SUPPORTING STATEMENT B

National Survey of Banks' Efforts to Serve
The Unbanked and Underbanked

B. STATISTICAL METHODS

1. Potential respondent universe (including a numerical estimate) and any sampling or other respondent selection methods to be used

Universe and Sampling Frame

The goal of this study is to obtain information for both headquarters and branches of FDIC-insured financial institutions regarding strategies for serving the unbanked and underbanked, and products and services offered to these populations. The universe or target population for the headquarters will consist of main offices associated with all FDIC-insured bank charters, excluding institutions that do not have standard retail branching operations. Institution-level information is primarily obtained from two data sources: the Call Report and the Thrift Financial Report (TFR) data. FDIC-insured institutions complete and submit these reports containing operational and financial information to the FDIC on a quarterly basis. The latest available Call Report and TFR data was reported as of June 30, 2011.

For branches, the universe will consist of all full-service retail deposit-taking office locations, including main or headquarter offices that provide retail operations. Cyber offices and limited purpose branches will be identified and excluded to the extent possible. The primary source of bank branch information is the FDIC Survey of Deposits (SOD) data that is collected annually by the FDIC. In addition, the FDIC also regularly updates branch information based on bank failures that will also be used to update the branch survey sampling frame.

The sampling frame for the branch survey will be composed of all retail branches from unit banks (institutions with no full-service retail branches outside of the HQ location) and financial institutions that participate in the headquarters data collection and that agree to participate in the branch survey collection. The branch sampling frame will use SOD data as of June 30, 2011

Based on June 2011 Call Report Data and June 2010 SOD data, the universe of FDIC-insured institutions having standard retail branching operations includes 7,305 charters, and the universe of eligible branches includes 90,650 offices. Table 1 below presents the number of headquarters and branches by Tier size categories (Tier 1: Top 25 banks by assets; Tier 2: Banks with $1 Billion or more in assets outside the top 25; Tier 3: Banks with less than $1 Billion in assets).

Table 1: Universe Counts (Headquarters and Branches) by Asset Size

	Number of Headquarters	Number of Branches
Tier 1 Top 25 banks by assets	25	39,617
Tier 2 Banks with $1 Billion or more in assets outside the Top 25	552	24,008
Tier 3 Banks with less than $1 Billion in assets	6,728	27,025
Sample Frame	**7,305**	**90,650**

The contractor will receive from the FDIC updated lists of headquarters containing the name, asset size, and mailing address of all FDIC-insured headquarters, along with a list of mailing addresses of the institutions' branches. For the purpose of sampling, these lists (of headquarters and branches) will be used as sampling frames. A standard two-stage sample design will be used, with headquarters selected at the first stage and branches selected at the second stage. Each headquarters selected at the first stage will be asked if a sample of their branches can be asked to participate in the survey. The branch sample will only be selected from branches associated with headquarters that allow their branches to participate in the survey. Two random samples (one for headquarters and one for branches) will be drawn from the respective lists using probability sampling techniques.

Based on the current universe data available for headquarters and branches, the sample sizes for headquarters and branches are 709 and 2,000 respectively. Samples will be designed so that survey-based estimates of acceptable precision ($\pm$ 5 percentage points at the 90 percent level of confidence for estimating a universe proportion that is about 50%) can be generated for specified domains of interest for both headquarters and branches. A strong effort will be made to achieve a response rate of 100% for the 25 largest banks, and a 65% response rate for the remaining banks/HQs and branches. This would provide 469 completed headquarters questionnaires and 1,300 completed branch questionnaires. The first survey, which was conducted in 2008, had an overall response rate of 54%. We believe that the response rate can be increased to 65% for this survey because the average time to complete the questionnaire has been reduced from 290 minutes to 30 minutes.

