weblink to the questionnaire and at the start of the focus groups for those participants.

18. Explanation of Exceptions to Certification Statement or "Certification for Paperwork Reduction Act Submissions" (Item 19, OMB Form 83-I)

Not applicable. No exceptions to the certification statement are requested.

# **B.** Collection of Information Employing Statistical Methods

1. Description of Potential Respondent Universe and Sampling Methods

Entrepreneur focused organizations and associations (national and local) in three city/areas from specific geographic regions of the United States will be identified (West, East, South/MidWest).

Identified organizations (approximately 10) will be contacted by the NWBC and asked to participate (distribute questionnaires by email to membership or to share email membership list with the Contractor for questionnaire distribution accordingly to that organization's policies). It is estimated that organizations will distribute the research information in regards to the questionnaire to 450 or more total organization members in each city/region.

Eligible respondents meeting the entrepreneur definition and all inclusion criteria and no exclusion criteria are expected to be quite high in these targeted organizations (60%, or 810 subjects). Based on this denominator we expect a 40% response rate for a resulting sample of 324 participants (motivated population).

Of the 324 collected questionnaires, we expect a 55% positive response rate to the question of the respondent's participation in a focus group. This subject population is a motivated population, and the response rate may be even higher, given that focus group times will be held in the evening and at a convenient location with ample parking. With a 55% positive rate, we expect 178 potential participants for the focus group across the three geographic areas.

A stratified simple random sample based on gender and age (for women) from the 178 or more potential participants will be conducted in a 2:2:1 ratio using nQueryAdvisor 7.0 (Statistical Solutions Ltd.). Stratified groups will be young women entrepreneurs (18-35 years of age), older women entrepreneurs (>35 years of age), and men (ages 18 years and older). Sampling will be performed at the city/region level, resulting in a total of 120 focus group participants (16:16:8 subjects at each site). Oversampling of 20% will occur to account for potential declines and no-shows at the time of the focus group. If less than 178 participants respond in the affirmative for participation, sampling may not be needed, and all volunteers will be approached for inclusion in the focus groups.

- 2. Total burden of the participants for the questionnaires is 81 hours and for the focus groups 180 hours (total of 261 hours).
- 3. Procedures for Collection of Information
  - a. Statistical Methodology for Stratification and Sample Selection

Stratification is based upon the objectives of the study for determination of potential differences between women and men entrepreneurs and younger and older women entrepreneurs. Convenience sampling will be employed and stratification will be used in the application of the statistical hypothesis test calculation.

#### c. b. Estimation Procedure

All estimations have the goal of producing a final sample size for meaningful statistical analysis of the questionnaires as well as having an appropriate number of subjects for data collection in the focus groups.

When comparing the maximum number of stratified groups for hypothesis testing (younger women vs. older women vs. men), we see with the table below that we will have over 99% power to detect differences between the groups when a difference truly exists (alpha of 0.05). Three examples for comparing a difference in proportions ranging from a low proportion (large effect size), an average proportion (average effect size) and a larger proportion (average effect size) have been given, even using a relatively large variance in proportions (20%).

χ² test of equal proportions in G groups (unequal n's)			
	1	2	3
Test significance level, α	0.050	0.050	0.050
Number of groups, G	3	3	3
Average proportion, $\pi_0$	0.250	0.480	0.650
Variance of proportions, V= $\Sigma r_i(\pi_i$ - $\pi_0)^2/\Sigma r_i$	0.200000	0.200000	0.200000
Effect size, $\Delta^2 = V / [\pi_0 (1-\pi_0)]$	1.066667	0.801282	0.879121
Power (%)	99	99	99
N as multiple of $n_1$ , $\Sigma r_i = \Sigma n_i/n_1$			
Total sample size, N	500	500	500

Even if the response rate is much lower than the expected 40%, statistical analyses will not be jeopardized for the primary objective for analysis of the questionnaire data.

- d. c. Degree of Accuracy Needed for Purpose Described in the Justification See previous response and power calculations.
- e. d. Unusual Problems Requiring Specialized Sampling Procedures
  None.

- f. e. Any Use of Periodic (Less Frequent than Annual) Data Collection Cycles to Reduce Burden
  - No. One time data collection for questionnaires and one time data collection during focus groups.
- 3. Methods for Maximum Response Rates and Dealing with Non-Response Issues

# **Entrepreneur Organizations:**

- Introduction from the NWBC and development of relationship with organization.
- Ask Organization to write brief support statement for research to be distributed with questionnaire web link or to use provided support statement template from Contractor.
- Follow-up by EmpiriStat, Inc. with organization if needed for explanation of research and process (methods and requirements).
- Provision of options to the organization: distribution of questionnaire via web link to membership by organization or sharing of membership email list with NWBC/Contractor.
- Solicit a total number of organizations for participation that cumulatively has a membership of over 600 members in that city/area.

### Questionnaire Responses:

- 7 day, 14 day and 21 day reminder to membership for completing the questionnaire (by Organization/NWBC) and then close-out of questionnaire at 30 days post distribution.
- No methods for imputation of missing data on questionnaire (not statistically appropriate). All missing data will be reported in the statistical analysis in order for correct interpretation of denominators.
- Provide well in advance the date, location and time(s) of the focus groups for the applicable city on the questionnaire.

#### Focus Group Participation:

 Send a thank you and follow-up to all responders on Questionnaire indicating that they would like to participate in the Focus Groups. Provide rationale and date, time and location of the focus groups for planning purposes. Indicate that a random sampling procedure will be performed (if sample population is larger than sample size required for the focus groups). Require RSVP from potential participants.

- Invite 20% additional participants per focus group to account for last minute no-shows.
- Follow-up thank you same day with calendar invite in Outlook to email of participant with all details included. Monitor for declines of invitation and invite replacement(s) if applicable.
- Personal telephone call 7 days in advance of the focus group to remind them of participation. Monitor for declines and invite replacement if applicable.
- Email reminder 24 hours in advance of focus group meeting. Monitor for decline(s) and invite replacement(s) if applicable.

#### 4. Tests of Procedures and Methods

The final Questionnaire will be tested within the NWBC and the Key Researcher will pilot the questionnaire within her Business Network International business group (a similar population to the target population; n<10). Testers will be instructed to complete the questionnaire and any questions that they do not understand, to indicate the confusion they may have had on that particular question. The Key Researcher will review these questionnaires and consider the impact of tester notes for potential revision of the questionnaire prior to release. No other testing or methods will be utilized.

 Names and Contact Information for Individuals Responsible for Statistical Design and Name of Agency, Contractor(s), Grantee(s) and/or Other Person(s) Responsible for Collection and Analysis

### Statistical Design and Data Collection:

EmpiriStat, Inc.- Contract # SBAHQ-12-M-0225 Dr. Nicole C. Close 240-744-0000 x701 866-276-7828 nclose@empiristat.com

#### Agency Contact:

Emily K. Bruno, Research and Policy Director National Women's Business Council 409 3<sup>rd</sup> St SW, Suite 210 Washington, DC 20416 202-205-6826 emily.bruno@nwbc.gov