in estimates at the weekly and even daily level. This permits them to observe changes of satisfaction over shorter time intervals. These estimates are more volatile, however, and are associated with larger standard errors and margins of errors. Tables 3A and 3B depict the expected sample sizes for different reporting periods along with the associated reliability. Data users will be able to observe the survey responses at any level reporting level (Daily, Weekly, Monthly or Quarterly), but results must be interpreted with care.

Table 3A. Reporting Sizes for Initial Calls to WH Hotline

Time Period	Approximate Population Size	Expected Yield at 100% Sampling Rate	Observed Margin of Error
Quarterly	12,600	2,520	2%
Monthly	4,200	840	3%
Weekly	1,050	210	6%
Daily	140	28	17%

Table 3B. Reporting Sizes for Complaint Resolution

Time Period	Approximate Population Size	Expected Yield at 100% Sampling Rate	Observed Margin of Error
Quarterly	7,500	1,500	2%
Monthly	2,500	500	4%
Weekly	625	125	8%
Daily	83	17	21%

Coverage and Non-Response Bias

Many survey practitioners recommend the use of sampling weighting to improve inference on the population. Under this process, the respondent sample is made to more closely resemble the true population. The process requires accurate information on the **Age** and **Gender** of callers. Such demographic information is only available for veterans, and there are a substantial number of veterans with unknown information. Therefore, any future weighting methodology will need to accommodate missing information from non-veteran callers and acquire more complete demographic information for all veterans. Upon receipt of this information – either through administration data or a refinement of the interview process – VEO will conduct a weighting analysis to determine whether there are possible inferential gains. For the time being, all survey estimates will remain unweighted.

Quarantine Rules

The Veterans Experience Office seeks to limit contact with Veterans as much as possible and only as necessary to achieve measurement goals. After some consideration, we are proposing to elicit feedback from Veterans after their initial call and again days or weeks later only for complaint calls. These persons would be contacted after they have had a complaint resolved and the case closed. Due to the limited sample sizes and expected response rates, the double sampling is essential to fulfill the survey objectives. Only half of the callers will be invited to both surveys, and only approximately 4-5% will actually complete both.

The veterans may not be aware of two phases as they will be offered through different media. The dual nature of these surveys will serve to reduce the burden placed upon them. The first survey will consist of a phone survey directly after the initial call, while the second will be an online survey using email recruitment. The email survey will be sent some time later and may be completed at their leisure over a 2-week period. Both surveys are brief in nature and may be completed within minutes. Moreover, the rules proposed below will prevent excessive recruitment attempts upon users of the hotline service.

VEO also monitors veteran participation within other surveys to ensure veterans do not experience survey *fatigue*. Finally, all VEO surveys offer options for respondents to opt out and ensure they are no longer contacted for a specific survey.

Table 4. Proposed Quarantine Protocol

Quarantine Rule	Description	Elapsed Time
Phone to Email (Complaint Calls Only)	Number of days between receiving/completing phone survey, prior to receiving email invitation to the online survey for the same complaint.	1 Week
Phone to Phone	Number of days between receiving/completing phone survey regarding, and receiving another phone survey related after calling the hotline for another issue.	3 Months or 90 Days
Email to Email (Multiple Complaints)	Number of days between completing online survey, and receiving another online survey related to another complaint.	3 Months or 90 Days
Other Surveys	Veterans engaged that have recently completed other VEO surveys will not be selected for 30 days.	1 Month or 30 Days

Anonymous	Callers explicitly wishing to remain anonymous will not be contacted.	N/A
Opt Outs	Persons indicating their wish to opt out of either phone or online survey will no longer be contacted.	N/A