Sampling Unit

The sampling unit for the survey of headquarters, as mentioned above, will be main offices associated with bank charters, excluding charters that do not have standard retail operations. For the survey of branches, retail deposit-taking locations (including main offices that provide retail operations, but excluding Cyber offices and limited-service branches) will be treated as sampling units. The respondent sought for both surveys will be the bank officer expected to be most knowledgeable about strategies and practices for serving the unbanked and underbanked at the

corresponding level (headquarters or branches).

2. Procedures for the collection of information

Data collection will be conducted entirely online, although a mixed-mode approach will be used for inviting and prompting participation by headquarters and branch management. The initial survey request will be via mail, by means of a letter from FDIC introducing the study, accompanied by a letter from the contractor outlining procedures for logging onto the website to respond to the survey. The website will require a unique user name and password to respond in order to monitor response behavior and ensure confidentiality.

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A series of prompts by mail, email (if available), and telephone will be carefully spaced out in order to boost response rates. All prompts will encourage the representative of the financial institution to go online to the contractor's secure website to respond to the survey. If an institution does not have access to the Internet, a paper version of the questionnaire will be available.

Data collection procedures will be the same for headquarters and for branches, with online data collection maximized through the use of mixed-mode prompting.

2.1 Statistical methodology for stratification and sample selection

Survey of Headquarters

A stratified random sample design will be used for sampling headquarters. The population of bank headquarters (also referred to as banks or main offices) will be stratified into 3 strata based on bank asset size as follows: Stratum 1 (Top 25 FDIC-insured banks by assets), Stratum 2 (FDIC-insured banks with $1 Billion or more in assets excluding those in Stratum 1) and Stratum 3 (FDIC-insured banks with less than $1 Billion in assets). For each of the three strata, Table 2 below presents the number of banks in the universe as of June 2010, the proposed sample size, and the expected number of completed questionnaires and resulting precision.

Table 2: Estimated Population and Sample Size for Headquarters

Stratum (based on asset size)	**Universe size[1]**	**Initial sample size**	**Targeted number of completed questionnaires[2]**	**Target Precision (90% confidence)**
1	25	25	25	--
2	562	282	183	5.0%
3	7,104	402	261	5.0%
Total	**7,691**	**709**	**469**	

[1 The universe sizes for different strata are estimated based on the latest (June 2010) available information from the FDIC's Summary of Deposits (SOD) database. At the time of finalizing the sampling plan, these numbers will be revised using more current SOD data]

[2 The targeted number of completed questionnaires is projected under the assumption of a

response rate of 100% for stratum 1 and a response rate of 65% for strata 2 and 3]

For the headquarters survey, the asset size classes are the only domains for which the prescribed precision level (± 5 percentage points at the 90 percent confidence level) is to be achieved. For stratum 1, no sampling is involved and so no precision target of an estimated proportion is presented for that stratum in Table 2. A census will be carried out (i.e. all 25 entities will be included in the sample). The targeted number of completed questionnaires for that stratum is 25 since the goal will be to obtain cooperation from each of the 25 largest banks. For the other two strata, the target number of completed questionnaires (column 4 of Table 2 for strata 2 and 3) for estimation of an unknown population proportion (for example, the proportion of headquarters saying 'yes' to a yes-no question) with specified precision (± 5 percentage points or less at the 90% level of confidence) is calculated based on the following formula (from *Sampling Techniques* by William Cochran, Third Edition, formula 4.1 on page 75):

$$n = \{((t^2*p*q)/d^2)\} / \{1 + (1/N)*((t^2*p*q/d^2) -1) \}, \quad (1)$$

where

n = the target number of completed questionnaires being derived,
p = the approximate value of the universe proportion (with 0.5 used for planning purposes),
q = 1 – p,
N = the number of banks in the headquarters universe for the stratum,
d = the target level of precision (0.05), and
t = the appropriate constant (1.645) for computing a 90% confidence interval based on the normal probability distribution.

As stated before, for strata 2 and 3, the initial sample sizes are derived based on an assumed average response rate of 65%.

