Request for Approval under the "Generic Clearance for Improving Customer Experience (OMB Circular A-11, Section 280 Implementation)" (OMB Control Number: 2900-0876)

TITLE OF INFORMATION COLLECTION: Caregiver Support Program (CSP) Surveys

PURPOSE

The Department of Veteran Affairs (VA) Caregiver Support Program (CSP) offers clinical services to caregivers of eligible and covered Veterans enrolled in the VA health care system. CSP is a national program with local offices and teams located within VA facilities. The program's mission is to promote the health and well-being of family caregivers who care for our Nation's Veterans, through education, resources, support, and services.

        The CSP offers two programs:
1)   Program of General Caregiver Support Services (PGCSS)
2)   Program of Comprehensive Assistance for Family Caregivers (PCAFC)

VEO has been commissioned by CSP to measure the satisfaction and experience of Caregiver participants in these two programs.

DESCRIPTION OF RESPONDENTS:

VEO proposes to conduct **3 brief surveys** with Caregiver participants of these programs at several milestones based on their tenure with the program. The surveys are as follows:

1. **CSP New Enrollee Survey**—PCAFC only/ 30 days after enrollment
2. **CSP Program Survey**—Both programs/ Annual (1 year after enrollment, 2 year,…)
3. **CSP Staff Survey**—Both programs/ Annual (1 year after enrollment, 2 year,…)

Caregiver participants will be contacted through an invitation email. A link will be enclosed so the survey may be completed using an online interface with customized participant information. The surveys will consist of a handful of questions formulated using a human-centered design approach and focusing on such elements as trust, emotion, effective, and ease with the care they received.

TYPE OF COLLECTION: (Check one)

[ ]   Customer Comment Card/Complaint Form   [X] Customer Satisfaction Survey
[ ]   Usability Testing (e.g., Website or Software   [ ] Small Discussion Group
[ ]   Focus Group   [ ] Other:_____

CERTIFICATION:

I certify the following to be true:
1. The collection is voluntary.

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2. The collection is low-burden for respondents and low-cost for the Federal Government.
3. The collection is non-controversial and does <u>not</u> raise issues of concern to other federal agencies.

4. Personally identifiable information (PII) is collected only to the extent necessary and is not retained.
5. Information gathered is intended to be used for general service improvement and program management purposes.
6. The collection is targeted to the solicitation of opinions from respondents who have experience with the program or may have experience with the program in the future.
7. All or a subset of information may be released as part of A-11, Section 280 requirements on performance.gov. Additionally, summaries of the data may be released to the public in communications to Congress, the media and other releases disseminated by VEO, consistent with the Information Quality Act.

- Name: Sergio Gazaryan, Enterprise Measurement Project Manager, Veterans Experience Office, VA (603) 203-3167

To assist review, please provide answers to the following question:

Personally Identifiable Information:
1. Will this survey use individualized links, through which VA can identify particular respondents even if they do not provide their name or other personally identifiable information on the survey? [X] Yes [] No
2. Is personally identifiable information (PII) collected? [ ] Yes [X] No
3. If Yes, will any information that is collected be included in records that are subject to the Privacy Act of 1974? [ ] Yes [ ] No **[N/A]**
4. If Yes, has an up-to-date System of Records Notice (SORN) been published? [ ] Yes [ ] No **[N/A]**

Gifts or Payments:
Is an incentive (e.g., money or reimbursement of expenses, token of appreciation) provided to participants? [ ] Yes [X] No

BURDEN HOURS

Category of Respondent	No. of Respondents	Participation Time	Burden
CSP New Enrollee Survey	2,969	5 minutes	247 hours
CSP Program Survey	8,473	5 minutes	706 hours
CSP Staff Survey	8,473	3 minutes	424 hours
Totals	19,915	4.15 minutes (avg)	1,377 hours

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Please answer the following questions.

1. **Are you conducting a focus group, a survey that does not employ random sampling, user testing or any data collection method that does not employ statistical methods?**

   Yes X
   No __

   If Yes, please answer questions 1a-1c, 2 and 3.
   If No, please answer or attach supporting documentation that answers questions 2-8.
   a. Please provide a description of how you plan to identify your potential group of respondents and how you will select them.

