Supporting Statement Outline – Sample

NOTE: Complete Part B for Survey ICR Requests

SUPPORTING STATEMENT – PART B

B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

If the collection of information employs statistical methods, the following information should be provided in this Supporting Statement:

1. Description of the Activity

This survey is targeted at Navy Active Component personnel to gather their input and opinions on key issues of interest to Navy leadership. To accomplish this, a stratified random sample (based on gender and grade) of Navy personnel will be identified from the Navy personnel database. The 2019 Health of the Force Survey also utilized a random stratified sample based on gender and grade and achieved an 11% response rate. We are using a mixed method approach to data collection to improve the response rate this year and our goal will be a response rate between 12 - 16%. Personnel identified in the random stratified sample will receive an email invitation to participate in the survey that includes a unique link to take the survey. This will be followed by a series of reminder emails. The second method of distribution will be via social media and will involve an open link which has been shown in recent Navy surveys as a viable strategy to improve representation of junior personnel.

2. Procedures for the Collection of Information

Using R software, a random sample of Navy Active Component personnel will be pulled from the Navy personnel system using gender and grade as the stratification criteria. Junior personnel are historically under-represented in DOD surveys. Our sample will include 25% of Active Component personnel based on gender and grade but, to overcome the under-representation of junior personnel, it will include 35% of junior Sailors, grades E1-E4, and junior officers, grades, O1-O2. As of August 8, 2021, there are 319,847 Active Component personnel with email addresses in the Navy personnel system. Excluding flag officers (grades O7 to O10), the sample will include 19,487 female and 72,815 male service members. Our goal with the data collection will be to collect sufficient data for each of the stratified categories to generate a 99% confidence level with a margin of error + or – 2%. The survey will be hosted on the OMB Max.Gov Survey tool.

3. Maximization of Response Rates, Non-response, and Reliability

A mixed method approach to survey distribution will be used to maximize participation. Potential participants identified through the random stratified sample will receive an email invitation to participate in the survey with a unique link. A minimum of two reminder emails will be sent out during the course of the survey administration to those who haven't

participated. We have an established problem with the accuracy of email addresses in the Navy personnel system. This is particularly true for junior Sailors who can also be limited in their ability to access email based on assignment and computer availability. To mitigate these issues, we will also be using a social media campaign to raise awareness of the survey that will include an open link to access the survey. To restrict participation to the Active Component and eliminate any duplication, we will be using DOD ID number to access the survey via the open link.

Once the data collection is complete, the survey will be closed and data will be downloaded for analysis. Using DOD ID numbers, the results will be merged with demographic data from the Navy personnel database. After the merge, DOD ID numbers will be removed to preserve confidentiality. The convenience and probability datasets will be handled separately. Weighting adjustments will account for non-response or coverage. This process will be carried out most likely using raking, "a multiplicative weighting technique that uses iterative proportional fitting" (OMB, 2006). Results for the convenience and the weighted probability samples will be presented separately and will be used to examine how these two sampling methods compare and to identify non-response bias.

4. Tests of Procedures

The analysis of the HoF survey data will include a variety of different statistical tests. Dr. Jebo will be using SPSS statistical software to conduct most of the analysis and will leverage the imbedded tests which include but are not limited to ANOVA, Chi-squared, factor analysis, and different T-Tests based on the data collected.

5. Statistical Consultation and Information Analysis

a. Dr. Richard Linton 703-604-6058, Dr. Jennifer Jebo 757-630-7318, Mr. Dave Smith 321-297-7488.

b. Dr. Jennifer Jebo Operations Research Analyst with over 15 years of experience conducting data collection and analysis for the United States Government will be the primary analyst. She may be assisted by Dr. Monica Huff and Dr. Julia Manzella if needed.