Survey of Branches

(i) Stratification of the Branch Universe

Once the sample of headquarters is selected, branches will be sampled from the lists of branches associated with those headquarters (main offices) that allow their branches to participate in the survey. These branches will be stratified into 24 strata based on the following three stratification variables: (i) Asset Size (ii) Census Region (of the office location), and (iii) LMI (whether the office is located in a low- and moderate- income census tract as defined by the Community Reinvestment Act regulations). The asset size category for a branch will be determined based on the asset size of the corresponding headquarters and will have the same three categories: Tier 1: Top 25 FDIC-insured banks by assets, Tier 2: FDIC-insured banks with $1 Billion or more in assets excluding those in Tier 1, and Tier 3: FDIC-insured banks with less than $1 Billion in assets. The Census region variable will have four categories (Northeast, Midwest, South and West). The LMI variable will have two categories: offices located or not located in an LMI area. The 24 strata for sampling branches will be determined by crossing the 3 levels of Asset size, 4 levels of Census Region and 2 levels of the LMI variable. Based on data currently available from the SOD database, Table 3 presents the total number of branches in each of the 24 strata defined above.

Table 3: Total Estimated Number of Branches by Strata

Asset Size	LMI/Non-LMI	Census Region				Total
		Northeast	Midwest	South	West	
Tier 1	LMI	1,769	1,573	3,054	2,391	8,787
Tier 1	Non-LMI	6,711	6,329	11,116	6,764	30,920
Tier 2	LMI	1,124	999	1,656	956	4,735
Tier 2	Non-LMI	5,031	5,239	7,532	2,864	20,666
Tier 3	LMI	669	1,224	2,175	741	4,809
Tier 3	Non-LMI	3,079	9,327	9,612	2,378	24,396
Total		**18,383**	**24,691**	**35,145**	**16,094**	**94,313**

[Note: For the purpose of sampling, Puerto Rico will be included in the Northeast Region and the rest of the US Territories will be assigned to the West Region.]

For the purpose of illustrating how the branch sample will be selected, it is assumed in this document that the percentage of sample headquarters that will allow their branches to participate in the survey is 65 percent. Hence, after taking into account the cooperation rate, the effective sampling rate for the headquarters sample in stratum 2 (from Table 2) is 183/562=0.3256. Within that stratum (Tier 2), the total number of LMI branches located in the Midwest region is 999. Out of those 999 branches, the number of branches associated with the 183 co-operating headquarters (those allowing their branches to participate) is expected to be 325 (=999*183/562). Likewise, the total number of non-LMI branches in the Midwest region in that stratum (Tier 2) is 5,239 and hence the expected number of non-LMI branches in the Midwest region associated with the cooperating headquarters is 1,706 (=5,239*183/562). The expected number of LMI and non-LMI branches associated with cooperating headquarters in each of the 24 strata is estimated similarly and is presented in Table 4. For strata involving Tier 1 banks, there is no sampling and the response rate is assumed to be 100%. If the Tier 1 response rate turns out to be less than 100%, the actual response rate will be taken into account in deriving the appropriate sampling rate for branches in Tier 1.

Table 4: Expected number of branches associated with co-operating headquarters by strata

Asset Size	LMI/Non-LMI	Census Region				Total
		Northeast	Midwest	South	West	
Tier 1	LMI	1,769	1,573	3,054	2,391	8,787
Tier 1	Non-LMI	6,711	6,329	11,116	6,764	30,920
Tier 2	LMI	366	325	539	311	1,541
Tier 2	Non-LMI	1,638	1,706	2,453	933	6,730
Tier 3	LMI	25	45	80	27	177
Tier 3	Non-LMI	113	343	353	87	896
Total		**10,622**	**10,331**	**17,595**	**10,513**	**49,061**

(ii) Branch Sample Size and Allocation to Strata

The sampling for branches is to be designed so that estimates with good precision can be made for specified domains of interest. For the branch universe, there are nine domains of interest defined by three asset size categories, the four Census regions, and branch location in or not in an LMI area. The cross categories (for example, asset size categories within a region), however, are not considered designated domains of interest for sample design purposes. For each domain of interest, the sample size should be large enough so that a domain percentage that is about 50 percent (such as those branches that would give a "yes" response to a yes-no question) can be estimated to within plus or minus 5 percentage points with 90 percent confidence.