   - This survey will be offered to North Carolina Veterans, Active Military, Guard/Reservist, family members, caregivers, and survivors.

   b. How will you collect the information? (Check all that apply)
   [X] Web-based or other forms of Social Media
   [ ] Telephone

   [ ] In-person

   [ ] Mail
   [X] Other- E-mail-based surveys

   c. Will interviewers or facilitators be used? [X] Yes [] No

2. Please provide an estimated annual cost to the Federal government to conduct this data collection: __$13,000_____

3. Please make sure that all instruments, instructions, and scripts are submitted with the request. This includes questionnaires, interviewer manuals (if using interviewers or facilitators), all response options for questions that require respondents to select a response from a group of options, invitations given to potential respondents, instructions for completing the data collection or additional follow-up requests for the data collection.

   - Done

4. Describe (including a numerical estimate) the potential respondent universe and any sampling or other respondent selection methods to be used. Data on the number of

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entities (e.g., establishments, State and local government units, households, or persons) in the universe covered by the collection and in the corresponding sample are to be provided in tabular form for the universe as a whole and for each of the strata in the proposed sample. Indicate expected response rates for the collection as a whole. If the collection had been conducted previously, include the actual response rate achieved during the last collection.

- Not applicable.

Category of Respondent	No. of Respondents
Individuals and Households	19,915 annual
Totals	19,915 annual

5. Describe the procedures for the collection of information, including:
    a. Statistical methodology for stratification and sample selection.
    b. Estimation procedure.
    c. Degree of accuracy needed for the purpose described in the justification.
    d. Unusual problems requiring specialized sampling procedures.
    e. Any use of periodic (less frequent than annual) data collection cycles to reduce burden.

    - Not applicable.

6. Describe methods to maximize response rates and to deal with issues of nonresponse. The accuracy and reliability of information collected must be shown to be adequate for intended uses. For collections based on sampling, a special justification must be provided for any collection that will not yield "reliable" data that can be generalized to the universe studied.

    - Not applicable.

7. Describe any tests of procedures or methods to be undertaken. Testing is encouraged as an effective means of refining collections of information to minimize burden and improve utility. Tests must be approved if they call for answers to identical questions from 10 or more respondents. A proposed test or set of tests may be submitted for approval separately or in combination with the main collection of information.

    - Not applicable.

8. Provide the name and telephone number of individuals consulted on statistical aspects of the design and the name of the agency unit, contractors, grantees, or other person(s) who will actually collect or analyze the information for the agency.

    - Collection and Analysis:

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- o Evan Albert, Dir. of Measurement and Data Analytics, Veterans Experience Office, VA (202) 875-9478
- o Sergio Gazaryan, Enterprise Measurement Project Manager, Veterans Experience Office, VA (603) 203-3167
- o Timothy Jobin, Deputy Director Caregiver Support Program, Veterans Health Administration, (702) 343-2320
- o Matthew Brown, Associate Director - CARMA|HER, Veterans Health Administration, (216) 308-2983

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Caregiver Support Program Survey Sampling Methodology Report

Prepared by

Veteran Experience Office

Version 1 July 2022

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Executive Summary

The Department of Veteran Affairs (VA) Caregiver Support Program (CSP) offers clinical services to caregivers of eligible and covered Veterans enrolled in the VA health care system. CSP is a national program with local offices and teams located within VA facilities. The program's mission is to promote the health and well-being of family caregivers who care for our Nation's Veterans, through education, resources, support, and services.

The CSP offers two programs:

3)   Program of General Caregiver Support Services (PGCSS)
4)   Program of Comprehensive Assistance for Family Caregivers (PCAFC)

The purpose of this document is to define VA's sampling methodology for selecting potential survey respondents for this study. While our general approach for sampling design aims to provide monthly estimates to allow relatively robust level of precision, the population sizes are relatively small in this case.

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Part I – Introduction

A. Background

The **Enterprise Measurement and Design** team (EMD) within the **Veterans Experience Office** (VEO) is tasked with conducting transactional surveys of the customer population to measure their satisfaction with the Department of Veterans Affairs (VA) numerous benefit services. Thus, their mission is to empower Veterans by rapidly and discreetly collecting feedback on their interactions with such VA entities as National Cemetery Administration (NCA), Veterans Health Administration (VHA), and Veterans Benefits Administration (VBA). VEO surveys generally entail *probability* samples which only contact minimal numbers of participants necessary to obtain reliable estimates. This information is subsequently used by internal stakeholders to monitor, evaluate, and improve beneficiary processes. Participants are always able to decline participation and can opt out of future invitations. A *quarantine* protocol is maintained to limit the number of times a customer may be contacted over a period of time across all VEO surveys, in order to prevent survey fatigue.