For simple random sampling (SRS), a sample size of 271 is necessary for achieving the prescribed precision level of 5 percentage points at the 90% level of confidence. However, the branch sample is a two-stage cluster sample, with headquarters selected at the first stage and clusters of branches within cooperating headquarters selected at the second stage. To take the clustering and some modest variation in sampling rates into account in deriving survey sample sizes, a design effect (which is the ratio of the variance of an estimate under the proposed design to the variance of the estimate under SRS based on the same sample size) needs to be assumed (since it cannot be derived prior to data collection). In general, the larger the number of branches to be selected per bank, the larger the design effect will be. However, for Tiers 2 and 3, the average number of branches selected per bank will only be about 2 or 3 (and for Tier 1 there is just a small clustering effect because all 25 banks are included in the survey). Consequently, a relatively low design effect of 1.2 has been selected to use for survey planning purposes.

The effective (SRS) sample size for any estimate under a sample design is defined as the ratio of the number of completed questionnaires to the corresponding design effect. In order to achieve the specified precision (5% at the 90% level of significance) for any domain of interest, an effective sample size of 271 will be necessary. Therefore, the target number of completed questionnaires for each domain of interest is 325, since 325/1.2=271. So for an assumed response rate of 65%, the initial sample size for each domain of interest should be at least 500, since 65% of 500 is 325.

Of the three variables defining domains of interest for the branch universe (size tier, region, and LMI/non-LMI) region has the most categories (4). Therefore, the basic approach was to design the sample so that an expected 500 branches will be selected with equal probability for each region, for a total initial sample of 2,000 branches. From this basic design the expected sample sizes were derived for each of the other five domains to see if they exceeded 500. The sample allocations to strata were adjusted slightly so that the initial expected sample size of 500 was achieved for all domains of interest.

To illustrate this approach for the Midwest region, which has 24,691 branches (as shown in Table 3), the overall sampling fraction (f) for this region is 500/24691 = 0.02025. As noted before, the effective sampling rate (f1) for the headquarters sample at the first stage in Tier 2 stratum is 183/562=0.3256. Hence, the sampling rate (f2) for the sampling of branches in the Midwest/Tier 2 group is derived as f2= f/f1 = 0.02025/.3256 = 0.0622 for both LMI and non-

LMI substrata within the Midwest/Tier 2 group. Therefore, from Table 2, the expected number of branches to be sampled for the Midwest/ Tier 2/LMI group is 325*0.0622 = 20, and for the Midwest/Tier 2/non-LMI group it is 1706*0.0622 = 106. The expected sample sizes for each of the 24 strata is derived using the same procedure and is presented below in Table 5. Based on an assumption of a 65 percent response rate, the expected number of completed questionnaires for each of the 24 strata is presented in Table 6. Note that the sum of these expected numbers of completes for each region is 325.

Table 5: Branch Sample Size by Strata

Asset Size	**LMI/Non-LMI**	**Census Region**				**Total**
		Northeast	**Midwest**	**South**	**West**	
Tier 1	LMI	48	32	43	74	197
Tier 1	Non-LMI	182	128	158	210	678
Tier 2	LMI	31	20	24	30	105
Tier 2	Non-LMI	137	106	107	89	439
Tier 3	LMI	18	25	31	23	97
Tier 3	Non-LMI	84	189	137	74	484
Total		**500**	**500**	**500**	**500**	**2,000**