Surveys issued by EMD are generally brief in nature and present a low amount of burden to participants. A few targeted questions will utilize a human centered design (HCD) methodology, revolving around concepts of Trust, Ease, Effectiveness and Emotion. Questions will focus on a specific aspect of a service process—spanning communication, applying for benefits, deliberation, and/or receipt of benefits. Structured questions directly address the pertinent issues regarding each surveyed line of business. The opportunity to volunteer open-ended text responses is provided within most surveys. This open text has been demonstrated to yield enormous information. Machine learning tools are used for text classification, ranking by sentiment scores, and screening for homelessness, depression, etc. Modern survey theory is used to create sample designs which are representative, statistically sound, and in accordance with OMB guidelines on federal surveys.

VEO has been commissioned by CSP to measure the satisfaction and experience of participants in two programs:
1)   Program of General Caregiver Support Services (PGCSS)
2)   Program of Comprehensive Assistance for Family Caregivers (PCAFC)

From these programs we propose to conduct 3 surveys:
- **Survey 1: CSP New Enrollee Survey**—PCAFC only/ 30 days after enrollment
- **Survey 2: CSP Program Survey**—Both programs/ Annual (1 year after enrollment, 2 year,…)
- **Survey 3: CSP Staff Survey**—Both programs/ Annual (1 year after enrollment, 2 year,…)

 VEO proposes to conduct **3 brief surveys** with participants of these programs at several milestones based on their tenure with the program. Participants will be contacted through an invitation email. A link will be enclosed so the survey may be completed using an online interface, with customized participant information. The surveys will consist of a handful of questions formulated using a human-centered design approach and focusing on such elements as trust, emotion, effective, and ease with the care they received.

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B. Basic Definitions

Coverage	The percentage of the population of interest that is included in the sampling frame.
Measurement Error	The difference between the response coded and the true value of the characteristic being studied for a respondent.
Non-Response	Failure of some respondents in the sample to provide responses in the survey.
Transaction	A *transaction* refers to the specific time a customer interacts with the VA that impacts the customer's journey and their perception of VA's effectiveness in servicing participants.
Response Rate	The ratio of participating persons to the number of contacted persons. This is one of the basic indicators of survey quality.
Sample	In statistics, a data sample is a set of data collected and/or selected from a statistical population by a defined procedure.
Sampling Error	Error due to taking a particular sample instead of measuring every unit in the population.
Sampling Frame	A list of units in the population from which a sample may be selected.
Reliability	The consistency or dependability of a measure. Also referred to as *standard error.*

C. Application to Veterans Affairs

This measurement may bring insights and value to all stakeholders at VA. Front-line VA staff can resolve individual feedback from participant and take steps to improve their experience; meanwhile VA executives can receive real-time updates on systematic trends that allow them to make changes.

1) To collect continuous participant experience data to monitor the relative success of programs designed to improve participant experience with CSP
2) To help field staff and the national office identify need of the specific population they serve
3) To better understand why CSP participants provide positive or negative feedback

Part II – Methodology

A. Target Population and Frame

The target population of the CSP survey will include all participants who reached a milestone in the last 28 days based on length of time enrolled in program.

- 30 days (PGCSS only)—Survey 1
- Annual yearly anniversary—Survey 2 & Survey 3

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VEO staff will access the data directly from the CSP database.

B. Sample Size Determination

For a given margin of error and confidence level, the sample size is calculated as below (Lohr, 1999). For population that is *large*, the equation below is used to yield a representative sample for proportions:

$$n_0 = \frac{Z_{\alpha/2}^2 pq}{e^2}$$

where

- $Z_{\alpha/2}$ = 1.96, which is the critical Z score value under the normal distribution when using a 95% confidence level (α = 0.05).
- **p** = the estimated proportion of an attribute that is present in the population, with q=1-p.
    - Note that pq attains its maximum when value p=0.5, and this is often used for a conservative sample size (i.e., large enough for any proportion).
- **e** = the desired level of precision; in the current case, the margin of error e = 0.03, or 3%. Also referred to as **MOE**.