Table 6: Expected Number of Completed Surveys by Strata

Asset Size	**LMI/Non-LMI**	**Census Region**				**Total**
		Northeast	**Midwest**	**South**	**West**	
Tier 1	LMI	31	21	28	48	128
Tier 1	Non-LMI	118	83	103	136	440
Tier 2	LMI	20	13	16	20	69
Tier 2	Non-LMI	89	69	69	58	285
Tier 3	LMI	12	16	20	15	63
Tier 3	Non-LMI	55	123	89	48	315
Total		**325**	**325**	**325**	**325**	**1,300**

(iii) Branch Stratum Sample Size Adjustments

From the row sums in Table 6, the expected number of completed questionnaires for each of the three size tiers and for the two LMI groups can be derived. For the three size tiers, the expected numbers of completed questionnaires are 568, 354, and 378. Each of these exceeds the required number of 325 needed to meet the precision target, based on an assumed design effect of 1.2. For the LMI and non-LMI domains, the expected numbers of completed questionnaires are 260 and 1040. The expected sample size for the non-LMI group is large enough to meet the precision goal. For the LMI group, however, the expected number of completed questionnaires is only 260, which falls short of the 325 needed to meet the precision target.

To increase the expected number of completed questionnaires from 260 to 325, the sample sizes for each of the 12 LMI area substrata shown in Table 5 need to be increased by a factor of 1.25 (325/260). Also, in order to retain the total sample size of 2,000, the LMI sample size increases are obtained by reallocating the appropriate sample size from the non-LMI substratum to the

LMI substratum within each of the 12 region-by-size tier groups. For example, the sample size for Tier 2/ Midwest Region/LMI cell is increased from 20 to 25 (using the inflation factor 1.25) while the sample size for Tier 2/ Midwest Region/non-LMI cell is decreased from 106 to 101. These reallocated sample sizes for all 24 strata are shown in Table 7. Also, the corresponding expected numbers of completed questionnaires for the 24 strata (based on an assumed response rate of 65 percent) are given in Table 8. Note from Table 8 that the expected number of completed questionnaires is at least 325 for each of the nine domains of interest.

Table 7: Adjusted Branch Sample Size Allocation by Strata

Asset Size	**LMI/Non-LMI**	**Census Region**				**Total**
		Northeast	**Midwest**	**South**	**West**	
Tier 1	LMI	60	40	54	93	247
Tier 1	Non-LMI	170	120	147	191	628
Tier 2	LMI	39	25	30	38	132
Tier 2	Non-LMI	129	101	101	81	412
Tier 3	LMI	23	31	39	29	122
Tier 3	Non-LMI	79	183	129	68	459
Total		**500**	**500**	**500**	**500**	**2,000**

Table 8: Adjusted Expected Number of Completed Surveys for Branches by Strata

Asset Size	**LMI/Non-LMI**	**Census Region**				**Total**
		Northeast	**Midwest**	**South**	**West**	
Tier 1	LMI	39	26	35	61	161
Tier 1	Non-LMI	111	78	96	124	409
Tier 2	LMI	25	16	19	25	85
Tier 2	Non-LMI	84	66	66	52	268
Tier 3	LMI	15	20	25	19	79
Tier 3	Non-LMI	51	119	84	44	298
Total		**325**	**325**	**325**	**325**	**1,300**

The transfer of sample cases from the non-LMI substrata to the LMI substrata introduces some disproportional sampling rates within each region, but the impact on the precision of regional estimates will be very small. It is also noted that, for the total sample of LMI branches, there will be some disproportionate sampling because of the varying selection probabilities across regions. However, the impact on precision is expected to be minor.

The sample allocation plans for both headquarters and branches are based on some important assumptions including the assumption of a 65 percent response rate. The actual response rates at various levels (headquarters and branches) may vary and so it will likely be necessary to make appropriate adjustments to the sampling fractions.

For the selection of the branch sample within each of the 24 strata, the plan is to apply the derived second stage sampling rate to the branches in each cooperating headquarters in that stratum. This approach will ensure the selection of at least one (or possibly two) branches from

headquarters that only have a few branches. For relatively small headquarters (ones with only a few branches), the derived sample size of branches will be rounded up (to 1 or 2) to provide representation of these headquarters in the branch sample. In order to control the overall cost, the sample size of branches for relatively large headquarters may be rounded down (always less than a reduction of 1) to balance the increase in sample size of branches for the smaller headquarters. This rounding process is not expected to have any significant impact on the design effect and hence on the precision of estimates.

2.2 Estimation procedure.

Survey estimates for either headquarters or branches will be based on weighted survey responses, where the weights are derived from unit probabilities of selection, and adjusted for response rates. In addition, branch respondent weights will be adjusted to align with "known" universe counts of branches, by strata. Weighting and estimation formulas are given in the following subsections.

Weighting of Sample Data

(i) Survey of Headquarters

The sample for the survey of headquarters, as described above, will be a single-stage stratified random sample. A simple random sample will be selected independently within each of the 3 strata presented in Table 2, though all 25 banks in Tier 1 will be included in the sample with certainty. The selection probabilities for all units within a stratum will be equal to the sampling rate for the stratum.

Let *h* denote the stratum and the index *i* denote a bank (or headquarters) within the stratum. If we select n_{ho} (the initial sample size for stratum *h*) out of the N_h banks in the sampling frame for stratum *h*, then the selection probability for all banks in stratum *h* is given by

$$\pi_{hi} = n_{ho}/N_h$$

The probability or base weight (w_{1hi}) assigned to all sampled banks (headquarters) in stratum h will be the inverse of the selection probability:

$$w_{1hi} = N_h/n_{ho}$$

The base weights will then be adjusted to account for the nonresponding banks. This weight adjustment will be obtained by redistributing the weights of the nonresponding banks in a stratum across the responding banks in the stratum.

Suppose that n_h of the n_{ho} banks sampled from stratum *h* turn out to be eligible for the survey, and that r_h of these banks participate in the survey. Then the adjustment for nonresponse in stratum h, w_{2h}, is calculated as the ratio of the number of eligible sampled banks (both respondents and nonrespondents) in the stratum to the number of banks that participate in the survey:

$w_{2h} = n_h/r_h$

The final weight (w_{hi}), adjusted for nonresponse, for all banks in stratum h then becomes

$w_{hi} = (w_{1hi})(w_{2h}) = (N_h/n_{ho})(n_h/r_h)$

Note that if all banks selected from stratum h turn out to be eligible for the survey, then $n_{ho} = n_h$, and the final weight for each bank in stratum h is simply N_h/r_h. Furthermore, in this instance, the sum of the weights of all of the r_h respondents in stratum h would equal the number of banks in the sample frame for stratum h, N_h.

As described above, the current plan is to use the sampling strata as nonresponse weight adjustment cells. We will, however, examine the response pattern within each stratum and, if found necessary, will consider the possibility of using more than one nonresponse adjustment cell in one or more of the strata.

(ii) Survey of Branches

The weighting procedure for the sample of branches will be somewhat more complex than the corresponding procedure described above for headquarters, primarily because the sample of branches is a two-stage sample. The final weight will be the product of three weight components: (i) the probability or base weight (which takes into account the sample selection at both sampling stages), (ii) the nonresponse adjustment weight, and (iii) a ratio adjustment which aligns the weight sums with the known branch universe counts for each stratum.

Since branches will only be selected for the survey from headquarters that permit their branches to participate in the survey, the first-stage component of the base weight for branches needs to be based on the number of headquarters selected at the first stage that allow a sample of their branches to participate in the survey, rather than on the initial headquarters sample size. Therefore, the first stage weight component will be based on p_h, which is defined as the number of headquarters selected for the sample in stratum h that allow their branches to participate in the survey, divided by N_h, the total number of headquarters in stratum h. Then, if N_{hi} denotes the total number of branches associated with the i^{th} cooperating headquarters in the h^{th} stratum, and n_{hi} is the number of branches sampled from the i^{th} headquarters, the base weight (w_{1hik}) assigned to the k^{th} sampled branch of the i^{th} cooperating headquarters in the h^{th} stratum is given by:

$w_{1hik} = (1/p_h)(N_{hi}/n_{hi})$.