For a population that is relatively *small*, the finite population correction is used to yield a representative sample for proportions:

$$n = \frac{n_0}{1 + \frac{n_0}{N}}$$

Where

- n_0 = Representative sample for proportions when the population is large.
- N = Population size.

The margin of error surrounding the baseline proportion is calculated as:

$$Margin\ of\ error = z_{\alpha/2} \sqrt{\frac{N-n}{N-1}} \sqrt{\frac{p(1-p)}{n}}$$

Where

- $Z_{\alpha/2}$ = 1.96, which is the critical Z score value under the normal distribution when using a 95% confidence level (α = 0.05).
- N = Population size.
- n = Representative sample.
- **p** = the estimated proportion of an attribute that is present in the population, with q=1-p.

Table 2 depicts the estimated number of unique CSP participants within a month. Due to the small amount of available sample size, we are proposing to conduct a census for this survey. With current estimates, this would result in around, 2,969 completed surveys from 16,965 invitations per year for survey 1. Surveys 2 and 3, which will be an even split sample from the same population, will also be a census, for the time being, but

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this population is expected to grow over time due to recent and planned program expansion. We therefor propose to cap the survey at a level that achieves an MOE of +/- 4% monthly. While the current volume will allow for only around a third of these invites, the volume will be capped at 16,946 completed surveys from 96,837 invitations per year. To account for potential estimation errors, improvement in email collection, or changes in business volume; we are requesting approval for a maximum of 20,000 completes annually for both surveys.

Table 2. Estimated Population and Survey Figures

	Survey 1		Surveys 2 & 3	
	28 Days	**Annually**	**28 Days**	**Annually**
Estimated Total Population	1,446	18,850	8,254	107,596
Available Population	1,301	16,965	7,429	96,837
Expected Response Rate	17.5%	17.5%	17.5%	17.5%
Estimated Number of Respondents	228	2,969	1,300	16,946

C. Stratification

Stratification is used to ensure that the sample matches the population, to the extent possible, across sub-populations. Since we are proposing a census, stratification is not required for Survey 1. Surveys 2 & 3 will use balancing variables or implicit strata to assure that both surveys are representative of the population. Implicit strata will include tenure, program, and region.

D. Data Collection Methods

The population for the survey will extracted by VEO every 4 weeks. Any record with a valid email address will be included in the survey. Email invitations are delivered to all selected participants. Selected respondents will be contacted within 29 days of their trigger date. They will have 14 days to complete the survey. Estimates will be accessible to data users instantly on the VSignals platform.

Table 3. Survey Mode

Mode of Data Collection	Recruitment Method	Time After Transaction	Recruitment Period	Collection Days
Online Survey	Email Recruitment	Within 29 days of trigger date	14 Days (Reminder after 7 Days)	Tuesday

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E. Reporting

Researchers will be able to use the VSignals platform for interactive reporting and data visualization. Trust, Ease, Effectiveness, and Emotion scores can be observed for each). The scores may be viewed by various subgroups (e.g. disability type) in various charts for different perspective. They are also depicted within time series plots to investigate trends. Finally, filter options are available to assess scores at varying time periods and within the context of other collected variable information.

Recruitment is continuous (weekly) but the results from several weeks may be combined into a *quarterly* or *annual* estimate for more precise estimates.

F. Quality Control

To ensure the prevention of errors and inconsistencies in the data and the analysis, quality control procedures will be instituted in several steps of the survey process. Records will undergo a cleaning <u>during the population file creation</u>. The quality control steps are as follows.

1. Records will be reviewed for missing data. When records with missing data are discovered, they will be either excluded from the population file when required or coded as missing.
2. Any duplicate records will be removed from the population file to both maintain the probabilities of selection and prevent the double sampling of the same customer.
3. Invalid emails will be removed.

The survey sample <u>loading and administration processes will</u> have quality control measures built into them.

1. The extracted sample will be reviewed for representativeness. A secondary review will be applied to the final respondent sample.
2. The survey load process will be rigorously tested prior to the induction of the survey to ensure that sampled participants is not inadvertently dropped or sent multiple emails.
3. The email delivery process is monitored to ensure that bounce-back records will not hold up the email delivery process.