If r_{hi} of the n_{hi} branches respond, then the nonresponse adjustment weight factor (w_{2hi}) will be n_{hi}/r_{hi} . Therefore, the nonresponse adjusted weight (w'_{hik}) for all responding branches in the i^{th} cooperating headquarters in stratum h is computed as the product of the two weighting factors, as follows:

$w'_{hik} = (w_{1hik})(w_{2hi}) = (1/p_h)(N_{hi}/n_{hi})(n_{hi}/r_{hi}) = (1/p_h)(N_{hi}/r_{hi})$.

In general, the nonresponse-adjusted branch weights for the participating branches in a stratum, computed as specified above, will not add up to the "known" branch counts in the stratum. Therefore, a ratio adjustment will be made to the branch weights to align them with the known branch totals. This adjustment, w_{3hik}, will be computed as the ratio of the known branch total for the stratum, B_h, to the sum of the nonresponse-adjusted weights of the participating branches in the stratum:

$$w_{3h} = B_h / \Sigma\, w'_{hik} ,$$

where the sum is taken over all of the participating branches in stratum h, h=1, 2, 3, … , 24.

Therefore, the final weight (w_{hik}) for all branches in the i^{th} responding headquarters in stratum h is computed as the product of the three weighting factors (base weight, nonresponse adjustment, and ratio adjustment), as follows:

$$w_{hik} = (w_{1hik})\,(w_{2hi})\,(w_{3h}) = (w'_{hik})\,(B_h / \Sigma\, w'_{hik}).$$

Preparing Survey Estimates and Frequency Tables

Most of the estimates derived from the survey results will be estimates of universe proportions. An example of a statistic for the headquarters universe that may be estimated is the proportion of banks that give top priority to expanding their financial services to unbanked and underbanked individuals in their market area. If we define y_{hi} as "1" if the i^{th} respondent bank in stratum h does assign top priority to this effort, and assign "0" to y_{hi} otherwise, the universe proportion would be estimated as follows:

$$p = \Sigma\, w_{hi}\, y_{hi} / \Sigma\, w_{hi}, \qquad (2)$$

where the sum is taken over all of the headquarters in the domain for which the proportion is being estimated. Note that the estimated proportion is simply the sum of the weights of all responding headquarters in the domain that do assign top priority to expanding their services to unbanked and underbanked individuals, divided by the sum of the weights of all responding headquarters in the domain.

The same methodology is used in estimating proportions for the branch universe. The corresponding formula for estimating branch universe proportions is:

$$p = \Sigma\, w_{hik}\, y_{hik} / \Sigma\, w_{hik}, \qquad (3)$$

where the sum is taken over all branches in the domain of interest for the estimated proportion.

For deriving frequency tables, estimates of universe cell frequencies for headquarters will be estimated using the formula in the numerator of Equation (2) above. Estimates of universe cell frequencies for branches will be estimated using the formula in the numerator of Equation (3).

For any estimates of universe means that will be computed, Equation (2) or (3) above will be used (depending on whether the estimated mean is for the headquarters or branch universe), where the value of the y-variable will be the value of the statistic (like a fee amount) for which the universe mean is being computed (rather than being the 0-1 indicator variable used for estimating proportions).

2.3 Degree of accuracy needed for the purpose described in the justification.

For most scientific surveys, the samples are designed so that key survey estimates can be made with reasonable precision at either the 95% or 90% confidence levels. For this survey, most of the key estimates will be percentages of bank headquarters (central offices) or bank branches that have various goals or that offer specific services or products. Since we identified three specific domains of interest for the headquarters universe and nine for the branch universe for which estimates of proportions need to be computed with good precision from the survey results, we chose the 90% confidence level with a precision target of ± 5 percentage points (or less) for estimating domain proportions. This level of accuracy should provide valuable survey results with a manageable sample size.