G. Sample Weighting, Coverage Bias, and Non-Response Bias

A final respondent sample should closely resemble the true population, in terms of the demographic distributions (e.g. age groups). One problem that arises in the survey collection process is ***nonresponse***, which is defined as failure of selected persons in the sample to provide responses. This occurs in various degrees to *all* surveys, but the resulting estimates can be distorted when some groups are actually more or less prone to complete the survey. In many applications, younger people are less likely to participate than older persons. Another problem is ***under-coverage***, which is the event that certain

groups of interest in the population are not even included in the sampling frame. They cannot participate because they cannot be contacted: those without an email address will be excluded from sample frame. These two phenomena may cause some groups to be over- or under-represented. In such cases, when the respondent population does not match the true population, conclusions drawn from the survey data may not be reliable and are said to be **biased**.

While we are not currently planning to weight the data, survey practitioners recommend the use of sampling weighting to improve inference on the population. This will be introduced into the survey process as a tool that helps the respondent sample more closely represent the overall population. Weighting adjustments are commonly applied in surveys to correct for nonresponse bias and coverage bias. As a business rule will be implemented to require callers to provide email address, the coverage bias for this survey is expected to decrease. In many surveys, however, differential response rates may be observed across age groups. In the event that some age groups are more represented in the final respondent sample, the weighting application will yield somewhat smaller weights for this age group. Conversely, age groups that are underrepresented will receive larger weights. This phenomenon is termed *non-response bias correction* for a single variable. Strictly speaking, we can never know how non-respondents would have really answered the question, but the aforementioned adjustment calibrates the sample to resemble the full population – from the perspective of demographics. This may result in a substantial correction in the resulting weighting survey estimates when compared to direct estimates in the presence of non-negligible sample error (non-response bias).

When implemented, weighting will utilize cell weights in real time. With each query on the VSignals platform for each respondent by dividing the target for a cell by the number of respondents in the cell. The weighting scheme will include, where possible all the variables used for explicit stratification, However, cells will be collapsed if the proportion of the population is insufficient to reliably achieve a minimum of 3 completes per month. As a result, weights may be more comprehensive for larger population segments. For instance, in the VA, women are a smaller proportion of the populations. Therefore, woman will have more collapsed cells than men.

As part of the weighting validation process, the weights of persons in age and gender groups are summed and verified that they match the universe estimates (i.e., population totals). Additionally, we calculate the *unequal weighting effect*, or UWE (see Kish, 1992; Liu et al., 2002). This statistic is an indication of the amount of variation that may be expected due to the inclusion of weighting. The unequal weighting effect estimates the percent increase in the variance of the final estimate due to the presence of weights and is calculated as:

$$UWE = 1 + cv^2_{weights} = \left(\frac{s}{\overline{w}}\right)^2$$

where

- **cv** = coefficient of variation for all weights w_{ij}.
- **s** = sample standard deviation of weights.

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- $\overline{w}$ = sample mean of weights, $\overline{w} = \frac{1}{n}\sum_{ij} w_{ij}$.

H. Quarantine Rules

VEO seeks to limit contact with participants as much as possible, and only as needed to achieve measurement goals. These rules are enacted to prevent excessive recruitment attempts upon VA's participants. VEO also monitors participation within other surveys, to ensure veterans and other participants do not experience survey fatigue. All VEO surveys offer options for respondents to opt out, and ensure they are no longer contacted for a specific survey. VEO also monitors participation within other VEO surveys, to ensure participants do not experience *survey fatigue*. For this survey we expect that the later will be minimal since the target population is mostly non-veteran and will have little overlap with other VEO surveys.

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Table 4. Quarantine Protocol

Quarantine Rule	Description	Elapsed Time
Repeated Sampling for CSP Survey	Number of days between receiving/completing online survey, prior to receiving email invitation for CSP Survey	30 Days
Other VEO Surveys	Number of days between receiving/completing online survey and becoming eligible for another VEO survey	30 Days
Opt Outs	Persons indicating their wish to opt out of either phone or online survey will no longer be contacted.	N/A

Part III – Assumptions and Limitations

A. Coverage Bias

Since the CSP Survey is email only, there is a small population of CSP participants that cannot be reached by the survey. Participants that lack access to the internet or do not use email may have different levels of Trust and satisfaction with their service. As such, it is thought that participants in this latter category do not harbor any tangible differences to other program participants who do share their information.

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