2.4 Unusual problems requiring specialized sampling procedures.

It may be necessary to adjust the sample size to account for the difference between the actual and the assumed response rate of 65%. The plan is to generate reserve samples in each sampling stratum for both headquarters and branches (whenever available). Additional sample will be released, if necessary, to obtain the targeted number of completed surveys.

3. Methods to maximize response rates and to deal with issues of nonresponse.

There will be a coordinated series of efforts to maximize response rates for both headquarters and branches. It is assumed that very few email addresses will be available for the individuals designated as the respondents within financial institutions, so the follow-up efforts will rely heavily on mail and phone prompting to encourage respondents to go online to complete the survey. However, when an email address is available for a respondent, it will be incorporated into the prompting efforts. Once the data collection begins, nonrespondents will be prompted on a regular basis, first through the use of reminder letters, and ultimately through multiple telephone calls, to request participation in the survey. In order to boost the likelihood of the designated respondent opening the letter and giving it consideration, the invitation and each follow up mailing will be in an FDIC envelope, with a brief cover letter from the FDIC, and a letter behind it from the contractor with the access code and website address.

If the response rate for either the HQ or branch survey is below 80%, we will conduct an appropriate nonresponse bias study. We will consider doing a study based on data for one or more of our survey items that may be available from some administrative source for both survey respondents and nonrespondents. However, it is unlikely that an adequate administrative source of this type will be available.

Therefore, our principal approach to assessing the potential for nonresponse bias is to compare

respondents and nonrespondents for some basic variables that are available for both responding and nonresponding banks (or bank branches). We will make these comparisons for stratification variables, such as asset size class, geographic region, and LMI/non-LMI; but we will also make these comparisons for other variables, such as bank and branch characteristics that are available from sources like call report and the FDIC Summary of Deposits (SOD) data[1]. From among these (and perhaps other) candidate variables, we will choose those for which, based on respondent data, there is a correlation between the size of the variable and the responses to one or more important survey variables. In general, for a given response rate, the more the distributions being compared differ between the respondents and the nonrespondents, the higher the potential is for nonresponse bias.

If we do conduct a nonresponse bias analysis as discussed above, the results will be included in our analysis report.

4. Description of all tests of procedures or methods to be undertaken.

Draft survey questionnaires were reviewed internally by the FDIC. Based on the feedback, questionnaires were revised and simplified.

A pilot test will be undertaken using nine headquarters and nine branches to gather their feedback about the questions. To the extent possible, the pilot will also yield information regarding some of the survey administrative processes. For example, the cognitive test asks respondents whether they would give consent for a sample of their branches to participate in the survey. Pilot testing will be conducted using the same mode of collection as the survey itself, namely, a Web format. The contractor will program the questionnaires into their Web survey software, such that branch-level respondents will see questions appropriate for branches, while headquarters-level respondents will see questions appropriate for bank headquarters.

Respondents will be informed in the introduction to the survey that this is a pilot test of the survey, and periodically throughout the instrument will be asked to provide qualitative feedback on their level of understanding of the survey questions and whether any edits are needed in order to make the question or series of questions clearer.

Pilot test respondents will also be asked to estimate how many minutes it took them to complete the survey, and whether they needed to seek assistance from others in order to answer any of the questions.

Questionnaire edits will be made, if necessary, based on the results of the pilot testing.

5. Name and telephone number of individuals consulted on statistical aspects of the design and the name of the agency unit, contractor(s), grantee(s), or other person(s) who will actually collect and/or analyze the information for the agency.

Manas Chattopadhyay, Gallup, 202-715-3179

[1] These data are publicly available at www.fdic.gov.

Darby Miller Steiger, Gallup, 216-776-1128

Attachments

1. Draft survey instrument
2. “First” Federal Register notice; draft “second” Federal Register notice